

Ormat Technologies, Inc.
2016 Annual Report



Company Profile

With over five decades of experience, Ormat Technologies, Inc. is a leading geothermal company with the objective of becoming a leading global provider of renewable energy.

Involvement in all facets of the green energy value chain has been a key strategy for Ormat from the start. Ormat continues to be the only vertically integrated geothermal power company that plays a role in every stage of the energy development process - from geothermal exploration and development through manufacturing, ownership and operation of our geothermal facility fleet. We also design, manufacture and sell geothermal power units and other power-generating equipment and related services to utilities and developers worldwide.

We intend to accelerate our long-term growth by continuing to lead the geothermal market, developing geothermal power plants using our proprietary technology. We are also entering the growing energy storage and demand response markets to provide a complete solution to our customers.

The company has installed over 2,200 MW of gross capacity, mainly from geothermal, worldwide. With nearly 1,200 employees globally, we own and operate a generating portfolio of 713 MW in the U.S., Guatemala, Guadeloupe and Kenya, and continue to advance our renewable energy portfolio and services.



Dear Shareholders,

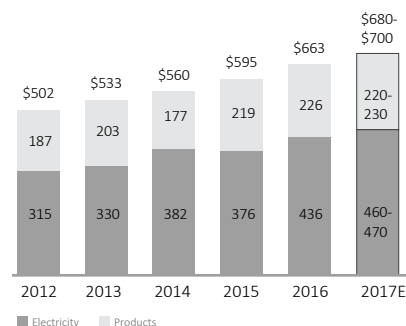
2016 was an excellent year for Ormat, as we delivered another year of strong financial results, and made significant progress with our multi-year strategic plan. We continue to improve our efficiencies across our entire value chain and build the foundation for growth. The milestones achieved will enable continued expansion of our market presence through strong execution, solid financial resources and industry leadership.

Delivering another Year of Record Financial Performance

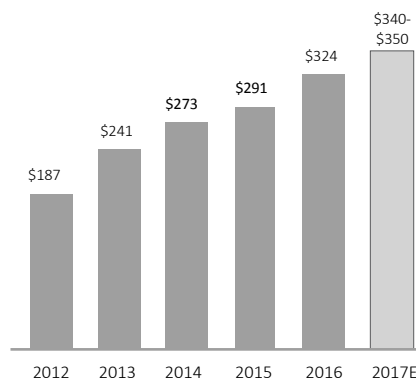
In the past three years, we made operational progress that helped drive strong financial performance. Total revenues in 2016 increased 11.4% year-over-year to a record \$662.6 million, driven by 16.1% growth to \$436.3 million in our Electricity Segment and another record year for our Products Segment with \$226.3 million in revenues. The new capacity from the fourth plant at our Olkaria III complex and the contribution of the Bouillante geothermal power plant we acquired in July 2016, together with the strong performance of the McGinness Hills and Don A. Campbell complexes, which came on line during 2015, increased our electricity segment full year revenues and significantly improved our gross margin. In addition, our efforts to reduce costs and shorten the delivery lead time enabled us to reap the benefits in the Products segment, where we successfully secured new contracts that supported record revenues in 2016 and robust backlog of \$251 million for 2017. For the full year 2016, Adjusted EBITDA increased 11.2% year-over-year to a record of \$323.8 million.

The strategic and financial progress we made in 2016, and the strong backlog we carry into 2017, supports an encouraging outlook for 2017. We expect full-year 2017 total revenues to be between \$680.0 million and \$700.0 million with electricity segment revenues between \$460.0 million and \$470.0 million and product segment revenues between \$220.0 million and \$230.0 million. We expect 2017 Adjusted EBITDA between \$340 million and \$350 million for the full year. We expect annual Adjusted EBITDA attributable to minority interest to be approximately \$23.0 million.

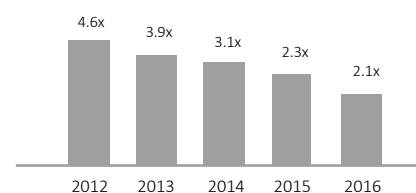
Annual Revenue (\$million)



Annual Adjusted EBITDA (\$million)



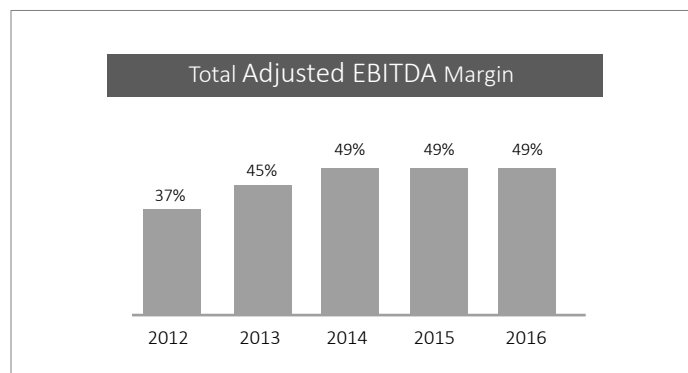
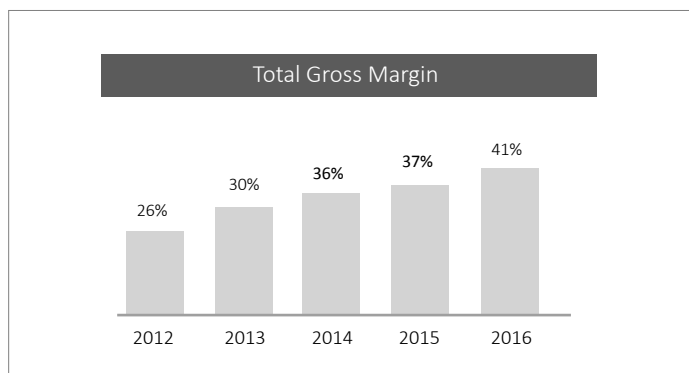
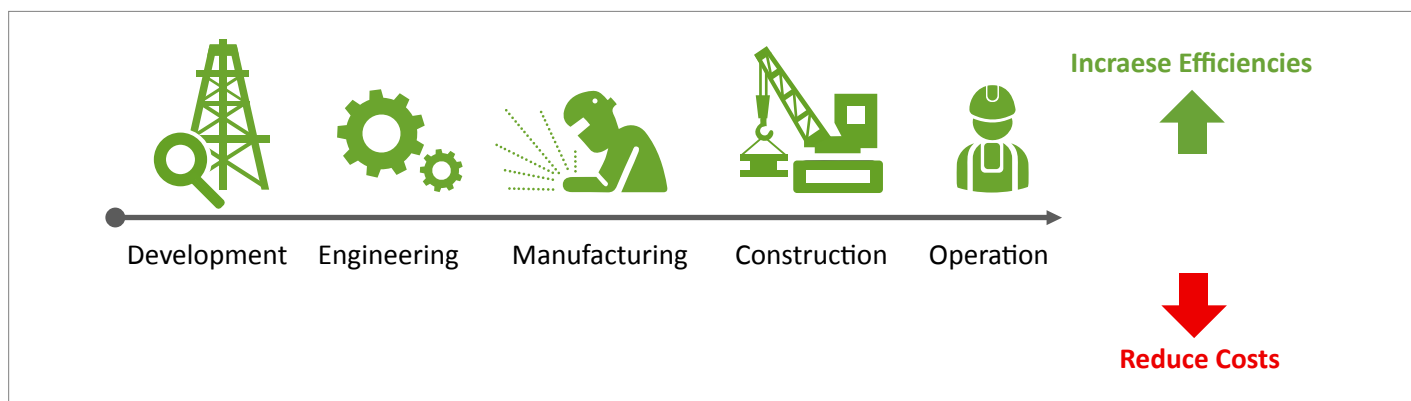
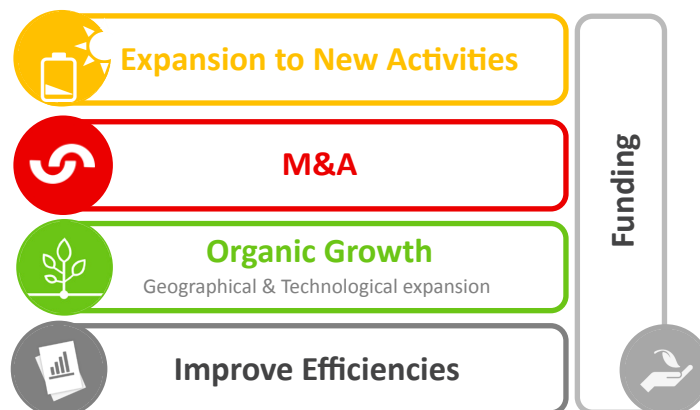
Net Debt to Adjusted EBITDA (<3)



Our performance enabled us to take proactive steps to strengthen our balance sheet and improve our access to cost-effective growth capital. We entered into a series of financial transactions to leverage and monetize our portfolio, including four key transactions, which provided over \$200 million dollars in low-cost capital, which will be used to accelerate our growth. Additionally, we prepaid \$250 million high-cost corporate bonds with 7% coupon that were due on August 2017, and issued \$204 million in bonds with an average interest rate of 4.2%, contributing to the reduction of our average cost of debt to 5.0%, from average cost of 5.9% in the previous year. In addition to reducing our cost of capital, we have significantly improved our net debt to Adjusted EBITDA ratio, and we enter 2017 in a strong financial position, well-prepared to take advantage of a growing number of opportunities around the world.

Implementing Our Multi-Year Strategic Plan Strategy

The strategic plan that we laid out in March 2015 was designed to elevate Ormat from a leading geothermal company to a recognized global leader in the larger renewable energy industry. During the past two years, we made improvement in all aspects of our value chain, reducing manufacturing lead-time, improving management control and procurement. This process translates into a significant improvement in gross margin and adjusted EBITDA margin.



Continue to Build a Balanced, Sustainable Portfolio

During 2016, we continued to expand our existing portfolio and added new 44 MW included:

- 29 MW from the commencement of operations of our Plant 4 at the Olkaria III complex in Kenya
- Incremental contribution from the recently acquired power plant in Guadeloupe, which, we were able to rapidly increase its capacity to 15 MW

The power generation in our power plants increased by 11.6% to 5.4 million MWh year-over-year.



Our investments in new projects under development and construction is expected to add between 215 MW and 225 MW of generation capacity by the end of 2019. Additionally, our M&A team continues to monitor the market and proactively search for acquisition opportunities that will be accretive to Ormat.

Besides the investment in new projects, we are continuing our exploration and business development activities to support future growth. We have a substantial land positions across 35 prospects in the US, Guatemala, New Zealand, Honduras, Indonesia, Guadeloupe and Ethiopia.

During 2016, we enhanced our land position and added eight new prospects in Nevada and Utah in the U.S. We also enhanced our international position with three new prospects in Indonesia, Guadeloupe and Honduras. These prospects will support our long term organic growth in the geothermal market.

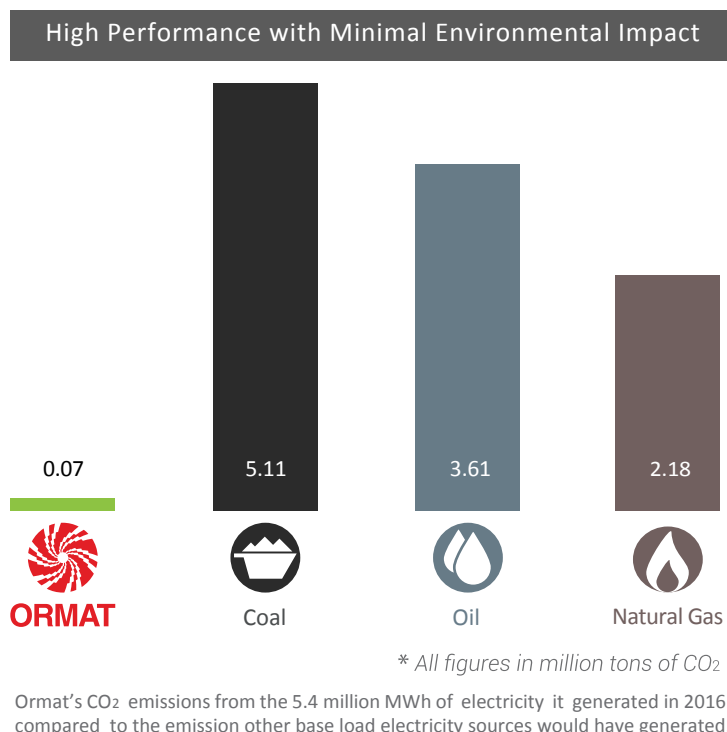
Another important element of our business plan is to expand into new technologies. In 2016, we started to build the foundations to enter the rapidly growing energy storage market. We established storage group with a dedicated VP, business development managers and engineers that will lead this expansion.

Toward the end of the year we entered into a definitive agreement to acquire substantially all of the business and assets of Viridity Energy, Inc. Viridity will give us a solid and established presence in the growing energy storage and demand respond markets, including expertise, brand recognition, a loyal customer base and most importantly, proprietary software and solutions platform that optimize energy management, demand response and energy storage. We intend to use Viridity as a platform to accelerate long term growth and to expand our market presence.

As we expand our renewable business, we clearly recognize the value of working collaboratively, with local communities, with governments, regulators, environmental groups and other key stakeholders. Bringing new facilities to market with the assurance that all aspects of environmental, employee and public safety have been carefully considered and incorporated into our facilities and operating plans is paramount to our ongoing success.

Wherever we work, we strive to give back to the community, channeling our financial and in-kind commitments to the vital areas of education, health care and environmental protection.

This commitment to the communities we serve is central to our values, as is our focus on the environment. Our expertise in developing geothermal resources and unlocking this natural, prolific power source has annually saved millions of tons of carbon dioxide from being released into the atmosphere.



In Summary, 2016 was another successful year by all measures. We have improved our balance sheet, opened new opportunities to monetize our assets, grown our portfolio and improved operational efficiency. We have a strong pipeline with a balanced portfolio of operational and third party projects around the world. I am confident that Ormat is well-positioned for continued success in 2017 and beyond. Our accomplishments have and will always be dependent on the dedication of our customers, shareholders, employees and management team. I would like to thank you all for your support during the past year.

Regards,

Isaac Angel
Chief Executive Officer



UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016

Or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number: 001-32347

ORMAT TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

88-0326081

(I.R.S. Employer Identification Number)

6225 Neil Road, Reno, Nevada 89511-1136

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code:

(775) 356-9029

(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class

Common Stock \$0.001 Par Value

Name of Each Exchange on Which Registered

New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$1,418,095,165 based on the closing price as reported on the New York Stock Exchange. Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date: As of February 27, 2017, the number of outstanding shares of common stock, par value \$0.001 per share was 49,667,340.

Documents incorporated by reference: Part III (Items 10, 11, 12, 13 and 14) incorporates by reference portions of the Registrant's Proxy Statement for its Annual Meeting of Stockholders, which will be filed not later than 120 days after December 31, 2016.

ORMAT TECHNOLOGIES, INC.

FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2016

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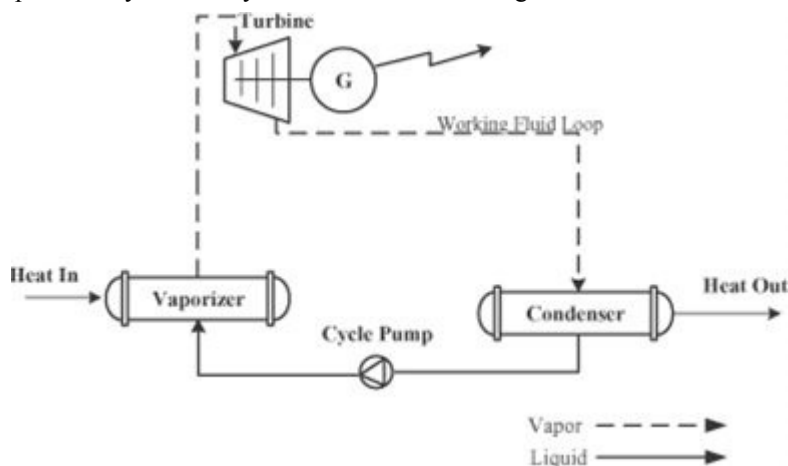
Glossary of Terms

When the following terms and abbreviations appear in the text of this report, they have the meanings indicated below:

<u>Term</u>	<u>Definition</u>
Amatitlan Loan.....	\$42,000,000 in initial aggregate principal amount borrowed by our subsidiary Ortitlan Limitada from Banco Industrial S.A. and Westrust Bank (International) Limited.
AMM.....	Administrador del Mercado Mayorista (administrator of the wholesale market — Guatemala)
ARRA.....	American Recovery and Reinvestment Act of 2009
Auxiliary Power	The power needed to operate a geothermal power plant's auxiliary equipment such as pumps and cooling towers
Availability.....	The ratio of the time a power plant is ready to be in service, or is in service, to the total time interval under consideration, expressed as a percentage, independent of fuel supply (heat or geothermal) or transmission accessibility
Balance of Plant equipment.....	Power plant equipment other than the generating units including items such as transformers, valves, interconnection equipment, cooling towers for water cooled power plants, etc.
BESS	Battery Energy Storage Systems
BLM	Bureau of Land Management of the U.S. Department of the Interior
BOT.....	Build, operate and transfer
Capacity	The maximum load that a power plant can carry under existing conditions, less auxiliary power
Capacity Factor	The ratio of the average load on a generating resource to its generating capacity during a specified period of time, expressed as a percentage
CARB.....	California Air Resources Board
CFE	Comision Federal de Electricidad
C&I	Refers to the Commercial and Industrial sectors, excluding residential
CNE.....	National Energy Commission of Honduras
CNEE	National Electric Energy Commission of Guatemala
COD	Commercial Operation Date
Company	Ormat Technologies, Inc., a Delaware corporation, and its consolidated subsidiaries
COSO	Committee of Sponsoring Organizations of the Treadway Commission
CPI	Consumer Price Index
CPUC	California Public Utilities Commission
Cyrq.....	Cyrq Energy, Inc.
DEG	Deutsche Investitions-und Entwicklungsgesellschaft mbH
DFIs.....	Development Finance Institutions
DOE	U.S. Department of Energy
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DSCR	Debt Service Coverage Ratio
EBITDA	Earnings before interest, taxes, depreciation and amortization
EDF	Electricite de France S.A.
EGS	Enhanced Geothermal Systems
EIB	European Investment Bank
ENEE	Empresa Nacional de Energía Eléctrica
Enthalpy	The total energy content of a fluid; the heat plus the mechanical energy content of a fluid (such as a geothermal brine), which, for example, can be partially converted to mechanical energy in an Organic Rankine Cycle.

<u>Term</u>	<u>Definition</u>
EPA	U.S. Environmental Protection Agency
EPC	Engineering, procurement and construction
EPS	Earnings per share
ERC	Kenyan Energy Regulatory Commission
ERCOT	Electric Reliability Council of Texas, Inc.
ESC	Energy Sales Contract
Exchange Act	U.S. Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FERC	U.S. Federal Energy Regulatory Commission
FIT	Feed-in Tariff
FPA	U.S. Federal Power Act, as amended
GAAP	Generally accepted accounting principles
GCCU	Geothermal Combined Cycle Unit
GDC	Geothermal Development Company
GEA	Geothermal Energy Association
Geothermal Power Plant	The power generation facility and the geothermal field
Geothermal Steam Act	U.S. Geothermal Steam Act of 1970, as amended
GHG	Greenhouse gas
GNP	Gross National Product
HELCO	Hawaii Electric Light Company
IFC	International Finance Corporation
IID	Imperial Irrigation District
ILA	Israel Land Administration
INDE	Instituto Nacional de Electrificación
IPPs	Independent Power Producers
ISO	International Organization for Standardization
ITC	Investment tax credit
ITC Cash Grant	Payment for Specified Renewable Energy property in lieu of Tax Credits under Section 1603 of the ARRA
JBIC	Japan Bank for International Cooperation
John Hancock	John Hancock Life Insurance Company (U.S.A.)
JPM	JPM Capital Corporation
KenGen	Kenya Electricity Generating Company Ltd.
Kenyan Energy Act	Kenyan Energy Act, 2006
KETRACO	Kenya Electricity Transmission Company Limited
KLP	Kapoho Land Partnership
KPLC	Kenya Power and Lighting Co. Ltd.
kVa	Kilovolt-ampere
kW	Kilowatt - A unit of electrical power that is equal to 1,000 watts
kWh	Kilowatt hour(s), a measure of power produced
LCOE	Levelized Costs of Energy
Mammoth Pacific	Mammoth-Pacific, L.P.
MACRS	Modified Accelerated Cost Recovery System
MEMR	Ministry of Energy and Mineral Resources
MIGA	Multilateral Investment Guarantee Agency, a member of the World Bank Group
MW	Megawatt - One MW is equal to 1,000 kW or one million watts
MWh	Megawatt hour(s), a measure of energy produced

<u>Term</u>	<u>Definition</u>
NBPL	Northern Border Pipe Line Company
NIS	New Israeli Shekel
NGI	Natural Gas-California SoCal-NGI Natural Gas price index
NV Energy	NV Energy, Inc.
NYSE	New York Stock Exchange
NYISO	New York Independent System Operator, Inc.
OEC	Ormat Energy Converter
OFC	Ormat Funding Corp., a wholly owned subsidiary of the Company
OFC Senior Secured Notes	\$190,000,000 8.25% Senior Secured Notes, due 2020 issued by OFC
OFC 2	OFC 2 LLC, a wholly owned subsidiary of the Company
OFC 2 Senior Secured Notes	Up to \$350,000,000 Senior Secured Notes, due 2034 issued by OFC 2
OMPC	Ormat Momotombo Power Company, a wholly owned subsidiary of the Company
OPC	OPC LLC, a consolidated subsidiary of the Company
OPC Transaction	Financing transaction involving four of our Nevada power plants in which institutional equity investors purchased an interest in our special purpose subsidiary that owns such plants.
OPIC	Overseas Private Investment Corporation
OrCal	OrCal Geothermal Inc., a wholly owned subsidiary of the Company
OrCal Senior Secured Notes	\$165,000,000 6.21% Senior Secured Notes, due 2020 issued by OrCal
Organic Rankine Cycle	A process in which an organic fluid such as a hydrocarbon or fluorocarbon (but not water) is boiled in an evaporator to generate high pressure vapor. The vapor powers a turbine to generate mechanical power. After the expansion in the turbine, the low pressure vapor is cooled and condensed back to liquid in a condenser. A cycle pump is then used to pump the liquid back to the vaporizer to complete the cycle. The cycle is illustrated in the figure below:



Ormat International	Ormat International Inc., a wholly owned subsidiary of the Company
Ormat Nevada	Ormat Nevada Inc., a wholly owned subsidiary of the Company
Ormat Systems	Ormat Systems Ltd., a wholly owned subsidiary of the Company
ORPD	ORPD LLC, a holding company subsidiary of the Company in which Northleaf Geothermal Holdings, LLC holds a 36.75% equity interest
ORPD Transaction	Financing transaction involving the Puna complex and Don A. Campbell, OREG 1, OREG 2 and OREG 3 power plants in which Northleaf Geothermal Holdings, LLC purchased an equity interest in our special purpose subsidiary that owns such plants.
OrPower 4	OrPower 4 Inc., a wholly owned subsidiary of the Company
Ortitlan	Ortitlan Limitada, a wholly owned subsidiary of the Company
ORTP	ORTP, LLC, a consolidated subsidiary of the Company

<u>Term</u>	<u>Definition</u>
ORTP Transaction.....	Financing transaction involving power plants in Nevada and California in which an institutional equity investor purchased an interest in our special purpose subsidiary that owns such plants.
Orzunil	Orzunil I de Electricidad, Limitada, a wholly owned subsidiary of the Company
PEC	Portfolio Energy Credits
PG&E	Pacific Gas and Electric Company
PGV	Puna Geothermal Venture, a wholly owned subsidiary of the Company
PJM	PJM Interconnection, L.L.C.
PLN	PT Perusahaan Listrik Negara
Power plant equipment.....	Interconnection equipment, cooling towers for water cooled power plant, etc., including the generating units
PPA	Power purchase agreement
ppm	Part per million
PTC	Production tax credit
PUA	Israeli Public Utility Authority
PUCH	Public Utilities Commission of Hawaii
PUCN	Public Utilities Commission of Nevada
PUHCA	U.S. Public Utility Holding Company Act of 1935
PUHCA 2005	U.S. Public Utility Holding Company Act of 2005
PURPA	U.S. Public Utility Regulatory Policies Act of 1978
Qualifying Facility(ies)	Certain small power production facilities are eligible to be “Qualifying Facilities” under PURPA, provided that they meet certain power and thermal energy production requirements and efficiency standards. Qualifying Facility status provides an exemption from PUHCA 2005 and grants certain other benefits to the Qualifying Facility
RAM	Renewable Auction Mechanism
REC	Renewable Energy Credit
REG	Recovered Energy Generation
RGGI	Regional Greenhouse Gas Initiative
RPM	Revolutions Per Minute
RPS	Renewable Portfolio Standards
RTO	Regional Transmission Organization
SaaS	Software as a Service
SCADA	Supervisory Control and Data Acquisition
SCPPA	Southern California Public Power Authority
SEC	U.S. Securities and Exchange Commission
Securities Act	U.S. Securities Act of 1933, as amended
Senior Unsecured Bonds	7% Senior Unsecured Bonds Due 2017 issued by the Company
SO#4	Standard Offer Contract No. 4
Solar PV	Solar photovoltaic
SOX Act	Sarbanes-Oxley Act of 2002
Southern California Edison	Southern California Edison Company
SPE(s)	Special purpose entity(ies)
SRAC	Short Run Avoided Costs
Union Bank	Union Bank, N.A.
U.S.	United States of America
U.S. Treasury	U.S. Department of the Treasury
WHOH	Waste Heat Oil Heaters

Cautionary Note Regarding Forward-Looking Statements

This annual report includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this report that address activities, events or developments that we expect or anticipate will or may occur in the future, including such matters as our projections of annual revenues, expenses and debt service coverage with respect to our debt securities, future capital expenditures, business strategy, competitive strengths, goals, development or operation of generation assets, market and industry developments and the growth of our business and operations, are forward-looking statements. When used in this annual report, the words “may”, “will”, “could”, “should”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “projects”, “potential”, or “contemplate” or the negative of these terms or other comparable terminology are intended to identify forward-looking statements, although not all forward-looking statements contain such words or expressions. The forward-looking statements in this annual report are primarily located in the material set forth under the headings Item 1 — “Business” contained in Part I of this annual report, Item 1A — “Risk Factors” contained in Part I of this annual report, Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations” contained in Part II of this annual report, and “Notes to Financial Statements” contained in Item 8 — “Financial Statements and Supplementary Data” contained in Part II of this annual report, but are found in other locations as well. These forward-looking statements generally relate to our plans, objectives and expectations for future operations and are based upon management’s current estimates and projections of future results or trends. Although we believe that our plans and objectives reflected in or suggested by these forward-looking statements are reasonable, we may not achieve these plans or objectives. You should read this annual report completely and with the understanding that actual future results and developments may be materially different from what we expect due to a number of risks and uncertainties, many of which are beyond our control. Other than as required by law, we will not update forward-looking statements even though our situation may change in the future.

Specific factors that might cause actual results to differ from our expectations include, but are not limited to:

- significant considerations, risks and uncertainties discussed in this annual report;
- geothermal resource risk (such as the heat content, useful life and geological formation of the reservoir);
- operating risks, including equipment failures and the amounts and timing of revenues and expenses;
- financial market conditions and the results of financing efforts;
- the impact of fluctuations in oil and natural gas prices on the energy price component under certain of our PPAs;
- risks and uncertainties with respect to our ability to implement strategic goals or initiatives in segments of the clean energy industry or new or additional geographic focus areas;
- environmental constraints on operations and environmental liabilities arising out of past or present operations, including the risk that we may not have, and in the future may be unable to procure, any necessary permits or other environmental authorizations;
- construction or other project delays or cancellations;
- political, legal, regulatory, governmental, administrative and economic conditions and developments in the United States and other countries in which we operate and, in particular, the impact of recent and future federal, state and local regulatory proceedings and changes, including legislative and regulatory initiatives regarding deregulation, restructuring and re-regulation of the electric utility industry, public policies and government incentives that support renewable energy and enhance the economic feasibility of our projects at the federal and state level in the United States and elsewhere, and carbon-related legislation;
- the enforceability of long-term PPAs for our power plants;
- contract counterparty risk;
- weather and other natural phenomena including earthquakes, volcanic eruption, drought and other natural disasters;

- changes in environmental and other laws and regulations to which our company is subject, as well as changes in the application of existing laws and regulations;
- current and future litigation;
- our ability to successfully identify, integrate and complete acquisitions;
- competition from other geothermal energy projects and new geothermal energy projects developed in the future, and from alternative electricity producing technologies;
- market or business conditions and fluctuations in demand for energy or capacity in the markets in which we operate;
- the direct or indirect impact on our company's business of various forms of hostilities including the threat or occurrence of war, terrorist incidents or cyber-attacks or responses to such threatened or actual incidents or attacks, including the effect on the availability of and premiums on insurance;
- our new strategic plan to expand our geographic markets, customer base and product and service offerings may not be implemented as currently planned or may not achieve our goals as and when implemented;
- development and construction of Solar PV and energy storage projects, if any, may not materialize as planned;
- the effect of and changes in current and future land use and zoning regulations, residential, commercial and industrial development and urbanization in the areas in which we operate; and
- other uncertainties which are difficult to predict or beyond our control and the risk that we may incorrectly analyze these risks and forces or that the strategies we develop to address them may be unsuccessful.

PART I

ITEM 1. BUSINESS

Certain Definitions

Unless the context otherwise requires, all references in this annual report to "Ormat", "the Company", "we", "us", "our company", "Ormat Technologies", or "our" refer to Ormat Technologies, Inc. and its consolidated subsidiaries. A glossary of certain terms and abbreviations used in this annual report appears at the beginning of this report.

Overview

We are a leading vertically integrated company that is currently primarily engaged in the geothermal and recovered energy power business. With the objective of becoming a leading global provider of renewable energy, we focus on several key initiatives, under our new strategic plan, as described below.

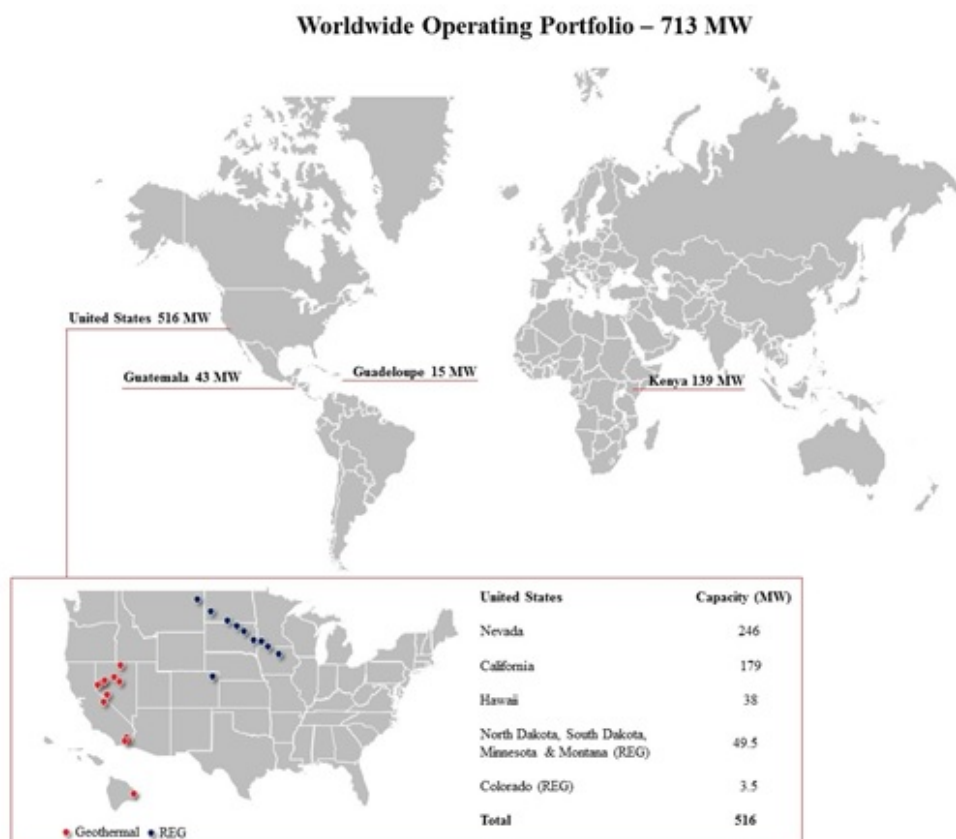
We design, develop, build, sell, own, and operate clean, environmentally friendly geothermal and recovered energy-based power plants, usually using equipment that we design and manufacture.

Our geothermal power plants include both power plants that we have built and power plants that we have acquired, while we have built all of our recovered energy-based plants. We currently conduct our business activities in two business segments:

- The Electricity segment — in this segment we develop, build, own and operate geothermal and recovered energy-based power plants in the U.S. and geothermal power plants in other countries around the world, and sell the electricity they generate and in the future, we plan to include services and other revenues derived from activity in the demand response and storage market as described below; and
- The Product segment — in this segment we design, manufacture and sell equipment for geothermal and recovered energy-based electricity generation and remote power units and provide services relating to the engineering, procurement, construction, operation and maintenance of geothermal and recovered energy-based power plants and in the future, other power generating units such as Solar PV and energy storage.

We intend to expand our operation to include demand response, energy management and storage. We recently signed an agreement to acquire substantially all of the business and assets of Viridity Energy, Inc. (VEI), a privately held Philadelphia-based company with nearly a decade of expertise and leadership in demand response, energy management and storage. The acquired assets will be owned by our newly established wholly owned subsidiary, Viridity Energy Solutions Inc. (Viridity). The acquisition, which is expected to close in early 2017, will mark Ormat's entry into the growing energy storage and demand response markets. We intend to use Viridity to accelerate long-term growth, expand our market presence, and further develop Viridity's demand response VPower™ software platform and energy storage services. We plan to continue to provide services and products to existing customers of the acquired business, while expanding into new geographies and targeting a broader potential customer base.

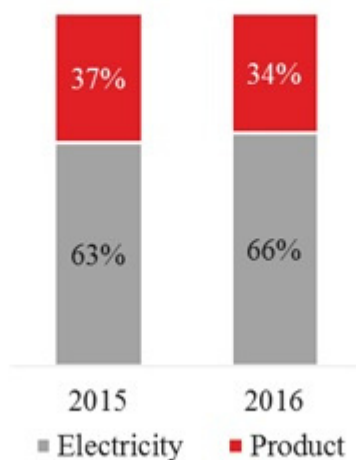
The map below shows our worldwide portfolio of operating geothermal and recovered energy power plants as of February 27, 2017.



The charts below show the relative contributions of the Electricity segment and the Product segment to our consolidated revenues and the geographical breakdown of our segment revenues for our fiscal year ended December 31, 2016. Additional information concerning our segment operations, including year-to-year comparisons of revenues, the geographical breakdown of revenues, cost of revenues, results of operations, and trends and uncertainties is provided below in Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Item 8 — “Financial Statements and Supplementary Data”.

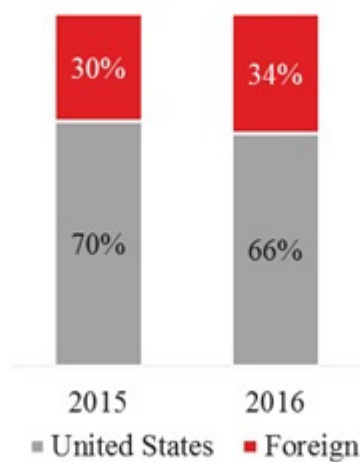
The following chart sets forth a breakdown of our revenues for each of the years ended December 31, 2016 and 2015:

Segment Contribution to Revenues

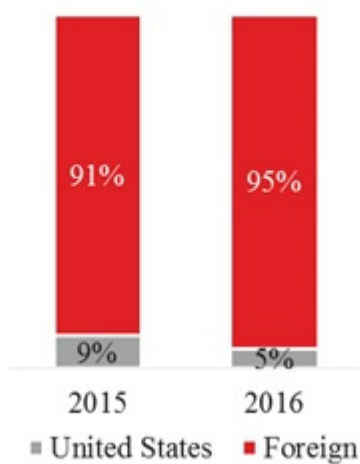


The following chart sets forth the geographical breakdown of revenues attributable to our Electricity and Product segments for each of the years ended December 31, 2016 and 2015:

Geographical Breakdown of the Electricity Segment Revenues



Geographical Breakdown of the Product Segment Revenues



Most of the power plants that we currently own or operate produce electricity from geothermal energy sources. Geothermal energy is a clean, renewable and generally sustainable form of energy derived from the natural heat of the earth. Unlike electricity produced by burning fossil fuels, electricity produced from geothermal energy sources is produced without emissions of certain pollutants such as nitrogen oxide, and with far lower emissions of other pollutants such as carbon dioxide. As a result, electricity produced from geothermal energy sources contributes significantly less to global warming and local and regional incidences of acid rain than energy produced by burning fossil fuels. In addition, compared to power plants that utilize other renewable energy sources, such as wind or solar, geothermal power plants are generally available all the time and can provide base load electricity services. In addition, they can be custom built to provide a range of services such as baseload, voltage regulation, reserves and flexible capacity. Geothermal energy is also an attractive alternative to other sources of energy as part of a national diversification strategy to avoid dependence on any one energy source or politically sensitive supply sources.

In addition to our geothermal energy business, we manufacture products that produce electricity from recovered energy or so-called “waste heat”. We also construct, own, and operate recovered energy-based power plants. Recovered energy comes from residual heat that is generated as a by-product of gas turbine-driven compressor stations, solar thermal units and a variety of industrial processes, such as cement manufacturing. Such residual heat, which would otherwise be wasted, may be captured in the recovery process and used by recovered energy power plants to generate electricity without burning additional fuel and without additional emissions.

Since 2015, we have begun to implement a number of elements of our new multi-year strategic plan. We expect the plan to evolve over time in response to market conditions and other factors. At this time however, we expect that our primary focus will be as follows:

- *Expand our geothermal geographical reach.* While we continue to evaluate opportunities worldwide, we currently see Mexico, Honduras, Chile, Indonesia, Turkey, Kenya, Guatemala, Djibouti and Ethiopia as very attractive geothermal markets for us. We are actively looking at ways to expand our presence in those countries. In addition, we are looking to expand and accelerate growth through acquisition activities globally as we recently did by acquiring a geothermal power plant in Guadeloupe Island in the Caribbean.
- *Expand into new technologies.* We ultimately hope to be able to leverage our technological capabilities over a variety of renewable energy platforms, including solar power generation and energy storage. Initially, however, we expect that our focus will be on expanding our core geothermal competencies, such as expanding into steam geothermal generation equipment and facilities. For example, we announced a new collaboration with Toshiba described below, which we anticipate may facilitate joint development of geothermal systems consisting of Ormat’s binary system and Toshiba’s flash system, among other things. We may acquire companies with technological and integration capabilities we do not currently have, or develop new technology ourselves, where we can effectively leverage our expertise to implement this part of our strategic plan. As an example, we recently acquired the business and assets of VEI, a company with nearly a decade of expertise and leadership in demand response, energy management and storage.
- *Expand our customer base.* We are evaluating a number of strategies for expanding our customer base to C&I customers. In the near term, however, we expect that a majority of our revenues will continue to be generated as they currently are, with our traditional electrical utility customer base for the Electricity segment and our on-going business development efforts for new customers for our Product segment.

While we believe that long-term growth can be realized through our transformational efforts over time, there is no assurance if and when we will meet our objective to become a leading global provider of renewable energy or that such efforts will result in long-term growth. To be clear, we see these new initiatives as incremental measures to enhance shareholder value. While we implement the plan, we expect to continue, and expand, through organic growth, acquisitions, and other measures, our current business lines both in the Electricity and Product segments as well as other business lines as described above.

Company Contact and Sources of Information

We file annual, quarterly and periodic reports, proxy statements and other information with the SEC. You may obtain and copy any document we file with the SEC at the SEC’s Public Reference Room at 100 F Street, N.E., Room 1580, Washington D.C. 20549. You may obtain information on the operation of the SEC’s Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet website at <http://www.sec.gov> that contains reports, proxy and other

information statements, and other information regarding issuers that file electronically with the SEC. Our SEC filings are accessible via the internet at that website.

Our reports on Form 10-K, 10-Q and 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available through our website at www.ormat.com for downloading, free of charge, as soon as reasonably practicable after these reports are filed with the SEC. Our Code of Business Conduct and Ethics, Code of Ethics Applicable to Senior Executives, Audit Committee Charter, Corporate Governance Guidelines, Nominating and Corporate Governance Committee Charter, Compensation Committee Charter, and Insider Trading Policy, as amended, are also available at our website address mentioned above. If we make any amendments to our Code of Business Conduct and Ethics or Code of Ethics Applicable to Senior Executives or grant any waiver, including any implicit waiver, from a provision of either code applicable to our Chief Executive Officer, Chief Financial Officer or principal accounting officer requiring disclosure under applicable SEC rules, we intend to disclose the nature of such amendment or waiver on our website. The content of our website, however, is not part of this annual report.

You may request a copy of our SEC filings, as well as the foregoing corporate documents, at no cost to you, by writing to the Company address appearing in this annual report or by calling us at (775) 356-9029.

Our Power Generation Business (Electricity Segment)

Power Plants in Operation

The table below summarizes certain key non-financial information relating to our power plants and complexes as of February 27, 2017. The generating capacity of certain of our power plants and complexes listed below has been updated from our 2015 disclosure to reflect changes in the resource temperature and other factors that impact resource capabilities:

Type	Region	Plant	Ownership ⁽¹⁾	Generating capacity (MW) ⁽²⁾	Region 2016 Capacity Factor
Geothermal	California	Ormesa Complex	100%	40 ⁽³⁾	78%
		Heber Complex	100%	92	
		Mammoth Complex	100%	29	
		North Brawley	100%	18	
	West Nevada	Steamboat Complex	100%	73	87%
		Brady Complex	100%	18	
	East Nevada	Tuscarora	100%	18	97%
		Jersey Valley	100%	10	
		McGinness Hills	100%	86	
		Don A. Campbell	63.3%	41	
	Hawaii	Puna	63.3%	38	78%
	International	Amatitlan	100%	20	96%
		Zunil	97%	23	
		Olkaria III Complex	100%	139 ⁽⁴⁾	
		Bouillante	60%	15 ⁽⁵⁾	
Total Geothermal				660	89%
REG		OREG 1	63.3%	22	
		OREG 2	63.3%	22	
		OREG 3	63.3%	5.5	
		OREG 4	100%	3.5 ⁽⁶⁾	
Total REG				53	83%
Total				713	

- (1) We indirectly own and operate all of our power plants, although financial institutions hold equity interests in three of our consolidated subsidiaries: (i) OPC, which owns the Desert Peak 2 power plant in our Brady complex and the Steamboat Hills, Galena 2 and Galena 3 power plants in our Steamboat complex; (ii) ORTP, which owns the Heber complex, the Ormesa complex, the Mammoth complex, the Steamboat 2 and 3 and Burdette (Galena 1) power plants in our Steamboat complex, and Brady power plant in our Brady complex; and (iii) Opal, which owns the McGinness Hills geothermal power plant complex, the Tuscarora and Jersey Valley power plants and the second phase of the Don A. Campbell power plant, all in Nevada; In the table above, we list these power plants as being 100% owned because all of the generating capacity is owned by either OPC, ORTP or Opal and we control the operation of the power plants. The nature of the equity interests held by the financial institutions is described below in Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the headings “OPC Transaction”, “ORTP Transaction”, “and “Opal Transaction”.

In the table above, we list 100% of the generating capacity of the Bouillante power plant and the power plants in the ORPD portfolio because, we control their operation. We own a 60% equity interest in the Bouillante power plant and a 63.25% equity interest in ORPD, which owns the Puna, the first phase of the Don A. Campbell, the OREG 1, OREG 2 and OREG 3 power plants, as well as a partial indirect ownership interest in the second phase of the Don A. Campbell power plant.

- (2) References to generating capacity generally refer to the gross generating capacity less auxiliary power in the case of all of our existing power plants, except the Zunil power plant. We determine the generating capacity figures in these power plants by taking into account resource capabilities. In the case of the Zunil power plant, revenues are calculated based on a 24 MW capacity unrelated to the actual performance of the reservoir. This column represents our net ownership in such generating capacity.

In any given year, the actual power generation of a particular power plant may differ from that power plant’s generating capacity due to variations in ambient temperature, the availability of the resource, and operational issues affecting performance during that year.

- (3) The generating capacity of the Ormesa complex was reduced in 2016 mainly due to lower performance of the resource.
- (4) Plant 4 in the Olkaria III complex reached commercial operation on January 18, 2016 increasing the complex’s capacity by 29 MW to 139 MW.
- (5) In July 2016, we announced the acquisition of the Bouillante power plant in Guadeloupe. Ormat and CDC own 60% and 20% of the project through GB and Sageos owns 20% of the project.
- (6) The OREG 4 power plant is not operating at full capacity because of low run time of the compressor station that serves as the power plant’s heat source. This results in lower power generation.

All of the revenues that we derive from the sale of electricity are pursuant to long-term PPAs. Approximately 41.3% of our total revenues in the year ended December 31, 2016 were derived from the sale of electricity by our domestic power plants to power purchasers that currently have investment grade credit ratings. The purchasers of electricity from our foreign power plants are either state-owned or private entities.

New Power Plants

We are currently in various stages of construction of new power plants and expansion of existing power plants. Our expansion plan includes 110 MW in generating capacity from geothermal power plants in the U.S., Honduras, Kenya and Indonesia that are fully released for construction. In addition, we have several projects in the U.S. Guadeloupe Island and Kenya that are either under initial stages of construction or under different stages of development with an aggregate capacity of between 135 MW and 140 MW.

We have substantial land positions across 34 prospects in the U.S., Guatemala, Guadeloupe, New Zealand, Indonesia, Honduras and Ethiopia that we expect will support future geothermal development, on which we have started or plan to start exploration activity. These land positions are comprised of various leases, exploration concessions for geothermal resources and an option to enter into geothermal leases.

New activity

We recently signed an agreement to acquire substantially all of the business and assets of VEI, as mentioned above and further discussed under “Recent Developments”. We expect to complete the acquisition early in fiscal year 2017 and for VEI’s business and assets to be owned by our newly established, wholly-owned subsidiary Viridity. Using proprietary software and solutions, Viridity will continue VEI’s business, serving primarily retail energy providers and large C&I customers. Viridity’s offerings will enable its clients to optimize and monetize their energy management, demand response

and storage facilities potential by interacting on their behalf with regional transmission organizations and independent system operators.

With its VPower™ software platform, Viridity will manage curtailable customer loads of over 850 MW across 3,000 sites under contracts with leading U.S. retail energy providers and directly with large C&I customers, including management of a portfolio of non-utility storage assets located in the northeastern U.S. with over 80,000 operational market hours. Viridity will serve its distributed customers through a network operations center which is operated 24/7 based using Viridity's VPowerMarkets™ software platform, a SCADA platform. VPower™ services will be provided to customers using a SaaS model where we will receive license fees and/or portion of the revenue and savings that are achieved for the customer.

In connection with this transaction, the Company will assume certain contractual duties and obligations that are regulated by the FERC and three RTOs. Specifically, Viridity will need to obtain and maintain (1) authorization from FERC to make wholesale sales of power, capacity, and ancillary services at market-based rates, and (2) membership status with eligibility to serve designated contractual functions in the RTOs of PJM, the NYISO, and the ERCOT. We have submitted the required applications to FERC and the RTOs and have already received formal notice of membership in PJM. In the future, we may need to obtain and maintain similar membership and eligibility status with other RTOs where the new business will operate.

Our Product Business (Product Segment)

We design, manufacture and sell products for electricity generation and provide the related services described below. We primarily manufacture products to fill customer orders, but in some situations, we may manufacture products as inventory for future internal and external projects.

Power Units for Geothermal Power Plants. We design, manufacture and sell power units for geothermal electricity generation, which we refer to as OECs. In geothermal power plants using OECs, geothermal fluid (either hot water (also called brine) or steam or both) is extracted from the underground reservoir and flows from the wellhead to a vaporizer that also heats a secondary working fluid, which is vaporized and used to drive the turbine. The secondary fluid is then condensed in a condenser, which may be cooled directly by air or by water from a cooling tower and sent back to the vaporizer. The cooled geothermal fluid is then reinjected back into the reservoir. Our customers include contractors and geothermal power plant developers, owners and operators.

Power Units for Recovered Energy-Based Power Generation. We design, manufacture and sell power units used to generate electricity from recovered energy, or so-called "waste heat". This heat is generated as a residual by-product of gas turbine-driven compressor stations, solar thermal units and a variety of industrial processes, such as cement manufacturing, and is not otherwise used for any purpose. Our existing and target customers include interstate natural gas pipeline owners and operators, gas processing plant owners and operators, cement plant owners and operators, and other companies engaged in other energy-intensive industrial processes.

EPC of Power Plants. We engineer, procure, and construct, as an EPC contractor, geothermal and recovered energy power plants on a turnkey basis, using power units we design and manufacture. Our customers are geothermal power plant owners as well as our target customers for the sale of our recovered energy-based power units as described above. Unlike many other companies that provide EPC services, we believe we have an advantage in that we are using our own manufactured equipment and thus have better quality and better control over the timing and delivery of required equipment and its related costs. As part of our strategy and collaboration agreement with Toshiba, we might have EPC contracts that are based on Toshiba power units. We also expect to develop additional knowledge in integrating Toshiba power units combined with our OECs in order to maximize the benefits to our customers.

Remote Power Units and Other Generators. We design, manufacture and sell fossil fuel powered turbo-generators with capacities ranging from 200 watts to 5,000 watts, which operate unattended in extreme hot or cold climate conditions. Our customers include contractors who install gas pipelines in remote areas and off-shore platforms operators and contractors. In addition, we design, manufacture, and sell generators, including heavy duty direct-current generators, for various other uses.

History

We were formed as a Delaware corporation in 1994 by Ormat Industries. Ormat Industries was one of the first companies to focus on the development of equipment for the production of clean, renewable and generally sustainable forms of energy. On February 12, 2015, we successfully completed the acquisition of Ormat Industries, eliminating its majority ownership and control of us.

Industry Background

Geothermal Energy

Most of our power plants in operation produce electricity from geothermal energy. There are several different sources or methods of obtaining geothermal energy, which are described below.

Hydrothermal geothermal-electricity generation — Hydrothermal geothermal energy is derived from naturally occurring hydrothermal reservoirs that are formed when water comes sufficiently close to hot rock to heat the water to temperatures of 300 degrees Fahrenheit or more. The heated water then ascends toward the surface of the earth where, if geological conditions are suitable for its commercial extraction, it can be extracted by drilling geothermal wells. Geothermal production wells are normally located within several miles of the power plant, as it is not economically viable to transport geothermal fluids over longer distances due to heat and pressure loss. The geothermal reservoir is a renewable source of energy if: (i) natural ground water sources and reinjection of extracted geothermal fluids are adequate over the long-term to replenish the geothermal reservoir following the withdrawal of geothermal fluids and (ii) the well field is properly operated. Geothermal energy power plants typically have higher capital costs (primarily as a result of the costs attributable to well field development) but tend to have significantly lower variable operating costs (principally consisting of maintenance expenditures) than fossil fuel-fired power plants that require ongoing fuel expenses.

EGS — An EGS is a subsurface system that may be artificially created to extract heat from hot rock where the permeability and aquifers required for a hydrothermal system are insufficient or non-existent. A geothermal power plant that uses EGS techniques recovers the thermal energy from the subsurface rocks by creating or accessing a system of open fractures in the rock through which water can be injected, heated through contact with the hot rock, returned to the surface in production wells and transferred to a power unit.

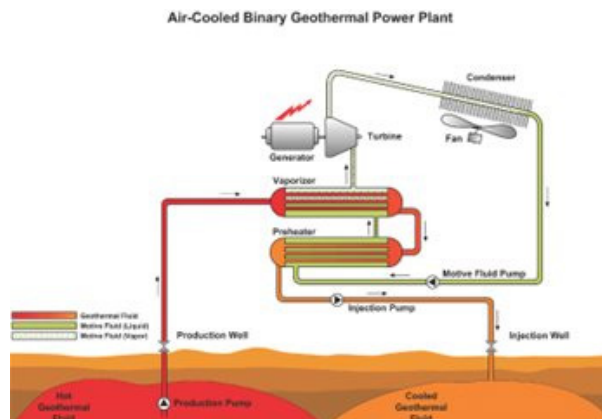
Co-produced geothermal from oil and gas fields, geo-pressurized resources — Another source of geothermal energy is hot water produced as a by-product of oil and gas extraction. When oil and gas wells are deep, the extracted fluids are often at high temperatures and if the water volume associated with the extracted fluids is significant, the hot water can be used for power generation in equipment similar to a geothermal power plant.

Geothermal Power Plant Technologies

Geothermal power plants generally employ either binary systems or conventional flash design systems, as briefly described below. In our geothermal power plants, we also employ our proprietary technology of combined geothermal cycle systems.

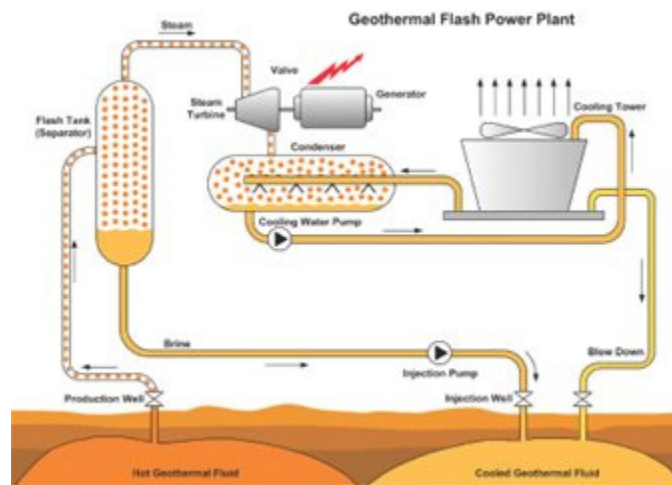
Binary System

In a geothermal power plant using a binary system, geothermal fluid (either hot water (also called brine) or steam or both) is extracted from the underground reservoir and flows from the wellhead through a gathering system of insulated steel pipelines to a vaporizer that also heats a secondary working fluid. This is typically an organic fluid, such as pentane or butane, which is vaporized and is used to drive the turbine. The organic fluid is then condensed in a condenser, which may be cooled directly by air or by water from a cooling tower and sent back to the vaporizer through a pump. The cooled geothermal fluid is then reinjected back into the reservoir. Ormat's air-cooled binary geothermal power plant is depicted in the diagram below.



Flash Design System

In a geothermal power plant using flash design, geothermal fluid is extracted from the underground reservoir and flows from the wellhead through a gathering system of insulated steel pipelines to flash tanks and/or separators. There, the steam is separated from the brine and is sent to a demister, where any remaining water droplets are removed. This produces a stream of dry saturated steam, which drives a steam turbine generator to produce electricity. In some cases, the brine at the outlet of the separator is flashed a second time (dual flash), providing additional steam at lower pressure used in the low pressure section of the steam turbine to produce additional electricity. Steam exhausted from the steam turbine is condensed in a surface or direct contact condenser cooled by cold water from a cooling tower. The non-condensable gases (such as carbon dioxide) are removed by means of a vacuum system in order to maintain the performance of the steam condenser. The resulting condensate is used to provide make-up water for the cooling tower. The hot brine remaining after separation of steam is injected (either directly or after passing through a binary plant to produce additional power from the residual heat remaining in the brine) back into the geothermal resource through a series of injection wells. The flash technology is depicted in the diagram below.

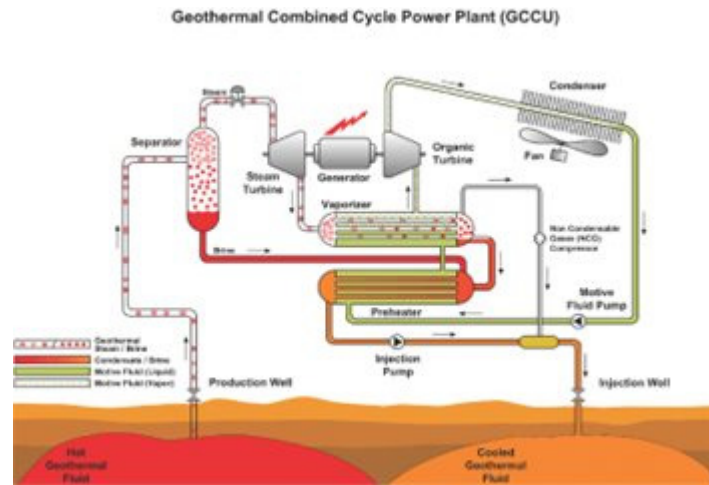


In some instances, the wells directly produce dry steam and the steam is fed directly to the steam turbine with the rest of the system similar to the flash power plant described above.

Our Proprietary Technology

Our proprietary technology may be used either in power plants operating according to the Organic Rankine Cycle alone or in combination with various other commonly used thermodynamic technologies that convert heat to mechanical power, such as gas and steam turbines. It can be used with a variety of thermal energy sources, such as geothermal, recovered energy, biomass, solar energy and fossil fuels. Specifically, our technology involves original designs of turbines, pumps, and heat exchangers, as well as formulation of organic motive fluids (all of which are non-ozone-depleting substances). Using advanced computational fluid dynamics techniques and other computer aided design software as well as our test facilities, we continuously seek to improve power plant components, reduce operations and maintenance costs, and increase the range of our equipment and applications. We are always examining ways to increase the output of our plants by utilizing evaporative cooling, cold reinjection, configuration optimization, and topping turbines. In the geothermal as well as the recovered energy (waste heat) areas, we are examining two-level, three-level energy systems and other thermodynamic cycle alternations along with new motive fluids.

We also developed, patented and constructed GCCU power plants in which the steam first produces power in a backpressure steam turbine and is subsequently condensed in a vaporizer of a binary plant, which produces additional power. Ormat Geothermal Combined Cycle technology is depicted in the diagram below.

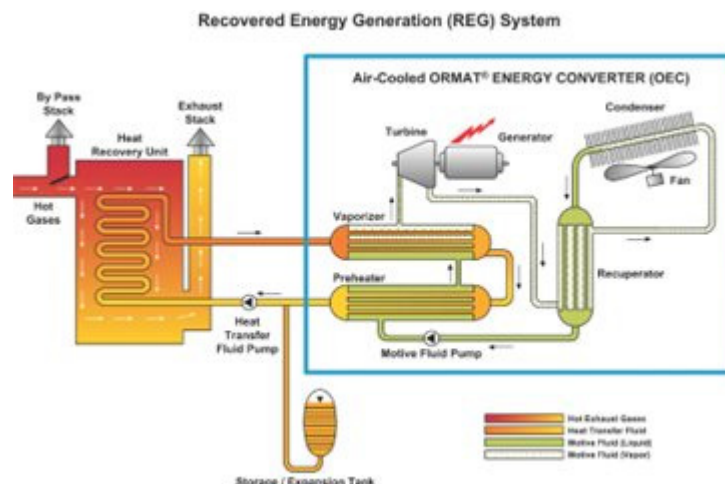


In the conversion of geothermal energy into electricity, our technology has a number of advantages over conventional geothermal steam turbine plants. A conventional geothermal steam turbine plant consumes significant quantities of water, causing depletion of the aquifer and requiring cooling water treatment with chemicals and thus a need for the disposal of such chemicals. A conventional geothermal steam turbine plant also creates a significant visual impact in the form of an emitted plume from the cooling towers, especially during cold weather. By contrast, our binary and combined cycle geothermal power plants have a low profile with minimum visual impact and do not emit a plume when they use air-cooled condensers. Our binary and combined cycle geothermal power plants reinject all of the geothermal fluids utilized in the respective processes into the geothermal reservoir. Consequently, such processes generally have no emissions.

Other advantages of our technology include simplicity of operation, easy maintenance and higher yearly availability. For instance, the OEC employs a low speed and high efficiency organic vapor turbine directly coupled to the generator, eliminating the need for reduction gear. In addition, with our binary design, there is no contact between the turbine blade and geothermal fluids, which can often be very corrosive and erosive. Instead, the geothermal fluids pass through a heat exchanger, which is less susceptible to erosion and can adapt much better to corrosive fluids. In addition, with the organic vapor condensed above atmospheric pressure, no vacuum system is required.

We use the same elements of our technology in our recovered energy products. The heat source may be exhaust gases from a Brayton cycle gas turbine, low-pressure steam, or medium temperature liquid found in the process industries such as oil refining and cement manufacturing. In most cases, we attach an additional heat exchanger in which we circulate thermal oil or water to transfer the heat into the OEC's own vaporizer in order to provide greater operational flexibility and control. Once this stage of each recovery is completed, the rest of the operation is identical to that of the OECs used in our geothermal power plants and enjoys the same advantages of using the Organic Rankine Cycle. In addition, our technology allows for better load following than conventional steam turbines, requires no water treatment (since it is air cooled and organic fluid motivated), and does not require the continuous presence of a licensed steam boiler operator on site.

Ormat's REG technology is depicted in the diagram below.



Patents

We have 73 U.S. patents that are in force (and have approximately 16 U.S. patents pending). These patents and patent applications cover our products (mainly power units based on the Organic Rankine Cycle) and systems (mainly geothermal power plants and industrial waste heat recovery plants for electricity production). The products-related patents cover components that include turbines, heat exchangers, seals and controls as well as control of operation of geothermal production well pumps. The system-related patents cover not only particular components but also the overall energy conversion system from the “fuel supply” (e.g., geothermal fluid, waste heat, biomass or solar) to electricity production.

The system-related patents cover subjects such as waste heat recovery related to gas pipeline compressors and industrial waste heat, solar power systems, disposal of non-condensable gases present in geothermal fluids, power plants for very high pressure geothermal resources, two-phase fluids as well as processes related to EGS. A number of our patents cover combined cycle geothermal power plants, in which the steam first produces power in a backpressure steam turbine and is subsequently condensed in a vaporizer of a binary plant, which produces additional power. The remaining terms of our patents range from one year to 18 years. The loss of any single patent would not have a material effect on our business or results of operations.

Research and Development

We are conducting research and development activities intended to improve plant performance, reduce costs, and increase the breadth of our product offerings. The primary focus of our research and development efforts is targeting power plant conceptual thermodynamic cycle and major equipment including continued performance, cost and land usage improvements to our condensing equipment, and development of new higher efficiency and higher power output turbines.

Additionally, we are continuing to evaluate investment opportunities in new companies with technology and/or product offerings for renewable energy and energy storage solutions.

Market Opportunity

Geothermal Market Opportunities

United States

Interest in geothermal energy in the U.S. remains strong for numerous reasons, including legislative support of RPS, coal and nuclear base load energy retirement and increasing awareness of the positive value of geothermal characteristics as compared to intermittent renewable technology.

Today, electricity generation from geothermal resources is concentrated mainly in California, Nevada, Hawaii, Idaho and Utah, and we believe there are opportunities for development in other states such as Arizona, New Mexico, Washington and Oregon due to the potential of their geothermal resources.

In a report issued in March 2016, the GEA indicated that the U.S. geothermal industry had about 3,700 MW of installed nameplate capacity and over 80 active projects with a cumulative capacity of over 1,250 MW of geothermal projects under various phases of consideration or development in 10 U.S. states.

Geothermal energy provides numerous benefits to the U.S. grid and economy, according to another GEA report issued in January 2017. Geothermal development and operation brings economic benefits in the form of taxes and long term high-paying jobs, and it has one of the lowest LCOE of all power sources in the U.S. Additionally, improvements in geothermal production make it possible to provide ancillary and on-demand services. This helps load serving entities avoid additional costs from purchasing and then balancing intermittent resources with storage or new transmission.

In recent years, according to the GEA, the U.S. geothermal market experienced modest growth and a decline in the development inventory of geothermal projects. This decline can be attributed to projects reaching completion, industry consolidation, and developers discontinuing projects they elected to put on hold for the time being. Management's view is that this decline is also caused by an unbalanced mechanisms for valuing baseload power and integration costs in California and Nevada where a significant amount potential of U.S. geothermal resources are located. Most integration costs are not accounted for in bids for renewable resources. This creates an advantage for the intermittent resources as they receive a free pass for costs they create as compare to the positive attributes and ancillary benefits of baseload resources. Not all buyers accurately account for the negative impact of intermittent renewables in areas such as curtailment due to over-generation, strains on the transmission grid, the need for backup capacity, the diminishing value of energy during solar PV hours, the inefficient use of transmission capacity etc. Buyers also typically do not properly value the flexibility benefits of geothermal resource.

The successful implementation of the various geothermal projects identified by the GEA depends on the respective project sponsor's ability to fully identify the resource, conduct exploration, and carry out development and construction. Accordingly, the GEA estimates may not be realized, and differences between the actual number of projects completed and those initially estimated to be completed may be material. We refer to the GEA assessment as a possible reference point, but we do not necessarily concur with its estimate.

State level legislation

One of the factors supporting growth in the renewable energy industry is global concern about climate change. In response to increasing demand for "green" energy, many states have adopted legislation requiring, and providing incentives for, electric utilities to sell electricity generated from renewable energy sources. In the U.S., 37 states plus the District of Columbia and four territories have enacted an RPS, renewable portfolio goals, or similar laws requiring or encouraging utilities in such states to generate or buy a certain percentage of their electricity from renewable energy or recovered heat sources.

According to the Database of State Incentives for Renewables and Efficiency (DSIRE), 30 states and two territories (including California, Nevada, and Hawaii, where we have been the most active in our geothermal energy development and in which all of our operating U.S. geothermal power plants are located) and the District of Columbia define geothermal resources as "renewable". In addition, according to the EPA, 25 states have enacted RPS, Clean Energy Standards, Energy Efficiency Resource Standards or Alternative Portfolio Standards program guidelines that include some form of combined heat and power and/or waste heat recovery.

We see the impact of RPS legislation as the most significant driver for us to expand existing power plants and to build new projects.

California

The California RPS was established in 2002 under Senate Bill (SB) 1078, accelerated in 2006 under SB 107 and further expanded in 2011 under SB x1-2. The RPS program requires investor-owned utilities (IOUs), electric service providers, community choice aggregators and publicly owned utilities to increase their share of procurement from eligible renewable energy resources as a percentage of their total procurement. The RPS requirements for utilities to procure of 33 percent of their energy from renewable resources by 2020 was revised in October 2015, when Governor Jerry Brown signed into law

SB 350 requiring that 50 percent of total retail electricity sales be from renewable resources by 2030, with interim targets of 40 percent by 2024, and 45 percent by 2027.

According to the CPUC Renewable Portfolio Standard Quarterly Report for the fourth quarter of 2016, California's three largest IOUs collectively generated 27.6% of their 2015 retail electricity sales from renewable resources. These utilities have interim targets each year, with a requirement to attain RPS of 25% by 2016. Publicly-owned utilities in California are also required to procure 50% of retail electricity sales from eligible renewable energy resources by 2030, opening up an additional market of potential off-takers for us. This expanded target could benefit geothermal energy, which has the advantage of generating flexible base load power, and helping California diversify its mix of renewable resources.

In 2006, California passed a state climate change law, Assembly Bill (AB) 32, to reduce GHG emissions to 1990 levels by the end of 2020, and in December 2010, the CARB approved cap-and-trade regulations to reduce California's GHG emissions below the levels set by AB 32. The regulations set a limit on emissions from sources responsible for emitting 80% of California's GHGs. On November 2016, the CARB released the results of its ninth joint auction for California and Québec allowances reporting that the vintage 2016 auction clearing price was \$12.73 per allowance and the future vintage auction clearing price was \$12.73 per allowance. All of the available 2016 and vintage allowances offered were sold.

In 2014, AB 2363 became effective, requiring the CPUC to adopt by December 31, 2015 a methodology for determining the costs of integrating eligible renewable energy resources. The process has experienced some delays, and currently the CPUC is incorporating the development of this methodology into its Integrated Resource Planning process. We expect that the CPUC will issue new guidelines in this regard in 2017.

Nevada

Nevada's RPS was first adopted by the Nevada Legislature in 1997. Nevada's RPS targets were revised and expanded and currently require NV Energy to supply at least 25% of the total electricity it sells from eligible renewable energy resources by 2025. For 2015, Nevada's RPS required that at least 20% of electricity sold to Nevada retail customers be from renewable energy resources and credits, and at least 5% of that amount be from solar resources. According to NV Energy's Annual RPS Compliance Report, in 2015, Nevada Power exceeded both the 2015 RPS standard and the 2015 solar RPS requirement, achieving 21.2% and 31.0%, respectively. Sierra exceeded both the 2015 RPS standard and the 2015 solar RPS requirement, with 31.3% and 22.8% respectively.

In June 2013, the Nevada state legislature passed three bills that were signed into law and expected to support renewable energy development. SB No. 123 requires an electric utility to submit a plan for the retirement or elimination of not less than 800 MW of coal-fired electric generating capacity on or before December 31, 2019 and the construction or acquisition of, or contracting for, 350 MW of electric generating capacity from renewable energy facilities. SB No. 252 revises provisions relating to the renewable portfolio standard by removing energy efficiency, solar multipliers, and station usage from generating portfolio energy credits (PECs). Finally, AB No. 239 Revised Statutes 701A.340 defines geothermal energy as renewable energy for purposes of tax abatements and makes geothermal projects eligible to apply for partial sales and property tax abatements, with property tax abatements for 20 years and local sales and use tax abatements for three years.

Hawaii

Hawaii established a renewable portfolio goal in 2001. Since 2001, the RPS targets were revised and expanded. On June 2015, Hawaii became the only state with a legislative goal of 100% renewable energy by 2045 with the signing of HB 623. The new policy includes interim requirements of 15% by the end of 2015, 30% by the end of 2020, 40% by 2030, and 70% by 2040, ultimately reaching 100% renewable electricity by 2045.

Hawaiian Electric Company and its subsidiaries exceeded the 2015 RPS requirement, achieving a consolidated RPS of 23.2% of retail electricity sales from eligible renewable energy resources.

Multi-State Climate Initiatives

Other state-wide and regional initiatives are also being developed to reduce GHG emissions and to develop trading systems for renewable energy credits. For example, nine Northeast and Mid-Atlantic States are part of the RGGI, a regional cap-and-trade system to limit carbon dioxide. The RGGI was the first, market-based carbon dioxide emissions reduction program in the U.S. The RGGI states implemented a new 2014 RGGI cap of 91 million short tons and plan to reduce carbon emissions from power plants at a rate of 2.5% per year between 2015 and 2020. States sell nearly all emission allowances

through auctions and invest proceeds in energy efficiency, renewable energy and other consumer benefit programs. These programs are spurring innovation in the clean energy economy and creating green jobs in the RGGI states.

In addition to RGGI, other states have also established the Midwestern Regional Greenhouse Gas Reduction Accord and the Western Climate Initiative.

Although individual and regional programs will take some time to develop, their requirements, particularly the creation of any market-based trading mechanism to achieve compliance with emissions caps, should be advantageous to in-state and in-region (and, in some cases, such as RGGI and the State of California, inter-regional) energy generating sources that have low carbon emissions such as geothermal energy. The role or importance of such programs remains unclear following the 2016 U.S. presidential election.

In December 2015, the White House announced that 154 companies from across the American economy signed the American Business Act on Climate Pledge to demonstrate their support for action on climate change. By signing the American Business Act on Climate pledge, these companies are demonstrating an ongoing commitment to climate action. As part of this initiative, each company is announcing significant pledges to reduce their emissions, increase low-carbon investments, deploy more clean energy, and take other actions to build more sustainable businesses and tackle climate change.

Although it is currently difficult to quantify the direct economic benefit of these efforts to reduce GHG emissions, we believe they will prove advantageous to us.

Federal level legislation

On August 3, 2015, President Obama and the EPA announced the Clean Power Plan that sets standards for power plants and customized goals for states to cut carbon pollution. The goal of the proposed plan includes cutting carbon emissions from the power sector by 32% below 2005 levels nationwide by 2030. In February 2016, the Supreme Court of the U.S. granted a temporary stay halting implementation of the Clean Power Plan pending resolution of legal challenges to the proposed plan. The U.S. Court of Appeals for the District of Columbia Circuit heard oral arguments in the cases challenging the Clean Power Plan on September 27, 2016. The court has not issued its decision, and it remains unclear exactly what action the Trump Administration will take, although the Trump Administration has expressed its desire to eliminate the Clean Power Plan and general skepticism of climate change.

The federal government also encourages production of electricity from geothermal resources or solar energy through certain tax subsidies. For a new geothermal power plant in the U.S. that started construction by December 31, 2016, we are permitted to claim a tax credit based on the power produced from a geothermal power plant. These production-based credits, which in 2016 were 2.3 cents per kWh, are adjusted annually for inflation and may be claimed for ten years on the electricity produced by the project and sold to third parties after the project is placed in service. In lieu of the production tax credits, we are permitted to claim a tax credit against our U.S. federal income taxes equal to 30% of certain eligible costs when the project is placed in service, so long as the project was under construction by the end of 2016. If the project was not under construction in time, then we are permitted to claim a 10% investment tax credit. The owner of the power plant may not claim both the investment tax credit and the production-based tax credit. New solar projects that are under construction by December 2019 will qualify for a 30% investment tax credit. The credit will fall to 26% for projects starting construction in 2020 and 22% for projects starting construction in 2021. Projects that are under construction before these deadlines must be placed in service by December 31, 2023 to qualify for the higher investment tax credit. Projects placed in service after December 31, 2023 will only qualify for a 10% investment tax credit. Under current tax rules, any unused tax credit has a one-year carry back and a twenty-year carry forward.

We are also permitted to depreciate, or write off, most of the cost of the plant. In cases where we claim the one-time 30% (or 10%) tax credit, our tax basis in the plant that we can recover through depreciation is reduced by one-half of the tax credit. In cases where we claim the production tax credit, there is no reduction in the tax basis for depreciation. Projects that are placed in service in 2016 and 2017 are eligible for “bonus” depreciation and we will be permitted to write off 50% of the cost of that equipment in the year the power plant is placed in service. Projects placed in service in 2018 would qualify for a 40% bonus and Projects placed in service in 2019 would qualify for a 30% bonus. After applying any depreciation bonus that is available, we can write off the remainder of our tax basis in the plant, if any, over five years on an accelerated basis, meaning that more of the cost may be deducted in the first few years than during the remainder of the depreciation period.

Collectively, these benefits (to the extent they are fully utilized) have a present value equivalent to approximately 30% to 40% of the capital cost of a new power plant.

Global

We believe the global markets continue to present growth and expansion opportunities in both established and emerging markets.

According to the GEA's Geothermal Power: International Market Update, the global geothermal market was developing about 2.5 GW of planned capacity spread across 23 countries. Additionally, the GEA estimates that, based on current data, the global geothermal industry is expected to grow from 13.8 GW today to reach 23 GW by 2021.

The assessment conducted by the GEA is only an estimate that is based on projects and resource reporting by the geothermal industry. A developer's ability to fully develop a geothermal resource is dependent upon its capabilities to identify the resource and conduct exploration, development and construction; therefore, this estimate may not be accurate. We refer to it only as a possible reference point, but we do not necessarily concur with this estimate.

Operations outside of the U.S. may be subject to and/or benefit from increasing efforts by governments and businesses around the world to fight climate change and move towards a low carbon, resilient and sustainable future. According to a 2017 report from the International Renewable Energy Agency entitled Rethinking Energy, to date, more than 170 countries have established renewable energy targets, and nearly 150 have enacted policies to catalyze investments in renewable energy technologies.

In December 2015, 197 countries signed an historic agreement at the COP21 UN Climate Change Conference held in Paris. For the first time, all countries committed to setting nationally determined climate targets and reporting on their progress. The agreement's aim is to keep global temperature rise this century well below 2 degrees Celsius and to drive efforts to limit the temperature increase even further to 1.5 degrees Celsius above pre-industrial levels. According to the United Nations Framework Convention on Climate Change (UNFCCC), the submission of national targets in five-year cycles signals to investors and technology innovators that the world will demand clean power plants, energy efficient factories and buildings, and low-carbon transportation in the decades to come.

The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions deposited their instruments of ratification, acceptance, approval or accession with the Depositary. 127 Parties have ratified of 197 Parties to the Convention.

In support of the Paris agreement, the EIB has committed to provide \$100 billion of new financing for climate action projects over the five years. The support of multilateral institutions such as EIB is expected to be an important factor in assisting countries in reaching their targets under the Paris Climate Change Agreement.

In November 2015, a group of 20 countries, including the US, UK, France, China and India, pledged to double their budget for renewable energy technology over the next five years as part of a separate initiative called Mission Innovation.

Also in November 2015, the Breakthrough Energy Coalition was launched by a group of 28 private investors with the objective of bringing companies with the potential to deliver affordable, reliable and carbon free power from the research lab to the market.

We believe that these developments and governmental plans will create opportunities for us to acquire and develop geothermal power generation facilities internationally, as well as create additional opportunities for our Product segment.

Outside of the U.S., the majority of power generating capacity has historically been owned and controlled by governments. Since the early 1990s, however, many foreign governments have privatized their power generation industries through sales to third parties encouraging new capacity development and/or refurbishment of existing assets by independent power developers. These foreign governments have taken a variety of approaches to encourage the development of competitive power markets, including awarding long-term contracts for energy and capacity to independent power generators and creating competitive wholesale markets for selling and trading energy, capacity, and related products. Some foreign regions and countries have also adopted active government programs designed to encourage clean renewable energy power generation such as the following countries in which we operate and/or are conducting business development activities:

Europe

Turkey has the richest known geothermal resources in Europe with the theoretical potential for 31,000 MW of geothermal capacity and with a proven geothermal capacity of 4.5 GW, according to the Turkish Mineral Technical Exploration Agency.

Since 2004, we have established strong relationships in the Turkish market and provided our full range of solutions including our state-of-the-art binary systems to 28 geothermal power plants with a total capacity of nearly 515 MW, of which 6 power plants are currently under construction.

In Turkey, the National Renewable Energy Action Plan' proposes to increase the country's renewable energy generation capacity to 61 GW by 2023, including 1.5 GW of geothermal. The plan is supported by the European Bank for Reconstruction and Development. The plan aims to increase Turkish energy security by diversifying its energy supply, make greater use of domestic resources, protect the environment by relying on clean, renewable and low carbon technologies and foster energy market efficiency through private sector investment and integration.

The plan also seeks to attract private investments in research and development and in geothermal exploitation for electricity production and to provide financial support to innovation and technology research in the field of renewable energies. Special emphasis and attention has been placed on using locally manufactured equipment in renewable energy based generating facilities, with a target set for 45% of equipment used in such facilities by the end of 2019 to be manufactured locally.

To achieve its objective of having 30% of its power generated from renewable sources by 2023, Turkey has changed the renewable energy law first enacted in 2007. The law sets the FITs for geothermal energy at \$105 per MWh for ten years from COD and provides a further incentive of \$13 per MWh for local manufacturing parts for five years from COD. This last update of the law is valid until 2020. Renewable energy producers will also benefit from an 85% discount on transmission costs for 10 years and various priority rights over land usage. In order to benefit from the incentives under the renewable energy law, a renewable energy generation facility must hold a renewable energy resource certificate (the RER Certificate), which is issued by Turkey's Energy Market Regulatory Authority. The RER Certificate will be valid for the term of the generation license of the relevant generation company. In addition, and to avoid rights and licenses manipulation, a pre-feasibility license must be issued and paid for upon the request to hold a concession. These pre-licenses must be turned into full licenses for developed fields within three years of issuance, or they become void and the license rights may be re-assigned without fee reimbursement.

Latin America

Several Latin American countries have renewable energy programs. In November 2013, the national government of Guatemala, where our Zunil and Amatitlan power plants are located, approved a law creating incentives for power generation from renewable energy sources. These incentives include, among other things, providing economic and fiscal incentives such as exemptions from taxes on the importation of relevant equipment and various tax exemptions for companies implementing renewable energy projects. Additionally, the Energy Policy 2013-2027 identifies great untapped potential for renewable energy production in Guatemala, including 1,000 MW for geothermal. One of the main objectives of the Energy Policy is to secure a supply of electricity at competitive prices by diversifying the energy mix with an 80% renewable energy share target for 2027.

In **Honduras**, where we are building the first geothermal power plant under a BOT agreement, the national government approved the Incentives Act (Decree No.70-2007) providing incentives in the form of tax exemptions for equipment, materials and services related to power generation development based on renewable resources. At the same time, ENEE, the national integrated utility, will buy energy from such projects and offer to pay rates that are above the marginal cost approved by the CNE. Honduras also set a target to reach at least 80% renewable energy production by 2034.

In **Chile**, the Chilean Renewable Energy Act of 2008 required 5% of electricity sold, to come from renewable sources, increasing gradually to 10% by 2024. On October 14, 2013, the President of Chile signed into law a bill which mandates that utilities source 20% of their electricity from "non-conventional" renewable energy, including solar PV and concentrating solar power, by 2025.

Mexico is the world's fourth largest producer of geothermal energy. Recent studies suggest an over 9,000 MW geothermal potential, of which only 12% is already developed. In December 2013, the Mexican Congress passed a constitutional reform in an attempt to increase the participation of private investors in the generation and commercialization

of electric energy. This reform affects the electricity market by opening the generation and commercialization of electricity to private companies, transforming the Federal Electricity Commission to a for-profit public company, and redefining the functions and attributions of the Ministry of Energy. The secondary legislation that establishes the attributions of the public entities, procurement regulations, and normative framework for the productive State companies was finalized in 2014.

In July 2015, **Mexico** launched round zero and assigned the projects to be developed by Mexico's state-owned utility CFE, with the remainder to be put out to tender to the private sector. Thirteen geothermal areas and five concessions were given by the Mexican Secretariat of Energy to the CFE. The government expects to award private companies with concessions for 30 years and permits for up to 150 km² for three years in the case of exploration. Ormat is in various discussions with local companies to identify attractive geothermal resources and projects.

Many island nations in general and specifically the **Caribbean** nations, depend almost entirely on petroleum to meet their electricity demands. With an average electricity price of US\$35 per kWh in 2014, the lack of diversified power generation leaves Caribbean nations vulnerable to commodity market volatility, while the lack of new development leaves them reliant on what are believed to be outdated and often unreliable power plants. The larger issue hindering large-scale renewable energy deployments, however, is scale. Caribbean nations have quite significant renewable energy potential yet most have small demand. The majority of the Caribbean grids are relatively old, with the average diesel generators more than 20 years old. Furthermore, the power supply is relatively inefficient with high system losses. Due to their sizes, each of the Caribbean countries is generally dominated by one local utility and simple market structures where electricity is regulated directly by local governments. Other than in Guadeloupe, where the geothermal power plant that we recently acquired has been operating since 1985, there are no other operating geothermal projects in the Caribbean region. Recently, some deep well drilling exploration was performed on a few islands, but the results of this exploration are still pending. Although few, we believe there are opportunities for us in the Caribbean islands of St. Kitts, Nevis, St. Lucia, Dominica, and Montserrat.

Oceania

In **New Zealand**, where we have been actively providing geothermal power plant solutions since 1988, the New Zealand government's policies to fight climate change include an unconditional GHG emissions reduction target of between 10% and 20% below 1990 levels by 2020 and a target to increase renewable electricity generation to 90% of New Zealand's total electricity generation by 2025.

South East Asia

In **Indonesia**, where we participate in the Sarulla project that is expected to start commercial operation of the first unit in March 2017, and where two other units are currently under construction, the government intends to increase the role of renewable energy sources and aims to have them meet 23% of domestic energy demand by 2025. The government has also implemented new policies and regulations intended to accelerate the development of renewable energy and geothermal projects in particular. In June 2014, the MEMR issued a new geothermal tariff policy. The MEMR reverted to a location-based tariff regime while adding a time dimension. The tariffs range from \$0.118 to \$0.296 per kWh between 2015 and 2025, depending on location. The tariffs provide a ceiling price for the power purchase agreements between project developers and PLN, the national utility and off taker. The tariffs were set to include the effect of inflation on projects that are expected to commence commercial operation in the distant future.

In addition, the 2014 National Energy Policy calls for the increased use of geothermal energy to represent at least 5% of the national energy mix by 2025.

In order to further accelerate geothermal development in the country a new FIT regime is expected to become effective during early 2017. The FIT is planned to range from \$0.12 to \$0.24 per kWh depending on size and location. Additionally, in January 2016, the government of Indonesia announced it will offer 21 geothermal blocks to investors over the next two years. Ormat plans to participate in select appropriate bids.

In the IPP sector, certain regulations for geothermal projects have been implemented, providing incentives such as investment tax credits, accelerated depreciation, and pricing guidelines to allow for preferential power prices for generators.

On January 2016, the President of Indonesia issued new presidential regulations (PR No. 4 2016) to accelerate the Indonesian 35 GW Power Generation Program. The regulations introduce a new government guarantee for development of power projects, which would cover both projects developed by the state-owned utility company, PLN, and those projects developed by PLN in cooperation with IPPs or their subsidiaries. Additionally, a shorter period to obtain necessary permits

for development was introduced as well as clarifications that geothermal projects can be developed in high-conservation forest areas (e.g. national parks).

The Government of Indonesia is planning to revise negative investment regulation. According to Presidential Decree No. 39/2014, the development of geothermal power plants with a capacity of less than 10 MW is closed to foreign ownership. Currently, foreign investors may own up to 95 percent of plants with generating capacities greater than 10 MW. The revised regulations, currently under government review, will allow foreign entities to wholly own geothermal power plants with generating capacities greater than 10 MW and to own 67% of smaller sized geothermal power plants

The Government of Indonesia announced its intention to reduce the country's carbon dioxide emissions by 26% by 2020 at the 2009 United Nations Climate Change Conference in Copenhagen and during 2015 in Paris.

East Africa

In East Africa the geothermal potential along the Rift Valley is estimated at several thousand MW. The different countries along the Rift Valley are at different stages of development of their respective geothermal potentials.

In **Kenya**, there are already several geothermal power plants, including the only geothermal IPP in Africa, our Olkaria III complex. The Government of Kenya has identified the country's untapped geothermal potential as the most suitable indigenous source of electricity and it aspires to reach 5,000 MW of geothermal power by 2030. To attain such number, GDC was formed to fast track the development of geothermal resources in Kenya. Ormat has as a 51% interest in a consortium that signed a PPA for a 35 MW geothermal power plant in the Menengai area.

The Government of Kenya is aiming to reach 22.7GW of power generating capacity by 2033, under the Least-Cost Power Development Plan 2013-33 with a target of 42% of such capacity generated from renewable energy sources (including large hydro but excluding solar).

In December 2012, FITs for various technologies were reviewed and the process of negotiating PPAs streamlined. Projects under this mechanism have priority grid access at the cost of the developer. Geothermal projects from 35 MW to 70 MW have a USD \$0.088 per kWh (up to 500MW) FIT.

In 2015, the Departmental Committee of Finance, Planning, and Trade amended the Income Tax Act in view of the 2015 Finance Bill. The amendments include maintaining the enhanced investment deduction of 150% under section 17B and extending the period of deduction of tax losses to over 10 years.

The governments of **Djibouti, Ethiopia, Eritrea, Tanzania, Uganda, Rwanda and Zambia** are exploring ways to develop geothermal in their countries, mostly through the help of international development organizations such as the World Bank.

In January 2014, energy ministers and delegates from 19 countries committed to the creation of the Africa Clean Energy Corridor Initiative (Corridor), at a meeting in Abu Dhabi convened by the International Renewable Energy Agency. The Corridor will boost the deployment of renewable energy and aim to help meet Africa's rising energy demand with clean, indigenous, cost-effective power from sources including hydro, geothermal, biomass, wind and solar.

East Africa and South East Asia may benefit from two initiatives announced by President Obama. In June 2013, the Power Africa initiative was announced, which contemplated that the U.S. would invest up to \$7.0 billion in sub-Saharan Africa over the ensuing five years with the aim of doubling access to power. The program will partner the U.S. government with the governments of six sub-Saharan countries, among them Kenya, Ethiopia and Tanzania, that have the potential for geothermal energy development. In 2012, President Obama proposed the U.S. Asia Pacific Comprehensive Energy Partnership that encourages U.S. companies to develop renewable energy in South East Asian countries, including Indonesia. The U.S. will provide up to \$6.0 billion to support the Partnership. However, with the recent election of president Trump, the progress of these initiatives is uncertain

Other opportunities

Recovered Energy Generation

In addition to our geothermal power generation activities, we are pursuing recovered energy-based power generation opportunities in North America and the rest of the world. We believe recovered energy-based power generation will

ultimately benefit from the efforts to reduce greenhouse gas emissions. For example, in the U.S., FERC has expressed its position that one of the goals of new natural gas pipeline design should be to facilitate the efficient, low-cost transportation of fuel through the use of waste heat (recovered energy) from combustion turbines or reciprocating engines that drive station compressors to generate electricity for use at compressor stations or for commercial sale. FERC has, as a matter of policy, requested natural gas pipeline operators filing for a certificate of approval for new pipeline construction or expansion projects to examine “opportunities to enhance efficiencies for any energy consumption processes in the development and operation” of the new pipeline. We have built over 21 power plants which generate electricity from “waste heat” from gas turbine-driven compressor stations along interstate natural gas pipelines, from midstream gas processing facilities, and from processing industries in general.

Several states, and to a certain extent, the federal government, have recognized the environmental benefits of recovered energy-based power generation. For example, 18 states currently allow electric utilities to include recovered energy-based power generation in calculating such utilities' compliance with their mandatory or voluntary RPS and/or Energy Efficient Resources Standards. In addition, California modified the Self Generation Incentive Program, which allows recovered energy-based generation to qualify for a per watt incentive.

In 2012, the Governor of Utah signed into law SB 12 that enables the sale of electricity generated from in-state renewable resources directly to large energy users. This direct purchase and sale, could create a market opportunity for our REG technology in Utah. The local utility has developed a tariff and contracts to provide rates and methodologies for companies that want to buy power directly from renewable generation facilities.

Also in 2012, SB 315 was enacted by the State of Ohio. SB 315 made waste energy recovery eligible as a renewable resource for purposes of meeting the state's Renewable Portfolio Standard, as well as an efficiency measure under the state's Energy Efficiency Resource Standard.

In addition, in Colorado the state PUC ruled that Xcel Energy, the largest utility in Colorado, will begin offering a \$500 per kW incentive for recycled energy projects. The incentive will be paid out over 10 years to developers and manufacturers who convert waste heat from stacks and process it into electricity. Xcel Energy has developed a tariff to provide rates and a methodology for recycled energy projects that wish to take advantage of this incentive.

At the Federal level, under the Clean Power Plan, waste-heat-to-power (recovered energy) is an eligible technology that can be implemented by states as a means to comply with their Clean Power Plan emissions reduction targets. The inclusion of waste-heat-to-power as an eligible technology under the Clean Power Plan could potentially create demand for REG in states that have good waste-heat resources, but that so far had no policies in place, like an RPS, to create demand for renewables. However, there is now great uncertainty at the Federal level whether the current administration will keep the Clean Power Plan and its emissions reduction targets and strategies in place. The U.S. Court of Appeals for the District of Columbia Circuit heard oral arguments in the cases challenging the Clean Power Plan on September 27, 2016. The court has not issued its decision, and it remains unclear exactly what action the Trump Administration will take, although the Trump Administration has expressed its desire to eliminate the Clean Power Plan and general skepticism of climate change.

Recovery of waste heat is also considered “environmentally friendly” in the western Canadian provinces. On November 22, 2015, the Government of Alberta released the Clean Leadership Plan that includes (a) phasing out of coal-fired electricity generation by 2030; (b) a commitment to generate 30 percent of Alberta's electricity from renewable sources by 2030; (c) new financing for energy efficiency; and (d) an economy-wide price on carbon pollution. The plan also includes mandating Alberta to reduce methane emissions from oil and gas operations by 45% by 2025. This comprehensive set of climate policies, once fully implemented, will encourage the development of renewable energy technologies, including waste heat recovery, in Alberta. We believe that Europe and other markets worldwide may offer similar opportunities in recovered energy-based power generation.

In summary, the market for the recovery of waste heat converted into electricity exists either when the already available electricity is expensive or where the regulatory environment facilitates construction and marketing of power generated from recovered waste heat. However, such projects tend to be smaller than 9 MW and we expect the growth to be relatively slow and geographically scattered.

New activities under our strategic plan

The traditional grid is undergoing a major disruption. The continued decline in Solar PV prices is impacting renewable energy pricing and the growth in intermittent green energy is generating increasing strains on the grid, mainly in the U.S and Europe. The increasing amount of solar PV power being supplied to the grid can create situations where significant amount

of power plant capacity must be available to ramp up and down to accommodate solar PV daily output cycles and variations due to atmospheric conditions. The output from Solar PV power plants can change significantly over short periods of time due to environmental conditions like cloud movement and fog burn off and that can cause instability on the electric grid.

As a result, energy management and specifically electricity storage is becoming a key component of the future grid. In parallel, we see movement of C&I and communities toward direct purchases of electricity and an increased focus on reliability of electricity supply.

Energy Storage

Energy storage systems utilize low cost, surplus, available electricity that enables utilities to optimize the operation of the grid and generators to run closer to full capacity for longer periods of time and operate more efficiently and effectively. With the increasing use of wind and solar energy, the need for storage services such as balancing services, frequency regulation, rapid generation ramping and movement of energy from times of excess to times of high demand is becoming more important.

The global energy storage market is still developing, with specific applications and geographies leading the overall market. After a record-breaking year in 2015, the energy battery storage industry is continuing to gain momentum globally. More than 1.6 GW of new deployments (approximately \$2.0 billion) were announced worldwide in 2015. Various diversified battery storage technologies have been developed and deployed.

Much of the BESS activity is focused on energy storage for the grid and ancillary services. Behind the meter deployments are growing fast to enable customers to increase savings from demand charge reductions and create revenues through active market participation (demand response programs). Also, grids/utilities are undergoing significant changes such as grid aging, grid congestion, coal retirement, implementation of carbon reduction rules, increasing renewable energy and intermittent energy penetration. BESS delivers many benefits to grids and end users (behind the customer meter, as well as to micro-grids). Real-time balancing services can reactively increase stability and reliability on the grid to offset renewables inherent flexibility, to store energy now to be used later and promote business resiliency, power quality and physically distributed benefits for all segments of the grid or the end customer.

According to Navigant research, BESS continues to be one of the fastest growing segments of the broader energy industry, set to reach an overall installed power capacity of 143.7 GW and a cumulative global market size of \$162.3 billion in the next 10-year period. This represents a CAGR of approximately 30% over the 10-year period in both in-front-of-the meter grid connected and behind-the-meter commercial and industrial deployments.

According to a Green Tech Media (GTM) report from December 2016 the U.S. behind-the-meter energy storage market today is small, with combined residential and non-residential deployments in 2015 accounting for only 15% of installed capacity in MW terms. By 2021, however, the behind-the-meter segment will account for half of the annual U.S. market, driven by a plethora of factors including improved system economics, net-energy metering reform, changes to utility rate structures, increasing viability of demand-charge management for non-residential customers, and increased interest in reliability and resiliency. GTM is expecting a total installations of more than 4 GW until 2021 in the U.S. These trends in the U.S. market are expected to be seen in other leading global markets in Europe, Asia and the Far East.

Following the closing of Viridity's acquisition we will own substantially all of VEI's business and assets and we plan to use the VEI platform to expand our market presence in the energy storage market and further develop VEI's demand response VPower™ software platform and energy storage services. We expect that together with our global presence, experience in technology integration, and flexible business models, and our reputation and experience in the geothermal and recovered energy sectors we can expand into this growing sector.

C&I

The C&I sector is shifting from centralized electricity generation systems to distributed resources supported by emerging models of direct PPAs with renewable power plants, on-site deployments, and customized solutions to energy management. Participants in the C&I sector are motivated to purchase renewable energy to reduce costs and diversify their energy supply, to lock in long-term energy price stability and carbon footprint reductions, to achieve renewable energy targets and to demonstrate leadership, innovation, and competitive first mover advantages. Ormat sees C&I customers as a natural expansion of our customer base from regulated utilities to medium and large C&I clients desiring to contract for renewable energy.

The advances in electricity storage technology together with high period demand charges, demand response programs, concern over electricity supply reliability and more aggressive goals for renewable energy content than those of centralized electricity suppliers are all factors that have supported the growth of the C&I market. The need for technical customized solutions to meet these varied C&I needs fits well with the expected acquisition of VEI's business and assets and our experience in providing customized geothermal and REG solutions to various customers around the world.

Solar PV

The market for Solar PV power grew significantly in recent years, driven by a combination of favorable government policies and a decline in equipment prices. We are monitoring market drivers with the potential to develop Solar PV power plants in locations where we can offer competitively priced power generation. Our focus currently is on large-scale solar power plant development opportunities worldwide such as in: (i) Chile, where the total installed Solar PV capacity increased from 6 MW in 2013 to almost 1 GW by the end of 2015 and is currently considered the cheapest source of electricity in the country, (ii) Mexico, considered among the largest potential national markets in Latin America on the strength of high solar resources and recent energy market reform, (iii) India, where the central government recently gave its approval to ramp up India's solar power capacity target to achieve 100 GW by 2022 (60 GW of grid connected solar power projects and 40 GW of rooftop solar) and (iv) the East Africa region, where a considerable amount of solar radiation and abundant available land constitute significant solar potential. Governments in the East Africa region have introduced various solar targets and incentives, which provide opportunities for installing grid-tied and off-grid Solar PV systems to displace fuel costs.

Competitive Strengths

Competitive Assets. We believe our assets are competitive for the following reasons:

- *Contracted Generation.* All of the electricity generated by our geothermal power plants is currently sold pursuant to long-term PPAs with an average remaining life of approximately 15 years.
- *Baseload Generation.* All of our geothermal power plants supply all or a part of the baseload capacity of the electric system in their respective markets. This means they supply electric power on an around-the-clock basis. This provides us with a competitive advantage over other renewable energy sources, such as wind power, solar power or hydro-electric power (to the extent they depend on precipitation), which cannot provide baseload capacity because of their intermittent nature. It remains to be seen whether developments in the energy storage markets will erode this competitive advantage.
- *Ancillary Services.* Geothermal power plants positively impact electrical grid stability and provide valuable ancillary services. Because of the baseload nature of their output, they have high transmission utilization efficiency, provide capacity, provide grid inertia and reduce the need for ancillary services such as voltage regulation, reserves and flexible capacity. Other intermittent renewables create integration costs, adding a significant value for geothermal energy.

Competitive Pricing. Geothermal power plants, while site specific, are economically feasible in many locations, and the electricity they generate is generally price competitive under existing economic conditions and existing tax and regulatory regimes compared to electricity generated from fossil fuels or other renewable sources in many places around the world. Geothermal energy is recognized as one of the lower cost sources of energy from a LCOE perspective.

Ability to Finance Our Activities from Internally Generated Cash Flow. The cash flow generated by our portfolio of operating geothermal and REG power plants provides us with a robust and predictable base for certain exploration, development, and construction activities. We plan to evaluate various alternatives for financing the expansion of our business as we further develop and implement our new strategic plan.

Growing Legislative Demand for Environmentally-Friendly Renewable Resource Assets. Most of our currently operating power plants produce electricity from geothermal energy sources. The clean and sustainable characteristics of geothermal energy give us a competitive advantage over fossil fuel-based electricity generation as countries increasingly seek to balance environmental concerns with demands for reliable sources of electricity.

High Efficiency from Vertical Integration. Unlike our competitors in the geothermal industry, we are a fully integrated geothermal equipment, services, and power provider. We design, develop, and manufacture equipment that we use in our geothermal and REG power plants. Our intimate knowledge of the equipment that we use in our operations allows us to operate and maintain our power plants efficiently and to respond to operational issues in a timely and cost-efficient manner.

Moreover, given the efficient communications among our subsidiary that designs and manufactures the products we use in our operations and our subsidiaries that own and operate our power plants, we are able to quickly and cost effectively identify and repair mechanical issues and to have technical assistance and replacement parts available to us as and when needed.

Exploration and Drilling Capabilities. We have in-house capabilities to explore and develop geothermal resources and have established a drilling operation that currently owns nine drilling rigs. We employ an experienced resource group that includes engineers, geologists, and drillers, which executes our exploration and drilling plans for projects that we develop.

Highly Experienced Management Team. We have a highly qualified senior management team with extensive experience in the geothermal power sector.

Technological Innovation. We have 73 U.S. patents in force (and have approximately 16 U.S. patents pending) relating to various processes and renewable resource technologies. All of our patents are internally developed. Our ability to draw upon internal resources from various disciplines related to the geothermal power sector, such as geological expertise relating to reservoir management, and equipment engineering relating to power units, allows us to be innovative in creating new technologies and technological solutions.

Limited Exposure to Fuel Price Risk. A geothermal power plant does not need to purchase fuel (such as coal, natural gas, or fuel oil) in order to generate electricity. Thus, once the geothermal reservoir has been identified and estimated to be sufficient for use in a geothermal power plant, the drilling of wells is complete and the plant has a PPA, the plant is not exposed to fuel price or fuel delivery risk apart from the impact fuel prices may have on the price at which we sell power under PPAs that are based on the relevant power purchaser's avoided costs.

Although we are confident in our competitive position in light of the strengths described above, we face various challenges in the course of our business operations, including as a result of the risks described in Item 1A — "Risk Factors" below, the trends and uncertainties discussed in "Trends and Uncertainties" under Item 7 — "Management's Discussion and Analysis of Financial Condition and Results of Operations" below, and the competition we face in our different business segments described under "Competition" below.

Business Strategy

Our strategy is to continue building a geographically balanced portfolio of geothermal and recovered energy assets, and to continue to be a leader in the geothermal energy market with the objective of becoming a leading global provider of renewable energy. Since 2015, we have begun to implement a number of the elements of a new multi-year strategic plan. We expect the plan to evolve over time in response to market conditions and other factors. We intend to implement this strategy through:

- *Development and Construction of New Geothermal Power Plants* — continuously seeking out commercially exploitable geothermal resources, developing and constructing new geothermal power plants and entering into long-term PPAs providing stable cash flows in jurisdictions where the regulatory, tax and business environments encourage or provide incentives for such development;
- *Expanding our geographical reach* — increasing our business development activities in an effort to grow our business in the global markets in both business segments. While we continue to evaluate global opportunities, we currently see Mexico, Chile, Indonesia and Ethiopia as very attractive markets for us. We are actively looking at ways to expand our presence in those countries.
- *Acquisition of New Assets* — expanding and accelerating growth through acquisition activities globally, aiming to acquire from third parties additional geothermal and Solar PV assets as well as companies that will expedite our entrance into the storage and C&I markets; For example, we recently announced that we will acquire substantially all of the assets and business of VEI, which has nearly a decade of expertise and leadership in demand response, energy management and storage. We expect that this acquisition will enable us to become a significant player in the growing energy storage and demand response markets and to diversify our traditional customer base with new C&I customers.
- *Manufacturing and Providing Products and EPC Services Related to Renewable Energy* — designing, manufacturing and contracting power plants for our own use and selling to third parties power units and other generation equipment for geothermal and recovered energy-based electricity generation;

- *Expanding into New Technologies* – leveraging our technological capabilities over a variety of renewable energy platforms, including solar power generation and energy storage. Initially, however, we expect that our focus will be on expanding our core geothermal competencies, such as expanding into steam geothermal generation equipment and facilities. For example, we announced a collaboration with Toshiba, which we anticipate may facilitate joint development of geothermal systems consisting of Ormat’s binary system and Toshiba’s flash system, among other things. We may acquire companies with integration and technological capabilities we do not currently have, or develop new technology ourselves, where we can effectively leverage our expertise to implement this part of our strategic plan.
- *Expand our customer base* - evaluating a number of strategies for expanding our customer base to the C&I market. In the near term, however, we expect that a majority of our revenues will continue to be generated as they now are, with our traditional electrical utility customer base for the Electricity segment.
- *Increasing Output from Our Existing Power Plants* — increasing output from our existing geothermal power plants by adding additional generating capacity, upgrading plant technology, and improving geothermal reservoir operations, including improving methods of heat source supply and delivery;
- *Cost saving by increasing efficiencies* — increasing efficiencies in our operating power plants and manufacturing facility including procurement by adding new technologies, restructuring of management control, automating part of our manufacturing work and centralizing our operating power plants.
- *Technological Expertise* — investing in research and development of renewable energy technologies and leveraging our technological expertise to continuously improve power plant components, reduce operations and maintenance costs, develop competitive and environmentally friendly products for electricity generation and target new service opportunities.

Recent Developments

The most significant recent developments in our company and business are described below.

- In February 2017, we decided to start construction to expand the Olkaria III complex in Kenya by an additional 10 MW and increase the complex's capacity to 150 MW during 2018.
- On January 3, 2017, we announced that on December 29, 2016, we entered into a definitive agreement to acquire substantially all of the business and assets of VEL, a privately held Philadelphia-based company with nearly a decade of expertise and leadership in demand response, energy management and storage. The transaction will mark Ormat’s entry into the growing energy storage and demand response markets, with an established North American presence. Initial consideration for the acquisition is \$35 million which will be paid at closing and is subject to adjustment in certain cases. Additional contingent consideration will be payable in two installments subject to the achievement of certain performance milestones measured at the end of fiscal years 2017 and 2020. Closing is expected in early 2017.
- On December 19, 2016, we announced that we entered into a partnership transaction with a financial investor that allow us to efficiently monetize the federal tax incentives relating to five geothermal power plants located in eastern Nevada. The transaction involves the McGinness Hills geothermal power plant complex and the Tuscarora and Jersey Valley geothermal power plants which, prior to the transaction, were wholly owned by Ormat Nevada, as well as the Don A. Campbell phase 2 geothermal power plant which, prior to the transaction, was part of the ORPD portfolio jointly owned 63.25% by Ormat Nevada and 36.75% by Northleaf Geothermal Holdings LLC, an affiliate of Northleaf Capital Partners. As part of the transaction, the five geothermal power plants were transferred to a newly established limited liability company and the investor purchased membership interests in the limited liability company for an initial purchase price of \$62.1 million and for which it will pay additional installments that are expected to amount to approximately \$21 million through 2022. Ormat Nevada's share of the initial cash proceeds was \$55.2 million.
- On December 21, 2016, we signed a \$50 million loan facility agreement with DEG to refinance our investment in Plant 4 of the Olkaria III complex located in Kenya. The loan will mature in June 2028 and bear interest at a fixed annual rate of 6.28%. The loan will be payable in 20 equal principal payments starting in December 2018.

- On December 6, 2016, we announced that we signed a \$36 million EPC contract with a subsidiary of Cyrq. Under the EPC contract, we will provide one air-cooled OEC at Cyrq's Soda Lake geothermal power project in northern Nevada. The project is expected to come on line in 2018. The new OEC will increase generation and reduce operating costs by replacing the two currently operating power plants, which were commissioned by Ormat in the late 1980's and early 1990's, respectively.
- On November 30, 2016, we announced that we issued and sold \$92.5 million aggregate principal amount of 4.03% Senior Secured Notes due 2033. The Senior Secured Notes were issued in a private placement transaction exempt from the registration requirements of the Securities Act, and were all purchased by MEAG, the asset manager of Munich Re. The Senior Secured Notes were assigned an investment grade rating of BBB- by Kroll Rating Agency. We issued the Senior Secured Notes to refinance the costs of development and construction of the first phase of the Don A. Campbell (DAC 1) geothermal power plant, which Ormat initially financed using equity funding. The DAC 1 power plant is part of the ORPD portfolio. Our share of the proceeds, net of transaction fees and funding of a debt service reserve account was approximately \$55.0 million.
- On November 29, 2016, we announced that we entered into a 25-year PPA with SCPPA to deliver electricity from our Ormesa geothermal complex in Imperial Valley, California beginning November 30, 2017. The SCPPA PPA will supersede Ormesa's current 30-year SO#4 with Southern California Edison that has a variable energy rate tied primarily to volatile natural gas prices and that will expire on November 29, 2017. Under the terms of the PPA, energy from the Ormesa complex will be sold to SCPPA at a rate of \$77.25 per MWh with no annual escalation. Contract capacity is 35 MW, with a maximum generation equivalent to a net capacity of about 43 MW. SCPPA will resell about 86% of the Ormesa power plants complex's output to the LADWP and the remaining 14% to the IID.
- On November 23, 2016, we announced that we closed a follow-on equity transaction with Northleaf. Northleaf purchased a 36.75% equity interest in the second phase of the Don A. Campbell power plant for a purchase price of \$44.2 million. The 20.5 MW second phase of the Don A. Campbell geothermal power plant commenced operation in September 2015 and sells its electricity to SCPPA under a 20-year PPA. Following the closing, the power plant was contributed to the existing ORPD portfolio under the terms of ORPD's limited liability company agreement executed by Ormat and Northleaf on April 30, 2015, and then further contributed to Opal, as described above.
- On September 11, 2016, we announced that we concluded an auction tender and accepted subscriptions for \$204 million aggregate principal amount of two tranches (approximately \$67 million principal amount of Series 2 and approximately \$137 million principal amount of Series 3) of senior unsecured bonds ("Series 2 Bonds", "Series 3 Bonds" and, collectively, "Bonds"). The Bonds were issued in an unregistered offering outside the United States to investors who are not "U.S. persons", as such term is defined in Regulation S under the Securities Act, and otherwise subject to the requirements of Regulation S. The Series 2 Bonds will mature in September 2020 and bear interest at a fixed rate of 3.7% per annum, payable semi-annually. The Series 3 Bonds will mature in September 2022 and bear interest at a fixed rate of 4.45% per annum, payable semi-annually. The Bonds will be repaid at maturity in a single bullet payment, unless earlier prepaid by Ormat pursuant to the terms and conditions of the trust instrument that governs the Bonds. Both tranches received a rating of ilA+ from Maloot S&P in Israel with a stable outlook. We used the proceeds from the offering and sale of the Bonds to prepay existing indebtedness, including prepayment fees of approximately \$5 million. We expects our annual interest expense to decrease as a result of this refinancing.
- On August 30, 2016, we announced that we reached an agreement in principle on a proposed settlement with certain former employees of the Company to settle claims brought by such employees against the Company under the qui tam provisions of the False Claims Act. The agreement in principle provides that we make no admission of wrongdoing, and for the release and the dismissal of all claims alleged in the complaint. The settlement agreement was executed on October 25, 2016 and payment of the \$11 million settlement was made within 10 days thereafter. Upon payment, the court was provided a joint stipulation for dismissal of the case with prejudice.
- In July 2016, we announced that we closed the previously announced acquisition of Geothermie Bouillante SA (GB). GB owns and operates the 14.75 MW Bouillante geothermal power plant located in Guadeloupe Island, a French territory in the Caribbean, which currently generates approximately 13 MW. GB also owns two exploration licenses providing an expansion potential of up to 45 MW of capacity.

Pursuant to the terms of an Amended and Restated Investment Agreement (Investment Agreement) and Shareholders Agreement with Sageos Holding (Sageos), a wholly owned subsidiary of Bureau de Recherches Géologiques et Minières (BRGM), Ormat together with Caisse des Dépôts et Consignations (CDC), a French state-owned financial organization, acquired an approximately 80% interest in GB allocated 75% to Ormat and 25% to CDC. Ormat and CDC will gradually increase their combined interest in GB to 85% and Sageos will hold the remaining balance.

Pursuant to the agreements, we paid approximately \$20.6 million (approximately €18.5 million) to Sageos for approximately 60% interest in GB. In addition, we are committed to further invest \$8.4 million (approximately €7.5 million) by July 2018, which will increase our interest to 63.75%. The cash will be used mainly for the enhancement of the power plant.

We have planned modifications to the existing equipment as well as to further develop the asset, with a potential of reaching a total of 45 MW in phased development by 2021. Under the Investment Agreement, we will pay Sageos an additional amount of up to \$13.4 million (approx. €12 million) subject to the achievement of agreed production thresholds and capacity expansion within a defined time period.

Bouillante power plant sells its electricity under a 15-year PPA that was entered into in February 2016 with Électricité de France S.A. (EDF), the French electric utility. We plan to optimize the use of the resource at the existing facilities and recover its current production to its design capacity of 14.75 MW by mid-2017. Upon completion of the enhancement, the plant is expected to generate approximately \$22.3 million (approximately €20 million) of annual revenues.

- On June 28, 2016, we announced that construction was completed at the Veyo Heat Recovery Project in southern Utah. This project was constructed pursuant to a \$22.3 million EPC contract signed with Utah Associated Municipal Power Systems (UAMPS) in November 2014, and comprises an air-cooled REG unit at UAMPS' Kern River Gas Transmission (Kern River) Veyo natural gas compressor station. The project uses an OEC to generate power from heat that otherwise would have been released into the atmosphere. The Veyo REG project was brought online May 26, 2016, a full four months ahead of schedule.
- On May 19, 2016, we signed supply and EPC contracts worth approximately \$36 million with Eastland Group for the Te Ahi O Maui geothermal project located near Kawerau, New Zealand. Under the supply and EPC contracts, Ormat will provide its air-cooled OEC for the project. This project is a partnership between Eastland Generation and the Kawerau AD Ahu Whenua Trust, who are the owners of the land on which the project will be constructed. The construction of the project is expected to be completed in the first half of 2018.
- On March 30, 2016, we announced that we signed an agreement with a subsidiary of Alevo Group SA, a leading provider of energy storage systems, to jointly build, own and operate the Rabbit Hill Energy Storage Project (Rabbit Hill), located in Georgetown, Texas. We will own and fund the majority of the 10 MW Rabbit Hill energy storage project and under the terms of the agreements, will provide engineering and construction services and balance of plant equipment. Alevo will provide its innovative GridBank®,[®] inorganic lithium ion energy storage system in conjunction with the power conversion systems. In addition, Alevo will provide ongoing management and operations and maintenance services for the life of the project. The project will consist of three GridBank®,[®] enclosures and will provide fast responding regulation services (FRRS) as an open market participant in the Electric Reliability Council of Texas (ERCOT), an independent system operator that manages the flow of electric power to Texas customers.
- On February 3, 2016, we announced that we commenced commercial operation of Plant 4 in the Olkaria III complex in Kenya, increasing the complex total generating capacity by 29 MW to 139 MW. Plant 4 will sell its electricity to KPLC under a 20-year PPA. In October 2015, Ormat signed an amendment to the PPA with KPLC that enables the increase of the capacity of Plant 4 expansions to an aggregate of 100 MW, in phases. Plant 4 was financed by Ormat equity which is covered by an insurance policy from MIGA (a member of the World Bank Group) to cover Ormat's exposure to certain political risks involved in operating in developing countries.
- On January 12, 2016, we announced that we commenced construction of the 35 MW Platanares geothermal project in Honduras. In 2013, Ormat signed a BOT contract for the Geotérmica Platanares geothermal project in Honduras with ELCOSA, a privately owned Honduran energy company, for approximately 15 years from the COD. The Platanares project will sell its power, mainly under 30-year PPA with the national utility

of Honduras, ENEE. We expect the project to reach commercial operation by the end of 2017 and generate average annual revenues of approximately \$33 million.

Operations of our Electricity Segment

How We Own Our Power Plants. We customarily establish a separate subsidiary to own interests in each power plant. Our purpose in establishing a separate subsidiary for each plant is to ensure that the plant, and the revenues generated by it, will be the only source for repaying indebtedness, if any, incurred to finance the construction or the acquisition (or to refinance the construction or acquisition) of the relevant plant. If we do not own all of the interest in a power plant, we enter into a shareholders agreement or a partnership agreement that governs the management of the specific subsidiary and our relationship with our partner in connection with the specific power plant. Our ability to transfer or sell our interest in certain power plants may be restricted by certain purchase options or rights of first refusal in favor of our power plant partners or the power plant's power purchasers and/or certain change of control and assignment restrictions in the underlying power plant and financing documents. All of our domestic geothermal and REG power plants are Qualifying Facilities under the PURPA, and are eligible for regulatory exemptions from most provisions of the FPA and certain state laws and regulations.

How We Explore and Evaluate Geothermal Resources. Since 2006, we have expanded our exploration activities, initially in the U.S. and more recently with an increasing focus internationally. It normally takes two to three years from the time we start active exploration of a particular geothermal resource to the time we have an operating production well, assuming we conclude the resource is commercially viable and determine to pursue its development. Exploration activities generally involve the phases described below.

Initial Evaluation. Identifying and evaluating potential geothermal resources by sampling and studying new areas combined with information available from public and private sources. We generally adhere to the following process, although our process can vary from site to site depending on geological circumstances and prior evaluation:

- We evaluate historic, geologic and geothermal information available from public and private databases, including geothermal, mining, petroleum and academic sources.
- We visit sites, sampling fluids for chemistry if necessary, to evaluate geologic conditions.
- We evaluate available data, and rank prospects in a database according to estimated size and perceived risk. For example, pre-drilled sites with extensive data are considered lower risk than "green field" sites. Both prospect types are considered critical for Ormat's continued growth.
- We generally create a digital, spatial geographic information systems (GIS) database and 3D geologic model containing all pertinent information, including thermal water temperature gradients derived from historic drilling, geologic mapping information (e.g., formations, structure, alteration, and topography), and any available archival information about the geophysical properties of the potential resource.
- We assess other relevant information, such as infrastructure (e.g., roads and electric transmission lines), natural features (e.g., springs and lakes), and man-made features (e.g., old mines and wells).

Our initial evaluation is usually conducted by our own staff, although we might engage outside service providers for some tasks from time to time. The costs associated with an initial evaluation vary from site to site, based on various factors, including the acreage involved and the costs, if any, of obtaining information from private databases or other sources. On average, our expenses for an initial evaluation range from approximately \$10,000 to \$50,000 including travel, chemical analyses, and data acquisition.

If we conclude, based on the information considered in the initial evaluation, that the geothermal resource could support a commercially viable power plant, taking into account various factors described below, we proceed to land rights acquisition.

Land Acquisition. Acquiring land rights to any geothermal resources our initial evaluation indicates could potentially support a commercially viable power plant, taking into account various factors. For domestic power plants, we either lease or own the sites on which our power plants are located. For our foreign power plants, our lease rights for the plant site are generally contained in the terms of a concession agreement or other contract with the host government or an agency thereof. In certain cases, we also enter into one or more geothermal resource leases (or subleases) or a concession or an option agreement or other agreement granting us the exclusive right to extract geothermal resources from specified areas of land,

with the owners (or sublessors) of such land. In some cases we obtain first the exploration license and once certain investment requirements are met, we can obtain the exploitation rights. This usually gives us the right to explore, develop, operate, and maintain the geothermal field, including, among other things, the right to drill wells (and if there are existing wells in the area, to alter them) and build pipelines for transmitting geothermal fluid. In certain cases, the holder of rights in the geothermal resource is a governmental entity and in other cases a private entity. Usually the duration of the lease (or sublease) and concession agreement corresponds to the duration of the relevant PPA, if any. In certain other cases, we own the land where the geothermal resource is located, in which case there are no restrictions on its utilization. Leasehold interests in federal land in the U.S. are regulated by the BLM and the Minerals Management Service. These agencies have rules governing the geothermal leasing process as discussed below under “Description of Our Leases and Lands”.

For most of our current exploration sites in the U.S., we acquire rights to use geothermal resource through land leases with the BLM, with various states, or through private leases. Under these leases, we typically pay an up-front non-refundable bonus payment, which is a component of the competitive lease process. In addition, we undertake to pay nominal, fixed annual rent payments for the period from the commencement of the lease through the completion of construction. Upon the commencement of power generation, we begin to pay to the lessors long-term royalty payments based on the use of the geothermal resources as defined in the respective agreements. These payments are contingent on the power plant’s revenues. A summary of our typical lease terms is provided below under “Description of our Leases and Lands”.

The up-front bonus and royalty payments vary from site to site and are based, among other things, on current market conditions.

Surveys. Conducting geological, geochemical, and/or geophysical surveys on the sites acquired. Following the acquisition of land rights for a potential geothermal resource, we conduct additional surface water analyses, soil surveys, and geologic mapping to determine proximity to possible heat flow anomalies and up-flow/permeable zones. We augment our digital database with the results of those analyses and create conceptual and digital geologic models to describe geothermal system controls. We then initiate a suite of geophysical surveys (e.g., gravity, magnetics, resistivity, magnetotellurics, reflection seismic, LiDAR, and spectral surveys) to assess surface and sub-surface structure (e.g., faults and fractures) and improve the geologic model of fluid-flow conduits and permeability controls. All pertinent geological and geophysical data are used to create three-dimensional geologic models to identify drill locations. These surveys are conducted incrementally considering relative impact and cost, and the geologic model is updated continuously.

We make a further determination of the commercial viability of the geothermal resource based on the results of this process, particularly the results of the geochemical surveys estimating temperature and the overall geologic model, including potential resource size. If the results from the geochemical surveys are poor (i.e., low derived resource temperatures or poor permeability) or the geologic model indicates small or deep resource, we re-evaluate the commercial viability of the geothermal resource and may not proceed to exploratory drilling. We generally only move forward with those sites that we believe have a high probability for development.

Exploratory Drilling. Drilling one or more exploratory wells on the high priority, relatively low risk sites to confirm and/or define the geothermal resource. If we proceed to exploratory drilling, we generally use outside contractors to create access roads to drilling sites and related activities. We have continued efforts to reduce exploration costs and therefore, after obtaining drilling permits, we generally drill temperature gradient holes and/or core holes that are lower cost than slim holes (used in the past) using either our own drilling equipment, whenever possible, or outside contractors. If the obtained data supports a conclusion that the geothermal resource can support a commercially viable power plant, it will be used as an observation well to monitor and define the geothermal resource. If the core hole indicates low temperatures or does not support the geologic model of anticipated permeability, it may be plugged and the area reclaimed. In undrilled sites, we typically step up from shallow (500-1000 ft) to deeper (2000-4000 ft) wells as confidence improves. Following proven temperature in core wells, we typically move to slim and/or full size wells to quantify permeability.

Each year we determine and approve an exploration budget for the entire exploration activity in such year. We prioritize budget allocation between the various geothermal sites based on commercial and geological factors. The costs we incur for exploratory drilling vary from site to site based on various factors, including the accessibility of the drill site, the geology of the site, and the depth of the resource. However, on average, exploration costs, prior to drilling of a full-size well are approximately \$1.0 million to \$3.0 million for each site, not including land acquisition. However, we only reach such spending levels for sites that proved to be successful in the early stages of the exploration.

At various points during our exploration activities, we re-assess whether the geothermal resource involved will support a commercially viable power plant based on information available at that time. Among other things, we consider the following factors:

- New data and interpretations obtained concerning the geothermal resource as our exploration activities proceed, and particularly the expected MW capacity power plant the resource can be expected to support. The MW capacity can be estimated using analogous systems and/or quantitative heat in place estimates until results from drilling and flow tests quantify temperature, permeability, and resulting resource size.
- Current and expected market conditions and rates for contracted and merchant electric power in the market(s) to be serviced.
- Availability of transmission capacity.
- Anticipated costs associated with further exploration activities and the relative risk of failure.
- Anticipated costs for design and construction of a power plant at the site.
- Anticipated costs for operation of a power plant at the site, particularly taking into account the ability to share certain types of costs (such as control rooms) with one or more other power plants that are, or are expected to be, operating near the site.

If we conclude that the geothermal resource involved will support a commercially viable power plant, we proceed to constructing a power plant at the site.

How We Construct Our Power Plants. The principal phases involved in constructing one of our geothermal power plants are as follows:

- Drilling production and injection wells.
- Designing the well field, power plant, equipment, controls, and transmission facilities.
- Obtaining any required permits, electrical interconnection and transmission agreements.
- Manufacturing (or in the case of equipment we do not manufacture ourselves, purchasing) the equipment required for the power plant.
- Assembling and constructing the well field, power plant, transmission facilities, and related facilities.

It generally takes approximately two years from the time we drill a production well, until the power plant becomes operational.

Drilling Production and Injection Wells. We consider completing the drilling of first production well as the beginning of our construction phase for a power plant. However, it is not always sufficient for a full release for construction. The number of production wells varies from plant to plant depending, among other things, on the geothermal resource, the projected capacity of the power plant, the power generation equipment to be used and the way geothermal fluids will be re-injected through injection wells to maintain the geothermal resource and surface conditions. We generally drill the wells ourselves although in some cases we use outside contractors.

The cost for each production and injection well varies depending, among other things, on the depth and size of the well and market conditions affecting the supply and demand for drilling equipment, labor and operators. Our typical cost for each production and injection well is approximately \$4.0 million with a range of \$1.0 million to \$10.0 million.

Design. We use our own employees to design the well field and the power plant, including equipment that we manufacture and that will be needed for the power plant. The designs vary based on various factors, including local laws, required permits, the geothermal resource, the expected capacity of the power plant and the way geothermal fluids will be re-injected to maintain the geothermal resource and surface conditions.

Permits. We use our own employees and outside consultants to obtain any required permits and licenses for our power plants that are not already covered by the terms of our site leases. The permits and licenses required vary from site to site, and are described below under “Environmental Permits”.

Manufacturing. Generally, we manufacture most of the power generating unit equipment we use at our power plants. Multiple sources of supply are generally available for all other equipment we do not manufacture.

Construction. We use our own employees to manage the construction work. For site grading, civil, mechanical, and electrical work we use subcontractors.

During fiscal year 2016, in the Electricity segment, we focused on the commencement of operations at Olkaria III plant 4. We continued with construction of the Platanares project in Honduras and began construction of the Tungsten and Dixie Meadows projects in Nevada. During fiscal year 2015, we focused on the commencement of operations at the McGinness Hills phase 2 and the Don A. Campbell phase 2 power plants. We continued with construction of Olkaria III plant 4. During fiscal year 2014, we began construction of the Don A. Campbell phase 2 power plant and Olkaria III plant 4.

When deciding whether to continue holding lease rights and/or to pursue exploration activity, we diligently prioritize our prospective investments, taking into account resource and probability assessments in order to make informed decisions about whether a particular project will support commercial operations. As a result, during fiscal year 2016, we discontinued exploration activities at three future prospects, including Kula in Hawaii, Aqua quieta and sollipulli in Chile. During fiscal year 2015, we discontinued exploration and development activities at ten future prospects, including Kona and Ulupalakua (Maui) in Hawaii, Warm Springs Tribe and Newberry - Twilight in Oregon, Whirlwind Valley in Utah, Argenta, Hycroft and South Jersey in Nevada and Mariman and Quinohuen in Chile. During fiscal year 2014, we discontinued exploration and development activities at seven exploration sites and one development project, including Huu Dumpo in Indonesia, Mount Spurr in Alaska, San Pablo, San Jose II, and Aroma in Chile, Silver Lake, Summer Lake and Foley Hot Springs in Oregon and Wister in California.

After conducting exploratory studies at those sites, we concluded that the respective geothermal resources would not support commercial operations. Costs associated with exploration activities at these sites were expensed accordingly (see “Write-off of Unsuccessful Exploration Activities” under Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations”).

We added to our exploration activities ten sites in each of the years ended December 31, 2016 and 2015 and four sites during the years ended December 31, 2014.

How We Operate and Maintain Our Power Plants. In the U.S. we usually employ our subsidiary, Ormat Nevada, to act as operator of our power plants pursuant to the terms of an operation and maintenance agreement. Operation and maintenance of our foreign projects are generally provided by our subsidiary that owns the relevant project. Our operations and maintenance practices are designed to minimize operating costs without compromising safety or environmental standards while maximizing plant flexibility and maintaining high reliability. Our operations and maintenance practices for geothermal power plants seek to preserve the sustainable characteristics of the geothermal resources we use to produce electricity and maintain steady-state operations within the constraints of those resources reflected in our relevant geologic and hydrologic studies. Our approach to plant management emphasizes the operational autonomy of our individual plant or complex managers and staff to identify and resolve operations and maintenance issues at their respective power plants; however each power plant or complex draws upon our available collective resources and experience, and that of our subsidiaries. We have organized our operations such that inventories, maintenance, backup, and other operational functions are pooled within each power plant complex and provided by one operation and maintenance provider. This approach enables us to realize cost savings and enhances our ability to meet our power plant availability goals.

Safety is a key area of concern to us. We believe that the most efficient and profitable performance of our power plants can only be accomplished within a safe working environment for our employees. Our compensation and incentive program includes safety as a factor in evaluating our employees, and we have a well-developed reporting system to track safety and environmental incidents, if any, at our power plants.

How We Sell Electricity. In the U.S., the purchasers of power from our power plants are typically investor-owned electric utility companies or electric cooperatives. Outside of the U.S., the purchaser is either a state-owned utility or a privately-owned entity and we typically operate our facilities pursuant to rights granted to us by a governmental agency pursuant to a concession agreement. In each case, we enter into long-term contracts (typically, PPAs) for the sale of electricity

or the conversion of geothermal resources into electricity. Although previously a power plant's revenues under a PPA generally consisted of two payments — energy payments and capacity payments, our recent PPAs provide for energy payments only. Energy payments are normally based on a power plant's electrical output actually delivered to the purchaser measured in kilowatt hours, with payment rates either fixed or indexed to the power purchaser's "avoided" power costs (i.e., the costs the power purchaser would have incurred itself had it produced the power it is purchasing from third parties) or rates that escalate at a predetermined percentage each year. Capacity payments are normally calculated based on the generating capacity or the declared capacity of a power plant available for delivery to the purchaser, regardless of the amount of electrical output actually produced or delivered. In addition, most of our domestic power plants located in California are eligible for capacity bonus payments under the respective PPAs upon reaching certain levels of generation, or subject to a capacity payment reduction if certain levels of generation are not reached.

How We Finance Our Power Plants. Historically we have funded our power plants with a different sources of liquidity such as a combination of non-recourse or limited recourse debt, including lease financing, tax monetization transactions, internally generated cash, which includes funds from operation, as well as proceeds from loans under corporate credit facilities, sale of securities, and sale of membership interests. Such leveraged financing permits the development of power plants with a limited amount of equity contributions, but also increases the risk that a reduction in revenues could adversely affect a particular power plant's ability to meet its debt obligations. Leveraged financing also means that distributions of dividends or other distributions by plant subsidiaries to us are contingent on compliance with financial and other covenants contained in the financing documents.

Non-recourse debt or lease financing refers to debt or lease arrangements involving debt repayments or lease payments that are made solely from the power plant's revenues (rather than our revenues or revenues of any other power plant) and generally are secured by the power plant's physical assets, major contracts and agreements, cash accounts and, in many cases, our ownership interest in our affiliate that owns that power plant. These forms of financing are referred to as "project financing". Project financing transactions generally are structured so that all revenues of a power plant are deposited directly with a bank or other financial institution acting as escrow or security deposit agent. These funds are then payable in a specified order of priority set forth in the financing documents to ensure that, to the extent available, they are used to first pay operating expenses, senior debt service (including lease payments) and taxes, and to fund reserve accounts. Thereafter, subject to satisfying debt service coverage ratios and certain other conditions, available funds may be disbursed for management fees or dividends or, where there are subordinated lenders, to the payment of subordinated debt service.

In the event of a foreclosure after a default, our affiliate that owns the power plant would only retain an interest in the assets, if any, remaining after all debts and obligations have been paid in full. In addition, incurrence of debt by a power plant may reduce the liquidity of our equity interest in that power plant because the equity interest is typically subject both to a pledge in favor of the power plant's lenders securing the power plant's debt and to transfer and change of control restrictions set forth in the relevant financing agreements.

Limited recourse debt refers to project financing as described above with the addition of our agreement to undertake limited financial support for our affiliate that owns the power plant in the form of certain limited obligations and contingent liabilities. These obligations and contingent liabilities may take the form of guarantees of certain specified obligations, indemnities, capital infusions and agreements to pay certain debt service deficiencies. To the extent we become liable under such guarantees and other agreements in respect of a particular power plant, distributions received by us from other power plants and other sources of cash available to us may be required to be used to satisfy these obligations. Creditors of a project financing of a particular power plant may have direct recourse to us to the extent of these limited recourse obligations.

We have also used financing structures to monetize PTCs, such as our recently announced Opal tax partnership transaction, and other favorable tax benefits derived from the financed power plants and an operating lease arrangement for our Puna complex power plants.

We have recently used a sale of membership interests in two of our geothermal assets and nine of our REG facilities to fund corporate needs including funds for the construction of new projects. We may use such financing structure in the future.

How We Mitigate International Political Risk. We generally purchase insurance policies to cover our exposure to certain political risks involved in operating in developing countries, as described below under "Insurance". To date, our political risk insurance policies are with the Multilateral Investment Guaranty Agency (MIGA), a member of the World Bank Group, and Zurich Re, a private insurance and re-insurance company. Such insurance policies generally cover, subject to the limitations and restrictions contained therein, 80-90% of our losses resulting from a specified governmental act such as confiscation, expropriation, riots, the inability to convert local currency into hard currency, and, in certain cases, the breach of agreements. We have obtained such insurance for the Olkaria, Zunil and Sarulla projects.

Description of Our Leases and Lands

We have domestic leases on approximately 320,800 acres of federal, state, and private land in California, Hawaii, Nevada, New Mexico, Utah and Oregon. The approximate breakdown between federal, state, private leases and owned land is as follows:

- 85% are acres under our control are leased from the U.S. government, acting through the BLM;
- 11% are leases with private landowners and/or leaseholders;
- 2% are owned by us; and
- the balance are leases with various states, none of which is currently material.

Each of the leases within each of the categories has standard terms and requirements, as summarized below. Internationally, our land position includes approximately 196,200 acres, most of which are for geothermal prospects in Honduras and Indonesia.

BLM Geothermal Leases

Certain of our domestic project subsidiaries have entered into geothermal resources leases with the U.S. government, pursuant to which they have obtained the right to conduct their geothermal development and operations on federally-owned land. These leases are made pursuant to the Geothermal Steam Act and the lessor under such leases is the U.S. government, acting through the BLM.

BLM geothermal leases grant the geothermal lessee the right and privilege to drill for, extract, produce, remove, utilize, sell, and dispose of geothermal resources on certain lands, together with the right to build and maintain necessary improvements thereon. The actual ownership of the geothermal resources and other minerals beneath the land is retained in the federal mineral estate. The geothermal lease does not grant to the geothermal lessee the exclusive right to develop the lands, although the geothermal lessee does hold the exclusive right to develop geothermal resources within the lands. The geothermal lessee does not have the right to develop minerals unassociated with geothermal production and cannot prohibit others from developing the minerals present in the lands. The BLM may grant multiple leases for the same lands and, when this occurs, each lessee is under a duty to not unreasonably interfere with the development rights of the other. Because BLM leases do not grant to the geothermal lessee the exclusive right to use the surface of the land, BLM may grant rights to others for activities that do not unreasonably interfere with the geothermal lessee's uses of the same land; such other activities may include recreational use, off-road vehicles, and/or wind or solar energy developments.

Certain BLM leases issued before August 8, 2005 include covenants that require the projects to conduct their operations under the lease in a workmanlike manner and in accordance with all applicable laws and BLM directives and to take all mitigating actions required by the BLM to protect the surface of and the environment surrounding the land. Additionally, certain leases contain additional requirements, some of which concern the mitigation or avoidance of disturbance of any antiquities, cultural values or threatened or endangered plants or animals, the payment of royalties for timber, and the imposition of certain restrictions on residential development on the leased land.

BLM leases entered into after August 8, 2005 require the geothermal lessee to conduct operations in a manner that minimizes impacts to the land, air, water, to cultural, biological, visual, and other resources, and to other land uses or users. The BLM may require the geothermal lessee to perform special studies or inventories under guidelines prepared by the BLM. The BLM reserves the right to continue existing leases and to authorize future uses upon or in the leased lands, including the approval of easements or rights-of-way. Prior to disturbing the surface of the leased lands, the geothermal lessee must contact the BLM to be apprised of procedures to be followed and modifications or reclamation measures that may be necessary. Subject to BLM approval, geothermal lessees may enter into unit agreements to cooperatively develop a geothermal resource. The BLM reserves the right to specify rates of development and to require the geothermal lessee to commit to a communalization or unitization agreement if a common geothermal resource is at risk of being overdeveloped.

Typical BLM leases issued to geothermal lessees before August 8, 2005 have a primary term of ten years and will renew so long as geothermal resources are being produced or utilized in commercial quantities, but cannot exceed a period of forty years after the end of the primary term. If at the end of the forty-year period geothermal steam is still being produced or utilized in commercial quantities and the lands are not needed for other purposes, the geothermal lessee will have a preferential right to renew the lease for a second forty-year term, under terms and conditions as the BLM deems appropriate.

BLM leases issued after August 8, 2005 have a primary term of ten years. If the geothermal lessee does not reach commercial production within the primary term, the BLM may grant two five-year extensions if the geothermal lessee: (i) satisfies certain minimum annual work requirements prescribed by the BLM for that lease, or (ii) makes minimum annual payments. Additionally, if the geothermal lessee is drilling a well for the purposes of commercial production, the primary term (as it may have been extended) may be extended for five years and as long thereafter as steam is being produced and used in commercial quantities (meaning the geothermal lessee either begins producing geothermal resources in commercial quantities or has a well capable of producing geothermal resources in commercial quantities and is making diligent efforts to utilize the resource) for thirty-five years. If, at the end of the extended thirty-five year term, geothermal steam is still being produced or utilized in commercial quantities and the lands are not needed for other purposes, the geothermal lessee will have a preferential right to renew the lease for fifty-five years, under terms and conditions as the BLM deems appropriate.

For BLM leases issued before August 8, 2005, the geothermal lessee is required to pay an annual rental fee (on a per acre basis), which escalates according to a schedule described therein, until production of geothermal steam in commercial quantities has commenced. After such production has commenced, the geothermal lessee is required to pay royalties (on a monthly basis) on the amount or value of (i) steam, (ii) by-products derived from production, and (iii) commercially demineralized water sold or utilized by the project (or reasonably susceptible to such sale or use).

For BLM leases issued after August 8, 2005, (i) a geothermal lessee who has obtained a lease through a non-competitive bidding process will pay an annual rental fee equal to \$1.00 per acre for the first ten years and \$5.00 per acre each year thereafter; and (ii) a geothermal lessee who has obtained a lease through a competitive process will pay a rental equal to \$2.00 per acre for the first year, \$3.00 per acre for the second through tenth year and \$5.00 per acre each year thereafter. Rental fees paid before the first day of the year for which the rental is owed will be credited towards royalty payments for that year. For BLM leases issued, effective, or pending on August 5, 2005 or thereafter, royalty rates are fixed between 1.0-2.5% of the gross proceeds from the sale of electricity during the first ten years of production under the lease. The royalty rate set by the BLM for geothermal resources produced for the commercial generation of electricity but not sold in an arm's length transaction is 1.75% for the first ten years of production and 3.5% thereafter. The royalty rate for geothermal resources sold by the geothermal lessee or an affiliate in an arm's length transaction is 10.0% of the gross proceeds from the arm's length sale. The BLM may readjust the rental or royalty rates at not less than twenty year intervals beginning thirty-five years after the date geothermal steam is produced.

In the event of a default under any BLM lease, or the failure to comply with any of the provisions of the Geothermal Steam Act or regulations issued under the Geothermal Steam Act or the terms or stipulations of the lease, the BLM may, 30 days after notice of default is provided to the relevant project, (i) suspend operations until the requested action is taken, or (ii) cancel the lease.

Private Geothermal Leases

Certain of our domestic project subsidiaries have entered into geothermal resources leases with private parties, pursuant to which they have obtained the right to conduct their geothermal development and operations on privately owned land. In many cases, the lessor under these private geothermal leases owns only the geothermal resource and not the surface of the land.

Typically, the leases grant our project subsidiaries the exclusive right and privilege to drill for, produce, extract, take and remove from the leased land water, brine, steam, steam power, minerals (other than oil), salts, chemicals, gases (other than gases associated with oil), and other products produced or extracted by such project subsidiary. The project subsidiaries are also granted certain non-exclusive rights pertaining to the construction and operation of plants, structures, and facilities on the leased land. Additionally, the project subsidiaries are granted the right to dispose geothermal fluid as well as the right to re-inject into the leased land water, brine, steam, and gases in a well or wells for the purpose of maintaining or restoring pressure in the productive zones beneath the leased land or other land in the vicinity. Because the private geothermal leases do not grant to the lessee the exclusive right to use the surface of the land, the lessor reserves the right to conduct other activities on the leased land in a manner that does not unreasonably interfere with the geothermal lessee's uses of the same land, which other activities may include agricultural use (farming or grazing), recreational use and hunting, and/or wind or solar energy developments.

The leases provide for a term consisting of a primary term in the range of five to 30 years, depending on the lease, and so long thereafter as lease products are being produced or the project subsidiary is engaged in drilling, extraction, processing, or reworking operations on the leased land.

As consideration under most of our project subsidiaries' private leases, the project subsidiary must pay to the lessor a certain specified percentage of the value "at the well" (which is not attributable to the enhanced value of electricity generation), gross proceeds, or gross revenues of all lease products produced, saved, and sold on a monthly basis. In certain of our project subsidiaries' private leases, royalties payable to the lessor by the project subsidiary are based on the gross revenues received by the lessee from the sale or use of the geothermal substances, either from electricity production or the value of the geothermal resource "at the well".

In addition, pursuant to the leases, the project subsidiary typically agrees to commence drilling, extraction or processing operations on the leased land within the primary term, and to conduct such operations with reasonable diligence until lease products have been found, extracted and processed in quantities deemed "paying quantities" by the project subsidiary, or until further operations would, in such project subsidiary's judgment, be unprofitable or impracticable. The project subsidiary has the right at any time within the primary term to terminate the lease and surrender the relevant land. If the project subsidiary has not commenced any such operations on said land (or on the unit area, if the lease has been unitized), or terminated the lease within the primary term, the project subsidiary must pay to the lessor, in order to maintain its lease position, annually in advance, a rental fee until operations are commenced on the leased land.

If the project subsidiary fails to pay any installment of royalty or rental when due and if such default continues for a period of fifteen days specified in the lease, for example, after its receipt of written notice thereof from the lessor, then at the option of the lessor, the lease will terminate as to the portion or portions thereof as to which the project subsidiary is in default. If the project subsidiary defaults in the performance of any obligations under the lease, other than a payment default, and if, for a period of 90 days after written notice is given to it by the lessor of such default, the project subsidiary fails to commence and thereafter diligently and in good faith take remedial measures to remedy such default, the lessor may terminate the lease.

We do not regard any property that we lease as material unless and until we begin construction of a power plant on the property, that is, until we drill a production well on the property.

Description of Our Power Plants

Domestic Operating Power Plants

The following descriptions summarize certain industry metrics for our domestic operating power plants:

Brady Complex

<i>Location</i>	Churchill County, Nevada
<i>Generating Capacity</i>	18 MW
<i>Number of Power Plants</i>	Two (Brady and Desert Peak 2 power plants).
<i>Technology</i>	The Brady complex utilizes binary and flash systems. The complex uses air and water-cooled systems.
<i>Subsurface Improvements</i>	12 production wells and eight injection wells are connected to the plants through a gathering system.
<i>Major Equipment</i>	Three OEC units and three steam turbines along with the Balance of Plant equipment.
<i>Age</i>	The Brady power plant commenced commercial operation in 1992 and a new OEC unit was added in 2004. The Desert Peak 2 power plant commenced commercial operation in 2007.
<i>Land and Mineral Rights</i>	The Brady complex is comprised mainly of BLM leases. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plants. The complex's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described in "Description of Our Leases and Lands".

<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases, and the Brady power plant holds rights of way from the BLM and from the private owner that allows access to and from the plant.
<i>Resource Information</i>	The resource temperatures at Brady and Desert Peak 2 are 270 degrees Fahrenheit and 338 degrees Fahrenheit, respectively. The Brady and Desert Peak geothermal systems are located within the Hot Springs Mountains, approximately 60 miles northeast of Reno, Nevada, in northwestern Churchill County. The dominant geological feature of the Brady area is a linear NNE-trending band of hot ground that extends two miles. The Desert Peak geothermal field is located within the Hot Springs Mountains, which form part of the western boundary of the Carson Sink. The structure is characterized by east-titled fault blocks and NNE-trending folds. Geologic structure in the area is dominated by high-angle normal faults of varying displacement.
<i>Resource Cooling</i>	During the last two years the cooling at Brady has leveled off to a rate of 1 degree Fahrenheit per year. The temperature decline at Desert Peak is approximately two degrees Fahrenheit per year.
<i>Sources of Makeup Water</i>	Condensed steam is used for makeup water.
<i>Power Purchaser</i>	Brady power plant — Sierra Pacific Power Company. Desert Peak 2 power plant — Nevada Power Company.
<i>PPA Expiration Date</i>	Brady power plant — 2022. Desert Peak 2 power plant — 2027.
<i>Financing</i>	OFC Senior Secured Notes and ORTP Transaction in the case of the Brady power plant, and OPC Transaction in the case of the Desert Peak 2 power plant.

Don A. Campbell Complex

<i>Location</i>	Mineral County, Nevada
<i>Generating Capacity</i>	41 MW
<i>Number of Power Plants</i>	Two
<i>Technology</i>	The Don A. Campbell power plants utilize an air-cooled binary system.
<i>Subsurface Improvements</i>	9 production wells and five injection wells are connected to the plants.
<i>Material Equipment</i>	Two air-cooled OEC units with the Balance of Plant equipment.
<i>Age</i>	The phase 1 power plant is in its second year of operation and the Phase 2 power plant commenced operation in September 2015.
<i>Land and Mineral Rights</i>	The Don A. Campbell area is comprised of BLM leases. Since we the power plants achieved commercial operation, the leases are held by production, as described above in “Description of Our Leases and Lands”.

The project's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".

Resource Information

The Don A. Campbell geothermal reservoir consists of highly fractured, silicified alluvium over at least two square miles. Production and injection are very shallow with five pumped production wells (from depths of 1,350 feet to 1,900 feet) and three injection wells (from depths of 649 feet to 2,477 feet), all targeting northwest-dipping fractures. The thermal fluids are thought to be controlled by a combination of conductive heat transfer from deeper bedrock and through mixing of upwelling thermal fluids from a deeper geothermal system also contained in the bedrock. The system is considered blind with no surface expression of thermal features.

The temperature of the resource is approximately 259 degrees Fahrenheit.

Resource Cooling

Temperature started declining in mid-2016. We plan to drill a deep injection well to mitigate the decline.

Access to Property

Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.

Power Purchaser

Two separate PPAs with SCPPA.

PPA Expiration Date

The phase 1 PPA expires in 2034 and the Phase 2 PPA expires in 2036

Financing

Phase 1 - 4.03% Senior Secured Notes purchased by Munich Re and the cash grant that we received from the U.S. Treasury.

Phase 2 – Corporate funds and the Opal tax equity transaction.

Supplemental Information

In April 2015, we closed an equity transaction with Northleaf in which Northleaf acquired a 36.75% equity interest in ORPD. ORPD owns the Puna complex, the Don A. Campbell phase 1 power plant, and the OREG 1, OREG 2, and OREG 3 power plants. See Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "ORPD transaction".

In November 2016, Northleaf purchased a 36.75% equity interest in the Don A. Campbell phase 2 power plant, which was initially added to the existing ORPD portfolio and then contributed to Opal in the tax equity partnership transaction.

Heber Complex

Location

Heber, Imperial County, California

Generating Capacity

92 MW

Number of Power Plants

Five (Heber 1, Heber 2, Heber South, Gould 1 and Gould 2).

Technology

The Heber 1 plant is a dual flash system with a binary bottoming unit called Gould-1 and the Heber 2 group is comprised of the Heber 2, Gould 2 and Heber South plants which all utilize binary systems. The complex uses a water cooled system.

Subsurface Improvements

27 production wells and 38 injection wells connected to the plants through a gathering system.

Major Equipment

17 OEC units and one steam turbine with the Balance of Plant equipment.

Age

The Heber 1 plant commenced commercial operations in 1985 and the Heber 2 plant in 1993. The Gould 1 plant commenced commercial operation in 2006 and the Gould 2 plant in 2005. The Heber South plant commenced commercial operation in 2008.

<i>Land and Mineral Rights</i>	The total Heber area is comprised mainly of private leases. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plants. The complex's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.
<i>Resource Information</i>	The resource supplying the flash flowing Heber 1 wells averages 341 degrees Fahrenheit. The resource supplying the pumped Heber 2 wells averages 316 degrees Fahrenheit. Heber production is from deltaic sedimentary sandstones deposited in the subsiding Salton Trough of California's Imperial Valley. Produced fluids rise from near the magmatic heated basement rocks (18,000 feet) via fault/fracture zones to the near surface. Heber 1 wells produce directly from deep (4,000 to 8,000 feet) fracture zones. Heber 2 wells produce from the nearer surface (2,000 to 4,000 feet) matrix permeability sandstones in the horizontal outflow plume fed by the fractures from below and the surrounding ground waters. Scale deposition in the flashing Heber 1 producers is controlled by down hole chemical inhibition supplemented with occasional mechanical cleanouts and acid treatments. There is no scale deposition in the Heber 2 production wells.
<i>Resource Cooling</i>	Average cooling of one degree Fahrenheit per year was observed during the past 20 years of production.
<i>Sources of Makeup Water</i>	Water is provided by condensate and by the IID.
<i>Power Purchaser</i>	One PPA with Southern California Edison and two PPAs with SCPPA.
<i>PPA Expiration Date</i>	Heber 1 — 2025, Heber 2 — 2023, and Heber South — 2031. The output from the Gould 1 and Gould 2 power plants is sold under the PPAs with Southern California Edison and SCPPA.
<i>Financing</i>	OrCal Senior Secured Notes and ORTP Transaction.

Jersey Valley Power Plant

<i>Location</i>	Pershing County, Nevada
<i>Generating Capacity</i>	10 MW
<i>Number of Power Plants</i>	One
<i>Technology</i>	The Jersey Valley power plant utilizes an air cooled binary system.
<i>Subsurface Improvements</i>	Two production wells and four injection wells are connected to the plant through a gathering system. The third production well is not connected to the power plant and will be used in the future as required.
<i>Major Equipment</i>	Two OEC units together with the Balance of Plant equipment.
<i>Age</i>	Construction of the power plant was completed at the end of 2010 and the off-taker approved commercial operation status under the PPA effective on August 30, 2011.

<i>Land and Mineral Rights</i>	The Jersey Valley area is comprised of BLM leases. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plant. The power plant's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".
<i>Access to Property</i>	Direct access to public roads from leased property and access across leased property under surface rights granted in leases from BLM.
<i>Resource Information</i>	The Jersey Valley geothermal reservoir consists of a small high-permeability area surrounded by a large low-permeability area. The high-permeability area has been defined by wells drilled along an interpreted fault trending west-northwest. Static water levels are artesian; two of the wells along the permeable zone have very high productivities, as indicated by Permeability Index (PI) values exceeding 20 gpm/psi. The average temperature of the resource is 313 degrees Fahrenheit.
<i>Resource Cooling</i>	The rate of cooling was four degrees Fahrenheit in 2015 but it has been moderating since we reduced the injection rate in a well near the production wells. To offset the reduction of injection in this well, we diverted more fluid to farther away wells (by increasing injection pressure).
<i>Power Purchaser</i>	Nevada Power Company
<i>PPA Expiration Date</i>	2032
<i>Financing</i>	OFC 2 Senior Secured Notes, corporate funds, ITC cash grant from the U.S. Treasury and the Opal transaction.
<u>Mammoth Complex</u>	
<i>Location</i>	Mammoth Lakes, California
<i>Generating Capacity</i>	29 MW
<i>Number of Power Plants</i>	Three (G-1, G-2, and G-3).
<i>Technology</i>	The Mammoth complex utilizes air cooled binary systems.
<i>Subsurface Improvements</i>	Ten production wells and five injection wells are connected to the plants through a gathering system.
<i>Major Equipment</i>	Two new OECs and six turbo-expanders together with the Balance of Plant equipment.
<i>Age</i>	The G-1 plant commenced commercial operations in 1984 and the G-2 and G-3 power plants commenced commercial operation in 1990. We recently replaced the equipment at the G-1 plant with new OECs.
<i>Land and Mineral Rights</i>	The total Mammoth area is comprised mainly of BLM leases. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plants. The complex's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.

<i>Resource Information</i>	The average resource temperature is 339 degrees Fahrenheit. The Casa Diablo/Basalt Canyon geothermal field at Mammoth lies on the southwest edge of the resurgent dome within the Long Valley Caldera. It is believed that the present heat source for the geothermal system is an active magma body underlying the Mammoth Mountain to the northwest of the field. Geothermal waters heated by the magma flow from a deep source (greater than 3,500 feet) along faults and fracture zones from northwest to southeast east into the field area. The produced fluid has no scaling potential.
<i>Resource Cooling</i>	In the last three years the temperature has stabilized and there is no notable decline, although one degree Fahrenheit per year was observed during the prior 20 years of production.
<i>Power Purchaser</i>	G1 and G3 plants — PG&E and G2 plant — Southern California Edison.
<i>PPA Expiration Date</i>	G-1 and G-3 plants — 2034 and G-2 plant — 2027.
<i>Financing</i>	OFC Senior Secured Notes and ORTP Transaction.
<u>McGinness Hills Complex</u>	
<i>Location</i>	Lander County, Nevada
<i>Generating Capacity</i>	86 MW
<i>Number of Power Plants</i>	Two
<i>Technology</i>	The McGinness Hills complex utilizes an air cooled binary system.
<i>Subsurface Improvements</i>	Ten production wells and six injection wells are connected to the power plant.
<i>Material Equipment</i>	Six air cooled OEC units with the Balance of Plant equipment.
<i>Age</i>	The first phase commenced commercial operation on July 1, 2012, and the second phase on February 1, 2015.
<i>Land and Mineral Rights</i>	The McGinness Hills area is comprised of private and BLM leases. The leases require annual rental payments, as described above in “Description of Our Leases and Lands”. The rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in “Description of Our Leases and Lands”.
<i>Resource Information</i>	The McGinness Hills geothermal reservoir is contained within a network of fractured rocks over an area at least three square miles. The reservoir is contained in both Tertiary intrusive and Paleozoic sedimentary (basement) rocks. The thermal fluids within the reservoir are inferred to flow upward through the basement rocks along the NNE-striking faults at several fault intersections. The thermal fluids then generally outflow laterally to the NNE and SSW along the NNE-striking faults. No modern thermal manifestations exist at McGinness Hills, although hot spring deposits encompass an area of approximately 0.25 square miles and indicate a history of surface thermal fluid flow. The resource temperature averages 335 degrees Fahrenheit and the fluids are sourced from the reservoir at elevations between 2,000 to 5,000 feet below the surface.
<i>Resource Cooling</i>	The temperature has been stable since the first phase began operation with no notable cooling.

<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.
<i>Power Purchaser</i>	Nevada Power Company
<i>PPA Expiration Date</i>	2033
<i>Financing</i>	OFC 2 Senior Secured Notes, ITC cash grant from the U.S. Treasury for Phase 1 and the Opal transaction

Brawley Complex (formerly known as North Brawley)

<i>Location</i>	Imperial County, California
<i>Generating Capacity</i>	18 MW (See supplemental information below)
<i>Number of Power Plants</i>	One
<i>Technology</i>	The Brawley power plant utilizes a water-cooled binary system.
<i>Subsurface Improvements</i>	36 wells have been drilled and are connected to the plants through its gathering system. As we improved our knowledge of the reservoir, we moved some of the wells between production and injection and left some idle. Currently, we have 13 wells connected to the production header and 23 wells, connected to the injection header.
<i>Major Equipment</i>	Five OEC units together with the Balance of Plant equipment.
<i>Age</i>	The power plant commenced commercial operation on March 31, 2011.
<i>Land and Mineral Rights</i>	The total Brawley area is comprised of private leases. The leases are held by production. The scheduled expiration date for all of these leases is after the end of the expected useful life of the power plant. The plant's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.
<i>Resource Information</i>	Brawley production is from deltaic and marine sedimentary sands and sandstones deposited in the subsiding Salton Trough of the Imperial Valley. Based on seismic refraction surveys the total thickness of these sediments in the Brawley area is over 15,000 feet. The shallow production reservoir (from depths of 1,500 to 4,500 feet) that was developed is fed by fractures and matrix permeability and is conductively heated from the underlying fractured reservoir which convectively circulates magmatically heated fluid. Produced fluid salinity ranges from 20,000 to 50,000 ppm, and the moderate scaling and corrosion potential is chemically inhibited. The temperature of the deeper fractured reservoir fluids exceed 525 degrees Fahrenheit, but the fluid is not yet developed because of severe scaling and corrosion potential. The deep reservoir is not dedicated to the Brawley power plant. The average produced fluid resource temperature is 310 degrees Fahrenheit.
<i>Resource Cooling</i>	Temperature depends on the mix of operating production wells that we use.
<i>Sources of Makeup Water</i>	Water is provided by the IID.
<i>Power Purchaser</i>	Southern California Edison

<i>PPA Expiration Date</i>	2031.
<i>Financing</i>	Corporate funds and ITC cash grant from the U.S. Treasury.
<i>Supplemental Information</i>	We are currently selling the power generated by the Brawley complex to Southern California Edison under the existing PPA at a capacity level of approximately 10 MW and we are planning to increase it to 18 MW by the end of 2017. We developed a more robust chemical supply system to our production wells. The problems with the previous system caused premature failures of the production pumps. With the new system, we plan to activate several idle wells and recently drilled well at the area of east Brawley, which will enable us to increase generation.

OREG 1 Power Plant

<i>Location</i>	Four gas compressor stations along the Northern Border natural gas pipeline in North and South Dakota.
<i>Generating Capacity</i>	22 MW
<i>Number of Units</i>	Four
<i>Technology</i>	The OREG 1 power plant utilizes our air cooled OEC units.
<i>Major Equipment</i>	Four WHOH and four OEC units together with the Balance of Plant equipment.
<i>Age</i>	The OREG 1 power plant commenced commercial operations in 2006.
<i>Land</i>	Easement from NBPL.
<i>Access to Property</i>	Direct access to the plant from public roads.
<i>Power Purchaser</i>	Basin Electric Power Cooperative
<i>PPA Expiration Date</i>	2031
<i>Financing</i>	Corporate funds.
<i>Supplemental Information</i>	In April 2015, we closed an equity transaction with Northleaf in which Northleaf acquired a 36.75% equity interest in ORPD. ORPD owns the Puna complex, the Don A. Campbell phase 1 power plant, and the OREG 1, OREG 2, and OREG 3 power plants. See Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "ORPD transaction".

OREG 2 Power Plant

<i>Location</i>	Four gas compressor stations along the Northern Border natural gas pipeline; one in Montana, two in North Dakota, and one in Minnesota.
<i>Generating Capacity</i>	22 MW
<i>Number of Units</i>	Four
<i>Technology</i>	The OREG 2 power plant utilizes our air cooled OEC units.
<i>Major Equipment</i>	Four WHOH and four OEC units together with the Balance of Plant equipment.
<i>Age</i>	The OREG 2 power plant commenced commercial operations during 2009.

<i>Land</i>	Easement from NBPL.
<i>Access to Property</i>	Direct access to the plant from public roads.
<i>Power Purchaser</i>	Basin Electric Power Cooperative
<i>PPA Expiration Date</i>	2034
<i>Financing</i>	Corporate funds.
<i>Supplemental Information</i>	In April 2015, we closed an equity transaction with Northleaf in which Northleaf acquired a 36.75% equity interest in ORPD. ORPD owns the Puna complex, the Don A. Campbell phase 1 power plant, and the OREG 1, OREG 2, and OREG 3 power plants. See Item 7 - “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the heading “ORPD transaction”.

OREG 3 Power Plant

<i>Location</i>	A gas compressor station along Northern Border natural gas pipeline in Martin County, Minnesota.
<i>Generating Capacity</i>	5.5 MW
<i>Number of Units</i>	One
<i>Technology</i>	The OREG 3 power plant utilizes our air cooled OEC units.
<i>Major Equipment</i>	One WHOH and one OEC unit along with the Balance of Plant equipment.
<i>Age</i>	The OREG 3 power plant commenced commercial operations during 2010.
<i>Land</i>	Easement from NBPL.
<i>Access to Property</i>	Direct access to the plant from public roads.
<i>Power Purchaser</i>	Great River Energy
<i>PPA Expiration Date</i>	2029
<i>Financing</i>	Corporate funds.
<i>Supplemental Information</i>	In April 2015, we closed an equity transaction with Northleaf in which Northleaf acquired a 36.75% equity interest in ORPD. ORPD owns the Puna complex, the Don A. Campbell phase 1 power plant, and the OREG 1, OREG 2, and OREG 3 power plants. See Item 7 - “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the heading “ORPD transaction”.

OREG 4 Power Plant

<i>Location</i>	A gas compressor station along natural gas pipeline in Denver, Colorado.
<i>Generating Capacity</i>	3.5 MW
<i>Number of Units</i>	One
<i>Technology</i>	The OREG 4 power plant utilizes our air cooled OEC units.
<i>Major Equipment</i>	Two WHOH and one OEC unit together with the Balance of Plant equipment.

<i>Age</i>	The OREG 4 power plant commenced commercial operations during 2009.
<i>Land</i>	Easement from Trailblazer Pipeline Company.
<i>Access to Property</i>	Direct access to the plant from public roads.
<i>Power Purchaser</i>	Highline Electric Association
<i>PPA Expiration Date</i>	2029
<i>Financing</i>	Corporate funds.
<u>Ormesa Complex</u>	
<i>Location</i>	East Mesa, Imperial County, California
<i>Generating Capacity</i>	40 MW
<i>Number of Power Plants</i>	Three (OG I, OG II and GEM 3). The GEM 2 plant was taken off line during 2015 due to plant operation optimization.
<i>Technology</i>	The OG plants utilize a binary system and the GEM plant utilize a flash system. The complex uses a water cooling system.
<i>Subsurface Improvements</i>	24 production wells and 57 injection wells connected to the plants through a gathering system.
<i>Material Major Equipment</i>	8 OEC units and one steam turbines with the Balance of Plant equipment.
<i>Age</i>	The various OG I plants commenced commercial operations between 1987 and 1989, and the OG II plant commenced commercial operation in 1988. Between 2005 and 2007 a significant portion of the old equipment in the OG plants was replaced (including turbines through repowering). The GEM plant commenced commercial operation in 1989, and a new bottoming unit was added in 2007.
<i>Land and Mineral Rights</i>	The total Ormesa area is comprised of BLM leases. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plants. The complex's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands".
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.
<i>Resource Information</i>	The average resource temperature is 308 degrees Fahrenheit. Production is from sandstones. Productive sandstones are between 1,800 and 6,000 feet, and have only matrix permeability. The currently developed thermal anomaly was created in geologic time by conductive heating and direct outflow from an underlying convective fracture system. Produced fluid salinity ranges from 2,000 ppm to 13,000 ppm, and minor scaling and corrosion potential is chemically inhibited.
<i>Resource Cooling</i>	In the last year, the temperature has declined by two degrees Fahrenheit.
<i>Sources of Makeup Water</i>	Water is provided by the IID.
<i>Power Purchaser</i>	Southern California Edison under a single PPA.

<i>PPA Expiration Date</i>	November 29, 2017. New PPA was signed with SCPPA as described below.
<i>Financing</i>	OFC Senior Secured Notes and ORTP Transaction.
<i>Supplemental Information</i>	We recently entered into a 25-year PPA with SCPPA that will begin on November 30, 2017. This PPA will supersede the current 30-year SO#4 with Southern California Edison that has a variable energy rate tied primarily to volatile natural gas prices. Under the terms of the new PPA, energy from the power plant will be sold to SCPPA at a rate of \$77.25 per megawatt hour with no annual escalation. Contract capacity is 35 MW, with a maximum generation equivalent to a net capacity of about 43 MW.

Puna Complex

<i>Location</i>	Puna district, Big Island, Hawaii
<i>Generating Capacity</i>	38 MW
<i>Number of Power Plants</i>	Two
<i>Technology</i>	The Puna plants utilize our geothermal combined cycle and binary systems. The plants use an air cooled system.
<i>Subsurface Improvements</i>	Six production wells and five injection wells connected to the plants through a gathering system.
<i>Major Equipment</i>	One plant consists of ten OEC units made up of ten binary turbines, ten steam turbines and two bottoming units along with the Balance of Plant equipment. The second plant consists of two OEC units along with Balance of Plant equipment.
<i>Age</i>	The first plant commenced commercial operations in 1993. The second plant was placed in service in 2011 and commenced commercial operation in 2012.
<i>Land and Mineral Rights</i>	The Puna complex is comprised of a private lease. The private lease is between PGV and KLP and it expires in 2046. PGV pays an annual rental payment to KLP, which is adjusted every five years based on the CPI. The state of Hawaii owns all mineral rights (including geothermal resources) in the state. The state has issued a Geothermal Resources Mining Lease to KLP, and KLP in turn has entered into a sublease agreement with PGV, with the state's consent. Under this arrangement, the state receives royalties of approximately three percent of the gross revenues.
<i>Access to Property</i>	Direct access to the leased property is readily available via county public roads located adjacent to the leased property. The public roads are at the north and south boundaries of the leased property.
<i>Resource Information</i>	The geothermal reservoir at Puna is located in volcanic rock along the axis of the Kilauea Lower East Rift Zone. Permeability and productivity are controlled by rift-parallel subsurface fissures created by volcanic activity. They may also be influenced by lens-shaped bodies of pillow basalt which have been postulated to exist along the axis of the rift at depths below 7,000 feet. The distribution of reservoir temperatures is strongly influenced by the configuration of subsurface fissures and temperatures are among the hottest of any geothermal field in the world, with maximum measured temperatures consistently above 650 degrees Fahrenheit.

<i>Resource Cooling</i>	The resource temperature is stable.
<i>Power Purchaser</i>	Three PPAs with HELCO (see “Supplemental Information” below).
<i>PPA Expiration Date</i>	2027
<i>Financing</i>	Operating Lease and ITC cash grant from the U.S. Treasury. Also, in April 2015, we closed an equity transaction with Northleaf in which Northleaf acquired a 36.75% equity interest in ORPD. ORPD owns the Puna complex, the Don A. Campbell phase 1 power plant, and the OREG 1, OREG 2, and OREG 3 power plants. Discussed in Item 7 - “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the heading “ORPD transaction”.
<i>Supplemental Information</i>	The pricing for the energy that is sold from the Puna complex is as follows: • For the first on-peak 25 MW, the energy is still based on HELCO's avoided cost. • For the next on-peak 5 MW, the energy price has changed from a diesel-based price to a flat rate of 11.8 cents per kWh, escalating by 1.5% per year. • For the new on-peak 8 MW, the price is 9 cents per kWh for up to 30,000 MWh/year and 6 cents per kWh above 30,000 MWh/year, escalating by 1.5% per year. We recently signed an agreement for the period between February 1, 2017 and December 31, 2017 that waives the 30,000 kWh threshold requirements such as the price for energy delivered during on-peak hours shall be 6 cents per kWh regardless of the amount of MWh delivered. • For the first off-peak 22 MW the energy price has not changed from avoided cost. The off-peak energy above 22 MW is dispatchable: 1. For the first off-peak 5 MW, the price has changed from a diesel-based price to a flat rate of 11.8 cents per kWh, escalating by 1.5% per year. 2. For the energy above 27 MW (up to 38 MW), the price is 6 cents per kWh, escalating by 1.5% per year. The capacity payment for the first 30 MW remains the same (\$160 kW/year for the first 25 MW and \$100.95 kW/year for the additional 5 MW). For the new 8 MW power plant the annual capacity payment is \$2 million.

Steamboat Complex

<i>Location</i>	Steamboat, Washoe County, Nevada
<i>Generating Capacity</i>	73 MW
<i>Number of Power Plants</i>	Six (Steamboat 2 and 3, Burdette (Galena 1), Steamboat Hills, Galena 2 and Galena 3).
<i>Technology</i>	The Steamboat complex utilizes a binary system (except for Steamboat Hills, which utilizes a single flash system). The complex uses air and water cooling systems.
<i>Subsurface Improvements</i>	24 production wells and 11 injection wells connected to the plants through a gathering system.

<i>Major Equipment</i>	Nine individual air-cooled and one water-cooled OEC units, and one steam turbine together with the Balance of Plant Equipment.
<i>Age</i>	The power plants commenced commercial operation in 1992, 2005, 2007 and 2008. During 2008, the Rotoflow expanders at Steamboat 2 and 3 were replaced with four turbines manufactured by us.
<i>Land and Mineral Rights</i>	The total Steamboat area is comprised of 41% private leases, 41% BLM leases and 18% private land owned by us. The leases are held by production. The scheduled expiration dates for all of these leases are after the end of the expected useful life of the power plants. The complex's rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in "Description of Our Leases and Lands". We have easements for the transmission lines we use to deliver power to our power purchasers.
<i>Resource Information</i>	The resource temperature at the lower area averages 272 degrees Fahrenheit. The resource at Steamboat Hills averages 348 degrees Fahrenheit. The Steamboat geothermal field is a typical basin and range geothermal reservoir. Large and deep faults that occur in the rocks allow circulation of ground water to depths exceeding 10,000 feet below the surface. Horizontal zones of permeability permit the hot water to flow eastward in an out-flow plume. The Steamboat Hills and Galena 2 power plants produce hot water from fractures associated with normal faults. The rest of the power plants acquire their geothermal water from the horizontal out-flow plume. The water in the Steamboat reservoir has a low total solids concentration. Scaling potential is very low unless the fluid is allowed to flash which will result in calcium carbonate scale. Injection of cooled water for reservoir pressure maintenance prevents flashing.
<i>Resource Cooling</i>	Historically, the resource temperature declined at two degrees Fahrenheit per year, however, since the expansion of the complex, the rate of decline has been approximately five degrees Fahrenheit per year (see "Supplemental Information" below). In 2016, temperature decline moderated to three degrees Fahrenheit in the lower area and four degrees Fahrenheit in Steamboat Hills.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.
<i>Sources of Makeup Water</i>	Water is provided by condensate and the local utility.
<i>Power Purchaser</i>	Sierra Pacific Power Company (for Steamboat 2 and 3, Burdette (Galena1), Steamboat Hills, and Galena 3) and Nevada Power Company (for Galena 2).
<i>PPA Expiration Date</i>	Steamboat 2 and 3 — 2022, Burdette (Galena1) — 2026, Steamboat Hills — 2018, Galena 3 — 2028, and Galena 2 — 2027.
<i>Financing</i>	OFC Senior Secured Notes and ORTP Transaction (Steamboat 2 and 3, and Burdette (Galena1)) and OPC Transaction (Steamboat Hills, Galena 2, and Galena 3)
<i>Supplemental information</i>	In 2016 a new injection well was connected to the power plant and an old injection well that was cooling production was shut down.

Tuscarora Power Plant

<i>Location</i>	Elko County, Nevada
<i>Projected Generating Capacity</i>	18 MW
<i>Number of Power Plants</i>	One
<i>Technology</i>	The Tuscarora power plant utilizes a water cooled binary system.
<i>Subsurface Improvements</i>	Three production and six injection wells are connected to the power plant. A fourth production well is planned for 2017 and should be in place by mid-year.
<i>Major Equipment</i>	Two water cooled OEC units with the Balance of Plant equipment.
<i>Age</i>	The power plant commenced commercial operation on January 11, 2012.
<i>Land and Mineral Rights</i>	The Tuscarora area is comprised of private and BLM leases. The leases are currently held by payment of annual rental payments, as described above in “Description of Our Leases and Lands”. The plant’s rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in “Description of Our Leases and Lands”.
<i>Resource Information</i>	The Tuscarora geothermal reservoir consists of an area of approximately 2.5 square miles. The reservoir is contained in both Tertiary and Paleozoic (basement) rocks. The Paleozoic section consists primarily of sedimentary rocks, overlain by tertiary volcanic rocks. Thermal fluid in the native state of the reservoir flows upward and to the north through apparently southward-dipping, basement formations. At an elevation of roughly 2,500 feet with respect to mean sea level, the upwelling thermal fluid enters the tertiary volcanic rocks and flows directly upward, exiting to the surface at Hot Sulphur Springs. The average resource temperature is 335 degrees Fahrenheit.
<i>Resource Cooling</i>	We expect gradual decline in the cooling trend from two degrees Fahrenheit per year in the next two to three years, to less than one degree Fahrenheit per year over the long term.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.
<i>Sources of Makeup Water</i>	Water is provided from five water makeup wells.
<i>Power Purchaser</i>	Nevada Power Company
<i>PPA Expiration Date</i>	2032
<i>Financing</i>	OFC 2 Senior Secured Notes, ITC cash grant from the U.S. Treasury and the OrLeaf transaction.
<i>Supplemental information</i>	Due to the draught years, supply of make-up water for the plant cooling system is declining. With the increase in ambient temperatures, during the summer months we have experienced shortfall at levels that required at certain times reduction in plant generation. In 2016 a new production well was drilled and will be on line in 2017. Cooling water supply continues to curtail production in the summer.

Foreign Operating Power Plants

The following descriptions summarize certain industry metrics for our foreign operating power plants:

Amatitlan Power Plant (Guatemala)

<i>Location</i>	Amatitlan, Guatemala
<i>Generating Capacity</i>	20 MW
<i>Number of Power Plants</i>	One
<i>Technology</i>	The Amatitlan power plant utilizes an air cooled binary system and a small back pressure steam turbine (1 MW).
<i>Subsurface Improvements</i>	Five production wells and two injection wells connected to the plants through a gathering system.
<i>Major Equipment</i>	Two OEC units and one steam turbine together with the Balance of Plant equipment.
<i>Age</i>	The plant commenced commercial operation in 2007.
<i>Land and Mineral Rights</i>	Total resource concession area (under usufruct agreement with INDE) is for a term of 25 years from April 2003. Leased and company owned property is approximately three percent of the concession area. Under the agreement with INDE, the power plant company pays royalties of 3.5% of revenues up to 20.5 MW generated and 2% of revenues exceeding 20.5 MW generated. The generated electricity is sold at the plant fence. The transmission line is owned by INDE.
<i>Resource Information</i>	The resource temperature is an average of 520 degrees Fahrenheit. The Amatitlan geothermal area is located on the north side of the Pacaya Volcano at approximately 5,900 feet above sea level. Hot fluid circulates up from a heat source beneath the volcano, through deep faults to shallower depths, and then cools as it flows horizontally to the north and northwest to hot springs on the southern shore of Lake Amatitlan and the Michatoya River Valley.
<i>Resource Cooling</i>	Approximately two degrees Fahrenheit per year.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the lease agreement.
<i>Power Purchasers</i>	INDE and another local purchaser.
<i>PPA Expiration Date</i>	The PPA with INDE expires in 2028.
<i>Financing</i>	Senior secured limited recourse project finance loan from Banco Industrial S.A. and Westrust Bank (International) Limited.

Bouillante power plant (Guadeloupe Island)

<i>Location</i>	Guadeloupe Island, a French territory in the Caribbean
<i>Generating Capacity</i>	15 MW
<i>Number of Power Plants</i>	One

<i>Technology</i>	The Bouillante power plant uses direct steam turbines.
<i>Subsurface Improvements</i>	Two production wells and one injection well connected to the plant through a gathering system.
<i>Major Equipment</i>	One steam turbine together with the Balance of Plant equipment.
<i>Age</i>	The plant commenced commercial operation in 1996.
<i>Land and Mineral Rights</i>	Geothermal concession of roughly 24 square miles valid through April 30, 2050. Facilities located on land held in fee, as well as long-term leases and easements.
<i>Resource Information</i>	The resource temperature is an average of 485 degrees Fahrenheit. Production comes from a fault that extends from the mountain into the ocean.
<i>Resource Cooling</i>	The resource temperature is stable.
<i>Access to Property</i>	Direct access to site through public roads.
<i>Power Purchaser</i>	EDF.
<i>PPA Expiration Date</i>	15-year PPA until 2031.
<i>Financing</i>	Corporate funds
<i>Supplemental information</i>	The project is owned 80% interest jointly by Ormat and CDC allocated 75% to Ormat and 25% to CDC. Ormat and CDC will gradually increase their combined interest in the project to 85% and Sageos will hold the remaining balance.

Olkaria III Complex (Kenya)

<i>Location</i>	Naivasha, Kenya
<i>Generating Capacity</i>	139 MW
<i>Number of Power Plants</i>	Five (Olkaria III Phase 1 and Olkaria III Phase 2, together Plant 1, Plant 2, Plant 3 and Plant 4).
<i>Technology</i>	The Olkaria III complex utilizes an air cooled binary system.
<i>Subsurface Improvements</i>	18 production wells and five injection wells connected to the plants through a gathering system.
<i>Major Equipment</i>	13 OEC units together with the Balance of Plant equipment.
<i>Age</i>	Plant 4 commenced commercial operation in January 2016, Plant 3 in January 2014 and Plant 2 in April 2013. The first phase of Plant 1 commenced operation in 2000 and the second phase in 2009.
<i>Land and Mineral Rights</i>	The total Olkaria III area is comprised of government leases. A license granted by the Kenyan government provides exclusive rights of use and possession of the relevant geothermal resources for an initial period of 30 years, expiring in 2029, which initial period may be extended for two additional five-year terms. The Kenyan Minister of Energy has the right to terminate or revoke the license in the event work in or under the license area stops during a period of six months, or there is a failure to comply with the terms of the license or the provisions of the law relating to geothermal resources. Royalties are paid to the Kenyan government monthly based on the amount of power supplied to the power purchaser and an annual rent.

The power generated is purchased at the metering point located immediately after the power transformers in the 220 kV sub-station within the power plant, before the transmission lines, which belong to the utility.

Resource Information

The average resource temperature is 570 degrees Fahrenheit.

The Olkaria III geothermal field is on the west side of the greater Olkaria geothermal area located at approximately 6,890 feet above sea level within the Rift Valley.

Hot geothermal fluids rise up from deep in the northeastern portion of the concession area, penetrating a low permeability zone below 3,280 feet above sea level to a high productivity, two-phase zone identified between 3,280 and 4,270 feet ASL.

Resource Cooling

The resource temperature is stable.

Access to Property

Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the lease agreement.

Power Purchaser

KPLC

PPA Expiration Date

Plan 2 in 2033, Plant 1 in 2034, Plant 3 in 2034 and Plant 4 in 2036

Financing

Senior secured project finance loan from OPIC and a subordinated loans from DEG.

Supplemental information

We are planning to add additional 10 MW that will come on line during 2018.

Zunil Power Plant (Guatemala)

Location

Zunil, Guatemala

Generating Capacity

23 MW (see “Supplemental Information” below for information on current generating capacity)

Number of Power Plants

One

Technology

The Zunil power plant utilizes an air cooled binary system.

Subsurface

Six production wells and two injection wells are connected to the plant through a gathering system.

Major Equipment

Seven OEC units together with the Balance of Plant equipment.

Age

The plant commenced commercial operation in 1999.

Land and Mineral Rights

The land owned by the plant includes the power plant, workshop and open yards for equipment and pipes storage.

Pipelines for the gathering system transit through a local agricultural area’s right of way acquired by us.

The geothermal wells and resource are owned by INDE.

Our produced power is sold at our property line; power transmission lines are owned and operated by INDE.

Resource Information

The Zunil geothermal reservoir is hosted in Tertiary volcanic rocks which include overly fractured granodiorite. Production wells produce a reservoir from 536-572 degrees Fahrenheit to a depth of approximately 2,860-4,300 feet. A shallow steam cap exists in the production area of the field, and most of the wells produce high enthalpy fluid due to the presence of two-

phase conditions in their feed zones. The wells target northwest- and northeast-trending fractures for permeability. These fractures are also thought to control upwelling from the volcanically-heated source. The upwelling fluids form a steam cap, and fluids and steam reach the surface along fractures, forming springs and fumaroles throughout the geothermal field.

<i>Resource Cooling</i>	The resource temperature is stable.
<i>Access to Property</i>	Direct access to public roads.
<i>Power Purchaser</i>	INDE
<i>PPA Expiration Date</i>	2034
<i>Supplemental Information</i>	In January 2014, we signed an amendment to the PPA with INDE to extend its term by 15 years until 2034.

The PPA amendment also transfers operation and management responsibilities of the Zunil geothermal field from INDE to Ormat for the term of the amended PPA in exchange for an increase in tariff. Additionally, INDE exercised its right under the PPA to become a partner in the Zunil power plant and to hold a three percent equity interest.

The power plant generates approximately 16 MW due to lack of sufficient geothermal resource supply. We successfully improved the heat supply and gradually increased the generation. We expect that this improvement and the increased tariff will increase the energy portion of revenues.

According to the PPA amendment, payments for the Zunil plant will be made as follows:

1. Capacity payment:
 - a. Until 2019, the capacity payment will be calculated based on a 24 MW generating capacity regardless of the actual performance of the power plant.
 - b. From 2019 on, the capacity payment will be based on actual delivered capacity and the capacity rate will be reduced.
2. Energy payment:
 - a. From January 2014 until 2034, the energy payment will include a geothermal field O&M rate based on actual delivered energy in addition to the energy rate on actual delivered energy.
 - b. From 2019 on, the energy rate on delivered energy will increase and will compensate the reduction in capacity price.

Projects under Construction

Some of our projects are in various stages of construction and include some projects that we have fully released for construction and two projects that are in initial stages of construction.

The following is a description of projects in the U.S., Honduras, Kenya and Indonesia that were released for, and are in different stages of, construction. These projects are expected to have a total generating capacity of 110 MW (representing our interest).

Olkaria III – Plant 1 Repowering (Kenya)

<i>Location</i>	Naivasha, Kenya
<i>Projected Generating Capacity</i>	10MW

<i>Projected Technology</i>	The power plant will utilize an air cooled binary system.
<i>Condition</i>	Drilling of the first well is pending permit. Construction start is planned for the second quarter of 2017.
<i>Subsurface Improvement</i>	We plan to drill two new production wells.
<i>Land and Mineral Rights</i>	The total Olkaria III area is comprised of government leases. See description above under “Olkaria III Complex”.
<i>Resource Information</i>	The Olkaria III geothermal field is on the west side of the greater Olkaria geothermal area located within the Rift Valley at approximately 6,890 feet above sea level. Hot geothermal fluids rise up from deep in the northeastern portion of the concession area through low permeability at a shallow depth to a high productivity two-phase region from 3,280 to 4,270 feet above sea level.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the lease agreement.
<i>Power Purchaser</i>	2034.
<i>Financing</i>	Corporate finance.
<i>Projected Operation</i>	First half of 2018.
<i>Supplemental Information</i>	We plan to add additional OEC unit to the existing Olkaria III Plant 1. The generated electricity from the new unit will be sold under Plant 1 PPA.

Platanares

<i>Location</i>	Copan, Honduras
<i>Projected Generating Capacity</i>	35 MW
<i>Projected Technology</i>	The plant will utilize an air cooled binary system.
<i>Condition</i>	Construction ongoing. Production temperature is 354 degrees Fahrenheit with high productivity.
<i>Subsurface Improvement</i>	We have successfully drilled 4 production wells and 2 injection wells.
<i>Land and Mineral Rights</i>	The project is located within a geothermal concession granted by the Department of Energy, Natural Resources, Environment, and Mines (SERNA), and located on fee land owned by GeoPlatanares and on land under lease from various private and public entities. The concession conveys to GeoPlatanares the right to exploit the geothermal resources contained within. The transmission corridor consists of easement agreements between GeoPlatanares and various private and public entities.

<i>Resource Information</i>	The project is located along a narrow river valley in western Honduras. The field is covered mostly by Miocene volcanic deposits. Numerous boiling hot springs and fumaroles emit along active faults along an area around two miles in length. The geothermal reservoir is supported by highly fractured volcanic and metasedimentary rock units. Wells are less than 800 meter deep.
<i>Access to Property</i>	Public roads provide access to the project area. In order to improve access for heavy equipment and large loads, GeoPlatanares has entered into a lease agreement with a private landowner for a small segment of road linking two leased parcels
<i>Power Purchaser</i>	30-year PPA with ENEE, the national utility of Honduras.
<i>Financing</i>	Corporate funds during construction.
<i>Supplemental Information</i>	We hold the assets, including the project's wells, land, permits and a PPA, under a BOT structure for 15 years from the date of commercial operation. Commercial operation is expected before the end of 2017.

Sarulla (Indonesia)

<i>Location</i>	Tapanuli Utara North Sumatra Namura I Langit area, Indonesia.
<i>Ownership</i>	SOL is a consortium consists of Medco Energi Internasional Tbk, Inpex Corporation, Itochu Corporation, Kyushu Electric Power Co. Inc., and one of our wholly owned subsidiaries that hold 12.75% interest.
<i>Projected Generating Capacity</i>	Three phases with a total of approximately 321 MW (Ormat's share is approximately 41MW)
<i>Projected Technology</i>	Integrated Geothermal Combined Cycle Unit comprised of 3 back pressure steam turbines and 18 OEC units.
<i>Condition</i>	The first phase with a 110 MW generating capacity is currently under testing and expected to commence operation in March 2017. For the second phase power plant, engineering and procurement has been substantially completed, site construction is in progress and all of the major generating units including those to be supplied by Ormat were delivered. For the third phase, engineering, procurement and construction work at the site are in progress and manufacturing of equipment to be supplied by Ormat is underway as planned. Drilling for the second and third phases is still ongoing and the project has achieved to date, based on preliminary estimates, approximately 80% of the required production capacity and over 85% of the required injection capacity.
<i>Land and Mineral Rights</i>	Most of the land for the project was acquired from private owners with some land leased from governmental agencies.
<i>Resource Information</i>	Two field areas, NIL and SIL host a liquid-dominated system. Previously drilled wells have temperatures from 275°C to 310°C. Flow tests of the first SOL partnership well, N2n-1, predict 22 NMW single well capacity with 751 T/hr total flow and 125 T/hr steam flow at 12.5 bar and 1126 kJ/kg. Both fields are within a tectonic half graven adjacent to the Great Sumatran Fault. In addition to highly encouraging production results, extensive surface manifestations, including fumaroles, boiling hot springs, and alteration, highlight an extensive area of productivity.
<i>Access to Property</i>	Access to property for the project has been secured.
<i>Power Purchaser</i>	30-year Energy Sales Contract with PT PLN (the state electric utility)
<i>Financing</i>	In May 2014, the consortium reached financial closing on \$1.17 billion to finance the development of the project with a consortium of lenders comprised of JBIC, the Asian

Development Bank and six commercial banks and obtained construction and term loans under a limited recourse financing package backed by political risk guarantee from JBIC.

Projected Operation

The project will be constructed in three phases with a total of 321 MW, utilizing both steam and brine extracted from the geothermal field to increase the power plant's efficiency. The first phase of operations is expected to commence commercial operation in March 2017, the second phase is expected to commence operations toward the end of 2017 and commercial operation of the third phase is still expected to commence 18 months after the scheduled commercial operation of the first phase, in 2018.

Supplemental Information

The Sarulla project will be owned and operated by the consortium members under the framework of a JOC and ESC. Under the JOC, PT Pertamina Geothermal Energy, the concession holder for the project, has provided the consortium with the right to use the geothermal field, and under the ESC, PT PLN, the state electric utility, will be the off-taker at Sarulla for a period of 30 years.

In addition to our equity holdings in the consortium, we designed the Sarulla plant and will supply our OECs to the power plant.

The project has missed a few milestones defined under the loan documents, but has received waivers from the lenders and as of now the project is in compliance with lenders requirements. The project is still experiencing delays in the field development and cost overruns resulting from delays and excess drilling costs. Due to the cost overrun in drilling, the lenders have requested from the sponsors to commit for additional equity. The sponsors have agreed and financing documents were revised to reflect this request. With respect to Ormat's role as a supplier, all contractual milestones under the supply agreement were achieved.

Tungsten (U.S.)

Location

Churchill County, Nevada

Projected Generating Capacity 24 MW

Projected Technology

The plant will utilize an air cooled binary system.

Condition

Field development of the Tungsten plant is ongoing and site construction has started. Production temperature is 274 degrees Fahrenheit with measured high permeability.

Subsurface Improvement

We have successfully drilled four production wells and three injection wells.

Land and Mineral Rights

The Tungsten area is comprised of BLM land.

Resource Information

The project exploits blind resource (no hot springs or fumaroles) in an area of complex faulting associated with the range front fault on the western side of Edwards Creek Valley. Wells are 1650 to 4500 feet deep.

Access to Property

Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.

Power Purchaser

Under negotiation.

Financing

Corporate funds during construction.

Supplemental Information

Commercial operation is expected by the end of 2017.

The following is a description of projects in California and Nevada with an expected total generating capacity of between 65 MW and 70 MW that are in an **initial stage of construction**:

Dixie Meadows (U.S.)

<i>Location</i>	Churchill County, Nevada
<i>Projected Generating Capacity</i>	15-20 MW
<i>Projected Technology</i>	The plant will utilize an air cooled binary system.
<i>Condition</i>	Field development of the Dixie Meadows plant is ongoing. Production temperature was 292 degrees Fahrenheit on a short flow test with measured high productivity.
<i>Subsurface Improvement</i>	We have successfully drilled one production well and one other which we are considering whether it will be used for injection or as a production well.
<i>Land and Mineral Rights</i>	The Dixie Meadows area is comprised of BLM and private land.
<i>Resource Information</i>	The resource is located in an area of complex faulting with fumaroles and numerous hot springs associated with faults on the western side of Dixie Valley. The production well is 4758 feet deep.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.
<i>Power Purchaser</i>	Under negotiation.
<i>Financing</i>	Corporate funds during construction.
<i>Supplemental Information</i>	Commercial operation is expected by the end of 2018.

Carson Lake Project (U.S.)

<i>Location</i>	Churchill County, Nevada
<i>Projected Generating Capacity</i>	20 MW
<i>Projected Technology</i>	The Carson Lake power plant will utilize a binary system.
<i>Condition</i>	Initial stage of construction.
<i>Subsurface Improvements</i>	We drilled one well in 2016 that did not meet the commercial criteria. However, this well provided us with more data on the resource. We are currently evaluating the next development steps for the project.
<i>Land and Mineral Rights</i>	The Carson Lake area is comprised of BLM leases. The leases are currently held by the payment of annual rental payments, as described above in “Description of Our Leases and Lands.” Unless steam is produced in commercial quantities, the primary term for these leases will expire commencing August 31, 2016. Ormat is considering extending the terms of the lease. The project’s rights to use the geothermal and surface rights under the leases are subject to various conditions, as described above in “Description of Our Leases and Lands”.

<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted in leases from BLM.
<i>Resource Information</i>	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
<i>Power Purchaser</i>	We have not executed a PPA.
<i>Financing</i>	Corporate funds.
<i>Projected Operation</i>	To be determined.

CD4 Project (Mammoth Complex) (U.S.)

<i>Location</i>	Mammoth Lakes, California
<i>Projected Generating Capacity</i>	30 MW
<i>Projected Technology</i>	The CD4 power plant will utilize an air cooled binary system.
<i>Condition</i>	Initial stage of construction.
<i>Subsurface Improvements</i>	We have completed one production well and one injection well. Continued drilling is subject to receipt of additional permits.
<i>Land and Mineral Rights</i>	The total Mammoth area is comprised mainly of BLM leases, which are held by production and are the subject of a unitization agreement.
<i>Access to Property</i>	Direct access to public roads from the leased property and access across the leased property are provided under surface rights granted pursuant to the leases.
<i>Resource Information</i>	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
<i>Power Purchaser</i>	We have not executed a PPA.
<i>Financing</i>	Corporate funds.
<i>Projected Operation</i>	To be determined.
<i>Supplemental Information</i>	As part of the process to secure a transmission line, we are participating in the Southern California Edison Wholesale Distribution Access Tariff Transition Cluster Generator Interconnection Process (WDAT LGIA) to deliver energy into the Southern California Edison system at the Casa Diablo Substation. Southern California Edison completed phase I and phase II cluster studies and the WDAT LGIA is being reviewed while re-evaluation of the system upgrades is being completed due to changes in the participants in the cluster study.

Future Projects

Projects under Various Stages of Development

We also have projects under various stages of development in the U.S., Guadeloupe and Kenya. We expect to continue to explore these and other opportunities for expansion so long as they continue to meet our business objectives and investment criteria.

The following is a description of the projects currently under various stages of development and for which we are able to estimate their expected generating capacity. Upon completion of these projects, the generating capacity of the geothermal projects would approximately 70 MW (representing our interest). However, we prioritize our investments based on their

readiness for continued construction and expected economics and therefore we are not planning to invest in all of such projects in 2017.

McGinness Hills Phase 3 (Nevada)

We are developing the 45 MW McGinness Hills phase 3 project that will be added to the McGinness Hills complex on BLM leases located in Lander County, Nevada. We started the drilling activity and we are in advanced stage of securing a PPA. We expect this project to come online either in 2018 or 2019.

Bouillante power plant (Guadeloupe Island)

We are planning to increase the capacity of the Bouillante project by an additional 5 MW to 10 MW. The power plant currently sells its electricity under a 15-year PPA that was entered into in February 2016 with EDF that allows us to sell up to 14.75MW.

Menengai Project (Kenya)

On November 3, 2014, our majority owned Kenyan subsidiary (the Project Company) owned by Ormat (51%), Symbion Power LLC (24.5%) and Civicon Ltd. (24.5%), signed a 25-year PPA with KPLC and a project implementation and steam supply agreement (PISSA) with GDC for the 35 MW Menengai geothermal project in Kenya.

Under the PISSA agreement, the Project Company will finance, design, construct, install, operate and maintain the 35MW Menengai steam plant on a build-own-operate (BOO) basis for 25 years. GDC, which is wholly owned by the Government of Kenya, will develop the geothermal resource, supply the steam for conversion to electricity and maintain the geothermal field through the term of the agreement. The Project Company expects to start construction upon financial closing.

Future Prospects

We have a substantial land position that is expected to support future development on which we have started or plan to start exploration activity. When deciding whether to continue holding lease rights and/or to pursue exploration activity, we diligently prioritize our prospective investments, taking into account resource and probability assessments in order to make informed decisions about whether a particular project will support commercial operations. As a result, during fiscal year 2016, we discontinued exploration activities at three prospects, including Kula in Hawaii, Aqua Quieta in Nevada and Sollipulli in Chile.

Our current land position is comprised of various leases, concessions and private land for geothermal resources of approximately 294,000 acres in 34 prospects including the following:

Nevada (15)

- | | |
|----------------------------------|--|
| 1. Alum | Exploration studies in progress; |
| 2. Baltazor | Exploration studies in progress; |
| 3. Colado | Exploration studies in progress; |
| 4. Dixie Comstock | Exploration studies in progress; |
| 5. Don A. Campbell - Phase 3 | Not pursuing at this time; |
| 6. Edwards Creek | Exploration studies in progress; |
| 7. Horsehaven (formerly Beowawe) | Exploration studies in progress; |
| 8. North Valley | Exploration studies in progress; |
| 9. New York Canyon | Exploration studies in progress; |
| 10. Pearl Hot Springs | Lease acquired but no further action has been taken yet; |
| 11. Ruby Valley | Lease acquired but no further action has been taken yet; |
| 12. Rhodes Marsh | Exploration studies in progress; |
| 13. South Brady | Exploration studies in progress; |
| 14. Trinity | Exploration studies in progress; and |
| 15. Tuscarora – Phase 2 | Assessment for future expansion. |

California (3)

- | | |
|---------------------|--------------------------------------|
| 1. Glamis | Exploration studies in progress; |
| 2. Rhyolite Plateau | Exploration studies in progress; and |
| 3. Truckhaven | Exploration studies in progress; |

Oregon (3)

- | | |
|----------------------------------|---|
| 1. Crump Geyser | Completed exploration studies. Started exploration drilling |
| 2. Glass Buttes - Midnight Point | Completed exploration studies. Started exploration drilling |
| 3. Lakeview/ Goose Lake | Completed exploration studies. Started exploration drilling |

New Mexico (1)

- | | |
|-----------|---|
| 1. Rincon | Completed exploration studies. Started exploration drilling |
|-----------|---|

Utah (2)

- | | |
|--------------------------|----------------------------------|
| 1. Pavant | Exploration studies in progress; |
| 2. Roosevelt Hot Springs | Exploration studies in progress; |

Guatemala (2)

- | | |
|-----------------------|--|
| 1. Amatitlan Phase II | Exploration studies in progress; and |
| 2. Tecumburu | Waiting for additional land acquisition. |

Guadeloupe (1)

- | | |
|---------------|---------------------------------|
| 1. Boiullante | Exploration studies in progress |
|---------------|---------------------------------|

New Zealand (1)

- | | |
|-------------|--|
| 1. Tikitere | Signed BOT agreement; exploratory drilling is pending resource consent acceptance. |
|-------------|--|

Indonesia (1)

- | | |
|------------|---------------------------------|
| 1. Ungaran | Exploration studies in progress |
|------------|---------------------------------|

Honduras (1)

- | | |
|----------------------------|----------------------------------|
| 1. San Ignacio (12 Tribes) | Exploration studies in progress; |
|----------------------------|----------------------------------|

Ethiopia (4)

- | | |
|-----------------|--------------------------------|
| 1. Boku | Under exploration studies; |
| 2. Dofan | Under exploration studies; |
| 3. Dugumo Fango | Under exploration studies; and |
| 4. Shashamane | Under exploration studies. |

We also have an option to enter into a geothermal lease in Oregon covering approximately 44,000 acres under a lease option agreement with Weyerhaeuser Company. We are currently exploring the following prospects:

- | | |
|-----------|----------------------------|
| 1. Winema | Under exploration studies. |
|-----------|----------------------------|

Operations of our Product Segment

Power Units for Geothermal Power Plants. We design, manufacture, and sell power units for geothermal electricity generation, which we refer to as OECs. Our customers include contractors and geothermal plant owners and operators.

The power units are usually paid for in installments, in accordance with milestones set in the supply agreement. Sometimes we agree to provide the purchaser with spare parts (or alternatively, with a non-exclusive license to manufacture such parts). We provide the purchaser with at least a 12-month warranty for such products. We usually also provide the purchaser (often, upon receipt of advances made by the purchaser) with a guarantee, which expires in part upon delivery of the equipment to the site and fully expires at the termination of the warranty period. The guarantees are typically supported by letters of credit.

Power Units for Recovered Energy-Based Power Generation. We design, manufacture, and sell power units used to generate electricity from recovered energy or so-called “waste heat”. Our existing and target customers include interstate natural gas pipeline owners and operators, gas processing plant owners and operators, cement plant owners and operators, and other companies engaged in other energy-intensive industrial processes. We have two different business models for this product line.

- The first business model, which is similar to the model utilized in our geothermal power generation business, consists of the development, construction, ownership, and operation of recovered energy-based generation power plants. In this case, we will enter into agreements to purchase industrial waste heat, and enter into long-term PPAs with off-takers to sell the electricity generated by the REG unit that utilizes such industrial waste heat. The power purchasers in such cases generally are investor-owned electric utilities or local electrical cooperatives. This is the business model for our OREG 1, 2, 3 and 4 power plants.
- Pursuant to the second business model, we construct and sell the power units for recovered energy-based power generation to third parties for use in “inside-the-fence” installations or otherwise. Our customers include gas processing plant owners and operators, cement plant owners and operators and companies in the process industry.

Remote Power Units and other Generators. We design, manufacture and sell fossil fuel powered turbo-generators with capacities ranging from 200 watts to 5,000 watts, which operate unattended in extreme hot or cold climate conditions. The remote power units supply energy for remote and unmanned installations and along communications lines, and cathodic protection along gas and oil pipelines. Our customers include contractors installing gas pipelines in remote areas. In addition, we manufacture and sell generators, including heavy duty direct current generators, for various other uses. The terms of sale of the turbo-generators are similar to those for the power units we produce for power plants.

EPC of Power Plants. We engineer, procure and construct, as an EPC contractor, geothermal and recovered energy power plants on a turnkey basis, using power units we design and manufacture. Our customers are geothermal power plant owners as well as our target customers for the sale of our recovered-energy based power units described above. Unlike many other companies that provide EPC services, we believe we have an advantage in that we are using our own manufactured equipment and thus have better quality and better control over the timing and delivery of required equipment and its related costs. The consideration for such services is usually paid in installments, in accordance with milestones set in the EPC contract and related documents. We usually provide performance guarantees or letters of credit securing our obligations under the contract. Upon delivery of the plant to its owner, such guarantees are replaced with a warranty guarantee, usually for a period ranging from 12 months to 36 months. The EPC contract usually places a cap on our liabilities for failure to meet our obligations thereunder.

In connection with the sale of our power units for geothermal power plants, power units for recovered energy-based power generation, remote power units and other generators, we enter, from time to time, into sales agreements with sales representatives for the marketing and sale of such products pursuant to which we are obligated to pay commissions to such representatives upon the sale of our products in the relevant territory covered by such agreements by such representatives or, in some cases, by other representatives in such territory.

Our manufacturing operations and products are certified ISO 9001, ISO 14001, American Society of Mechanical Engineers, and TÜV, and we are an approved supplier to many electric utilities around the world.

Backlog

We have a product backlog of approximately \$251.0 million as of February 27, 2017, which includes revenues for the period between January 1, 2017 and February 27, 2017, compared to \$256.3 million as of February 23, 2016, which included revenues for the period between January 1, 2016 and February 23, 2016.

The following is a breakdown of the Product segment backlog as of February 27, 2017 (\$ in millions):

	Expected Completion of the Contract	Sales Expected to be Recognized in 2017	Sales Expected to be Recognized in the years following 2017	Expected Until End of Contract
Geothermal.....	2018	217.3 - 227.3	21.0 - 31.0	248.3
Recovered Energy	2017	0.4	—	0.4
Remote Power Units	2017	1.6	—	1.6
Other.....	2017	0.7	—	0.7
Total		220.0 - 230.0	21.0 - 31.0	251.0

Competition

In our Electricity segment, we face competition from geothermal power plant owners and developers as well as other renewable energy providers.

In our Product segment, we face competition from power plant equipment manufacturers or system integrators and from engineering or projects management companies.

As we implement our new strategic plan, we will face competition from a number of sources, many of which may have resources, industry experience, market acceptance or other advantages we do not have. For example, expanding into new technologies, such as energy storage, or markets, such as C&I will involve competition both from companies that already have established businesses in those technologies and markets, other companies seeking to acquire established businesses and other new market entrants like us.

Electricity Segment

Competition in the Electricity segment is particularly marked in the very early stage of either obtaining the rights to the resource for the development of future projects or acquiring a site already in a more advanced stage of development. Once we or other developers obtained such rights or own a power plant, competition is limited. From time to time and in different jurisdictions competing geothermal developers become our customers in the Product segment.

The main companies competing with us in the geothermal sector in the U.S. are CalEnergy, Calpine Corporation, TerraGen Power LLC, Enel Green Power S.p.A and other smaller pure play developers. Outside the U.S., in many cases our competitors are companies that are gaining experience developing geothermal projects in their own countries such as Mercury (formerly Mighty River Power) and Contact Energy in New Zealand, and local developers and steam turbine manufacturers in Indonesia. Some of our competitors are now seeking to take the local experience they have gained and develop geothermal projects in other countries. These competitors include Energy Development Corporation from the Philippines and Enel Green Power from Italy. Some Turkish developers are also focusing on the international market. Additionally, we see competition from small country-specific companies.

In obtaining new PPAs, we also face competition from companies engaged in the power generation business from other renewable energy sources, such as wind power, biomass, solar power and hydro-electric power. In the last few years, competition from the wind and solar power generation industries has increased significantly.

As a geothermal company, we are focused on niche markets where our site-specific and base load advantages can allow us to develop competitive projects.

In the demand response and energy storage markets, VEI competes primarily with specialized demand management providers rather than with the traditional curtailment service providers. VIE differentiates itself from its competitors with its proprietary software and analytical strengths, wider use cases, customer base, business model, market presence and in other aspects of its business.

The storage space is comprised of many players which are divided into different verticals and sub verticals like OEMs, integrators, battery management systems, energy management systems, battery producers, power conversion systems, DER system design and optimization, micro grids design, monitoring and control and companies that are realizing storage assets' economic value through the optimization of storage assets' operation in real time electricity markets. VEI's proprietary software, analytical operational platform and significant differentiated experience in storage operation and integration with electricity markets, allow VEI to provide multiple value streams (value stacking) from a single storage installation. We expect to continue and grow VEI's business following the completion of the acquisition of VEI's business and assets by our subsidiary Viridity.

Product Segment

Our competitors among power plant equipment suppliers are divided into high enthalpy and low enthalpy competitors. Our main high enthalpy competitors are industrial steam turbine manufacturers such as Mitsubishi Hitachi Power Systems, Fuji Electric Co., Ltd. and Toshiba of Japan, GE/Nuovo Pignone brand and Ansaldo Energia of Italy. As noted above, we recently signed a strategic collaboration agreement with one of these competitors, Toshiba Corporation.

Our low enthalpy competitors are binary systems manufacturers using the Organic Rankine Cycle such as Fuji Electric Co., Ltd of Japan, Atlas Copco Company, Exergy of Italy, and Mitsubishi Hitachi Power Systems (which acquired Turboden). While we believe that we have a distinct competitive advantage based on our accumulated experience and current worldwide share of installed binary generation capacity (which is approximately 85%), an increase in competition, which we are currently experiencing, has started to impact our ability to secure new purchase orders from potential customers. The increased competition led to a reduction in the prices that we are able to charge for our binary equipment, which in turn impacted our profitability.

In the REG business, our competitors are other Organic Rankine Cycle manufacturers (such as GE and Mitsubishi/Turboden), manufacturers that use Kalina technology (such as Geothermal Energy Research & Development Co., Ltd in Japan), as well as other manufacturers of conventional steam turbines.

In the remote power unit business, we face competition from Global Thermoelectric, as well as from manufacturers of diesel generator sets and small wind and solar installations with batteries.

Currently, none of our competitors compete with us in both the Electricity and the Product segments.

In the case of proposed EPC projects we also compete with other service suppliers, such as project/engineering companies.

Customers

All of our revenues from the sale of electricity in the year ended December 31, 2016 were derived from fully-contracted energy and/or capacity payments under long-term PPAs with governmental and private utility entities. Southern California Edison, Sierra Pacific Power Company and Nevada Power Company (subsidiaries of NV Energy), HELCO, SCPPA and KPLC accounted for 5.1%, 19.2%, 4.4%, 10.2% and 16.5% of total revenues, respectively, for the year ended December 31, 2016.

Based on publicly available information, as of December 31, 2016, the issuer ratings of Southern California Edison, HELCO, Sierra Pacific Power Company, Nevada Power Company, SCPPA, Pacific Gas & Electric and EDF were as set forth below:

<u>Issuer</u>	<u>Standard & Poor's Ratings Services</u>	<u>Moody's Investors Service Inc.</u>
Southern California Edison	BBB+ (stable outlook)	A2 (stable outlook)
HELCO	BBB- (stable outlook)	Rating withdrawn
Sierra Pacific Power Company	A (stable outlook)	Baa1 (stable outlook)
Nevada Power Company	A (stable outlook)	Baa1 (stable outlook)
SCPPA	BBB+ (stable outlook)	Aa3 (stable outlook)
Pacific, Gas and Electric	BBB+ (Positive outlook)	A3 (positive outlook)
EDF	A-(stable outlook)	Aa3 (stable outlook)

The credit ratings of any power purchaser may change from time to time. There is no publicly available information with respect to the credit rating or stability of the power purchasers under the PPAs for our foreign power plants.

Our revenues from the Product segment are derived from contractors or owners or operators of power plants, process companies, and pipelines.

Raw Materials, Suppliers and Subcontractors

In connection with our manufacturing activities, we use raw materials such as steel and aluminum. We do not rely on any one supplier for the raw materials used in our manufacturing activities, as all of these raw materials are readily available from various suppliers.

We use subcontractors for some of the manufacturing of our products components and for construction activities of our power plants, which allows us to expand our construction and development capacity on an as-needed basis. We are not dependent on any one subcontractor and expect to be able to replace any subcontractor, or assume such manufacturing and construction activities of our projects ourselves, without adverse effect to our operations.

Employees

As of December 31, 2016, we employed 1,180 employees, of which 474 were located in the U.S., 566 were located in Israel and 140 were located in other countries. We expect that future growth in the number of our employees will be mainly attributable to the purchase and/or development of new power plants.

As of the date of this report, the only employees that are represented by a labor union are the employees of the recent acquired Bouillante power plant located in the Guadeloupe Island. The employees in Guadeloupe are represented by the Confédération Générale du Travail de Guadeloupe. We have never experienced any labor dispute, strike or work stoppage. We consider our relations with our employees to be satisfactory. We believe our future success will depend on our continuing ability to hire, integrate, and retain qualified personnel.

In the U.S., we currently do not have employees represented by unions recognized by the Company under collective bargaining agreements. However, a union filed a petition with the NLRB seeking to organize the operations and maintenance employees at the Puna project. A global settlement was reached in principle in February 2016 and all issues were settled and closed.

We have no collective bargaining agreements with respect to our Israeli employees. However, by order of the Israeli Ministry of Economy and Industry, the provisions of a collective bargaining agreement between the Histadrut (the General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations (which includes the Industrialists Association) may apply to some of our Israeli non-managerial, finance and administrative, and sales and marketing personnel. This collective bargaining agreement principally concerns cost of living pay increases, length of the workday, minimum wages and insurance for work-related accidents, annual and other vacation, sick pay, and determination of severance pay, pension contributions, and other conditions of employment. We currently provide such employees with benefits and working conditions, which are at least as favorable as the conditions specified in the collective bargaining agreement.

Insurance

We maintain business interruption insurance, casualty insurance, including flood, volcanic eruption, earthquake and cyber coverage, and primary and excess liability insurance, control of wells, construction all risk, as well as customary worker's compensation and automobile, marine transportation insurance and such other commercial insurance, if any, as is generally carried by companies engaged in similar businesses and owning similar properties in the same general areas or as may be required by any of our PPAs, or any lease, financing arrangement, or other contract. To the extent any such casualty insurance covers both us and/or our power plants, and any other person and/or plants, we generally have specifically designated as applicable solely to us and our power plants "all risk" property insurance coverage in an amount based upon the estimated full replacement value of our power plants (provided that earthquake, volcanic eruption and flood coverage may be subject to annual aggregate limits depending on the type and location of the power plant) and business interruption insurance in an amount that also varies from power plant to power plant.

We generally purchase insurance policies to cover our exposure to certain political risks involved in operating in developing countries. Political risk insurance policies are generally issued by entities which specialize in such policies, such as MIGA (a member of the World Bank Group), or by private sector providers, such as Lloyd Syndicates, Zurich Emerging Markets and other such companies. To date, all of our political risk insurance contracts are with the Multilateral Investment Guarantee Agency and with Zurich Emerging Markets. Currently we hold such insurance for our Zunil and Olkaria operating power plants, and for the Sarulla project, which is under construction. Such insurance policies generally cover, subject to the limitations and restrictions contained therein, losses derived from a specified governmental act, such as confiscation, expropriation, riots, and the inability to convert local currency into hard currency and, in certain cases, the breach of agreements with governmental entities, up to approximately 90% of our net equity investment.

Regulation of the Electric Utility Industry in the United States

The following is a summary overview of the electric utility industry and applicable federal and state regulations, and should not be considered a full statement of the law or all issues pertaining thereto.

PURPA

PURPA provides the owners of power plants certain benefits described below if a power plant is a "Qualifying Facility". A small power production facility is a Qualifying Facility if: (i) the facility does not exceed 80 MW; (ii) the primary energy source of the facility is biomass, waste, renewable resources, or any combination thereof, and at least 75% of the total energy input of the facility is from these sources, and fossil fuel input is limited to specified uses; and (iii) the facility, if larger than one megawatt, has filed with FERC a notice of self-certification of qualifying status, or has filed with FERC an application for FERC certification of qualifying status that has been granted. The 80 MW size limitation, however, does not apply to a facility if (i) it produces electric energy solely by the use, as a primary energy input, of solar, wind, waste or geothermal resources; and (ii) an application for certification or a notice of self-certification of qualifying status of the facility was submitted to FERC prior to December 21, 1994, and construction of the facility commenced prior to December 31, 1999.

FERC's regulations under PURPA exempt owners of small power production Qualifying Facilities that use geothermal resources as their primary source and other Qualifying Facilities that are 30 MW or under in size from regulation under the PUHCA 2005, from many provisions of the FPA and from state laws relating to the financial, organization and rate regulation of electric utilities.

With respect to the FPA, FERC's regulations under PURPA do not exempt from the rate provisions of the FPA sales of energy or capacity from Qualifying Facilities larger than 20 MW in size that are made (a) pursuant to a contract executed after March 17, 2006 that is not a contract made pursuant to a state regulatory authority's implementation of PURPA or (b) not pursuant to another provision of a state regulatory authority's implementation of PURPA. The practical effect of these regulations is to require owners of Qualifying Facilities that are larger than 20 MW in size to obtain market-based rate authority from FERC if they seek to sell energy or capacity other than pursuant to a contract executed before March 17, 2006 pursuant to a state regulatory authority's implementation of PURPA or pursuant to a provision of a state regulatory authority's implementation of PURPA. Until that contract expires, is terminated or is materially modified, a Qualifying Facility, under a PURPA contract executed prior to March 17, 2006, will not be required to file for authorization to charge for market based rates.

In addition, PURPA and FERC's regulations under PURPA require that electric utilities offer to purchase electricity generated by Qualifying Facilities at a rate based on the purchasing utility's incremental cost of purchasing or producing energy (also known as "avoided cost"). However, FERC's regulations under PURPA also allow FERC, upon request of a

utility, to terminate a utility's obligation to purchase energy from Qualifying Facilities upon a finding that Qualifying Facilities have nondiscriminatory access to either: (i) independently administered, auction-based day ahead, and real time markets for energy and wholesale markets for long-term sales of capacity; (ii) transmission and interconnection services provided by a FERC-approved regional transmission entity and administered under an open-access transmission tariff that affords nondiscriminatory treatment to all customers, and competitive wholesale markets that provide a meaningful opportunity to sell capacity and energy, including long and short term sales; or (iii) wholesale markets for the sale of capacity and energy that are at a minimum of comparable competitive quality as markets described in (i) and (ii) above. FERC regulations protect a Qualifying Facility's rights under any contract or obligation involving purchases or sales that are entered into before FERC has determined that the contracting utility is entitled to relief from the mandatory purchase obligation. FERC has granted the request of California investor-owned utilities for a waiver of the mandatory purchase obligation for Qualifying Facilities larger than 20 MW in size, and is currently re-evaluating the 20 MW threshold for such waiver as well as other aspects of its PURPA regulations.

We expect that our power plants in the U.S will continue to meet all of the criteria required for Qualifying Facilities under PURPA. However, since the Heber power plants have PPAs with Southern California Edison that require Qualifying Facility status to be maintained, maintaining Qualifying Facility status remains a key obligation. If any of the Heber power plants loses its Qualifying Facility status our operations could be adversely affected. Loss of Qualifying Facility status would eliminate the Heber power plants' exemption from the FPA and thus, among other things, the rates charged by the Heber power plants in the PPAs with Southern California Edison and SCPPA would become subject to FERC regulation. Further, it is possible that the utilities that purchase power from the power plants could successfully obtain a waiver of the mandatory-purchase obligation in their service territories. For example, the three California investor-owned utilities have received such a waiver from FERC for projects larger than 20 MW. If this occurs or if FERC reduces the 20 MW threshold or eliminates the mandatory purchase obligation, the power plants' existing PPAs will not be affected, but the utilities will not be obligated under PURPA to renew or extend these PPAs or execute new PPAs upon the existing PPAs' expiration, if the size is above the waiver threshold.

PUHCA

Under PUHCA 2005, the books and records of a utility holding company, its affiliates, associate companies, and subsidiaries are subject to FERC and state commission review with respect to transactions that are subject to the jurisdiction of either FERC or the state commission or costs incurred by a jurisdictional utility in the same holding company system. However, if a company is a utility holding company solely with respect to Qualifying Facilities, exempt wholesale generators, or foreign utility companies, it will not be subject to review of books and records by FERC under PUHCA 2005. Qualifying Facilities or exempt wholesale generators that make only wholesale sales of electricity are not subject to state commissions' rate regulations and, therefore, in all likelihood would not be subject to any review of their books and records by state commissions pursuant to PUHCA 2005 as long as the Qualifying Facility is not part of a holding company system that includes a utility subject to regulation in that state.

FPA

Pursuant to the FPA, FERC has exclusive jurisdiction over the rates for most wholesale sales of electricity and transmission in interstate commerce. These rates may be based on a cost of service approach or may be determined on a market basis through competitive bidding or negotiation. FERC's regulations under PURPA exempt owners of small power production Qualifying Facilities that use geothermal resources as their primary source and other Qualifying Facilities that are 30 MW or under in size from many provisions of the FPA. If any of the power plants were to lose its Qualifying Facility status, such power plant could become subject to the full scope of the FPA and applicable state regulations. The application of the FPA and other applicable state regulations to the power plants could require our power plants to comply with an increasingly complex regulatory regime that may be costly and greatly reduce our operational flexibility. Even if a power plant does not lose Qualifying Facility status, if a PPA with a power plant expires, is terminated or is materially modified, the owner of a Qualifying Facility power plant in excess of 20 MW will become subject to rate regulation under the Federal Power Act.

If a power plant in the U.S. were to become subject to FERC's ratemaking jurisdiction under the FPA as a result of loss of Qualifying Facility status and the PPA remains in effect, FERC may determine that the rates currently set forth in the PPA are not just and reasonable and may set rates that are lower than the rates currently charged. In addition, FERC may require that the power plant refund a portion of amounts previously paid by the relevant power purchaser to such power plant. Such events would likely result in a decrease in our future revenues or in an obligation to disgorge revenues previously earned by from the power plant, either of which would have an adverse effect on our revenues.

Moreover, the loss of the Qualifying Facility status of any of our power plants selling energy to Southern California Edison could also permit Southern California Edison, pursuant to the terms of its PPA, to cease taking and paying for electricity from the relevant power plant and to seek refunds for past amounts paid and/or a reduction in future payments. In addition, the loss of any such status would result in the occurrence of an event of default under the indenture for the OFC Senior Secured Notes and the OrCal Senior Secured Notes and hence would give the indenture trustee the right to exercise remedies pursuant to the indenture and the other financing documents.

State Regulation

Our power plants in California and Nevada, by virtue of being Qualifying Facilities that make only wholesale sales of electricity, are not subject to rate, financial and organizational regulations applicable to electric utilities in those states. The power plants each sell or will sell their electrical output under PPAs to electric utilities (Sierra Pacific Power Company, Nevada Power Company, Southern California Edison or SCPPA). All of the utilities except SCPPA are regulated by their respective state public utilities commissions. Sierra Pacific Power Company and Nevada Power Company, which merged and are doing business as NV Energy, are regulated by the PUCN. Southern California Edison is regulated by the CPUC.

Under Hawaii law, non-fossil generators are not subject to regulation as public utilities. Hawaii law provides that a geothermal power producer is to negotiate the rate for its output with the public utility purchaser. If such rate cannot be determined by mutual accord, the PUCH will set a just and reasonable rate. If a non-fossil generator in Hawaii is a Qualifying Facility, federal law applies to such Qualifying Facility and the utility is required to purchase the energy and capacity at its avoided cost. The rates for our power plant in Hawaii are established under a long-term PPA with HELCO.

Environmental Permits

U.S. environmental permitting regimes with respect to geothermal projects center upon several general areas of focus. The first involves land use approvals. These may take the form of Special Use Permits or Conditional Use Permits from local planning authorities or a series of development and utilization plan approvals and right of way approvals where the geothermal facility is entirely or partly on BLM or U.S. Forest Service lands. Certain federal approvals require a review of environmental impacts in conformance with the federal National Environmental Policy Act. In California, some local permit approvals require a similar review of environmental impacts under a state statute known as the California Environmental Quality Act. These federal and local land use approvals typically impose conditions and restrictions on the construction, scope and operation of geothermal projects.

The second category of permitting focuses on the installation and use of the geothermal wells themselves. Geothermal projects typically have three types of wells: (i) exploration wells designed to define and verify the geothermal resource, (ii) production wells to extract the hot geothermal liquids (also known as brine) for the power plant, and (iii) injection wells to inject the brine back into the subsurface resource. For example, in Nevada and on BLM lands, the well permits take the form of geothermal drilling permits for well installation. Approvals are also required to modify wells, including for use as production or injection wells. For all wells drilled in Nevada, a geothermal drilling permit must be obtained from the Nevada Division of Minerals. Those wells in Nevada to be used for injection will also require Underground Injection Control permits from the Nevada Division of Environmental Protection. Geothermal wells on private lands in California require drilling permits from the California Department of Conservation's DOGGR. The eventual designation of these installed wells as individual production or injection wells and the ultimate closure of any wells is also reviewed and approved by DOGGR pursuant to a DOGGR-approved Geothermal Injection Program.

A third category of permits involves the regulation of potential air emissions associated with the construction and operation of wells and power plants and surface water discharges associated with construction and operations activities. Generally, each well and plant requires a preconstruction air permit and storm water discharge permit before earthwork can commence. In addition, in some jurisdictions the wells that are to be used for production require and those used for injection may require air emissions permits to operate. Internal combustion engines and other air pollutant emissions sources at the projects may also require air emissions permits. For our projects, these permits are typically issued at the state or county level. Permits are also required to manage storm water during project construction and to manage drilling muds from well construction, as well as to manage certain discharges to surface impoundments, if any.

A fourth category of permits, that are required in both California and Nevada, includes ministerial permits such as building permits, hazardous materials storage and management permits, and pressure vessel operating permits. We are also required to obtain water rights permits in Nevada. In addition to permits, there are various regulatory plans and programs that are required, including risk management plans (federal and state programs) and hazardous materials management plans (in California).

In some cases our projects may also require permits, issued by the applicable federal agencies or authorized state agencies, regarding threatened or endangered species, permits to impact wetlands or other waters and notices of construction of structures which may have an impact on airspace. Environmental laws and regulations may change in the future, which may lead to increases in the time to receive such permits and associated costs of compliance.

As of the date of this report, all of the material environmental permits and approvals currently required for our operating power plants have been obtained. We are currently experiencing regulatory delays in obtaining various environmental permits and approvals required for projects in development and construction. These delays may lead to increases in the time and cost to complete these projects. Our operations are designed and conducted to comply with applicable environmental permit and approval requirements. Non-compliance with any such requirements could result in fines and penalties, and could also affect our ability to operate the affected project.

Environmental Laws and Regulations

Our facilities and operations are subject to a number of environmental laws and regulations relating to development, construction and operation. In the U.S, these may include the Clean Air Act, the Clean Water Act, the Emergency Planning and Community Right-to-Know Act, the Endangered Species Act, the National Environmental Policy Act, the Resource Conservation and Recovery Act, and related state laws and regulations.

Our geothermal operations involve significant quantities of brine (substantially, all of which we reinject into the subsurface) and scale, both of which can contain materials (such as arsenic, antimony, lead, and naturally occurring radioactive materials) in concentrations that exceed regulatory limits used to define hazardous waste. We also use various substances, including isopentane and industrial lubricants that could become potential contaminants and are generally flammable. Hazardous materials are also used in our equipment manufacturing operations in Israel. As a result, our projects are subject to domestic and foreign federal, state and local statutory and regulatory requirements regarding the use, storage, fugitive emissions, and disposal of hazardous substances. The cost of investigation and removal or remediation activities associated with a spill or release of such materials could be significant.

Although we are not aware of any mismanagement of these materials, including any mismanagement prior to the acquisition of some of our power plants, that has materially impaired any of the power plant sites, any disposal or release of these materials onto the power plant sites, other than by means of permitted injection wells, could lead to contamination of the environment and result in material cleanup requirements or other responsive obligations under applicable environmental laws. We believe that at one time there may have been a gas station located on the Mammoth complex site, but because of significant surface disturbance and construction since that time further physical evaluation of the environmental condition of the former gas station site has been impractical. We believe that, given the subsequent surface disturbance and construction activity in the vicinity of the suspected location of the service station, it is likely that environmental contamination, if any, associated with the former facilities and any associated underground storage tanks would have already been encountered if they still existed.

Regulation Related to New Activity

Our recent entry into the energy storage space and planned provision of energy management, demand response and load shedding services require us to obtain and maintain certain additional authorizations and approvals. These include (1) authorization from FERC to make wholesale sales of power, capacity, and ancillary services at market-based rates, and (2) membership status with eligibility to serve designated contractual functions in the RTOs of PJM PJM, the NYISO, and the ERCOT. In the future, we may need to obtain and maintain similar membership and eligibility status with other RTOs in order to offer such services in their respective areas.

Regulation of the Electric Utility Industry in our Foreign Countries of Operation

The following is a summary overview of certain aspects of the electric industry in the foreign countries in which we have an operating geothermal power plant. As such, it should not be considered a full statement of the laws in such countries or all of the issues pertaining thereto.

Guatemala. The General Electricity Law of 1996, Decree 93-96, created a wholesale electricity market in Guatemala and established a new regulatory framework for the electricity sector. The law created a new regulatory commission, the CNEE, and a new wholesale power market administrator, the AMM, for the regulation and administration of the sector. The AMM is a private not-for-profit entity. The CNEE functions as an independent agency under the Ministry of Energy and Mines and is in charge of regulating, supervising, and controlling compliance with the electricity law, overseeing the market

and setting rates for transmission services, and distribution to medium and small customers. All distribution companies must supply electricity to such customers pursuant to long-term contracts with electricity generators. Large customers can contract directly with the distribution companies, electricity generators or power marketers, or buy energy in the spot market. Guatemala has approved a Law of Incentives for the Development of Renewable Energy Power plants, Decree 52-2003, in order to promote the development of renewable energy power plants in Guatemala. This law provides certain benefits to companies utilizing renewable energy, including a 10-year exemption from corporate income tax and VAT on imports and customs duties. On September 16, 2008, CNEE issued a resolution which approved the Technical Norms for the Connection, Operation, Control and Commercialization of the Renewable Distributed Generation and Self-producers Users with Exceeding Amounts of Energy. This Technical Norm was created to regulate all aspects of generation, connection, operation, control and commercialization of electric energy produced with renewable sources to promote and facilitate the installation of new generation plants, and to promote the connection of existing generation plants which have exceeding amounts of electric energy for commercialization. It is applicable to projects with a capacity of up to 5 MW.

Kenya. The electric power sector in Kenya is regulated by the Kenyan Energy Act. Among other things, the Kenyan Energy Act provides for the licensing of electricity power producers and public electricity suppliers or distributors. KPLC is the only licensed public electricity supplier and has a monopoly in the distribution of electricity in the country. The Kenyan Energy Act permits IPPs to install power generators and sell electricity to KPLC, which is owned by various private and government entities, and which currently purchases energy and capacity from other IPPs in addition to our Olkaria III complex. The electricity sector is regulated by the ERC which was created under the Kenyan Energy Act. KPLC's retail electricity rates are subject to approval by the ERC. The ERC has an expanded mandate to regulate not just the electric power sector but the entire energy sector in Kenya. Transmission of electricity is now undertaken by KETRACO while another company, GDC, is responsible for geothermal assessment, drilling of wells and sale of steam for electricity operations to IPPs and KenGen. Both KETRACO and GDC are wholly owned by the government of Kenya. Under the new national constitution enacted in August 2010, formulation of energy policy (including electricity) and energy regulation are functions of the national government. However, the constitution lists the planning and development of electricity and energy regulation as a function of the county governments (i.e. the regional or local level where an individual power plant is or is intended to be located).

Indonesia. The 2009 Electricity Law divided the power business into two broad categories: (1) the activities supply electrical power (both public supply and captive supply (own use) such as electrical power generation, electrical power transmission, electrical power distribution and the sale of electrical power; (2) the activities involved in electrical power support such as service businesses (consulting, construction, installation, operation & maintenance, certification & training, testing etc) and industry businesses (power tools & power equipment supply). The power generation is dominated by PLN (state owned company) which controls around 70% of generating assets in Indonesia. Private sector participation is allowed through IPPs arrangement. IPP appointment is most often through tender although IPPs can be directly appointed or selected. The law provides PLN with priority rights to conduct its business throughout Indonesia. As the sole owner of transmission and distribution assets, PLN remains the only business entity involved in transmitting and distributing although the Law allows for private participation. While the 2014 Geothermal Law endorses private participation as the Geothermal IPP. The Geothermal IPP appointment is through tender held by Central Government. The Central Government also awards the tender winner a Geothermal License, accordingly the Geothermal License holder shall conduct exploration and feasibility study within 5 years plus two times one-year extension, shall do well development and power plant construction and may sell the electricity power into PLN for maximum 30 years. Prior the License expiration, The IPP can propose to extend for another 20 years. To encourage the private participation as a geothermal IPP, the Central Government plans to apply Feed in Tariff in near future.

Guadeloupe. EDF is the transmission and distribution utility in Guadeloupe and also operates a significant portion of the island's fossil energy generation. There are also a number of IPPs in Guadeloupe, primarily producing renewable electricity. The electricity sector in Guadeloupe is regulated by the Commission Regulation of Energy (CRE), which also regulates EDF's operations in mainland France and its other overseas territories. The electricity sector has some enabling features for renewable energy but also several obstacles. One of the biggest support mechanisms is a French law requiring the utility to purchase power from any interconnected renewable generator. The major obstacle preventing further uptake of renewable electricity generation is the cap on variable generation at 30% of instantaneous system load.

ITEM 1A. RISK FACTORS

Because of the following factors, as well as other variables affecting our business, operating results or financial condition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods.

Our financial performance depends on the successful operation of our geothermal power and REG plants, which is subject to various operational risks.

Our financial performance depends on the successful operation of our subsidiaries' geothermal and REG power plants. In connection with such operations, we derived approximately 65.8% of our total revenues for the year ended December 31, 2016 from the sale of electricity. The cost of operation and maintenance and the operating performance of our subsidiaries' geothermal power and REG plants may be adversely affected by a variety of factors, including some that are discussed elsewhere in these risk factors and the following:

- regular and unexpected maintenance and replacement expenditures;
- shutdowns due to the breakdown or failure of our equipment or the equipment of the transmission serving utility;
- labor disputes;
- the presence of hazardous materials on our power plant sites;
- continued availability of cooling water supply;
- catastrophic events such as fires, explosions, earthquakes, volcanic activity, landslides, floods, releases of hazardous materials, severe weather storms, or similar occurrences affecting our power plants or any of the power purchasers or other third parties providing services to our power plants; and
- the aging of power plants (which may reduce their availability and increase the cost of their maintenance).

Any of these events could significantly increase the expenses incurred by our power plants or reduce the overall generating capacity of our power plants and could significantly reduce or entirely eliminate the revenues generated by one or more of our power plants, which in turn would reduce our net income and could materially and adversely affect our business, financial condition, future results and cash flow.

As mentioned above, the aging of our power plants may reduce their availability and increase maintenance costs due to the need to repair or replace our equipment.

Our exploration, development, and operation of geothermal energy resources are subject to geological risks and uncertainties, which may result in decreased performance or increased costs for our power plants.

Our primary business involves the exploration, development, and operation of geothermal energy resources. These activities are subject to uncertainties that, in certain respects, are similar to those typically associated with oil and gas exploration, development, and exploitation, such as dry holes, uncontrolled releases, and pressure and temperature decline. Any of these uncertainties may increase our capital expenditures and our operating costs, or reduce the efficiency of our power plants. We may not find geothermal resources capable of supporting a commercially viable power plant at exploration sites where we have conducted tests, acquired land rights, and drilled test wells, which would adversely affect our development of geothermal power plants. Further, since the commencement of their operations, several of our power plants have experienced geothermal resource cooling uncontrolled flow and/or reservoir pressure decline in the normal course of operations. For example, some of Brady's production wells have cooled significantly due to breakthrough from injection wells. Because geothermal reservoirs are complex geological structures, we can only estimate their geographic area and sustainable output. The viability of geothermal power plants depends on different factors directly related to the geothermal resource (such as the temperature, pressure, storage capacity, transmissivity, and recharge) as well as operational factors relating to the extraction or reinjection of geothermal fluids. For example, at our North Brawley power plant, instability of the sands and clay in the geothermal resource and variability in the chemical composition of the geothermal fluid have all combined to increase our capital expenditures for the plant, as well as our ongoing operating expenses, and have so far prevented the plant from operation at its intended design capacity. Another example is the Sarulla project, where we are both

an equity investor and equipment supplier, which has experienced delays and budget cost overruns in the drilling program. Our geothermal energy power plants may also suffer an unexpected decline in the capacity of their respective geothermal wells and are exposed to a risk of geothermal reservoirs not being sufficient for sustained generation of the electrical power capacity desired over time.

Another aspect of geothermal operations is the management and stabilization of subsurface impacts caused by fluid injection pressures of production and injection fluids to mitigate subsidence. In the case of the geothermal resource supplying the Heber complex, pressure drawdown in the center of the well field has caused some localized ground subsidence, while pressure in the peripheral areas has caused localized ground inflation. Inflation and subsidence, if not controlled, can adversely affect farming operations and other infrastructure at or near the land surface. Potential costs, which cannot be estimated and may be significant, of failing to stabilize site pressures in the Heber complex area include repair and modification of gravity-based farm irrigation systems and municipal sewer piping and possible repair or replacement of a local road bridge spanning an irrigation canal.

Additionally, active geothermal areas, such as the areas in which our power plants are located, are subject to frequent low-level seismic disturbances, volcanic eruptions and lava flows. Serious seismic disturbances, volcanic eruptions and lava flows are possible and could result in damage to our power plants (or transmission lines used by customers who buy electricity from us) or equipment or degrade the quality of our geothermal resources to such an extent that we could not perform under the PPA for the affected power plant, which in turn could reduce our net income and materially and adversely affect our business, financial condition, future results and cash flow. If we suffer a serious seismic disturbance, volcanic eruptions and lava flows, our business interruption and property damage insurance may not be adequate to cover all losses sustained as a result thereof. In addition, insurance coverage may not continue to be available in the future in amounts adequate to insure against such seismic disturbances, volcanic eruptions and lava flows.

Furthermore, absent additional geologic/hydrologic studies, any increase in power generation from our geothermal power plants, failure to reinject the geothermal fluid or improper maintenance of the hydrological balance may affect the operational duration of the geothermal resource and cause it to decline in value over time, and may adversely affect our ability to generate power from the relevant geothermal power plant.

Reduced levels of recovered energy required for the operation of our REG power plants may result in decreased performance of such power plants.

Our REG power plants generate electricity from recovered energy or so-called “waste heat” that is generated as a residual by-product of gas turbine-driven compressor stations and a variety of industrial processes. Any interruption in the supply of the recovered energy source, such as a result of reduced gas flows in the pipelines or reduced level of operation at the compressor stations, or in the output levels of the various industrial processes, may cause an unexpected decline in the capacity and performance of our recovered energy power plants.

Our business development activities may not be successful and our projects under construction may not commence operation as scheduled.

We are in the process of developing and constructing a number of new power plants. Our success in developing a particular project is contingent upon, among other things, negotiation of satisfactory engineering and construction agreements and obtaining PPAs and transmission services agreements, receipt of required governmental permits, obtaining adequate financing, and the timely implementation and satisfactory completion of field development, testing and power plant construction commissioning. We may be unsuccessful in accomplishing any of these matters or doing so on a timely basis. Although we may attempt to minimize the financial risks attributable to the development of a project by securing a favorable PPA and applicable transmission services agreements, obtaining all required governmental permits and approvals and arranging, in certain cases, adequate financing prior to the commencement of construction, the development of a power project may require us to incur significant expenses for preliminary engineering, permitting and legal and other expenses before we can determine whether a project is feasible, economically attractive or capable of being financed.

Currently, we have geothermal projects and prospects under exploration, development or construction in the U.S., Kenya, Guatemala, Guadeloupe, New Zealand, Honduras, Indonesia and Ethiopia, and we intend to pursue the expansion of some of our existing plants and the development of other new plants. Our completion of these facilities is subject to substantial risks, including:

- inability to secure a PPA;
- inability to secure transmission services agreements;
- inability to secure the required financing;
- cost increases and delays due to unanticipated shortages of adequate resources to execute the project such as equipment, material and labor;
- work stoppages resulting from force majeure event including riots, strikes and whether conditions;
- inability to obtain permits, licenses and other regulatory approvals;
- failure to secure sufficient land positions for the wellfield, power plant and rights of way;
- failure by key contractors and vendors to timely and properly perform, including where we use equipment manufactured by others;
- failure by key suppliers to provide steam for electricity generation, including at the Menengai project in Kenya;
- inability to secure or delays in securing the required transmission line and/or capacity;
- adverse environmental and geological conditions (including inclement weather conditions);
- adverse local business law; and
- our attention to other projects and activities, including those in the solar energy and energy storage sectors.

Any one of these could give rise to delays, cost overruns, the termination of the plant expansion, construction or development or the loss (total or partial) of our interest in the project under development, construction, or expansion.

We rely on power transmission facilities that we do not own or control.

We depend on transmission facilities owned and operated by others to deliver the power we sell from our power plants to our customers. If transmission is disrupted, or if the transmission capacity infrastructure is inadequate, our ability to sell and deliver power to our customers may be adversely impacted and we may either incur additional costs or forego revenues. In addition, lack of access to new transmission capacity may affect our ability to develop new projects. Existing congestion of transmission capacity, as well as expansion of transmission systems and competition from other developers seeking access to expanded systems, could also affect our performance.

We may be unable to obtain the financing we need to pursue our growth strategy and any future financing we receive may be less favorable to us than our current financing arrangements, either of which may adversely affect our ability to expand our operations.

Most of our geothermal power plants generally have been financed using leveraged financing structures, consisting of non-recourse or limited recourse debt obligations. Each of our projects under development or construction and those projects and businesses we may seek to acquire or construct will require substantial capital investment. Our continued access to capital with acceptable terms is necessary for the success of our growth strategy. Our attempts to obtain future financings may not be successful or on favorable terms.

Market conditions and other factors may not permit future project and acquisition financings on terms similar to those our subsidiaries have previously received. Our ability to arrange for financing on a substantially non-recourse or limited recourse basis, and the costs of such financing, are dependent on numerous factors, including general economic conditions, conditions in the global capital and credit markets, investor confidence, the continued success of current power plants, the

credit quality of the power plants being financed, the political situation in the country where the power plant is located, and the continued existence of tax and securities laws which are conducive to raising capital. If we are not able to obtain financing for our power plants on a substantially non-recourse or limited recourse basis, we may have to finance them using recourse capital such as direct equity investments or the incurrence of additional debt by us.

Also, in the absence of favorable financing options, we may decide not to build new plants or acquire facilities from third parties. Any of these alternatives could have a material adverse effect on our growth prospect.

We may also need additional financing to implement our strategic plan. For example, our cash flow from operations and existing liquidity facilities may not be adequate to finance any acquisitions we may want to pursue or new technologies we may want to develop or acquire. Financing for acquisitions or technology-development activities may not be available on the non-recourse or limited recourse basis we have historically used for our business, or on other terms we find acceptable.

Our use of joint ventures may limit our flexibility with jointly owned investments.

We have sold minority equity interests in four of our consolidated subsidiaries, through which we hold a large number of our domestic geothermal power plants and recovered energy generation plants, to different third parties and we have partners that hold a minority equity interest in our geothermal power plant in Guadeloupe. We may continue in the future to develop and/or acquire and/or hold properties in joint ventures with other entities when circumstances warrant the use of these structures. Ownership of assets in joint ventures is subject to risks that may not be present with other methods of ownership, including:

- we could experience an impasse on certain decisions because we do not have sole decision-making authority, which could require us to expend additional resources on resolving such impasses or potential disputes, including litigation or arbitration;
- our joint venture partners could have investment goals that are not consistent with our investment objectives, including the timing, terms and strategies for any investments in the projects that are owned by the joint ventures, which could affect decisions about future capital expenditures, major operational expenditures and retirement of assets, among other things;
- our ability to transfer our interest in a joint venture to a third party may be restricted and the market for our interest may be limited;
- our joint venture partners may be structured differently than us for tax purposes, and this could impact our ability to fully take advantage of federal tax incentives available for renewable energy projects;
- our joint venture partners might become bankrupt, fail to fund their share of required capital contributions or fail to fulfill their obligations as a joint venture partner, which may require us to infuse our own capital into the venture on behalf of the partner despite other competing uses for such capital; and
- our joint venture partners may have competing interests in our markets and investments in companies that compete directly or indirectly with us that could create conflict of interest issues.

Our international operations expose us to risks related to the application of foreign laws, taxes, economic conditions, labor supply and relations, political conditions, and policies of foreign governments, any of which may adversely affect our business, financial condition, future results and cash flow.

We have substantial operations outside of the U.S., both in our Electricity segment and our Product segment. Our foreign operations are subject to regulation by various foreign governments and regulatory authorities and are subject to the application of foreign laws. Such foreign laws or regulations may not provide the same type of legal certainty and rights, in connection with our contractual relationships in such countries, as are afforded to our operations in the U.S., which may adversely affect our ability to receive revenues or enforce our rights in connection with our foreign operations. Furthermore, existing laws or regulations may be amended or repealed, and new laws or regulations may be enacted or issued. In addition, the laws and regulations of some countries may limit our ability to hold a majority interest in some of the power plants that we may develop or acquire, thus limiting our ability to control the development, construction and operation of such power plants, or our ability to import our products into such countries. Our foreign operations are also subject to significant political, economic and financial risks, which vary by country, and include:

- changes in government policies or personnel;
- changes in general economic conditions;
- restrictions on currency transfer or convertibility;
- changes in labor relations;
- political instability and civil unrest;
- changes in the local electricity and/or geothermal markets;
- breach or repudiation of important contractual undertakings by governmental entities; and
- expropriation and confiscation of assets and facilities.

In particular, in regards to our Electricity segment, in Guatemala the electricity sector was partially privatized, and it is currently unclear whether further privatization will occur in the future. Such developments may affect our Amatitlan and Zunil power plants if, for example, they result in changes to the prevailing tariff regime or in the identity and creditworthiness of our power purchasers. In Kenya, any break-up and potential privatization of KPLC may adversely affect our Olkaria III complex. Although we generally obtain political risk insurance in connection with our foreign power plants, such political risk insurance does not mitigate all of the above-mentioned risks. In addition, insurance proceeds received pursuant to our political risk insurance policies, where applicable, may not be adequate to cover all losses sustained as a result of any covered risks and may at times be pledged in favor of the power plant lenders as collateral. Also, insurance may not be available in the future with the scope of coverage and in amounts of coverage adequate to insure against such risks and disturbances. In regards to our Product segment, since we primarily engage in sales in those markets where there is a geothermal reservoir, any such change might adversely affect geothermal developers in those markets and, subsequently, the ability of such developers to purchase our products. In Turkey, we are involved as a major equipment supplier in a significant number of projects that are currently under construction. Due to the latest failed coup and specifically in early 2017, we see growing obstacles that may affect our future business and operations in the country. These include the devaluation of the Turkish Lira and the slowdown in the economy, together with political uncertainties, all of which are causing the cost of funds to increase. Obtaining project financing packages and bank credit is becoming a financial and administrative challenge and we are consistently monitoring these changes in the economic and political environments.

Any or all of the changes discussed above could materially adversely affect our business, financial condition, future results and cash flow.

Our foreign power plants and foreign manufacturing operations expose us to risks related to fluctuations in currency rates, which may reduce our profits from such power plants and operations.

Risks attributable to fluctuations in currency exchange rates can arise when any of our foreign subsidiaries borrow funds or incur operating or other expenses in one type of currency but receive revenues in another. In such cases, an adverse change in exchange rates can reduce such subsidiary's ability to meet its debt service obligations, reduce the amount of cash and income we receive from such foreign subsidiary or increase such subsidiary's overall expenses. In addition, the

imposition by foreign governments of restrictions on the transfer of foreign currency abroad, or restrictions on the conversion of local currency into foreign currency, would have an adverse effect on the operations of our foreign power plants and foreign manufacturing operations, and may limit or diminish the amount of cash and income that we receive from such foreign power plants and operations.

A significant portion of our electricity revenues is attributed to payments made by power purchasers under PPAs. The failure of any such power purchaser to perform its obligations under the relevant PPA or the loss of a PPA due to a default would reduce our net income and could materially and adversely affect our business, financial condition, future results and cash flow.

A significant portion of our revenues is attributed to our electricity revenues derived from power purchasers under the relevant PPAs. There is a risk that any one or more of the power purchasers may not fulfill their respective payment obligations under their PPAs. If any of the power purchasers fails to meet its payment obligations under its PPAs, it could materially and adversely affect our business, financial condition, future results and cash flow.

Seasonal variations may cause fluctuations in our cash flows, which may cause the market price of our common stock to fall in certain periods.

Our results of operations are subject to seasonal variations. This is primarily because some of our domestic power plants receive higher capacity payments under the relevant PPAs during the summer months, and due to the generally higher time-of-use energy factor during the summer months. Some of our other power plants may experience reduced generation during warm periods due to the lower heat differential between the geothermal fluid and the ambient surroundings. Such seasonal variations could materially and adversely affect our business, financial condition, future results and cash flow. If our operating results fall below the public's or analysts' expectations in some future period or periods, the market price of our common stock will likely fall in such period or periods.

Pursuant to the terms of some of our PPAs with investor-owned electric utilities and publicly-owned electric utilities in states that have renewable portfolio standards, the failure to supply the contracted capacity and energy thereunder may result in the imposition of penalties.

Pursuant to the terms of certain of our PPAs, we may be required to make payments to the relevant power purchaser under certain conditions, such as shortfall in delivery of renewable energy and energy credits, and not meeting certain performance threshold requirements, as defined in the relevant PPA. The amount of payment required is dependent upon the level of shortfall in delivery or performance requirements and is recorded in the period the shortfall occurs. In addition, if we do not meet certain minimum performance requirements, the capacity of the relevant power plant may be permanently reduced. Any or all of these considerations could materially and adversely affect our business, financial condition, future results and cash flow.

The SRAC for our power purchasers may decline, which would reduce our power plant revenues and could materially and adversely affect our business, financial condition, future results and cash flow.

Under a number of the PPAs for our power plants in California, the price that Southern California Edison pays is based upon its SRAC, which are the incremental costs that it would have incurred had it generated the relevant electricity itself or purchased such electricity from others. Under settlement agreements between Southern California Edison and a number of power generators in California that are Qualifying Facilities, including our subsidiaries, the energy price component payable by Southern California Edison was fixed through April 2012, but since then is based on Southern California Edison's SRAC, as determined by the CPUC. The SRAC may vary substantially on a monthly basis, and are expected to be based primarily on natural gas prices for gas delivered to California as well as other factors. The levels of SRAC prices paid by Southern California Edison may decline following the expiration date of the settlement agreements, which in turn would reduce our power plant revenues derived from Southern California Edison under our PPAs and could materially and adversely affect our business, financial condition, future results and cash flow.

Under the terms of a global settlement approved by CPUC (Global Settlement) SRAC for our Ormesa complex, Heber 2 and Mammoth G2 PPAs are tied to a formula with energy market heat rates. The Global Settlement further provides that after July 1, 2015 if the term of any of the PPAs we have for these power plants expires, would have no obligation to purchase power from any of these plants that has a generating capacity in excess of 20 MW, which would apply to the PPAs for our Ormesa complex (53 MW contract capacity) and Heber 2 power plant (37 MW contract capacity) with Southern California Edison. Our Mammoth G2 plant (10.5 MW contract capacity) will be entitled to a new standard offer PPA, with SRAC pricing and capacity payments as determined from time to time by the CPUC. The joint parties to the Global Settlement

agreed that the utilities can go to FERC to obtain a waiver of the mandatory purchase obligation under PURPA for Qualifying Facilities above 20 MW and FERC has granted such waiver for these California utilities.

If any of our domestic power plants loses its current Qualifying Facility status under PURPA, or if amendments to PURPA are enacted that substantially reduce the benefits currently afforded to Qualifying Facilities, our domestic operations could be adversely affected.

Most of our domestic power plants are Qualifying Facilities pursuant to PURPA, which largely exempts the power plants from the FPA, and certain state and local laws and regulations regarding rates and financial and organizational requirements for electric utilities.

If any of our domestic power plants were to lose its Qualifying Facility status, such power plant could become subject to the full scope of the FPA and applicable state regulation. The application of the FPA and other applicable state regulation to our domestic power plants could require our operations to comply with an increasingly complex regulatory regime that may be costly and greatly reduce our operational flexibility.

If a domestic power plant were to lose its Qualifying Facility status, it would become subject to full regulation as a public utility under the FPA, and the rates charged by such power plant pursuant to its PPAs would be subject to the review and approval of FERC. FERC, upon such review, may determine that the rates currently set forth in such PPAs are not appropriate and may set rates that are lower than the rates currently charged. In addition, FERC may require that the affected domestic power plant refund amounts previously paid by the relevant power purchaser to such power plant. Even if a power plant does not lose its Qualifying Facility status, pursuant to regulations issued by FERC for Qualifying Facility power plants above 20 MW, if a power plant's PPA is terminated or otherwise expires, and the subsequent sales are not made pursuant to a state's implementation of PURPA, that power plant will become subject to FERC's ratemaking jurisdiction under the FPA. Moreover, a loss of Qualifying Facility status also could permit the power purchaser, pursuant to the terms of the particular PPA, to cease taking and paying for electricity from the relevant power plant or, consistent with FERC precedent, to seek refunds of past amounts paid. This could cause the loss of some or all of our revenues payable pursuant to the related PPAs, result in significant liability for refunds of past amounts paid, or otherwise impair the value of our power plants. If a power purchaser were to cease taking and paying for electricity or seek to obtain refunds of past amounts paid, there can be no assurance that the costs incurred in connection with the power plant could be recovered through sales to other purchasers or that we would have sufficient funds to make such payments. In addition, the loss of Qualifying Facility status would be an event of default under the financing arrangements currently in place for some of our power plants, which would enable the lenders to exercise their remedies and enforce the liens on the relevant power plant.

Pursuant to the Energy Policy Act of 2005, FERC also has the authority to prospectively lift the mandatory obligation of a utility under PURPA to offer to purchase the electricity from a Qualifying Facility if the utility operates in a workably competitive market. Our existing PPAs between a Qualifying Facility and a utility are not affected. If, in addition to the California utilities' waiver of the mandatory purchase obligation for QF projects that exceed 20 MW described in the risk factor above entitled "The SRAC for our power purchasers may decline, which would reduce our power plant revenues and could materially and adversely affect our business, financial condition, future results and cash flow", the utilities in the other regions in which our domestic power plants operate were to be relieved of the mandatory purchase obligation, they would not be required to purchase energy from the power plant in the region under Federal law upon termination of the existing PPA or with respect to new power plants, which could materially and adversely affect our business, financial condition, future results and cash flow. Moreover, FERC has the authority to modify its regulations relating to the utility's mandatory purchase obligation under PURPA, which could result in the reduction in the purchase obligation of California and other utilities to a level below 20 MW, or the elimination of the purchase obligation. If that were to occur it could materially and adversely affect our business, financial condition, future results and cash flow.

The reduction or elimination of government incentives could adversely affect our business, financial condition, future results and cash flows.

Construction and operation of our geothermal power plants and recovered energy-based power plants has benefited, and may benefit in the future, from public policies and government incentives that support renewable energy and enhance the economic feasibility of these projects in regions and countries where we operate. Such policies and incentives include PTCs and ITCs, accelerated depreciation tax benefits, renewable portfolio standards, carbon trading mechanisms, rebates, and mandated feed-in-tariffs, and may include similar or other incentives to end users, distributors, system integrators and manufacturers of geothermal, solar and other power products. Some of these measures have been implemented at the federal level, while others have been implemented by different states within the U.S. or countries outside the U.S. where we operate.

The availability and continuation of these public policies and government incentives have a significant effect on the economics and viability of our development program and continued construction of new geothermal, recovered energy-based, Solar PV power plants and, recently, energy storage projects. Any changes to such public policies, or any reduction in or elimination or expiration of such government incentives could affect us in different ways. For example, any reduction in, termination or expiration of renewable portfolio standards may result in less demand for generation from our geothermal and recovered energy-based, power plants. Any reductions in, termination or expiration of other government incentives could reduce the economic viability of, and cause us to reduce, the construction of new geothermal, recovered energy-based, Solar PV or any other power plants. Similarly, any such changes that affect the geothermal energy industry in a manner that is different from other sources of renewable energy, such as wind or solar, may put us at a competitive disadvantage compared to businesses engaged in the development, construction and operation of renewable power projects using such other resources. Any of the foregoing outcomes could have a material adverse effect on our business, financial condition, future results, and cash flows.

Our financial performance could be adversely affected by changes in the legal and regulatory environment affecting our power plants.

All of our power plants are subject to extensive regulation, and therefore changes in applicable laws or regulations, or interpretations of those laws and regulations, could result in increased compliance costs, the need for additional capital expenditures or the reduction of certain benefits currently available to our power plants. The structure of domestic and foreign federal, state and local energy regulation currently is, and may continue to be, subject to challenges, modifications, the imposition of additional regulatory requirements, and restructuring proposals. We or our power purchasers may not be able to obtain all regulatory approvals that may be required in the future, or any necessary modifications to existing regulatory approvals, or maintain all required regulatory approvals. In addition, the cost of operation and maintenance and the operating performance of geothermal power plants may be adversely affected by changes in certain laws and regulations, including tax laws.

Any changes to applicable laws and regulations could significantly increase the regulatory-related compliance and other expenses incurred by the power plants and could significantly reduce or entirely eliminate the revenues generated by one or more of the power plants, which in turn would reduce our net income and could materially and adversely affect our business, financial condition, future results and cash flow.

The costs of compliance with environmental laws and of obtaining and maintaining environmental permits and governmental approvals required for construction and/or operation may increase in the future and these costs (as well as any fines or penalties that may be imposed upon us in the event of any non-compliance with such laws or regulations) could materially and adversely affect our business, financial condition, future results and cash flow.

Environmental laws, ordinances and regulations affecting us can be subject to change and such change could result in increased compliance costs, the need for additional capital expenditures, or otherwise adversely affect us. In addition, our power plants are required to comply with numerous domestic and foreign, federal, regional, state and local statutory and regulatory environmental standards and to maintain numerous environmental permits and governmental approvals required for construction and/or operation. We may not be able to renew, maintain or obtain all environmental permits and governmental approvals required for the continued operation or further development of the power plants. We have not yet obtained certain permits and government approvals required for the completion and successful operation of power plants under construction or enhancement. Our failure to renew, maintain or obtain required permits or governmental approvals, including the permits and approvals necessary for operating power plants under construction or enhancement, could cause our operations to be limited or suspended. Finally, some of the environmental permits and governmental approvals that have been issued to the power plants contain conditions and restrictions, including restrictions or limits on emissions and discharges of pollutants and contaminants, or may have limited terms. If we fail to satisfy these conditions or comply with these restrictions, or with any statutory or regulatory environmental standards, we may become subject to regulatory enforcement action and the operation of the power plants could be adversely affected or be subject to fines, penalties or additional costs.

We could be exposed to significant liability for violations of hazardous substances laws because of the use or presence of such substances at our power plants.

Our power plants are subject to numerous domestic and foreign federal, regional, state and local statutory and regulatory standards relating to the use, storage and disposal of hazardous substances. We use butane, pentane, industrial lubricants, and other substances at our power plants which are or could become classified as hazardous substances. If any hazardous substances are found to have been released into the environment at or by the power plants in concentrations that exceed

regulatory limits, we could become liable for the investigation and removal of those substances, regardless of their source and time of release. If we fail to comply with these laws, ordinances or regulations (or any change thereto), we could be subject to civil or criminal liability, the imposition of liens or fines, and large expenditures to bring the power plants into compliance. Furthermore, in the U.S., we can be held liable for the cleanup of releases of hazardous substances at other locations where we arranged for disposal of those substances, even if we did not cause the release at that location. The cost of any remediation activities in connection with a spill or other release of such substances could be significant.

We believe that at one time there may have been a gas station located on the Mammoth complex site, but because of significant surface disturbance and construction since that time, further physical evaluation of the environmental condition of the former gas station site has been impractical. There may be soil or groundwater contamination and related potential liabilities of which we are unaware related to this site, which may be significant and could materially and adversely affect our business, financial condition, future results and cash flow.

We may decide not to implement, or may not be successful in implementing, one or more elements of our multi-year strategic plan, and the plan as implemented may not achieve its goal to enhance shareholder value through long-term growth of the Company

We adopted a multi-year strategic plan to:

- Expand our geographical base;
- Expand into new technologies, such as energy storage and solar PV electric power generation both in large “utility scale” projects and smaller C&I projects for commercial, industrial, governmental, educational and other institutional customers; and
- Expand our customer base.

There are uncertainties and risks associated with the plan, both as to implementation and outcome. Implementation of the plan may be affected by a number of factors, including that:

- we are still developing some elements of the plan and evaluating how and when some elements of the plan will be implemented,
- we may decide to change, or not implement, one or more elements of the plan over time, and
- we may not be successful in implementing one or more elements of the plan, in each case for a number of reasons.

For example, we will face significant challenges and risks expanding into new technologies (or expanding our geographical or customer base for those new technologies), including:

- Our ability to compete with the large number of other companies pursuing similar business opportunities in energy storage and solar PV power generation, many of which already have established businesses in these areas and/or have greater financial, strategic, technological or other resources than we have.
- Our ability to obtain financing on terms we consider acceptable, or at all, which we may need, for example, to obtain any technology, personnel, intellectual property, or to acquire one or more existing businesses as a platform for our expansion, or to fund internal research and development, for energy storage and solar PV electric power generation products and services.
- Our ability to provide energy storage or solar electric power generation products or services that keep pace with rapidly changing technology, customer preferences, equipment costs, market conditions and other factors that will impact these markets.
- Our ability to devote the amount of management time and other resources required to implement this plan, consistent with continuing to grow our core geothermal and recovered energy businesses; and
- Our ability to recruit appropriate employees

Expanding our geothermal and recovered energy businesses to new customers and geographical areas will have many of the same risks and uncertainties as those outlined above. These or other factors could mean that we decide to change or even abandon, or are otherwise unable to implement, one or more elements of the plan.

Implementing the plan will involve various costs, including, among other things:

- opportunity costs associated with foregone alternative uses of our resources;
- various expense items that will impact our current financial results; and
- perhaps asset revaluations, for example, businesses or other assets acquired for new energy storage or solar PV power generation products or services suffer impairment charges, as a result of rapidly changing technology, market conditions or otherwise.

These costs may not be recovered, in whole or in part, if one or more elements of the plan are not successfully implemented. These costs, or the failure to implement successfully one or more elements of the plan, could adversely affect the reputation of our group of companies and could materially and adversely affect our business, financial condition, future results and cash flow and the price at which our common stock is traded.

Apart from the risks associated with implementing the plan, the plan itself will expose us to other risks and uncertainties once implemented. For example, expanding our customer base may expose us to different credit profile customers than our current customers. Another example, expanding our geographic base will subject us to risks associated with doing business in new foreign countries in which we will have to learn the business and political environment, and expanding into new technologies will expose us to risks associated with those products and services. Some of these risks may be similar to those we now face, as described in other risks factors; others may differ or be unknown to us now. The success of the plan, once implemented, will depend, among other things, on our ability to manage these risks effectively.

The trading price of our common stock could decline if securities, industry analysts or our investors disagree with our strategic plan or the way we implement it, either as a result of the factors outlined above or for other reasons.

Accordingly, there is no assurance that the plan will enhance shareholder value through long-term growth of the Company to the extent currently anticipated by our management or at all.

We may not be able to successfully integrate companies, which we acquired and may acquire in the future, which could materially and adversely affect our business, financial condition, future results and cash flow.

Our strategy is to continue to expand in the future, including through acquisitions. Integrating acquisitions is often costly, and we may not be able to successfully integrate our acquired companies with our existing operations without substantial costs, delays or other adverse operational or financial consequences. Integrating our acquired companies involves a number of risks that could materially and adversely affect our business, including:

- failure of the acquired companies to achieve the results we expect;
- inability to retain key personnel of the acquired companies;
- risks associated with unanticipated events or liabilities; and
- the difficulty of establishing and maintaining uniform standards, controls, procedures and policies, including accounting controls and procedures.

If any of our acquired companies suffers customer dissatisfaction or performance problems, this could adversely affect the reputation of our group of companies and could materially and adversely affect our business, financial condition, future results and cash flow.

The power generation industry is characterized by intense competition, and we encounter competition from electric utilities, other power producers, and power marketers that could materially and adversely affect our business, financial condition, future results and cash flow.

The power generation industry is characterized by intense competition from electric utilities, other power producers and power marketers. In recent years, there has been increasing competition in the sale of electricity, in part due to excess capacity in a number of U.S. markets and an emphasis on short-term or “spot” markets, and competition has contributed to a reduction in electricity prices. For the most part, we expect that power purchasers interested in long-term arrangements will engage in “competitive bid” solicitations to satisfy new capacity demands. This competition could adversely affect our ability to obtain PPAs and the price paid for electricity by the relevant power purchasers. There is also increasing competition between electric utilities. This competition has put pressure on electric utilities to lower their costs, including the cost of purchased electricity, and increasing competition in the future will put further pressure on power purchasers to reduce the prices at which they purchase electricity from us.

We face competition from other companies engaged in the solar, demand response and energy storage sectors and we expect to face competition from other companies in the demand response sector.

The solar power market is intensely competitive and rapidly evolving. We compete with many companies that have longer operating histories in this sector, larger customer bases, and greater brand recognition, as well as, in some cases, significantly greater financial and marketing resources than us. In some cases, these competitors are vertically integrated in the solar energy sector, manufacturing Solar PV, silicon wafers, and other related products for the solar industry, which may give them an advantage in developing, constructing, owning and operating solar power projects. Our limited experience in the Solar PV sector may affect our ability to successfully develop, construct, finance, and operate Solar PV power projects.

VEI, from which we expect to acquire substantially all of its assets and business and which operates in the demand response and energy storage sectors, is not currently experiencing intensive competition due to its position in what is now a niche industry. However, it is known that, as both demand response and energy storage markets grow, Ormat is likely to face increased competition that we expect will arrive from utilities, independent entities, new start-ups, and third party investors. It is critical for us to continue to grow the business market share, and grow our customer base. We plan to continue acquiring related businesses if required to enhance our competitive position.

The existence of a prolonged force majeure event or a forced outage affecting a power plant or the transmission system of the IID could reduce our net income and materially and adversely affect our business, financial condition, future results and cash flow.

The operation of our subsidiaries’ geothermal power plants is subject to a variety of risks discussed elsewhere in these risk factors, including events such as fires, explosions, earthquakes, landslides, floods, severe storms, volcanic eruptions, lava flow or other similar events. If a power plant experiences an occurrence resulting in a force majeure event, although our subsidiary that owns that power plant would be excused from its obligations under the relevant PPA the relevant power purchaser may not be required to make any capacity and/or energy payments with respect to the affected power plant or plant so long as the force majeure event continues and, pursuant to certain of our PPAs, will have the right to prematurely terminate the PPA. Additionally, to the extent that a forced outage has occurred, the relevant power purchaser may not be required to make any capacity and/or energy payments to the affected power plant, and if as a result the power plant fails to attain certain performance requirements under certain of our PPAs, the purchaser may have the right to permanently reduce the contract capacity (and correspondingly, the amount of capacity payments due pursuant to such agreements in the future), seek refunds of certain past capacity payments, and/or prematurely terminate the PPA. As a consequence, we may not receive any net revenues from the affected power plant other than the proceeds from any business interruption insurance that applies to the force majeure event or forced outage after the relevant waiting period, and may incur significant liabilities in respect of past amounts required to be refunded.

In addition, if the transmission system of the IID experiences a force majeure event or a forced outage which prevents it from transmitting the electricity from the Heber complex, the Ormesa complex or the North Brawley power plant to the relevant power purchaser, the relevant power purchaser would not be required to make energy payments for such non-delivered electricity and may not be required to make any capacity payments with respect to the affected power plant so long as such force majeure event or forced outage continues. The impact of such force majeure would depend on the duration thereof, with longer outages resulting in greater loss of revenues. In the event of any such force majeure event, our business, financial condition, future results and cash flows could be materially and adversely affected.

Some of our leases will terminate if we do not extract geothermal resources in “commercial quantities”, thus requiring us to enter into new leases or secure rights to alternate geothermal resources, none of which may be available on terms as favorable to us as any such terminated lease, if at all.

Most of our geothermal resource leases are for a fixed primary term, and then continue for so long as geothermal resources are extracted in “commercial quantities” or pursuant to other terms of extension. The land covered by some of our leases is undeveloped and has not yet produced geothermal resources in commercial quantities. Leases that cover land which remains undeveloped and does not produce, or does not continue to produce, geothermal resources in commercial quantities and leases that we allow to expire, will terminate. In the event that a lease is terminated and we determine that we will need that lease once the applicable power plant is operating, we would need to enter into one or more new leases with the owner(s) of the premises that are the subject of the terminated lease(s) in order to develop geothermal resources from, or inject geothermal resources into, such premises or secure rights to alternate geothermal resources or lands suitable for injection. We may not be able to do this or may not be able to do so without incurring increased costs, which could materially and adversely affect our business, financial condition, future results and cash flow.

Our BLM leases may be terminated if we fail to comply with any of the provisions of the Geothermal Steam Act or if we fail to comply with the terms or stipulations of such leases, which could materially and adversely affect our business, financial condition, future results and cash flow.

Pursuant to the terms of our BLM leases, we are required to conduct our operations on BLM-leased land in a workmanlike manner and in accordance with all applicable laws and BLM directives and to take all mitigating actions required by the BLM to protect the surface of and the environment surrounding the relevant land. Additionally, certain BLM leases contain additional requirements, some of which relate to the mitigation or avoidance of disturbance of any antiquities, cultural values or threatened or endangered plants or animals. In the event of a default under any BLM lease, or the failure to comply with such requirements, or any non-compliance with any of the provisions of the Geothermal Steam Act or regulations issued thereunder, the BLM may, 30 days after notice of default is provided to our relevant project subsidiary, suspend our operations until the requested action is taken or terminate the lease, either of which could materially and adversely affect our business, financial condition, future results and cash flow.

Some of our leases (or subleases) could terminate if the lessor (or sublessor) under any such lease (or sublease) defaults on any debt secured by the relevant property, thus terminating our rights to access the underlying geothermal resources at that location.

The fee interest in the land which is the subject of some of our leases (or subleases) may currently be or may become subject to encumbrances securing loans from third-party lenders to the lessor (or sublessor). Our rights as lessee (or sublessee) under such leases (or subleases) are or may be subject and subordinate to the rights of any such lender. Accordingly, a default by the lessor (or sublessor) under any such loan could result in a foreclosure on the underlying fee interest in the property and thereby terminate our leasehold interest and result in the shutdown of the power plant located on the relevant property and/or terminate our right of access to the underlying geothermal resources required for our operations.

In addition, a default by a sublessor under its lease with the owner of the property that is the subject of our sublease could result in the termination of such lease and thereby terminate our sublease interest and our right to access the underlying geothermal resources required for our operations.

Current and future urbanizing activities and related residential, commercial, and industrial developments may encroach on or limit geothermal or Solar PV activities in the areas of our power plants, thereby affecting our ability to utilize access, inject and/or transport geothermal resources on or underneath the affected surface areas.

Current and future urbanizing activities and related residential, commercial and industrial development may encroach on or limit geothermal activities in the areas of our power plants or construction and operation of Solar PV facilities, thereby affecting our ability to utilize, access, inject, and/or transport geothermal resources on or underneath the affected surface areas or build Solar PV facilities, which require large areas of relatively flat land. In particular, the Heber power plants rely on an area, which we refer to as the Heber Known Geothermal Resource Area, or Heber KGRA, for the geothermal resource necessary to generate electricity at the Heber power plants. Imperial County has adopted a “specific plan area” that covers the Heber KGRA, which we refer to as the “Heber Specific Plan Area”. The Heber Specific Plan Area allows commercial, residential, industrial and other employment oriented development in a mixed-use orientation, which currently includes geothermal uses. Several of the landowners from whom we hold geothermal leases have expressed an interest in developing their land for residential, commercial, industrial or other surface uses in accordance with the parameters of the Heber Specific Plan Area. Currently, Imperial County’s Heber Specific Plan Area is coordinated with the cities of El Centro and Calexico.

There has been ongoing underlying interest since the early 1990s to incorporate the community of Heber. While any incorporation process would likely take several years, if Heber were to be incorporated, the City of Heber could replace Imperial County as the governing land use authority, which, depending on its policies, could have a significant effect on land use and availability of geothermal resources.

Current and future development proposals within Imperial County and the City of Calexico, applications for annexations to the City of Calexico, and plans to expand public infrastructure may affect surface areas within the Heber KGRA, thereby limiting our ability to utilize, access, inject and/or transport the geothermal resource on or underneath the affected surface area that is necessary for the operation of our Heber power plants, which could adversely affect our operations and reduce our revenues.

Current construction works and urban developments in the vicinity of our Steamboat complex of power plants in Nevada may also affect future permitting for geothermal operations relating to those power plants. Such works and developments include plans for the construction of a new casino hotel and other commercial or industrial developments on land in the vicinity of our Steamboat complex.

We depend on key personnel for the success of our business.

In general, our success depends to a significant extent on the performance of our senior management, particularly the continued service of our key employees. Our success also depends on our ability to identify, hire and retain other qualified and experienced key personnel. Although to date we have been successful in identifying, hiring and retaining the services of senior management, we face risks associated with our ability to locate or employ on acceptable terms qualified replacements for our senior management or key employees if their services were no longer available, and with the inherent difficulties and uncertainties of transitioning the Company under the leadership of new management.

In the demand response industry, there is a relatively small pool of experienced personnel. In the relatively new energy storage market, there is an even smaller pool of experienced personnel. Our plans to grow the business we acquire from VEI are dependent on our ability to attract and retain highly specialized demand response and energy storage personnel.

Our inability to successfully identify, hire and retain any key employee could materially harm our business, financial condition, future results and cash flow.

Our power plants have generally been financed through a combination of our corporate funds and limited or non-recourse project finance debt and lease financing. If our project subsidiaries default on their obligations under such limited or non-recourse debt or lease financing, we may be required to make certain payments to the relevant debt holders, and if the collateral supporting such leveraged financing structures is foreclosed upon we may lose certain of our power plants.

Our power plants have generally been financed using a combination of our corporate funds and limited or non-recourse project finance debt or lease financing. Limited recourse project finance debt refers to our additional agreement, as part of the financing of a power plant, to provide limited financial support for the power plant subsidiary in the form of limited guarantees, indemnities, capital contributions and agreements to pay certain debt service deficiencies. Non-recourse project finance debt or lease financing refers to financing arrangements that are repaid solely from the power plant's revenues and are secured by the power plant's physical assets, major contracts, cash accounts and, in many cases, our ownership interest in the project subsidiary. If our project subsidiaries default on their obligations under the relevant debt documents, creditors of a limited recourse project financing will have direct recourse to us, to the extent of our limited recourse obligations, which may require us to use distributions received by us from other power plants, as well as other sources of cash available to us, in order to satisfy such obligations. In addition, if our project subsidiaries default on their obligations under the relevant debt documents (or a default under such debt documents arises as a result of a cross-default to the debt documents of some of our other power plants) and the creditors foreclose on the relevant collateral, we may lose our ownership interest in the relevant project subsidiary or our project subsidiary owning the power plant would only retain an interest in the physical assets, if any, remaining after all debts and obligations were paid in full.

Changes in costs and technology may significantly impact our business by making our power plants and products less competitive.

A basic premise of our business model is that generating baseload power at geothermal power plants achieves economies of scale and produces electricity at a competitive price. However, traditional coal-fired systems and gas-fired systems may under certain economic conditions produce electricity at lower average prices than our geothermal plants. In

addition, there are other technologies that can produce electricity, most notably fossil fuel power systems, hydroelectric systems, fuel cells, microturbines, windmills, Solar PV cells and Solar PV systems. Some of these alternative technologies currently produce electricity at a higher average price than our geothermal plants, however research and development activities are ongoing to seek improvements in such alternate technologies and their cost of producing electricity is gradually declining. It is possible that advances will further reduce the cost of alternate methods of power generation to a level that is equal to or below that of most geothermal power generation technologies. If this were to happen, the competitive advantage of our power plants may be significantly impaired.

Our expectations regarding the market potential for the development of recovered energy-based power generation may not materialize, and as a result we may not derive any significant revenues from this line of business.

Demand for our recovered energy-based power generation units may not materialize or grow at the levels that we expect. We currently face competition in this market from manufacturers of conventional steam turbines and may face competition from other related technologies in the future. If this market does not materialize at the levels that we expect, we will not generate any material revenues.

Our intellectual property rights may not be adequate to protect our business.

Our existing intellectual property rights and those we will own following the closing of the Viridity transaction, may not be adequate to protect our business. While we occasionally file patent applications, patents may not be issued on the basis of such applications or, if patents are issued, they may not be sufficiently broad to protect our technology. In addition, any patents issued to us or for which we have use rights may be challenged, invalidated or circumvented.

In order to safeguard our unpatented proprietary know-how, trade secrets and technology, we rely primarily upon trade secret protection and non-disclosure provisions in agreements with employees and others having access to confidential information. These measures may not adequately protect us from disclosure or misappropriation of our proprietary information.

Even if we adequately protect our intellectual property rights, litigation may be necessary to enforce these rights, which could result in substantial costs to us and a substantial diversion of management attention. Also, while we have attempted to ensure that our technology and the operation of our business do not infringe other parties' patents and proprietary rights, our competitors or other parties may assert that certain aspects of our business or technology may be covered by patents held by them. Infringement or other intellectual property claims, regardless of merit or ultimate outcome, can be expensive and time-consuming and can divert management's attention from our core business.

Threats of terrorism and catastrophic events that could result from terrorism, cyber-attacks, or individuals and/or groups attempting to disrupt our business, or the businesses of third parties, may impact our operations in unpredictable ways and could adversely affect our business, financial condition, future results and cash flow.

We are subject to the potentially adverse operating and financial effects of terrorist acts and threats, as well as cyber-attacks, including, among others, malware, viruses and attachments to e-mails, and other disruptive activities of individuals or groups. Our generation and transmission facilities, information technology systems and other infrastructure facilities, systems and physical assets, and following the closing of the transaction with VEI, the VPower™ software, could be directly or indirectly affected by such activities. Terrorist acts or other similar events could harm our business by limiting our ability to generate or transmit power and by delaying the development and construction of new generating facilities and capital improvements to existing facilities. These events, and governmental actions in response, could result in a material decrease in revenues and significant additional costs to repair and insure our assets, and could adversely affect operations by contributing to the disruption of supplies and markets for geothermal and recovered energy. Such events could also impair our ability to raise capital by contributing to financial instability and lower economic activity.

We operate in a highly regulated industry that requires the continued operation of sophisticated information technology systems and network infrastructure. Despite our implementation of security measures, all of our technology systems (and any programs or data stored thereon or therein) are vulnerable to security breaches, failures, data leakage or unauthorized access due to such activities. Those breaches and events may result from acts of our employees, contractors or third parties. If our technology systems were to fail or be breached and we were unable to recover in a timely way, we would be unable to fulfill critical business functions, and sensitive confidential and other data could be compromised, which could adversely affect our business, financial condition, future results and cash flow.

The implementation of security guidelines and measures and maintenance of insurance, to the extent available, addressing such activities could increase costs. These types of events could adversely affect our business, financial condition, future results and cash flow. In addition such events could require significant management attention and resources and could adversely affect our reputation among customers and the public.

A disruption of transmission or the transmission infrastructure facilities of third parties could negatively impact our business. Because generation and transmission systems are part of an interconnected system, we face the risk of possible loss of business due to a disruption caused by the impact of an event on the interconnected system within our systems or within a neighboring system. Any such disruption could adversely affect our business, financial condition, future results and cash flow.

Possible fluctuations in the cost of construction, raw materials, commodities and drilling may materially and adversely affect our business, financial condition, future results, and cash flow.

Our manufacturing operations are dependent on the supply of various raw materials, including primarily steel and aluminum, commodities and industrial equipment components that we use. We currently obtain all such raw materials, commodities and equipment at prevailing market prices. We are not dependent on any one supplier and do not have any long-term agreements with any of our suppliers. Future cost increases of such raw materials, commodities and equipment, to the extent not otherwise passed along to our customers, could adversely affect our profit margins.

Conditions in and around Israel, where the majority of our senior management and our main production and manufacturing facilities are located, may adversely affect our operations and may limit our ability to produce and sell our products or manage our power plants.

The majority of our senior management and our main production and manufacturing facilities are located in Israel. As such, political, economic and security conditions in Israel directly affect our operations.

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, and the continued state of hostility, varying in degree and intensity, has led to security and economic problems for Israel.

Negotiations between Israel and representatives of the Palestinian Authority in an effort to resolve the state of conflict have been sporadic and have failed to result in peace. The establishment in 2006 of a government in the Gaza territory by representatives of the Hamas militant group has created additional unrest and uncertainty in the region. In each of December 2008, November 2012 and July 2014, Israel engaged in an armed conflict with Hamas, each of which involved additional missile strikes from the Gaza Strip into Israel and disrupted most day-to-day civilian activity in the proximity of the border with the Gaza Strip. Our production facilities in Israel are located approximately 26 miles from the border with the Gaza Strip.

The political instability and civil unrest in the Middle East and North Africa (including the ongoing civil war in Syria) as well as the increased tension between Iran and Israel have raised new concerns regarding security in the region and the potential for armed conflict or other hostilities involving Israel. We could be adversely affected by any such hostilities, the interruption or curtailment of trade between Israel and its trading partners, or a significant downturn in the economic or financial condition of Israel. In addition, the sale of products manufactured in Israel may be adversely affected in certain countries by restrictive laws, policies or practices directed toward Israel or companies having operations in Israel.

In addition, some of our employees in Israel are subject to being called upon to perform military service in Israel, and their absence may have an adverse effect upon our operations. Generally, unless exempt, male adult citizens of Israel under the age of 41 are obligated to perform up to 36 days of military reserve duty annually. Additionally, all such citizens are subject to being called to active duty at any time under emergency circumstances.

These events and conditions could disrupt our operations in Israel, which could materially harm our business, financial condition, future results, and cash flow.

We are a holding company and our revenues depend substantially on the performance of our subsidiaries and the power plants they operate, most of which are subject to restrictions and taxation on dividends and distributions.

We are a holding company whose primary assets are our ownership of the equity interests in our subsidiaries. We conduct no other business and, as a result, we depend entirely upon our subsidiaries' earnings and cash flow.

The agreements pursuant to which most of our subsidiaries have incurred debt restrict the ability of these subsidiaries to pay dividends, make distributions or otherwise transfer funds to us prior to the satisfaction of other obligations, including the payment of operating expenses, debt service and replenishment or maintenance of cash reserves. In the case of some of our power plants that are owned jointly with other partners, there may be certain additional restrictions on dividend distributions pursuant to our agreements with those partners. Further, if we elect to receive distributions of earnings from our foreign operations, we may incur U.S. taxes on account of such distributions, net of any available foreign tax credits. In all of the foreign countries where our existing power plants are located, dividend payments to us are also subject to withholding taxes. Each of the events described above may reduce or eliminate the aggregate amount of revenues we can receive from our subsidiaries.

The Israeli Tax Ruling we obtained in connection with our acquisition of Ormat Industries imposes conditions that may limit our flexibility in operating our business and our ability to enter into certain corporate transactions.

The Israel Tax Ruling we obtained in connection with the acquisition of Ormat Industries imposes a number of conditions that limit our flexibility in operating our business and in engaging in certain corporate transactions. Until the end of 2018, we agreed to maintain (and, to the extent that our operations expand, likewise expand) the production activities we currently carry out in Israel. Under certain circumstances, these conditions may not allow us the flexibility that we need to operate our business and may prevent us from taking advantage of strategic opportunities that would benefit our business and our stockholders.

As a result of the share exchange, a substantial percentage of our shares is held by a small group of stockholders whose interests may conflict with the interests of our other stockholders.

As of February 27, 2017, Bronicki and FIMI beneficially own, collectively, approximately 21.08% of our outstanding common stock. Bronicki and FIMI are parties to a shareholder rights agreement that, among other things, includes joint voting and other arrangements that affect us and our subsidiaries. The agreement expires on May 22, 2017. As a result of these stockholders' beneficial ownership of our outstanding common stock, and taking into consideration the shareholders rights agreement between them, they could exert significant influence on the election of our directors and decisions on matters submitted to a vote of our shareholders, including mergers, consolidations and the sale of all or substantially all of our assets. This concentration of ownership of our shares could delay or prevent proxy contests, mergers, tender offers, or other purchases of our shares that might otherwise give our stockholders the opportunity to realize a premium over the then-prevailing market price for our shares. This concentration of ownership may also adversely affect our stock price.

The price of our common stock may fluctuate substantially and your investment may decline in value.

The market price of our common stock may be highly volatile and may fluctuate substantially due to many factors, including:

- actual or anticipated fluctuations in our results of operations including as a result of seasonal variations in our Electricity segment-based revenues or variations from year-to-year in our Product segment-based revenues;
- variance in our financial performance from the expectations of market analysts;
- conditions and trends in the end markets we serve, and changes in the estimation of the size and growth rate of these markets;
- our ability to integrate acquisitions such as our acquisition of substantially all of VEI's business and assets that we expect to close in early 2017;
- announcements of significant contracts by us or our competitors;
- changes in our pricing policies or the pricing policies of our competitors;

- restatements of historical financial results and changes in financial forecasts;
- loss of one or more of our significant customers;
- legislation;
- changes in market valuation or earnings of our competitors;
- the trading volume of our common stock;
- the trading of our common stock on multiple trading markets, which takes place in different currencies and at different times; and
- general economic conditions.

In addition, the stock market in general, and the NYSE and the market for energy companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of particular companies affected. These broad market and industry factors may materially harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted against that company. Such litigation, if instituted against us, could result in substantial costs and a diversion of management's attention and resources, which could materially harm our business, financial condition, future results and cash flow.

Future sales of common stock by some of our existing stockholders could cause our stock price to decline.

As of the date of this report, FIMI holds approximately 13.97% of our outstanding common stock, Bronicki holds approximately 7.11% of our outstanding common stock, and some of our directors, officers and employees also hold shares of our outstanding common stock. Sales of such shares in the public market, as well as shares we may issue upon exercise of outstanding options, could cause the market price of our common stock to decline. We are party to several agreements with FIMI and Bronicki, including (1) a registration rights agreement whereby FIMI and Bronicki may require us to register our common stock held by them with the SEC or to include our common stock held by them in an offering and sale by us, and (2) voting neutralization agreements that, among other things, restrict their ability to sell our common stock held by them.

Provisions in our charter documents and Delaware law may delay, prevent or deter an acquisition of us, which could adversely affect the value of our common stock.

Our restated certificate of incorporation and our bylaws contain provisions that could make it harder for a third party to acquire us without the consent of our Board of Directors. These provisions include procedural requirements relating to stockholder meetings and stockholder proposals that could make stockholder actions more difficult. Our Board of Directors is classified into three classes of directors serving staggered, three-year terms and directors may be removed only for cause. Any vacancy on the Board of Directors may be filled only by the vote of the majority of directors then in office. Delaware law also imposes some restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock.

Regulations related to conflict minerals may force us to incur additional expenses and may damage our relationship with certain customers.

On August 22, 2012, the SEC adopted requirements regarding mandatory disclosure for companies regarding their use of "conflict minerals" (including tantalum, tin, tungsten and gold) in their products. In general, while we do not directly purchase or use any of these "conflict minerals" as raw materials in the products we manufacture or as part of our manufacturing processes, we will need to examine whether such minerals are contained in the products supplied to us by third parties and, if so, whether such minerals originate from the Democratic Republic of Congo or adjoining countries. If we utilize any of these minerals and they are necessary to the production or functionality of any of our products or products we are contracted to manufacture, we will need to conduct specified due diligence activities and file with the SEC a report disclosing, among others, whether such minerals originate from the Democratic Republic of Congo or adjoining countries. The implementation of these SEC rules could adversely affect the sourcing, availability and pricing of minerals used in the manufacture of certain components incorporated in our products. In addition, we expect to incur additional costs to comply with the disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products, and possibly additional expenses related to any changes to our products we may decide are advisable

based upon our due diligence findings. Since our supply chain is complex, we may not be able to sufficiently verify the origins for these minerals and metals used in our products through the diligence procedures that we implement, which may harm our reputation. In such event, we may also face difficulties in satisfying customers who require that all of the components of our products are certified as conflict mineral free.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We currently lease corporate offices at 6225 Neil Road, Reno, Nevada 89511-1136. We also occupy an approximately 807,000 square foot office and manufacturing facility located in the Industrial Park of Yavne, Israel, which we lease from the Israel Land Administration. See Item 13 — “Certain Relationships and Related Transactions”. We also lease small offices in each of the countries in which we operate.

We believe that our current facilities will be adequate for our operations as currently conducted.

Each of our power plants is located on property leased or owned by us or one of our subsidiaries, or is a property that is subject to a concession agreement.

Information and descriptions of our plants and properties are included in Item 1 — “Business”, of this annual report.

ITEM 3. LEGAL PROCEEDINGS

There were no material developments in any legal proceedings to which the Company was a party during fiscal year 2016, other than as described below.

- Jon Olson and Hilary Wilt, together with Puna Pono Alliance filed a complaint on February 17, 2015 in the Third Circuit Court for the State of Hawaii, requesting declaratory and injunctive relief requiring that PGV comply with an ordinance that the plaintiffs allege will prohibit PGV from engaging in night drilling operations at its KS-16 well site. On May 17, 2015, the original complaint was amended to add the county of Hawaii and the State of Hawaii Department of Land and Natural Resources as defendants to the case. On October 10, 2016, the court issued its decision in response to each of the plaintiffs’ and defendants’ motions for summary judgment, denying plaintiffs’ motion and granting defendant PGV’s and the County of Hawaii’s cross motions for summary judgment, effectively rendering the plaintiffs’ action moot. On January 17, 2017, the plaintiffs filed a notice of appeal of the October 10, 2016 decision. Procedural issues as to the ability of the plaintiffs to appeal the decision at this time, including the jurisdiction of the appellate court to hear the appeal, are also before the court.
- On July 8, 2014, Global Community Monitor, LiUNA, and two residents of Bishop, California filed a complaint in the U.S. District Court for the Eastern District of California, alleging that Mammoth Pacific, L.P., the Company and Ormat Nevada are operating three geothermal generating plants in Mammoth Lakes, California (MP-I, MP-II and PLES-I) in violation of the federal Clean Air Act and Great Basin Unified Air Pollution Control District rules. On June 26, 2015, in response to a motion by the defendants, the court dismissed all but one of the plaintiffs’ causes of action. On January 6, 2017, the court issued its order regarding several pending motions, including plaintiffs’ motion for partial summary judgment, defendants’ motion for summary judgment, defendants’ motion to exclude and defendants’ motion for leave to file a sur-reply. The impact of the court’s January 6 order is to deny the plaintiffs’ sole remaining cause of action.
- On April 5, 2012, the International Brotherhood of Electrical Workers Local 1260 (“Union”) filed a petition with the NLRB seeking to organize the operations and maintenance employees at the Puna project. A global settlement was reached in principle in February 2016, which includes a Union disclaimer of interest, the withdrawal of letters from the Union to the NLRB and signed individual settlement agreements, all of which are immaterial. All issues are now settled and closed.
- In January 2014, Ormat learned that two former employees filed a “qui tam” complaint seeking damages, penalties and other relief of approximately \$375 million, alleging that the Company and certain of its subsidiaries (collectively, the “Ormat Parties”) submitted fraudulent applications and certifications to obtain grants for the Puna and North Brawley projects. The U.S. Department of Justice declined to intervene. On October 25, 2016, the parties entered into a final settlement agreement providing for the dismissal of the claim without any admission of wrongdoing by the Ormat

Parties and payment of \$11 million (inclusive of fees and costs). The settlement amount of \$11 million was included in general and administrative expenses in the consolidated statements of operations and comprehensive income for the year ended December 31, 2016.

- On March 29, 2016, a former local sales representative in Chile, Aquavant, S.A., filed a claim on the basis of unjust enrichment against Ormat's subsidiaries in the 27th Civil Court of Santiago, Chile. The claim requests that the court order Ormat to pay Aquavant \$4.6 million in connection with its activities in Chile, including the EPC contract for the Cerro Pabellon project and various geothermal concessions, plus 3.75% of Ormat geothermal products sales in Chile over the next 10 years. Pursuant to various petitions submitted by defendants, including a motion describing preliminary, procedural defenses, on August 18, 2016, and then on October 10, 2016, the 27th Civil Court issued a number of decisions, which include removal of the case to the 11th Civil Court of Santiago, thereby delaying a determination on the larger issues of jurisdiction and competency of the Chilean courts as a substantive (and not procedural) defense. The Company believes that it has valid defenses under law, and intends to defend itself vigorously.
- On August 5, 2016, George Douvris, Stephanie Douvris, Michael Hale, Cheryl Cacocci, Hillary E. Wilt and Christina Bryan, acting for themselves and on behalf of all other similarly situated residents of the lower Puna District, filed a complaint in the Third Circuit Court for the State of Hawaii seeking certification of a class action for preliminary and permanent injunctive relief, consequential and punitive damages, attorney's fees and statutory interest against PGV and other presently unknown defendants. The complaint purports that injuries and other damages in an undisclosed amount were caused to the plaintiffs as a result of an alleged toxic release by PGV in the wake of Hurricane Iselle in August 2014. On August 25, 2016, the Company filed to remove the case to the U.S. District Court for the District of Hawaii. On December 12, 2016, the District Court granted plaintiffs' motion for joinder of HELCO as an additional defendant, to amend the complaint, and to remand the case back to the Third Circuit Court. The Company believes that it has valid defenses under law, and intends to defend itself vigorously.
- On May 21, 2014, Elko County, Nevada appealed to the Supreme Court of Nevada the Nevada Governor's Office of Energy's award of an energy tax abatement to ORNI 42 LLC for our Tuscarora power plant. Lander County, Nevada similarly appealed the Office of Energy's Award of an energy tax abatement to ORNI 39 LLC for one of our McGinness Hills power plants. Both of the appeals request that the Court overturn the Office of Energy's decision and deny, retroactively and going forward, the tax abatement benefits for the full 20 year period, valued at approximately \$18.6 million for our McGinness Hills power plant and approximately \$6.2 million for our Tuscarora power plant, of which only a small portion was utilized as of September 30, 2016. Following full briefing on both plaintiffs' and defendants' motions for summary judgment, on December 21, 2016, the Supreme Court of Nevada issued its Order of Affirmance of the judgement of the District Court denying the petitions for judicial review of both Lander County and Elko County, and affirming ORNI 39 and ORNI 42's rights to obtain the partial property tax abatements for their respective facilities.
- On June 20, 2016, Nadia Garcia, individually and as successor in interest to Thomas Garcia Valenzuela, and as guardian ad litem to Emerie Garcia, Khamilla Garcia and Reyene Adam, filed a complaint against Ormat Technologies, Ormat Nevada and Ormesa LLC in the Superior Court of Imperial County seeking unspecified monetary damages. The complaint alleges that the Ormat defendants caused the wrongful death, personal injury and other harm to Thomas Garcia when he was employed by Martin Hydroblasting Services, Inc. and suffered injuries leading to his death while performing work at the Ormesa plant site on or around March 31, 2016. Early discovery and conferences are underway. The insurer of the deceased's employer and Ormat's insurer have accepted tender of this claim and are providing Ormat with a defense in the lawsuit, subject to reservation of rights to deny coverage under the policy and under the law.

In addition, from time to time, the Company is named as a party to various other lawsuits, claims and other legal and regulatory proceedings that arise in the ordinary course of our business. These actions typically seek, among other things, compensation for alleged personal injury, breach of contract, property damage, punitive damages, civil penalties or other losses, or injunctive or declaratory relief. With respect to such lawsuits, claims and proceedings, the Company accrues reserves when a loss is probable and the amount of such loss can be reasonably estimated. It is the opinion of the Company's management that the outcome of these proceedings, individually and collectively, will not be material to the Company's consolidated financial statements as a whole.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the NYSE under the symbol "ORA" effective since November 11, 2004. Prior to November 11, 2004, there was no public market for our stock. Effective on February 10, 2015, our common stock also began trading on the TASE.

As of February 27, 2017, there were 18 record holders of the Company's common stock. On February 27, 2017, our stock's closing price as reported on the NYSE was \$56.77 per share.

Dividends

We have adopted a dividend policy pursuant to which we currently expect to distribute at least 20% of our annual profits available for distribution by way of quarterly dividends. In determining whether there are profits available for distribution, our Board of Directors will take into account our business plan and current and expected obligations, and no distribution will be made that in the judgment of our Board of Directors would prevent us from meeting such business plan or obligations.

Notwithstanding this policy, dividends will be paid only when, as and if approved by our Board of Directors out of funds legally available therefor. The actual amount and timing of dividend payments will depend upon our financial condition, results of operations, business prospects and such other matters as the Board may deem relevant from time to time. Even if profits are available for the payment of dividends, the Board of Directors could determine that such profits should be retained for an extended period of time, used for working capital purposes, expansion or acquisition of businesses or any other appropriate purpose. As a holding company, we are dependent upon the earnings and cash flow of our subsidiaries in order to fund any dividend distributions and, as a result, we may not be able to pay dividends in accordance with our policy. Our Board of Directors may, from time to time, examine our dividend policy and may, in its absolute discretion, change such policy. In addition to the required Board of Directors' approval for the payment of dividends, the Company can declare as dividends no more than 35% of annual net income as dividends due to restrictions related to its third-party debt (see Note 25 to our consolidated financial statements set forth in Item 8 of this annual report).

We have declared the following dividends over the past two years:

Date Declared	Dividend Amount per Share	Record Date	Payment Date
November 3, 2015	\$ 0.06	November 18, 2015	December 2, 2015
February 23, 2016	\$ 0.31	March 15, 2016	March 29, 2016
May 4, 2016	\$ 0.07	May 18, 2016	May 24, 2016
August 2, 2016	\$ 0.07	August 16, 2016	August 30, 2016
November 7, 2016	\$ 0.07	November 21, 2016	December 6, 2016
February 28 2017	\$ 0.17	March 15, 2017	March 29, 2017

High/Low Stock Prices

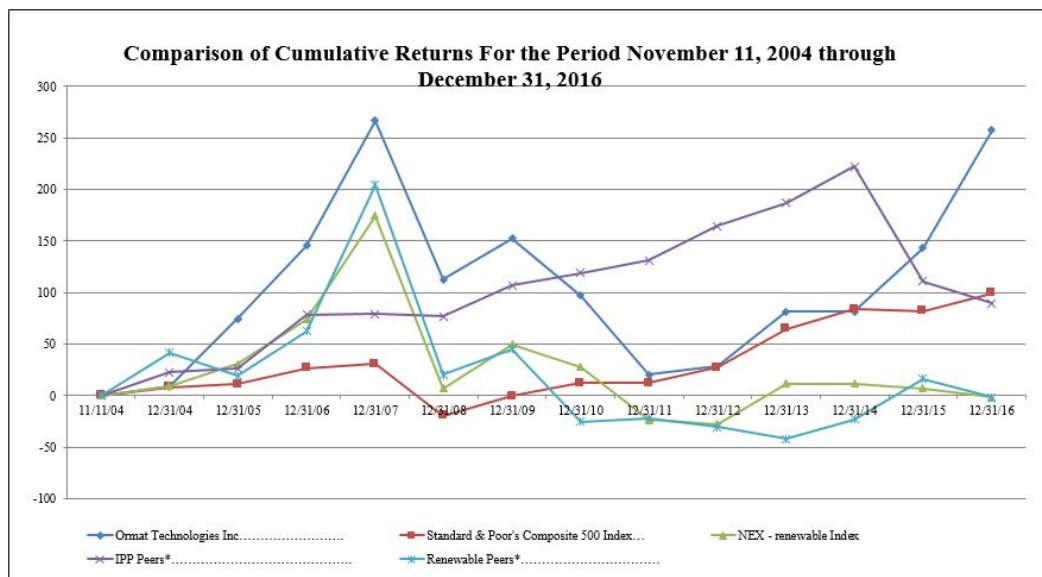
The following table sets forth the high and low sales prices of our common stock for the years ended December 31, 2015 and 2016, and from January 1, 2016 until February 27, 2016:

	First Quarter 2015	Second Quarter 2015	Third Quarter 2015	Fourth Quarter 2015	First Quarter 2016	Second Quarter 2016	Third Quarter 2016	Fourth Quarter 2016	January 1 to February 27, 2017
High	\$ 38	\$ 40	\$ 41	\$ 38	\$ 41.56	\$ 44.45	\$ 50.87	\$ 53.71	\$ 57.59
Low:	\$ 26	\$ 36	\$ 34	\$ 34	\$ 33.29	\$ 40.24	\$ 43.19	\$ 46.01	\$ 51.64

Stock Performance Graph

The following performance graph represents the cumulative total shareholder return for the period November 11, 2004 (the date upon which trading of the Company's common stock commenced) through December 31, 2016 for our common stock, compared to the Standard and Poor's Composite 500 Index, and two peer groups.

Comparison of Cumulative Returns for the Period November 11, 2004 through December 31, 2016



	For the Year Ended December 31,												
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ormat Technologies Inc....	9%	74%	145%	267%	112%	152%	97%	20%	29%	81%	81%	143%	258%
Standard & Poor's Composite 500 Index	8%	11%	26%	31%	-20%	-1%	12%	12%	27%	65%	84%	82%	100%
NEX - renewable Index.....	9%	30%	74%	174%	7%	50%	28%	-23%	-28%	12%	11%	7%	-2%
IPP Peers*	22%	26%	79%	79%	77%	107%	119%	131%	165%	187%	222%	111%	89%
Renewable Peers*	41%	19%	63%	204%	20%	45%	-25%	-22%	-30%	-42%	-23%	17%	-2%

* IPP Peers are The AES Corporation, NRG Energy Inc., Calpine Corporation and Covanta Holding Corp.

** Renewable Energy (Renewable) Peers are Acciona S.A. and U.S. Geothermal Inc.

The above Stock Performance Graph shall not be deemed to be soliciting material or to be filed with the SEC under the Securities Act and the Exchange Act except to the extent that the Company specifically requests that such information be treated as soliciting material or specifically incorporates it by reference into a filing under the Securities Act or the Exchange Act.

Equity Compensation Plan Information

For information on our equity compensation plan, refer to Item 12 — “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters”.

ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth our selected consolidated financial data for the years ended and at the dates indicated. We have derived the selected consolidated financial data for the years ended December 31, 2016, 2015 and 2014 and as of December 31, 2016 and 2015 from our audited consolidated financial statements set forth in Item 8 of this annual report. We have derived the selected consolidated financial data for the years ended December 31, 2013 and 2012 and as of December 31, 2014, 2013 and 2012 from our audited consolidated financial statements not included herein.

The information set forth below should be read in conjunction with Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements, including the notes thereto, set forth in Item 8 of this annual report.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(Dollars in thousands, except per share data)				
Statements of Operations Data:					
Revenues:					
Electricity	\$ 436,292	\$ 375,920	\$ 382,301	\$ 329,747	\$ 314,894
Product.....	226,299	218,724	177,223	203,492	186,879
Total revenues	662,591	594,644	559,524	533,239	501,773
Cost of revenues:					
Electricity	261,573	242,612	246,630	232,874	237,415
Product.....	130,223	133,753	109,143	140,547	135,346
Total cost of revenues	391,796	376,365	355,773	373,421	372,761
Gross profit.....	270,795	218,279	203,751	159,818	129,012
Operating expenses:					
Research and development expenses	2,762	1,780	783	4,965	6,108
Selling and marketing expenses.....	16,424	16,077	15,425	24,613	15,718
General and administrative expenses.....	46,710	34,782	28,614	29,188	28,066
Impairment charge.....	—	—	—	—	236,377
Write-off of unsuccessful exploration activities	3,017	1,579	15,439	4,094	2,639
Operating Income (loss)	201,882	164,061	143,490	96,958	(159,896)
Other income (expense):					
Interest income	971	297	312	1,332	1,201
Interest expense, net	(67,389)	(72,577)	(84,654)	(73,776)	(64,069)
Derivatives and foreign currency transaction gains (losses)	(5,534)	(1,622)	(5,839)	5,085	242
Income attributable to sale of tax benefits	16,503	25,431	24,143	19,945	10,127
Gain from sale of property, plant and equipment.....	—	—	7,628	—	—
Other non-operating income (expense), net.....	(5,345)	(1,991)	756	1,592	590
Income (loss) from continuing operations, before income taxes and equity in income (losses) of investees	141,088	113,599	85,836	51,136	(211,805)
Income tax (provision) benefit	(31,837)	15,258	(27,608)	(13,552)	(1,827)
Equity in losses of investees, net.....	(7,735)	(5,508)	(3,213)	(250)	(2,522)
Net Income (loss)	101,516	123,349	55,015	42,031	(212,607)
Net income attributable to noncontrolling interest	(7,586)	(3,776)	(833)	(793)	(414)
Net income (loss) attributable to the Company's stockholders	\$ 93,930	\$ 119,573	\$ 54,182	\$ 41,238	\$ (213,021)

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(Dollars in thousands, except per share data)				
Earnings (loss) per share attributable to the Company's stockholders:					
Basic:					
Net Income (loss)	\$ 1.90	\$ 2.46	\$ 1.19	\$ 0.91	\$ (4.69)
Diluted:					
Net income (loss)	\$ 1.87	\$ 2.43	\$ 1.18	\$ 0.91	\$ (4.69)
Weighted average number of shares used in computation of earnings (loss) per share attributable to the Company's stockholders:					
Basic	49,469	48,562	45,508	45,440	45,431
Diluted	50,140	49,187	45,859	45,475	45,431
Dividend per share declared	\$ 0.52	\$ 0.26	\$ 0.21	\$ 0.08	\$ 0.08
Balance Sheet Data (at end of year):					
Cash and cash equivalents	\$ 230,214	185,919	40,230	57,354	66,628
Working capital	283,579	186,635	68,121	103,001	64,100
Property, plant and equipment, net (including construction-in process)	1,863,087	1,808,170	1,734,359	1,741,163	1,649,014
Total assets	2,461,569	2,273,982	2,101,525	2,138,674	2,064,631
Long-term debt (including current portion)	938,844	901,403	981,379	1,057,098	1,008,036
Equity	1,170,007	1,083,874	786,746	745,111	695,607

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our results of operations, financial condition and liquidity in conjunction with our consolidated financial statements and the related notes. Some of the information contained in this discussion and analysis or set forth elsewhere in this annual report including information with respect to our plans and strategies for our business, statements regarding the industry outlook, our expectations regarding the future performance of our business, and the other non-historical statements contained herein are forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements." You should also review Item 1A — "Risk Factors" for a discussion of important factors that could cause actual results to differ materially from the results described herein or implied by such forward-looking statements.

General

Overview

We are a leading vertically integrated company that is currently primarily engaged in the geothermal and recovered energy power business. With the objective of becoming a leading global provider of renewable energy, we focus on several key initiatives, under our new strategic plan, as described below.

We design, develop, build, sell, own, and operate clean, environmentally friendly geothermal and recovered energy-based power plants, usually using equipment that we design and manufacture.

Our geothermal power plants include both power plants that we have built and power plants that we have acquired, while we have built all of our recovered energy-based plants. We currently conduct our business activities in two business segments:

- The Electricity segment — in this segment we develop, build, own and operate geothermal and recovered energy-based power plants in the U.S. and geothermal power plants in other countries around the world, and sell the electricity they generate and in the future, we plan to include services and other revenues derived from activity in the demand response and storage market as described below; and
- The Product segment — in this segment we design, manufacture and sell equipment for geothermal and recovered energy-based electricity generation and remote power units and provide services relating to the engineering, procurement, construction, operation and maintenance of geothermal and recovered energy-based power plants and in the future, other power generating units such as Solar PV and energy storage.

We intend to expand our operations to include demand response, energy management and storage. We recently signed an agreement to acquire substantially all of the business and assets of VEI, a privately held Philadelphia-based company with nearly a decade of expertise and leadership in demand response, energy management and storage. The acquired assets will be owned by our newly established wholly owned subsidiary, Viridity. The acquisition, which is expected to be close in early 2017, will mark Ormat's entry into the growing energy storage and demand response markets. We intend to use Viridity to accelerate long-term growth, expand our market presence, and further develop VEI's demand response VPower™ software platform and energy storage services. We plan to continue to provide services and products to existing customers of the acquired business, while expanding into new geographies and targeting a broader potential customer base.

Both our Electricity segment and Product segment operations are conducted in the U.S. and the rest of the world. Our current generating portfolio includes geothermal plants in the U.S., Guatemala, Kenya and Guadeloupe as well as REG plants in the U.S.

For the year ended December 31, 2016, our total revenues increased by 11.4% (from \$594.6 million to \$662.6 million) over the previous year.

For the year ended December 31, 2016, Electricity segment revenues were \$436.3 million, compared to \$375.9 million for the year ended December 31, 2015, an increase of 16.1%. Product segment revenues for the year ended December 31, 2016 were \$226.3 million, compared to \$218.7 million for the year ended December 31, 2015, an increase of 3.5%.

During the years ended December 31, 2016 and 2015, our consolidated power plants generated 5,396,959 MWh and 4,835,109 MWh, respectively, an increase of 11.6%

For the year ended December 31, 2016, our Electricity segment generated approximately 65.8% of our total revenues (63.2% in 2015), while our Product segment generated approximately 34.2% of our total revenues (36.8% in 2015).

For the year ended December 31, 2016, approximately 86% of our Electricity segment revenues were from PPAs with fixed energy rates which are not affected by fluctuations in energy commodity prices. We have variable price PPAs in California and Hawaii, which provide for payments based on the local utilities' avoided cost, which is the incremental cost that the power purchaser avoids by not having to generate such electrical energy itself or purchase it from others, as follows:

- the energy rates under the PPAs in California for each of the Ormesa complex, Heber 2 power plant in the Heber complex and the G2 power plant in the Mammoth complex, a total of approximately 90 MW, change primarily based on fluctuations in natural gas prices; and
- the prices paid for the electricity pursuant to the 25 MW PPA for the Puna complex in Hawaii change primarily due to variations in the price of oil as well as other commodities.

We recently reduced our economic exposure to fluctuations in the price of natural gas from February 2017 until December 2017, and before we reduced our economic exposure to fluctuations in the price of natural gas and oil from January 1, 2015 to March 31, 2015 and June 1, 2015 to December 31, 2015 and from February 3, 2016 until December 29, 2016, by entering into derivatives transactions. For the year ended December 31, 2016, we recorded a net loss of \$2.6 million under Derivatives and foreign currency transaction gains (losses).

To comply with obligations under their respective PPAs, certain of our project subsidiaries are structured as special purpose, bankruptcy remote entities and their assets and liabilities are ring-fenced. Such assets are not generally available to pay our debt other than debt at the respective project subsidiary level. However, these project subsidiaries are allowed to pay dividends and make distributions of cash flows generated by their assets to us subject in some cases to restrictions in debt instruments, as described below.

Electricity segment revenues are also subject to seasonal variations and can be affected by higher-than-average ambient temperatures, as described below under "Seasonality".

Revenues attributable to our Product segment are based on the sale of equipment, EPC contracts and the provision of various services to our customers. Product segment revenues may vary from period to period because of the timing of our receipt of purchase orders and the progress of our equipment manufacturing and execution of the relevant project.

Our management assesses the performance of our two operating segments differently. In the case of our Electricity segment, when making decisions about potential acquisitions or the development of new projects, management typically focuses on the internal rate of return of the relevant investment, technical and geological matters and other business considerations. Management evaluates our operating power plants based on revenues, expenses, and EBITDA, and our projects that are under development based on costs attributable to each such project. Management evaluates the performance of our Product segment based on the timely delivery of our products, performance quality of our products, revenues and costs actually incurred to complete customer orders compared to the costs originally budgeted for such orders.

Trends and Uncertainties

Trends, factors and uncertainties may impact our operations and financial condition, including many that we do not or cannot foresee, we believe that our results of operations and financial condition for the foreseeable future will be primarily affected by the following trends, factors and uncertainties that are from time to time subject to market cycle:

- There has been increased demand for energy generated from geothermal and other renewable resources in the U.S. as costs for electricity generated from renewable resources have become more competitive. Much of this is attributable to legislative and regulatory requirements and incentives, such as state RPS and federal tax credits such as PTCs or ITCs (which are discussed in more detail in the section entitled "Government Grants and Tax Benefits" below). We believe that future demand for energy generated from geothermal and other renewable resources in the U.S. will be driven mainly by further commitment and implementation of state RPS and greenhouse gas initiatives.

- We accelerated our efforts to expand business development activities in developing countries where geothermal is considered a local resource that can provide stable and cost effective solution to increase access to power. We expect that a variety of local governmental initiatives will create new opportunities for the development of new projects, as well as create additional markets for our products. These initiatives include the award of long-term contracts to independent power generators, the creation of competitive wholesale markets for selling and trading energy, capacity and related energy products and the adoption of programs designed to encourage “clean” renewable and sustainable energy sources.
- We expect to continue to generate the majority of our revenues from our Electricity segment through the sale of electricity from our power plants. All of our current revenues from the sale of electricity are derived from payments under long-term PPAs related to fully-contracted power plants. We also intend to continue to pursue opportunities, as they arise in our recovered energy business, in the Solar PV sector, in the energy storage market and in other forms of clean energy. In addition, pursuant to our strategic plan, we acquired a business in the demand response and energy storage that generates revenues derived mainly from software license fee and services, and we are also pursuing PPAs with enterprises that will increase our potential customer base.
- We have adopted a new strategic plan for growth of our company, in terms of geographic scope, customer base, and technology platforms covered by our product and service offerings, with a focus on increasing net income from operations. Under this plan, we will continue to focus on organic growth and increasing operational efficiency of our existing business lines. In addition, we are actively pursuing acquisition opportunities, both in our existing business lines and the solar power generation and energy storage businesses targeted as part of the plan. Examples include our acquisition of the Bouillante geothermal power plant on Guadeloupe Island and our recent entry into an agreement to acquire substantially all of the business and assets of VEI, which we plan to operate in the demand response and storage markets. We will face a number of challenges and uncertainties in implementing this plan, including integration of recently acquired assets, and we may revise elements of the plan in response to market conditions or other factors as we move forward with the plan.
- In the Electricity segment, we expect intense domestic competition from the solar and wind power generation industries to continue and increase. While we believe the expected demand for renewable energy will be large enough to accommodate increased competition, any such increase in competition, including increasing amounts of renewable energy under contract as well as any further decline in natural gas prices due to increased production which can affect the market price for electricity may contribute to a reduction in electricity prices. However, despite increased competition from the solar and wind power generation industries, we believe that base load electricity, such as geothermal-based energy, will continue to be an important source of renewable energy in areas with commercially viable geothermal resources. Also, we believe that geothermal power plants can positively impact electrical grid stability and provide valuable ancillary services because of their base load nature. In the geothermal industry, due to reduced competition for geothermal leases we have experienced a decrease in the upfront fee required to secure geothermal leases.
- In the Product segment, we have experienced increased competition from binary power plant equipment suppliers including the major steam turbine manufacturers. While we believe that we have a distinct competitive advantage based on our accumulated experience and current worldwide share of installed binary generation capacity, an increase in competition may impact our ability to secure new purchase orders from potential customers. The increased competition may also lead to further reduction in the prices that we are able to charge for our binary equipment, which in turn may reduce our profitability.
- The 38 MW Puna complex has three PPAs, one of which (the 25 MW PPA) has a monthly variable energy rate based on the local utility’s avoided costs. A decrease in the price of oil as well as in other commodities will result in a decrease in the incremental cost that the power purchaser avoids by not generating its electrical energy needs from oil, which will result in a reduction of the energy rate that we may charge under this PPA. In order to reduce our exposure to oil we signed fixed rate PPAs for the remaining 13 MW.
- Since May 2012, the pricing under our PPAs for the Ormesa, Mammoth and Heber complexes for a total of 161 MW were variable rate based on SRAC pricing that is impacted by natural gas prices. However, in 2013 and December 2015, we signed new fixed rate PPAs that reduced our current exposure to SRAC by 18 MW and 53 MW respectively, and recently we signed a fixed rate PPA that will reduce our exposure in November 2017 by an additional 40MW. In addition, to further reduce our exposure to natural gas prices, we enter, from time to time, into derivative transactions. In May 2015 we entered into a derivative transaction at a fixed price of \$3.00 per MMBtu and reduced our exposure to SRAC in the period from June 1, 2015 until December 31, 2015. In February 2016, we

sold call options for total proceeds of \$1.9 million at a fixed price of \$2.00 per MMBtu to reduce our exposure to SRAC in the period from February 3, 2016 until December 29, 2016. In January 2017 we acquired put options at a strike price of \$3 to hedge our exposure to decreasing natural gas prices below \$3 per MMBtu.

- The amounts that we are paid under our PPAs for electricity, capacity and other energy attributes vary for a number of reasons, including:
 - market conditions when the PPA is signed;
 - the competitive environment in the power market where the plant is located and the power and other energy attributes are sold; and
 - in the case of contracts described in the prior bullets with variable pricing components, current oil and natural gas prices.

This means, among other things, that one of the metrics some investors may use to evaluate power plant revenues is an average price per MWh that can fluctuate from year to year. Based on total Electricity segment revenues for those years, we earned, on average, \$80.84 and \$77.75 per MWh in 2016 and 2015, respectively. Oil and natural gas prices, together with other factors that affect our Electricity segment revenues, could cause changes in our average rate per MWh in the future.

- The viability of a geothermal resource depends on various factors such as the resource temperature, the permeability of the resource (i.e., the ability to get geothermal fluids to the surface) and operational factors relating to the extraction and injection of the geothermal fluids. Such factors, together with the possibility that we may fail to find commercially viable geothermal resources in the future, represent significant uncertainties that we face in connection with our growth expectations.
- As our power plants (including their respective well fields) age, they may require increased maintenance with a resulting decrease in their availability, potentially leading to the imposition of penalties if we are not able to meet the requirements under our PPAs as a result of any decrease in availability.
- Our foreign operations are subject to significant political, hostilities, economic and financial risks, which vary by country. As of the date of this annual report, those risks include security conditions in Israel, the partial privatization of the electricity sector in Guatemala and the political uncertainty currently prevailing in some of the countries in which we operate as further discussed above under “Risk Factors”. Although we maintain among other things political risk insurance for most of our investments in foreign power plants to mitigate these risks, insurance does not provide complete coverage with respect to all such risks.
- The Sarulla 330 MW project was released for construction, and we began to recognize our first Product segment revenues under the supply contract we signed with the EPC contractor in the quarter ended September 30, 2014. In 2017, we expect to derive significant revenues from the supply contract. We expect to generate additional income from our 12.75% equity investment in the Sarulla consortium following the commercial operation of the project. The Sarulla project’s future operations may be impacted by the status of development as discussed above under “Description of Our Power Plants”, various factors which we do not control given our minority position in the consortium, as well as other factors discussed above under “Risk Factors”.
- While we do not see any immediate impact from the failed coup in Turkey on our business and operations, we are monitoring any change in the political environment that may affect our future business and operations in the country. As a major equipment supplier in the Turkish geothermal market we are involved in a number of projects that are currently under construction and plan to continue our marketing efforts to secure new contracts. Our revenue exposure to the Turkish market is increasing and we expect higher exposure in 2017, as we signed significant number of new contracts in Turkey.
- A Turkish sub-contractor provides us with certain local equipment for renewable energy based generating facilities to help us meet our obligations under certain supply agreements in Turkey. The use of local equipment in renewable energy based generating facilities in Turkey entitles such facilities to certain benefits under Turkish law, provided such facilities have obtained an RER Certificate from EMRA, which requires the issuance of a local certificate. If we do not obtain the local certificate, then some of our customers under the relevant supply agreements in Turkey

may not be issued a RER Certificate based on the equipment we supply to them, and we will be required to make a payment to such customers equal to the amount of the expected lost benefit.

- FERC is allowed under PURPA to terminate, upon the request of a utility, the obligation of the utility to purchase the output of a Qualifying Facility if FERC finds that there is an accessible competitive market for energy and capacity from the Qualifying Facility. FERC has granted the California investor owned utilities a waiver of the mandatory purchase obligations from Qualifying Facilities above 20 MW. If the utilities in the regions in which our domestic power plants operate were to be relieved of the mandatory purchase obligation, they would not be required to purchase energy from us upon termination of the existing PPA, which could have an adverse effect on our revenues.

Revenues

We generate our revenues from the sale of electricity from our geothermal and recovered energy-based power plants; the design, manufacture and sale of equipment for electricity generation; and the construction, installation and engineering of power plant equipment.

Revenues attributable to our Electricity segment are derived from the sale of electricity from our power plants pursuant to long-term PPAs. While approximately 86% of our Electricity revenues for the year ended December 31, 2016 were derived from PPAs with fixed price components, we have variable price PPAs in California and Hawaii. Our California SO#4 PPAs totaling 99 MWs are subject to the impact of fluctuations in natural gas prices whereas the prices paid for electricity pursuant to the 25 MW PPA for the Puna complex in Hawaii are impacted by the price of oil as well as other commodities. Accordingly, our revenues from those power plants may fluctuate.

Our Electricity segment revenues are also subject to seasonal variations, as more fully described in “Seasonality” below.

Our PPAs generally provide for energy payments alone, or energy and capacity payments. Generally, capacity payments are payments calculated based on the amount of time that our power plants are available to generate electricity. Some of our PPAs provide for bonus payments in the event that we are able to exceed certain target capacity levels and the potential forfeiture of payments if we fail to meet certain minimum target capacity levels. Energy payments, on the other hand, are payments calculated based on the amount of electrical energy delivered to the relevant power purchaser at a designated delivery point. The rates applicable to such payments are either fixed (subject, in certain cases, to certain adjustments) or are based on the relevant power purchaser’s avoided costs. Our more recent PPAs generally provide for energy payments alone with an obligation to compensate the off-taker for its incremental costs as a result of shortfalls in our supply.

Revenues attributable to our Product segment fluctuate between periods, mainly based on our ability to receive customer orders, the status and timing of such orders, delivery of raw materials and the completion of manufacturing. Larger customer orders for our products are typically the result of our participating in, and winning, tenders or requests for proposals issued by potential customers in connection with projects they are developing. Such projects often take a significant amount of time to design and develop and are subject to various contingencies, such as the customer’s ability to raise the necessary financing for a project. Consequently, we are generally unable to predict the timing of such orders for our products and may not be able to replace existing orders that we have completed with new ones. As a result, revenues from our Product segment fluctuate (sometimes, extensively) from period to period. In both 2014 and 2015, we experienced a significant increase in our Product segment customer orders, which has increased our Product segment backlog. The backlog for our Product segment as of February 27, 2017, is described above in Item 1 — “Business”.

The following table sets forth a breakdown of our revenues for the years indicated:

	Revenues (dollars in thousands)			% of Revenues for Period Indicated		
	Year Ended December 31,			Year Ended December 31,		
	2016	2015	2014	2016	2015	2014
Revenues:						
Electricity	\$ 436,292	\$ 375,920	\$ 382,301	65.8%	63.2%	68.3%
Product.....	226,299	218,724	177,223	34.2	36.8	31.7
Total revenues	<u>\$ 662,591</u>	<u>\$ 594,644</u>	<u>\$ 559,524</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Geographic Breakdown of Revenues

The following table sets forth the geographic breakdown of the revenues attributable to our Electricity and Product segments for the years indicated:

	Revenues in Thousands			% of Revenues for Period Indicated		
	Year Ended December 31,			Year Ended December 31,		
	2016	2015	2014	2016	2015	2014
Electricity Segment:						
United States.....	\$ 288,842	\$ 261,478	\$ 268,198	66.2%	69.6%	70.2%
Foreign.....	147,450	114,442	114,103	33.8	30.4	29.8
Total.....	<u>\$ 436,292</u>	<u>\$ 375,920</u>	<u>\$ 382,301</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>
Product Segment:						
United States.....	\$ 18,183	\$ 19,838	\$ 17,000	8.0%	9.1%	9.6%
Foreign.....	208,116	198,886	160,223	92.0	90.9	90.4
Total.....	<u>\$ 226,299</u>	<u>\$ 218,724</u>	<u>\$ 177,223</u>	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The contribution of our domestic and foreign operations within our Electricity segment and Product segment to combined pre-tax income differ in a number of ways.

Electricity Segment. Our Electricity segment domestic revenues were approximately 96% and 128% higher than our Electricity segment foreign revenues for the years ended December 31, 2016 and 2015, respectively. However, domestic operations in our Electricity segment have higher costs of revenues and expenses than the foreign operations in our Electricity segment. Our foreign power plants are located in lower-cost regions, like Kenya, Guatemala and Guadeloupe, which favorably impact payroll and maintenance expenses among other items. They are also newer than most of our domestic power plants and therefore tend to have lower maintenance costs and higher availability factors than our domestic power plants.

Product Segment. Our Product segment foreign revenues were more than 90% of our total Product segment revenues for the years ended December 31, 2016 and 2015. Our Product segment foreign activity also benefits from lower costs of revenues and expenses than Product segment domestic activity such as labor and transportation costs. Accordingly, our Product segment foreign activity contributes more than our Product segment domestic activity to our pre-tax income from operations.

Relative Contributions. While our combined (domestic and foreign) Electricity segment revenues exceeded our combined Product segment revenues by approximately \$210.0 million and \$157.2 million for the year ended December 31, 2016 and 2015, respectively, (primarily foreign), Product segment revenues resulted in higher pre-tax income from foreign operations for both of those periods.

Seasonality

The prices paid for the electricity generated by some of our domestic power plants pursuant to our PPAs are subject to seasonal variations. The prices (mainly for capacity) paid for electricity under the PPAs with Southern California Edison and PG&E in California for the Heber 2 power plant in the Heber complex, the Mammoth complex, the Ormesa complex, and the North Brawley power plant are higher in the months of June through September. As a result, we receive, and expect to continue to receive in the future, higher revenues from these power plants and complexes during such months. In the winter, our power plants produce more energy principally due to the lower ambient temperature, which has a favorable impact on

the energy component of our Electricity revenues. The higher payments payable by Southern California Edison and PG&E in the summer months offset the negative impact on our revenues from lower generation in the summer due to the higher ambient temperature

Breakdown of Cost of Revenues

Electricity Segment

The principal cost of revenues attributable to our operating power plants includes operation and maintenance expenses comprised of salaries and related employee benefits, equipment expenses, costs of parts and chemicals, costs related to third-party services, lease expenses, royalties, startup and auxiliary electricity purchases, property taxes, insurance and, for some of our projects, purchases of make-up water for use in our cooling towers and also depreciation and amortization. In our California power plants our principal cost of revenues also includes transmission charges and scheduling charges. In some of our Nevada power plants we also incur transmission and wheeling charges. Some of these expenses, such as parts, third-party services and major maintenance, are not incurred on a regular basis. This results in fluctuations in our expenses and our results of operations for individual power plants from quarter to quarter. Payments made to government agencies and private entities on account of site leases where plants are located are included in cost of revenues. Royalty payments, included in cost of revenues, are made as compensation for the right to use certain geothermal resources and are paid as a percentage of the revenues derived from the associated geothermal rights. Royalties constituted approximately 3.9% and 4.1% of Electricity segment revenues for the years ended December 31, 2016 and December 31, 2015, respectively.

Product Segment

The principal cost of revenues attributable to our Product segment includes materials, salaries and related employee benefits, expenses related to subcontracting activities, and transportation expenses. Sales commissions to sales representatives are included in selling and marketing expenses. Some of the principal expenses attributable to our Product segment, such as a portion of the costs related to labor, utilities and other support services are fixed, while others, such as materials, construction, transportation and sales commissions, are variable and may fluctuate significantly, depending on market conditions. As a result, the cost of revenues attributable to our Product segment, expressed as a percentage of total revenues, fluctuates. Another reason for such fluctuation is that in responding to bids for our products, we price our products and services in relation to existing competition and other prevailing market conditions, which may vary substantially from order to order.

Cash and Cash Equivalents

Our cash and cash equivalents, as of December 31, 2016 increased to \$230.2 million from \$185.9 million as of December 31, 2015. This increase is principally due to: (i) \$203.5 million net proceeds from issuance of two new series of senior unsecured bonds; (ii) \$159.3 million derived from operating activities during the year ended December 31, 2016; (iii) \$92.5 million of proceeds from the senior secured notes issued by our subsidiary that owns our Don A. Campbell 1 power plant; (iv) \$50.0 million of proceeds from the loan for our Olkaria 3 complex; (v) \$59.9 million representing our share of the proceeds from the Opal Transaction (see “Opal Transaction” below); (vi) \$44.1 million net proceeds derived from the issuance of shares to noncontrolling interest and (vii) a net change in restricted cash and cash equivalents of \$15.2 million. This increase was partially offset by: (i) prepayment of \$249.5 million of senior unsecured bonds; (ii) our use of \$151.9 million to fund capital expenditures; (iii) net repayment of \$62.1 million of long-term debt; (iv) \$6.8 million of cash paid to repurchase a portion of our OFC Senior Secured Notes; (v) \$20.1 million net cash paid for the acquisition of GB; and (vi) \$64.1 million cash paid to a noncontrolling interest; and (vii) payment of a \$25.7 million cash dividend. Our corporate borrowing capacity under committed lines of credit with different commercial banks as of December 31, 2016 was \$524.8 million, as described below in “Liquidity and Capital Resources”, of which we have utilized \$342.6 million as of December 31, 2016.

Critical Accounting Estimates and Assumptions

Our significant accounting policies are more fully described in Note 1 to our consolidated financial statements set forth in Item 8 of this annual report. However, certain of our accounting policies are particularly important to an understanding of our financial position and results of operations. In applying these critical accounting estimates and assumptions, our management uses its judgment to determine the appropriate assumptions to be used in making certain estimates. Such estimates are based on management’s historical experience, the terms of existing contracts, management’s observance of trends in the geothermal industry, information provided by our customers and information available to management from

other outside sources, as appropriate. Such estimates are subject to an inherent degree of uncertainty and, as a result, actual results could differ from our estimates. Our critical accounting policies include:

- *Revenues and Cost of Revenues.* Revenues related to the sale of electricity from our geothermal and REG power plants and capacity payments paid in connection with such sales (electricity revenues) are recorded based upon output delivered and capacity provided by such power plants at rates specified pursuant to the relevant PPAs. Revenues related to PPAs accounted for as operating leases with minimum lease rentals which vary over time are generally recognized on a straight-line basis over the term of the PPA.

Revenues generated from the construction of geothermal and recovered energy-based power plant equipment and other equipment on behalf of third parties (product revenues) are recognized using the percentage of completion method, which requires estimates of future costs over the full term of product delivery. Such cost estimates are made by management based on prior operations and specific project characteristics and designs. If management's estimates of total estimated costs with respect to our Product segment are inaccurate, then the percentage of completion is inaccurate resulting in an over- or under-estimate of gross margins. As a result, we review and update our cost estimates on significant contracts on a quarterly basis, and at least on an annual basis for all others, or when circumstances change and warrant a modification to a previous estimate. Changes in job performance, job conditions, and estimated profitability, including those arising from the application of penalty provisions in relevant contracts and final contract settlements, may result in revisions to costs and revenues and are recognized in the period in which the revisions are determined. Provisions for estimated losses relating to contracts are made in the period in which such losses are determined. Revenues generated from engineering and operating services and sales of products and parts are recorded once the service is provided or product delivery is made, as applicable.

- *Property, Plant and Equipment.* We capitalize all costs associated with the acquisition, development and construction of power plant facilities. Major improvements are capitalized and repairs and maintenance (including major maintenance) costs are expensed. We estimate the useful life of our power plants to range between 25 and 30 years. Such estimates are made by management based on factors such as prior operations, the terms of the underlying PPAs, geothermal resources, the location of the assets and specific power plant characteristics and designs. Changes in such estimates could result in useful lives which are either longer or shorter than the depreciable lives of such assets. We periodically re-evaluate the estimated useful life of our power plants and revise the remaining depreciable life on a prospective basis.

We capitalize costs incurred in connection with the exploration and development of geothermal resources beginning when we acquire land rights to the potential geothermal resource. Prior to acquiring land rights, we make an initial assessment that an economically feasible geothermal reservoir is probable on that land using available data and external assessments vetted through our exploration department and occasionally outside service providers. Costs incurred prior to acquiring land rights are expensed. It normally takes two to three years from the time we start active exploration of a particular geothermal resource to the time we have an operating production well, assuming we conclude the resource is commercially viable.

In most cases, we obtain the right to conduct our geothermal development and operations on land owned by the BLM, various states or with private parties. In consideration for certain of these leases, we may pay an up-front non-refundable bonus payment which is a component of the competitive lease process. This payment and other related costs are capitalized and included in construction-in-process. Once we acquire land rights to the potential geothermal resource, we perform additional activities to assess the commercial viability of the resource. Such activities include, among others, conducting surveys and other analyses, obtaining drilling permits, creating access roads to drilling sites, and exploratory drilling which may include temperature gradient holes and/or slim holes. Such costs are capitalized and included in construction-in-process. Once our exploration activities are complete, we finalize our assessment as to the commercial viability of the geothermal resource and either proceed to the construction phase for a power plant or abandon the site. If we decide to abandon a site, all previously capitalized costs associated with the exploration project are written off.

Our assessment of economic viability of an exploration project involves significant management judgment and uncertainties as to whether a commercially viable resource exists at the time we acquire land rights and begin to capitalize such costs. As a result, it is possible that our initial assessment of a geothermal resource may be incorrect and we will have to write-off costs associated with the project that were previously capitalized. For example, during the years ended December 31, 2016, and 2015, we determined that the geothermal resource at two and three of our exploration projects, respectively, would not support commercial operations and as such, we abandoned those sites. As a result of this determination, we expensed \$3.0 million and \$1.6 million of capitalized costs during the years

ended December 31, 2016 and 2015, respectively. Due to the uncertainties inherent in geothermal exploration, these historical impairments may not be indicative of future impairments. Included in construction-in-process are costs related to projects in exploration and development of \$54.4 million and \$62.9 million at December 31, 2016 and 2015, respectively. Included in this amount, \$17.4 million and \$26.5 million relates to up-front bonus payments at December 31, 2016 and 2015, respectively.

- *Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed of.* We evaluate long-lived assets, such as property, plant and equipment and construction-in-process for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Factors which could trigger an impairment include, among others, significant underperformance relative to historical or projected future operating results, significant changes in our use of assets or our overall business strategy, negative industry or economic trends, a determination that an exploration project will not support commercial operations, a determination that a suspended project is not likely to be completed, a significant increase in costs necessary to complete a project, legal factors relating to our business or when we conclude that it is more likely than not that an asset will be disposed of or sold.

We test our operating plants that are operated together as a complex for impairment at the complex level because the cash flows of such plants result from significant shared operating activities. For example, the operating power plants in a complex are managed under a combined operation management generally with one central control room that controls and one maintenance group that services all of the power plants in a complex. As a result, the cash flows from individual plants within a complex are not largely independent of the cash flows of other plants within the complex. We test for impairment of our operating plants which are not operated as a complex, as well as our projects under exploration, development or construction that are not part of an existing complex, at the plant or project level. To the extent an operating plant becomes part of a complex in the future, we will test for impairment at the complex level.

Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated future net undiscounted cash flows expected to be generated by the asset. The significant assumptions that we use in estimating our undiscounted future cash flows include (i) projected generating capacity of the power plant and rates to be received under the respective PPA and (ii) projected operating expenses of the relevant power plant. Estimates of future cash flows used to test recoverability of a long-lived asset under development also include cash flows associated with all future expenditures necessary to develop the asset. If future cash flows are less than the assumptions we used in such estimates, we may incur impairment losses in the future that could be material to our financial condition and/or results of operations.

If our assets are considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. We believe that for the year ended December 31, 2016, no impairment exists for any of our long-lived assets; however, estimates as to the recoverability of such assets may change based on revised circumstances. Estimates of the fair value of assets require estimating useful lives and selecting a discount rate that reflects the risk inherent in future cash flows.

- *Obligations Associated with the Retirement of Long-Lived Assets.* We record the fair market value of legal liabilities related to the retirement of our assets in the period in which such liabilities are incurred. These liabilities include our obligation to plug wells upon termination of our operating activities, the dismantling of our power plants upon cessation of our operations, and the performance of certain remedial measures related to the land on which such operations were conducted. When a new liability for an asset retirement obligation is recorded, we capitalize the costs of such liability by increasing the carrying amount of the related long-lived asset. Such liability is accreted to its present value each period and the capitalized cost is depreciated over the useful life of the related asset. At retirement, we either settle the obligation for its recorded amount or report either a gain or a loss with respect thereto. Estimates of the costs associated with asset retirement obligations are based on factors such as prior operations, the location of the assets and specific power plant characteristics. We review and update our cost estimates periodically and adjust our asset retirement obligations in the period in which the revisions are determined. If actual results are not consistent with our assumptions used in estimating our asset retirement obligations, we may incur additional losses that could be material to our financial condition or results of operations.
- *Accounting for Income Taxes.* Significant estimates are required to arrive at our consolidated income tax provision and other tax balances. This process requires us to estimate our actual current tax exposure and to make an assessment of temporary differences resulting from differing treatments of items for tax and accounting purposes. Such differences result in deferred tax assets and liabilities which are included in our consolidated balance sheets. For

those jurisdictions where the projected operating results indicate that realization of our net deferred tax assets is not more likely than not, a valuation allowance is recorded.

We evaluate our ability to utilize the deferred tax assets quarterly and assess the need for the valuation allowance. In assessing the need for a valuation allowance, we estimate future taxable income, considering the feasibility of ongoing tax planning strategies and the realization of tax loss carryforwards. Valuation allowances related to deferred tax assets can be affected by changes in tax laws, statutory tax rates, and future taxable income. We have recorded a valuation allowance related to our U.S. deferred tax assets. In the future, if there is sufficient evidence that we will be able to generate sufficient future taxable income in the U.S., we may be required to reduce this valuation allowance, resulting in income tax benefits in our consolidated statement of operations.

In the ordinary course of business, there is inherent uncertainty in quantifying our income tax positions. We assess our income tax positions and record tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available at the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, which is greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information, we recognize between 0 to 100% of the tax benefit. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, we do not recognize any tax benefit in the consolidated financial statements. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material impact on our financial condition or results of operations.

New Accounting Pronouncements

See Note 1 to our consolidated financial statements set forth in Item 8 of this annual report for information regarding new accounting pronouncements.

Results of Operations

Our historical operating results in dollars and as a percentage of total revenues are presented below. A comparison of the different years described below may be of limited utility due to (i) our recent construction or disposition of new power plants and enhancement of acquired power plants and (ii) fluctuation in revenues from our Product segment.

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands, except per share data)		
Revenues:			
Electricity.....	\$ 436,292	\$ 375,920	\$ 382,301
Product.....	226,299	218,724	177,223
	<u>662,591</u>	<u>594,644</u>	<u>559,524</u>
Cost of revenues:			
Electricity.....	261,573	242,612	246,630
Product.....	130,223	133,753	109,143
	<u>391,796</u>	<u>376,365</u>	<u>355,773</u>
Gross profit			
Electricity.....	174,719	133,308	135,671
Product.....	96,076	84,971	68,080
	<u>270,795</u>	<u>218,279</u>	<u>203,751</u>
Operating expenses:			
Research and development expenses	2,762	1,780	783
Selling and marketing expenses	16,424	16,077	15,425
General and administrative expenses	46,710	34,782	28,614
Write-off of unsuccessful exploration activities	3,017	1,579	15,439
Operating income.....	<u>201,882</u>	<u>164,061</u>	<u>143,490</u>
Other income (expense):			
Interest income.....	971	297	312
Interest expense, net.....	(67,389)	(72,577)	(84,654)
Derivatives and foreign currency transaction gains (losses)	(5,534)	(1,622)	(5,839)
Income attributable to sale of tax benefits	16,503	25,431	24,143
Gain from sale of property, plant and equipment.....	—	—	7,628
Other non-operating income (expense), net.....	<u>(5,345)</u>	<u>(1,991)</u>	<u>756</u>
Income from continuing operations before income taxes			
equity in income of investees and equity in losses of			
investees.....	141,088	113,599	85,836
Income tax (provision) benefit	(31,837)	15,258	(27,608)
Equity in losses of investees, net.....	<u>(7,735)</u>	<u>(5,508)</u>	<u>(3,213)</u>
Net income.....	101,516	123,349	55,015
Net income attributable to noncontrolling interest.....	<u>(7,586)</u>	<u>(3,776)</u>	<u>(833)</u>
Net income attributable to the Company's stockholders	<u>\$ 93,930</u>	<u>\$ 119,573</u>	<u>\$ 54,182</u>
Earnings per share attributable to the Company's stockholders:			
Basic:			
Net income.....	<u>\$ 1.90</u>	<u>\$ 2.46</u>	<u>\$ 1.19</u>
Diluted:			
Net income.....	<u>\$ 1.87</u>	<u>\$ 2.43</u>	<u>\$ 1.18</u>
Weighted average number of shares used in computation of			
earnings per share attributable to the Company's stockholders:			
Basic.....	<u>49,469</u>	<u>48,562</u>	<u>45,508</u>
Diluted	<u>50,140</u>	<u>49,187</u>	<u>45,859</u>

	Year Ended December 31,		
	2016	2015	2014
Revenues:			
Electricity	65.8%	63.2%	68.3%
Product.....	34.2	36.8	31.7
	100.0	100.0	100.0
Cost of revenues:			
Electricity	60.0	64.5	64.5
Product.....	57.5	61.2	61.6
	59.1	63.3	63.6
Gross margin			
Electricity	40.0	35.5	35.5
Product.....	42.5	38.8	38.4
	40.9	36.7	36.4
Operating expenses:			
Research and development expenses.....	0.4	0.3	0.1
Selling and marketing expenses.....	2.5	2.7	2.8
General and administrative expenses.....	7.0	5.8	5.1
Write-off of unsuccessful exploration activities	0.5	0.3	2.8
Operating income	30.5	27.6	25.6
Other income (expense):			
Interest income	0.1	0.0	0.1
Interest expense, net.....	(10.2)	(12.2)	(15.1)
Derivatives and foreign currency transaction gains (losses)	(0.8)	(0.3)	(1.0)
Income attributable to sale of tax benefits.....	2.5	4.3	4.3
Gain from sale of property, plant and equipment.....	0.0	0.0	1.4
Other non-operating income (expense), net	(0.8)	(0.3)	0.1
Income from continuing operations before income taxes and equity in losses of investees	21.3	19.1	15.3
Income tax (provision) benefit	(4.8)	2.6	(4.9)
Equity in losses of investees, net.....	(1.2)	(0.9)	(0.6)
Net income	15.3	20.7	9.8
Net income attributable to noncontrolling interest.....	(1.1)	(0.6)	(0.1)
Net income attributable to the Company's stockholders	14.2%	20.1%	9.7%

Comparison of the Year Ended December 31, 2016 and the Year Ended December 31, 2015

Total Revenues

Total revenues for the year ended December 31, 2016 were \$662.6 million, compared to \$594.6 million for the year ended December 31, 2015, representing a 11.4% increase from the prior period. This increase was attributable to both our Electricity and Product segments, in which revenues increased by 16.1% and 3.5%, respectively, compared to the corresponding period in 2015.

Electricity Segment

Revenues attributable to our Electricity segment for the year ended December 31, 2016 were \$436.3 million, compared to \$375.9 million for the year ended December 31, 2015, representing a 16.1% increase from the prior period. This increase was primarily attributable to: (i) the commencement of operations of the second phase of the McGinness Hills and Don A. Campbell power plants in Nevada in February 2015 and September 2015, respectively, as well as the commencement of operations of our Plant 4 at the Olkaria III complex in Kenya in January 2016; (ii) higher energy rates under the Heber 1 PPA commencing in December 2015, and (iii) the consolidation of our Bouillante power plant in Guadeloupe, effective July 5, 2016, following the acquisition of an approximately 60% equity interest in GB. The increase was partially offset by a reduction in revenues generated by some of our power plants due to lower oil and natural gas prices.

Power generation in our power plants increased by 11.6% from 4,835,109 MWh in the year ended December 31, 2015 to 5,396,959 MWh in the year ended December 31, 2016, mainly due to commencement of commercial operation of the second phase of the McGinness Hills power plant and Don A. Campbell power plant in Nevada, and the commencement of operations of our Plant 4 at the Olkaria III complex in Kenya, as discussed above.

Product Segment

Revenues attributable to our Product segment for the year ended December 31, 2016 were \$226.3 million, compared to \$218.7 million for the year ended December 31, 2015, which represented a 3.5% increase. The increase in our Product segment revenues was primarily due to the start of revenue recognition from a new geothermal project we build. We recognized approximately \$58 million of revenue from this project in the year ended December 31, 2016, compared to approximately \$34 million in the year ended December 31, 2015. The total contract price for the project is approximately \$99.0 million and it is scheduled to be completed in the first half of 2017. The increase was partially offset by a net decrease of approximately \$11 million in revenues from projects we build in Turkey, of which some were completed in the year ended December 31, 2015, and due to timing of revenue recognition and different product mix.

Total Cost of Revenues

Total cost of revenues for the year ended December 31, 2016 was \$391.8 million, compared to \$376.4 million for the year ended December 31, 2015, representing a 4.1% increase from the prior period. As a percentage of total revenues, our total cost of revenues for the year ended December 31, 2016 decreased to 59.1%, compared to 63.3% for the year ended December 31, 2015.

Electricity Segment

Total cost of revenues attributable to our Electricity segment for the year ended December 31, 2016 was \$261.6 million, compared to \$242.6 million for the year ended December 31, 2015, representing a 7.8% increase from the prior period. This increase was primarily due to: (i) additional cost of revenues from the second phase of the McGinness Hills and Don A. Campbell power plants, the commencement of operations of our Plant 4 at the Olkaria III complex, and the consolidation of our Bouillante power plant all discussed above; and (ii) reimbursement of \$2.5 million of mining tax imposed on us based on an audit performed by the state of Nevada for the years ended December 31, 2008, 2009 and 2010 following our successful appeal of the audit decision in the first quarter of 2015. As a percentage of total Electricity segment revenues, the total cost of revenues attributable to our Electricity segment for the year ended December 31, 2016 was 60.0%, compared to 64.5% for the year ended December 31, 2015. This decrease was primarily due to higher efficiency in some of our operating power plants as well as lower costs of operating the three new power plants mentioned above.

Product Segment

Total cost of revenues attributable to our Product segment for the year ended December 31, 2016 was \$130.2 million, compared to \$133.8 million for the year ended December 31, 2015, representing a 2.6% decrease from the prior period. This decrease was primarily attributable to efficiencies, cost savings and project management, offset partially due to the increase in Product segment revenues as discussed above. As a percentage of total Product segment revenues, our total cost of revenues attributable to the Product segment for the year ended December 31, 2016 was 57.5%, compared to 61.2% for the year ended December 31, 2015. This decrease was mainly attributable to improvements made at our manufacturing facility and our project management and construction costs as well as the different product mix and different margins in the various sales contracts we entered into for this segment during these periods.

Research and Development Expenses

Research and development expenses for the year ended December 31, 2016 were \$2.8 million, compared to \$1.8 million for the year ended December 31, 2015.

Selling and Marketing Expenses

Selling and marketing expenses for the year ended December 31, 2016 were \$16.4 million, compared to \$16.1 million for the year ended December 31, 2015. Selling and marketing expenses for the year ended December 31, 2016 constituted 2.5% of total revenues for such year, compared to 2.7% of such revenues for the year ended December 31, 2015.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2016 were \$46.7 million, compared to \$34.8 million for the year ended December 31, 2015.

This increase was mainly due to \$11.0 million expenses related to a settlement with certain former employees of the company to settle claims brought by such employees against the company under qui tam provisions of the False Claims Act, partially offset by \$3.8 million of expenses related to the share exchange with Ormat Industries, recorded in the first quarter of 2015. General and administrative expenses excluding the one-time costs and the costs related to the share exchange, constituted 5.5% and 5.2% of total revenues for the years ended December 31, 2016 and 2015, respectively.

Write-off of Unsuccessful Exploration Activities

Write-off of unsuccessful exploration activities for the year ended December 31, 2016 was \$3.0 million compared to \$1.6 million for the year ended December 31, 2015. The majority of the write-off of unsuccessful exploration activities for the year ended December 31, 2016, represented the costs related to the Twilight site in Oregon and concession in Chile, which we determined would not support commercial operations. The majority of the write-off of unsuccessful exploration activities for the year ended December 31, 2015 represented the costs related to the Maui prospect in Hawaii, which we determined in the fourth quarter of 2015 would not support commercial operations.

Operating Income

Operating income for the year ended December 31, 2016 was \$201.9 million, compared to \$164.1 million for the year ended December 31, 2015, representing a 23.1% increase from the prior period. The increase in operating income was primarily attributable to the increase in our gross margin in both our Electricity and Product segments primarily due to the increase in revenues, as discussed above, partially offset by \$11.0 million one-time expenses related to a settlement with certain former employees of the company of a claims brought by such employees against the company under qui tam provisions of the False Claim Act. Operating income attributable to our Electricity segment for the year ended December 31, 2016 was \$126.8 million, compared to \$99.3 million for the year ended December 31, 2015. Operating income attributable to our Product segment for the year ended December 31, 2016 was \$75.1 million, compared to \$64.7 million for the year ended December 31, 2015.

Interest Expense, Net

Interest expense, net, for the year ended December 31, 2016 was \$67.4 million, compared to \$72.6 million for the year ended December 31, 2015, representing a 7.1% decrease from the prior period. This decrease was primarily due to: (i) the repayment, in September 2016, of the senior unsecured bonds in the amount of \$250 million which bore interest at a fixed rate of 7% per annum, by issuance of new series of senior unsecured bonds in the amounts of \$67 million and \$137 million, respectively and bear interest at a fixed rate of 3.7% and 4.45% per annum, respectively, as discussed below; (ii) a lower interest expense as a result of principal payments of long term debt and revolving credit lines with banks; partially offset due to \$0.8 million decrease related to interest capitalized to projects.

Derivatives and Foreign Currency Transaction Losses

Derivatives and foreign currency transaction losses for the year ended December 31, 2016 were \$5.5 million, compared to \$1.6 million for the year ended December 31, 2015. Derivatives and foreign currency transaction losses for the year ended December 31, 2016 were attributable primarily to \$2.6 million in losses from future contracts to reduce our economic exposure to fluctuations in prices of natural gas and oil under our SO#4 and Puna PPAs, which were not accounted for as hedge transactions, and \$1.5 million losses due to changes in the fair value of the contract obligation in the Guadeloupe transaction. Derivatives and foreign currency transaction losses for the year ended December 31, 2015 were attributable primarily to losses on foreign currency forward contracts, which were not accounted for as hedge transactions.

Income Attributable to Sale of Tax Benefits

Income attributable to the sale of tax benefits to institutional equity investors (as described below under “OPC Transaction” and “ORTP Transaction”) for the year ended December 31, 2016 was \$16.5 million, compared to \$25.4 million for the year ended December 31, 2015. This income represents mainly the value of PTCs and taxable income or loss generated by ORTP and allocated to investors. This decrease was primarily attributable to a lower taxable loss in ORTP.

Other non-operating income (loss)

Other non-operating loss for the year ended December 31, 2016 was \$5.4 million, compared to \$2.0 million in the year ended December 31, 2015. Other non-operating loss for the year ended December 31, 2016 includes: (i) prepayment fees of approximately \$5.0 million due to the repayment of the senior unsecured bonds in September 2016, as discussed below; and (ii) a make whole premium of \$0.6 million resulting from the repurchase of \$6.8 million aggregate principal amount of our OFC Senior Secured Notes. Other non-operating loss for the year ended December 31, 2015 includes a capital loss of \$1.7 million resulting from the repurchase of \$30.6 million aggregate principal amount of our OFC Senior Secured Notes.

Income from operations, before income taxes and equity in income of investees

Income from operations, before income taxes and equity in income of investees for the year ended December 31, 2016 was \$141.1 million, compared to \$113.6 million for the year ended December 31, 2015, representing a 24.2% increase from the prior period. The income is attributable in total to our foreign operations. The increase compared to the year ending December 31, 2015 was driven by the increase in Product Segment revenues in Indonesia and Chile. The small loss in our domestic operations resulted mainly from the \$11.0 million one-time expenses related to a settlement with certain former employees of the company of a claims brought by such employees against the company under qui tam provisions of the False Claim Act and the approximately \$5.0 million due to the repayment of the senior unsecured bonds in September 2016.

Income Taxes

Income tax provision for the year ended December 31, 2016 was \$31.8 million, compared to income tax benefit of \$15.3 million for the year ended December 31, 2015. Income tax benefit for the year ended December 31, 2015 includes a \$49.4 million deferred tax asset relating to the release of the valuation allowance for the additional 50% investment deduction for our Olkaria 3 power plant based on amendments to the Kenya Income Tax Act that came into effect on September 11, 2015 and which extended the period to utilize such investment deduction from five years to ten years. Income tax provision for the year ended December 31, 2015, excluding the \$49.4 million, was \$34.1 million. The increase in income tax provision from \$34.1 million, excluding the \$49.4 million, in the year ended December 31, 2015 to \$36.5 million, excluding \$4.7 million of tax benefit pertaining to our operations in Kenya (see note 19) in the year ended December 31, 2016, primarily resulted from the increase in income before taxes in jurisdictions outside the U.S. Our effective tax rate for the years ended December 31, 2016, and 2015, excluding the \$49.4 million, was 22.5% and 28.8%, respectively. Our effective tax rate is principally based upon the composition of the income in different countries and changes related to valuation allowances for certain countries. Our aggregate effective tax rate is lower than the 35% U.S. federal statutory tax rate as a substantial portion of our income is derived in Israel which is taxed at the corporate tax rate of 16%, partially offset by taxes on earnings in Kenya which are taxed at statutory rate of 37.5%. There is no impact on the Company's income tax expense (benefit) related to the U.S. earnings (losses) due to the offsetting impact on the provision related to the change in the valuation allowance on the Company's U.S. net deferred tax asset position.

For the year ended December 31, 2016 and 2015, we recorded a valuation allowance in the amount of approximately \$109.6 million and \$70.5 million respectively, against our U.S. deferred tax assets related to net operating loss (NOL) carryforwards and unutilized tax credits (PTCs and ITCs). As of December 31, 2016 we had U.S. federal NOLs in the amount of approximately \$299.6 million, state NOLs in the amount of approximately \$244.7 million, and unutilized tax credits of approximately \$83.8 million, all of which can be carried forward for 20 years. The related deferred tax assets totaled approximately \$109.6 million. Realization of these deferred tax assets and tax credits is dependent on generating sufficient taxable income in the U.S. prior to expiration of the NOL carryforwards and tax credits. The scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies were considered in determining the amount of valuation allowance. A valuation allowance in the amount of \$109.6 million was recorded against the U.S. deferred tax assets as of December 31, 2016 because we believe it is more likely than not that the deferred tax assets will not be realized. If sufficient additional evidence of our ability to generate taxable income is established, we may be required to reduce or fully release the valuation allowance, resulting in income tax benefits in our consolidated statement of operations.

Equity in losses of investees, net

Equity in losses of investees, net in the year ended December 31, 2016 was \$7.7 million, compared to \$5.5 million in the year ended December 31, 2015. Equity in losses of investees, net derived from our 12.75% share in the losses of the Sarulla project and from profits elimination.

Net Income

Net income for the year ended December 31, 2016 was \$101.5 million, compared to \$123.3 million for the year ended December 31, 2015, representing a decrease of \$21.8 million from the prior period. This decrease in net income was primarily attributable to \$11.0 million in one-time general and administrative expenses related to the settlement paid in connection with the FCA claim, as discussed above, the \$47.1 million increase in income tax provision, a decrease of \$8.9 million in income attributable to sale of tax benefits, and \$3.4 million increase in other non-operating loss, partially offset by an increase of \$53.3 million in gross margin and a decrease in interest expense of \$5.2 million, all as discussed above.

Comparison of the Year Ended December 31, 2015 and the Year Ended December 31, 2014

Total Revenues

Total revenues for the year ended December 31, 2015 were \$594.6 million, compared to \$559.5 million for the year ended December 31, 2014, representing a 6.3% increase from the prior period. This increase was attributable to our Product segment, in which revenues increased by 23.4% compared to the corresponding period in 2014. This increase was partially offset by a 1.7% decrease in our Electricity segment revenues over the corresponding period in 2014.

Electricity Segment

Revenues attributable to our Electricity segment for the year ended December 31, 2015 were \$436.3 million, compared to \$375.9 million for the year ended December 31, 2014, representing a 1.7% decrease from the prior period. This decrease was primarily attributable to a \$30 million reduction in revenues generated by some of our power plants due to lower oil and natural gas prices as well as our Puna power plant having lower generation due to a hurricane. This decrease was partially offset by the commencement of operations of the second phase of the McGinness Hills and Don A. Campbell power plant in Nevada in February 2015 and September 2015, respectively.

Power generation in our power plants increased by 8.6% from 4,450,910 MWh in the year ended December 31, 2014 to 4,835,109 MWh in the year ended December 31, 2015, mainly due to commencement of commercial operation of the second phase of the McGinness Hills power plant and Don A. Campbell power plant, partially offset by the decrease in generation of the Puna and North Brawley power plants.

Product Segment

Revenues attributable to our Product segment for the year ended December 31, 2015 were \$218.7 million, compared to \$177.2 million for the year ended December 31, 2014, which represented a 23.4% increase. This increase in our Product segment revenues was primarily due to timing of revenue recognition, different product mix and commencing revenue recognition for new contracts.

Total Cost of Revenues

Total cost of revenues for the year ended December 31, 2015 was \$376.4 million, compared to \$355.8 million for the year ended December 31, 2014, representing a 5.8% increase from the prior period. This increase was primarily due to the increase in cost of revenues from our Product segment, partially offset by a decrease in cost of revenues from our Electricity segment. As a percentage of total revenues, our total cost of revenues for the year ended December 31, 2015 decreased to 63.3%, compared to 63.6% for the year ended December 31, 2014. This decrease was attributable to a decrease in cost of revenues as a percentage of total revenues, in both our Electricity and Product segments.

Electricity Segment

Total cost of revenues attributable to our Electricity segment for the year ended December 31, 2015 was \$242.6 million, compared to \$246.6 million for the year ended December 31, 2014, representing a 1.6% decrease from the prior period. This decrease was primarily due to: (i) reimbursement of \$2.5 million of mining tax imposed on us based on an audit performed by the state of Nevada for the years ended December 31, 2008, 2009 and 2010 following our successful appeal of the audit decision in the first quarter of 2015 and (ii) the fact that in the year ended December 31, 2015 we did not incur costs that we incurred in the year ended December 31, 2014 to address the North Brawley power plant uncontrolled well flow. This decrease in our electricity cost of revenues was partially offset by additional cost of revenues from the second phase of the McGinness Hills power plant and Don A. Campbell power plant that commenced commercial operation in February 2015 and September 2015, respectively, as discussed above. As a percentage of total Electricity segment revenues, the total cost

of revenues attributable to our Electricity segment for the year ended December 31, 2015 was 64.5%, compared to 64.5% for the year ended December 31, 2014.

Product Segment

Total cost of revenues attributable to our Product segment for the year ended December 31, 2015 was \$133.8 million, compared to \$109.1 million for the year ended December 31, 2014, representing a 22.5% increase from the prior period. This increase was primarily attributable to the increase in Product segment revenues as discussed above. As a percentage of total Product segment revenues, our total cost of revenues attributable to the Product segment for the year ended December 31, 2015 was 61.2%, compared to 61.6% for the year ended December 31, 2014. This decrease was mainly attributable to the different product mix and different margins in the various sales contracts we entered into for this segment during these periods, as well as improvements made at our manufacturing plant.

Research and Development Expenses

Research and development expenses for the year ended December 31, 2015 were \$1.8 million, compared to \$0.8 million for the year ended December 31, 2014. Research and development expenses are net of grants from the DOE in the amount of \$0 and \$0.5 million for the years ended December 31, 2015 and 2014, respectively, related to the EGS.

Selling and Marketing Expenses

Selling and marketing expenses for the year ended December 31, 2015 were \$16.1 million, compared to \$15.4 million for the year ended December 31, 2014. This increase was primarily due to higher sales commissions related to our Product segment due to higher revenues and different commissions mix. Selling and marketing expenses for the year ended December 31, 2015 constituted 2.7% of total revenues for such year, compared to 2.8% of such revenues for the year ended December 31, 2014.

General and Administrative Expenses

General and administrative expenses for the year ended December 31, 2015 were \$34.8 million, compared to \$28.6 million for the year ended December 31, 2014.

This increase was mainly due to \$3.8 million of expenses related to the share exchange with Ormat Industries completed in 2015. General and administrative expenses for the year ended December 31, 2015, excluding the costs related to the share exchange, constituted 5.2% and 5.1% of total revenues for the years ended December 31, 2015 and 2014, respectively.

Write-off of Unsuccessful Exploration Activities

Write-off of unsuccessful exploration activities for the year ended December 31, 2015 was \$1.6 million compared to \$15.4 million for the year ended December 31, 2014. The majority of the write-off of unsuccessful exploration activities for the year ended December 31, 2015 represented the costs related to the Maui prospect in Hawaii, which we determined in the fourth quarter of 2015 would not support commercial operations. Write-off of unsuccessful exploration activities for the year ended December 31, 2014 represented the costs of \$8.1 million related to our exploration activities in the Wister site in California, and \$7.3 million related to our exploration activities in the Mount Spurr site in Alaska, which we determined in the second and the fourth quarters of 2014, respectively, would not support commercial operations.

Operating Income

Operating income for the year ended December 31, 2015 was \$164.1 million, compared to \$143.5 million for the year ended December 31, 2014, representing a 14.4% increase from the prior period. This increase was primarily attributable to the write-off of unsuccessful exploration activities in the amount of \$15.4 million for the year ended December 31, 2014 and to an increase in our gross margin in our Product segment, as discussed above. The increase was partially offset by costs associated with the share exchange, as discussed above. Operating income attributable to our Electricity segment for the year ended December 31, 2015 was \$99.3 million, compared to \$90.4 million for the year ended December 31, 2014. This increase was primarily attributable to a decrease in write-off of unsuccessful exploration activities in the amount of \$13.9 million, as described above. Operating income attributable to our Product segment for the year ended December 31, 2015 was \$64.7 million, compared to \$53.1 million for the year ended December 31, 2014.

Interest Expense, Net

Interest expense, net, for the year ended December 31, 2015 was \$72.6 million, compared to \$84.7 million for the year ended December 31, 2014, representing a 14.3% decrease from the prior period. This decrease was primarily due to: (i) lower interest expense as a result of principal payments of long term debt and revolving credit lines with banks; (ii) a \$2.8 million decrease in interest related to the sale of tax benefits; and (iii) \$0.9 million increase related to interest capitalized to projects. The decrease was partially offset by an increase in interest expense related to a loan in the amount of \$140.0 million received under the OFC 2 Senior Secured Notes to finance the construction of the second phase of the McGinness Hills power plant in August 2014.

Foreign Currency Translation and Transaction Losses

Foreign currency translations and transaction losses for the year ended December 31, 2015 were \$1.6 million, compared to \$5.8 million for the year ended December 31, 2014. Foreign currency translations and transaction losses were attributable primarily to losses on foreign currency forward contracts which were not accounted for as hedge transactions.

Income Attributable to Sale of Tax Benefits

Income attributable to the sale of tax benefits to institutional equity investors (as described below under “OPC Transaction” and “ORTP Transaction”) for the year ended December 31, 2015 was \$25.4 million, compared to \$24.1 million for the year ended December 31, 2014. This income primarily represents the value of PTCs and taxable income or loss generated by OPC and ORTP and allocated to investors in the amount of \$5.3 million and \$20.1 million, respectively, in the year ended December 31, 2015, compared to \$7.0 million and \$17.1 million, respectively, in the year ended December 31, 2014. This increase was primarily attributable to a higher taxable loss in ORTP, partially offset by lower depreciation for tax purposes in OPC as a result of declining depreciation rates under MACRS.

Gain from Sale of Property, Plant and Equipment

There was no gain from the sale of property, plant and equipment for the year ended December 31, 2015. Gain from the sale of property, plant and equipment for the year ended December 31, 2014 was \$7.6 million. This gain relates to the sale of the Heber Solar project in Imperial County, California for an aggregate purchase price of \$35.25 million in the first quarter of 2014. We received the first payment of \$15.0 million in the first quarter of 2014, and the second payment of the remaining \$20.25 million in the second quarter of 2014. We recognized the gain in the second quarter of 2014.

Other non-operating income (loss)

Other non-operating loss for the year ended December 31, 2015 was \$2.0 million, compared to non-operating income of \$0.8 million for the year ended December 31, 2014. Other non-operating loss for the year ended December 31, 2015 includes a capital loss of \$1.7 million resulting from the repurchase of \$30.6 million aggregate principal amount of the OFC Senior Secured Notes.

Income from operations, before income taxes and equity in income of investees

Income from operations, before income taxes and equity in income of investees for the year ended December 31, 2015 was \$113.6 million, compared to \$85.8 million for the year ended December 31, 2014, representing a 32.4% increase from the prior period. The income is attributable in total to our foreign operations. The increase compared to the year ending December 31, 2014 was driven by the increase in Product Segment revenues in Indonesia and Chile. The small loss in our domestic operations resulted mainly from the low commodity prices in 2015 and the fact that 18.1% of our domestic revenues are linked to commodity prices.

Income Taxes

Income tax benefit for the year ended December 31, 2015 was \$15.3 million, compared to income tax provision of \$27.6 million for the year ended December 31, 2014. Income tax benefit for the year ended December 31, 2015 includes a \$49.4 million deferred tax asset relating to the release of the valuation allowance for the additional 50% investment deduction for our Olkaria 3 power plant based on amendments to the Kenya Income Tax Act that came into effect on September 11, 2015 and which extended the period to utilize such investment deduction from five years to ten years. Income tax provision for the year ended December 31, 2015, excluding the \$49.4 million deferred tax asset, was \$34.1 million, compared to \$27.6 million for the year ended December 31, 2014. This increase in income tax provision primarily resulted from the increase in income

before taxes in jurisdictions outside the U.S. Our effective tax rate for the years ended December 31, 2015, excluding the \$49.4 million deferred tax asset, and 2014, was 28.8% and 32.2%, respectively. The effective tax rate differs from the federal statutory rate of 35% for the year ended December 31, 2015 primarily due to losses in the U.S. and certain foreign jurisdictions.

For the year ended December 31, 2015 and 2014, we recorded a valuation allowance in the amount of approximately \$70.5 million and \$111.3 million respectively, against our U.S. deferred tax assets in respect of net operating loss (NOL) carryforwards and unutilized tax credits (PTCs and ITCs). As of December 31, 2015 we had U.S. federal NOLs in the amount of approximately \$261.0 million, state NOLs in the amount of approximately \$191.0 million, and unutilized tax credits of approximately \$72.0 million, all of which can be carried forward for 20 years. The related deferred tax assets totaled approximately \$70.5 million. Realization of these deferred tax assets and tax credits is dependent on generating sufficient taxable income in the U.S. prior to expiration of the NOL carryforwards and tax credits. The scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies were considered in determining the amount of valuation allowance. A valuation allowance in the amount of \$70.5 million was recorded against the U.S. deferred tax assets as of December 31, 2015 as at that point in time, we believed it was more likely than not that the deferred tax assets will not be realized.

Equity in losses of investees, net

Equity in losses of investees, net in the year ended December 31, 2015 was \$5.5 million, compared to \$3.2 million in the year ended December 31, 2014. Equity in losses of investees, net derived from our 12.75% share in the losses of the Sarulla project and from profits elimination.

Net Income

Net income for the year ended December 31, 2015 was \$123.3 million, compared to \$55.0 million for the year ended December 31, 2014, representing an increase of \$68.3 million, or 124.2% from the prior period. This increase in net income was primarily attributable to the deferred tax asset in Kenya and related expenses for \$48.7 million, the \$20.6 million in operating income and a decrease in interest expense of \$12.1 million, as discussed above. The increase was partially offset by a \$7.6 million gain from the sale of property, plant and equipment for the year ended December 31, 2014, as discussed above.

Liquidity and Capital Resources

Our principal sources of liquidity have been derived from cash flows from operations, proceeds from third party debt in the form of borrowings under credit facilities and private offerings, issuances of notes, project financing, tax monetization transactions, short term borrowing under our lines of credit, sale of membership interests in one or more of our projects and cash grants we received under the ARRA. We have utilized this cash to develop and construct power generation plants, fund our acquisitions, pay down existing outstanding indebtedness, and meet our other cash and liquidity needs.

As of December 31, 2016, we had access to the following sources of funds: (i) \$230.2 million in cash, cash equivalents of which \$215.9 million held by our foreign subsidiaries; and (ii) \$139.8 million of unused corporate borrowing capacity under existing lines of credit with different commercial banks.

Our estimated capital needs for 2017 includes approximately \$255.0 million for capital expenditures on new projects under development or construction, exploration activity, and operating projects, as well as \$66.0 million for debt repayment.

We expect to finance these requirements with: (i) the sources of liquidity described above; (ii) positive cash flows from our operations; and (iii) future project financing and refinancing (including construction loans). Management believes that based on current stage of implementation of the new strategic plan, the sources of liquidity and capital resources described above will address our anticipated liquidity, capital expenditures, and other investment requirements.

We believe that based on our plans to increase our operations outside of the U.S., the cash generated from our operations outside of the U.S. will be reinvested outside of the U.S. In addition, our U.S. sources of cash and liquidity are sufficient to meet our needs in the U.S., and accordingly, we do not currently plan to repatriate the funds we have designated as being permanently invested outside the U.S. If we change our plans, we may be required to accrue and pay U.S. taxes to repatriate these funds.

Third-Party Debt

Our third-party debt is composed of two principal categories. The first category consists of project finance debt or acquisition financing that we or our subsidiaries have incurred for the purpose of developing and constructing, refinancing or acquiring our various projects, which are described below under “Non-Recourse and Limited-Recourse Third-Party Debt”. The second category consists of debt incurred by us or our subsidiaries for general corporate purposes, which are described below under “Full-Recourse Third-Party Debt.”

Non-Recourse and Limited-Recourse Third-Party Debt

OFC Senior Secured Notes — Non-Recourse

In February 2004, OFC, one of our subsidiaries, issued \$190.0 million of OFC Senior Secured Notes for the purpose of refinancing the acquisition cost of the Brady, Ormesa and Steamboat 1, 1A, 2 and 3 power plants, and the financing of the acquisition cost of 50% of the Mammoth complex. The OFC Senior Secured Notes have a final maturity date of December 30, 2020. Principal and interest on the OFC Senior Secured Notes are payable in semi-annual payments. The OFC Senior Secured Notes are collateralized by substantially all of the assets of OFC and those of its wholly owned subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OFC. There are various restrictive covenants under the OFC Senior Secured Notes, which include limitations on additional indebtedness of OFC and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OFC. In addition, there are restrictions on the ability of OFC to make distributions to its shareholders, which include a required historical and projected 12-month debt service coverage ratio (DSCR) of not less than 1.25 (measured semi-annually as of June 30 and December 31 of each year). If OFC fails to comply with the DSCR ratio it will be prohibited from making distributions to its shareholders. We are only required to measure these covenants on a semi-annual basis and as of December 31, 2016, the last measurement date, the actual historical 12-month DSCR was 1.25 and the pro-forma 12-month DSCR was 1.38 (on a semi-annual basis and as of December 31, 2015). There was \$17.0 million aggregate principal amount of OFC Senior Secured Notes outstanding as of December 31, 2016.

In June 2015, we repurchased from OFC noteholders \$30.6 million of the aggregate principal amount of our OFC Senior Secured Notes, which resulted in approximately \$2.5 million savings in interest expense. We recognized a loss of approximately \$1.7 million in the year ended December 31, 2015, as a result of the repurchase.

In September 2016, we repurchased from OFC noteholders \$6.8 million of the aggregate principal amount of our OFC Senior Secured Notes. We recognized a loss of approximately \$0.6 million in the year ended December 31, 2016, as a result of the repurchase.

OrCal Geothermal Senior Secured Notes — Non-Recourse

In December, 2005, OrCal, one of our subsidiaries, issued \$165.0 million of OrCal Senior Secured Notes for the purpose of refinancing the acquisition cost of the Heber complex. The OrCal Senior Secured Notes have been rated BBB- by Fitch Ratings. The OrCal Senior Secured Notes have a final maturity date of December 30, 2020. Principal and interest on the OrCal Senior Secured Notes are payable in semi-annual payments. The OrCal Senior Secured Notes are collateralized by substantially all of the assets of OrCal and those of its wholly owned subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OrCal. There are various restrictive covenants under the OrCal Senior Secured Notes which include limitations on additional indebtedness of OrCal and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OrCal. In addition, there are restrictions on the ability of OrCal to make distributions to its shareholders, which include a required historical and projected 12-month DSCR of not less than 1.25 (measured semi-annually as of June 30 and December 31 of each year). If OrCal fails to comply with the DSCR ratio it will be prohibited from making distributions to its shareholders. We are only required to measure these covenants on a semi-annual basis and as of June, 2016 (the last measurement date of the covenants) the actual historical 12-month DSCR was 1.77, and the pro-forma 12-months DSCR was 2.57. There was \$35.2 million aggregate principal amount of OrCal Senior Secured Notes outstanding as of December 31, 2016.

OFC 2 Senior Secured Notes — Limited Recourse

In September 2011, OFC 2, one of our subsidiaries, and its wholly owned project subsidiaries (collectively, the OFC 2 Issuers) entered into a note purchase agreement (the Note Purchase Agreement) with OFC 2 Noteholder Trust, as purchaser, John Hancock, as administrative agent, and the DOE, as guarantor, in connection with the offer and sale of up to \$350.0 million aggregate principal amount of OFC 2 Senior Secured Notes due December 31, 2034.

Subject to the fulfillment of customary and other specified conditions precedent, the OFC 2 Senior Secured Notes may be issued in up to six distinct series associated with the phased construction (Phase I and Phase II) of the Jersey Valley, McGinness Hills and Tuscarora geothermal power plants, which are owned by the OFC 2 Issuers. The OFC 2 Senior Secured Notes will mature and the principal amount of the OFC 2 Senior Secured Notes will be payable in equal quarterly installments and in any event not later than December 31, 2034. Each series of notes will bear interest at a rate calculated based on a spread over the U.S. Treasury yield curve that will be set at least ten business days prior to the issuance of such series of notes. Interest will be payable quarterly in arrears. The DOE guarantees payment of 80% of principal and interest on the OFC 2 Senior Secured Notes pursuant to Section 1705 of Title XVII of the Energy Policy Act of 2005, as amended. The conditions precedent to the issuance of the OFC 2 Senior Secured Notes include certain specified conditions required by the DOE in connection with its guarantee of the OFC 2 Senior Secured Notes.

In October 2011, the OFC 2 Issuers completed the sale of \$151.7 million aggregate principal amount of 4.687% Series A Notes due 2032 (the Series A Notes). The net proceeds from the sale of the Series A Notes, after deducting transaction fees and expenses, were approximately \$141.1 million, and were used to finance a portion of the construction costs of Phase I of the McGinness Hills and Tuscarora power plants and to fund certain reserves. Principal and interest on the Series A Notes are payable quarterly in arrears on the last day of March, June, September and December of each year.

On June 20, 2014, Phase I of the Tuscarora facility achieved project completion under the OFC 2 Note Purchase Agreement. In accordance with the terms of the Note Purchase Agreement, we recalibrated the original financing assumptions and as a result the loan amount was adjusted through a principal payment of \$4.3 million.

On August 29, 2014, OFC 2 signed a \$140.0 million loan under the OFC 2 Notes to finance the construction of the McGinness Hills Phase 2 project. This draw is the last tranche (Series C notes) under the Note Purchase Agreement with John Hancock Life Insurance Company (USA) and is guaranteed by the U.S. DOE Loan Programs Office in accordance with and subject to the DOE's Loan Guarantee Program under section 1705 of Title XVII of the Energy Policy Act of 2005. The \$140.0 million loan, which matures in December 2032, carries a 4.61% coupon with principal to be repaid on a quarterly basis. The OFC 2 Notes, which include loans for the Tuscarora, Jersey Valley and McGinness Hills complexes, are rated "BBB" by Standard & Poor's.

In connection with the drawdown, on August 13, 2014, we entered into an on-the-run interest lock agreement with a financial institution with a termination date of August 15, 2014. This on-the-run interest lock agreement had a notional amount of \$140.0 million and was designated by us as a cash flow hedge. The objective of this cash flow hedge was to eliminate the variability in the change in the 10-year U.S. Treasury rate as that is one of the components in the annual interest rate of OFC 2 loan that was forecasted to be fixed on August 15, 2014. As such, we hedged the variability in total proceeds attributable to changes in the 10-year U.S. Treasury rate for the forecasted issuance of fixed rate OFC 2 loan. On the settlement date of August 18, 2014, we paid \$1.5 million to the counterparty of the on-the-run interest rate lock agreement.

The OFC 2 Senior Secured Notes are collateralized by substantially all of the assets of OFC 2 and those of its wholly owned subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OFC 2. There are various restrictive covenants under the OFC 2 Senior Secured Notes, which include limitations on additional indebtedness of OFC 2 and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OFC 2. In addition, there are restrictions on the ability of OFC 2 to make distributions to its shareholders.

Among other things, the distribution restrictions include a historical debt service coverage ratio requirement of at least 1.2 (on a blended basis for all OFC 2 power plants), measured, at the time of any proposed distribution, over each of the two six-months periods comprised of distinct consecutive fiscal quarters immediately preceding the proposed distribution, and a projected future debt service coverage ratio requirement of at least 1.5 (on a blended basis for all OFC 2 power plants), measured, at the time of any proposed distribution, over each of the two six-months periods comprised of distinct consecutive fiscal quarters immediately following such proposed distribution. As of December 31, 2016, our historical debt service coverage ratio was 2.49 and 2.09, respectively for each of the two six-month periods, and our projected future debt service coverage ratio was 1.98 and 2.05, respectively for each of the two six-month periods.

There were \$247.2 million and \$262.0 million of OFC 2 senior secured Notes outstanding as of December 31, 2016 and December 31, 2015.

We provided a guarantee in connection with the issuance of the Series A and C Notes, which will be available to be drawn upon if certain trigger events occur. The trigger event is any loss, liability, damage, expense or cost to the Jersey Valley

facility caused by the interconnection under the various interconnection related agreements of the Dixie Meadows (Phase 2) project that we may develop in the future.

Olkaria III Finance Agreement with OPIC — Limited Recourse

In August 2012, OrPower 4, one of our subsidiaries, entered into a finance agreement with OPIC, an agency of the U.S. government, to provide limited-recourse senior secured debt financing in an aggregate principal amount of up to \$310.0 million (the OPIC Loan) for the refinancing and financing of our Olkaria III geothermal power complex in Kenya. The finance agreement was amended on November 9, 2012.

The OPIC Loan is comprised of three tranches:

- Tranche I in an aggregate principal amount of \$85.0 million, which was drawn in November 2012, was used to prepay approximately \$20.5 million (plus associated prepayment penalty and breakage costs of \$1.5 million) of the DEG Loan, as described below under “Full Recourse Debt”. The remainder of Tranche I proceeds was used for reimbursement of prior capital costs and other corporate purposes.
- Tranche II in an aggregate principal amount of \$180.0 million was used to fund the construction and well field drilling for Plant 2 of the Olkaria III geothermal power complex. In November 2012, an amount of \$135.0 million was disbursed under this Tranche II, and in February 2013, the remaining \$45.0 million was distributed under this Tranche II.
- Tranche III in an aggregate principal amount of \$45.0 million was used to fund the construction of Plant 3 of the Olkaria III geothermal power complex and was drawn down in full in November 2013.

In July 2013, we completed the conversion of the interest rate applicable to both Tranche I and Tranche II from a floating interest rate to a fixed interest rate. The average fixed interest rate for Tranche I, which has an outstanding balance of \$66.0 million and matures on December 15, 2030 and Tranche II, which has an outstanding balance of \$142.9 million and matures on June 15, 2030, is 6.31%. In November 2013, we fixed the interest rate applicable to Tranche III. The fixed interest rate for Tranche III, which has an outstanding balance of \$37.6 million and matures on December 15, 2030, is 6.12%.

OrPower 4 has a right to make voluntary prepayments of all or a portion of the OPIC Loan subject to prior notice, minimum prepayment amounts, and a prepayment premium of 2% in the first two years after the Plant 2 commercial operation date, declining to 1% in the third year after the Plant 2 commercial operation date, and without premium thereafter, plus a redemption premium. In addition, the OPIC Loan is subject to customary mandatory prepayment in the event of certain reductions in generation capacity of the power plants, unless such reductions will not cause the projected ratio of cash flow to debt service to fall below 1.7.

The OPIC Loan is secured by substantially all of OrPower 4’s assets and by a pledge of all of the equity interests in OrPower 4.

The finance agreement includes customary events of default, including failure to pay any principal, interest or other amounts when due, failure to comply with covenants, breach of representations and warranties, non-payment or acceleration of other debt of OrPower 4, bankruptcy of OrPower 4 or certain of its affiliates, judgments rendered against OrPower 4, expropriation, change of control, and revocation or early termination of security documents or certain project-related agreements, subject to various exceptions and notice, cure and grace periods.

The repayment of the remaining outstanding DEG Loan (see “Full-Recourse Third-Party Debt” below) in the amount of approximately \$15.8 million as of December 31, 2016, has been subordinated to the OPIC Loan.

There are various restrictive covenants under the OPIC Loan, which include a required historical and projected 12-month DSCR of not less than 1.4 (measured as of March 15, June 15, September 15 and December 15 of each year). If OrPower 4 fails to comply with these financial ratios it will be prohibited from making distributions to its shareholders. In addition, if the DSCR falls below 1.1, subject to certain cure rights such failure will constitute an event of default by OrPower 4. This covenant in respect of Tranche I became effective on December 15, 2014. As of December 31, 2016, the actual historical and projected 12-month DSCR was 2.69 and 2.96, respectively.

As of December 31, 2016, \$246.6 million of the OPIC Loan was outstanding.

Amatitlan Financing — Limited Recourse

On July 31, 2015, one of our indirect wholly-owned subsidiaries, Ortitlán, Limitada, obtained a 12-year secured term loan in the principal amount of \$42.0 million for the 20 MW Amatitlan power plant in Guatemala. Under the credit agreement with Banco Industrial S.A. and Westrust Bank (International) Limited, we can expand the Amatitlan power plant with financing to be provided either via equity, additional debt from Banco Industrial S.A. or from other lenders, subject to certain limitations on expansion financing in the credit agreement.

The loan is payable in 48 quarterly payments commencing September 30, 2015. The loan bears interest at a rate per annum equal to the sum of the LIBO Rate (which cannot be lower than 1.25%) plus a margin of (i) 4.35% as long as the Company's guaranty of the loan (as described below) is outstanding or (ii) 4.75% otherwise. Interest is payable quarterly, on March 30, June 30, September 30 and December 30 of each year, on the stated maturity date of the loan and on any prepayment or payment of the loan. The loan must be prepaid upon the occurrence of certain events, such as casualty, condemnation, asset sales and expansion financing not provided by the lenders under the credit agreement, among others. The loan may be voluntarily prepaid if certain conditions are satisfied, including payment of a premium (ranging from 100-50 basis points) if prepayment occurs prior to the eighth anniversary of the loan.

There are various restrictive covenants under the Amatitlan credit agreement. These include, among others, (i) a financial covenant to maintain a Debt Service Coverage Ratio (as defined in the credit agreement) of not less than 1.15 to 1.00 as of the last day of any fiscal quarter and (ii) limitations on Restricted Payments (as defined in the credit agreement) that among other things would limit dividends that could be paid to us unless the historical and projected Debt Service Coverage Ratio is not less than 1.25 to 1.00 for the four fiscal quarterly periods (calculated as a single accounting period). As of December 31, 2016, the actual historical and projected 12-month Debt Service Coverage Ratio was 1.87 and 1.92, respectively. The credit agreement includes various events of default that would permit acceleration of the loan (subject in some cases to grace and cure periods). These include, among others, a Change of Control (as defined in the credit agreement) and failure to maintain certain required balances in debt service and maintenance reserve accounts. The credit agreement includes certain equity cure rights for failure to maintain the Debt Service Coverage Ratio and the minimum amounts required in the debt service and maintenance reserve accounts.

The loan is secured by substantially all the assets of the borrower and a pledge of all of the membership interests of the borrower.

The Company has guaranteed payment of all obligations under the credit agreement and related financing documents. The guaranty is limited in the sense that the Company is only required to pay the guaranteed obligations if a "trigger event" occurs. A trigger event is the occurrence and continuation of a default by INDE in its payment obligations under the power purchase agreement for the Amatitlan power plant or a refusal by INDE to receive capacity and energy sold under that power purchase agreement. Our obligations under the guaranty may be terminated prior to payment in full of the guaranteed obligations under certain circumstances described in the guaranty. If our guaranty is terminated early, the interest rate payable on the loan would increase as described above.

As of December 31, 2016, \$36.8 million of this loan is outstanding.

Don A. Campbell Senior Secured Notes — Non-Recourse

On November 29, 2016, ORNI 47 LLC ("ORNI 47") entered into a note purchase agreement (the "Note Purchase Agreement") with MUFG Union Bank, N.A., as collateral agent, Munich Reinsurance America, Inc. and Munich American Reassurance Company (the "Purchasers") pursuant to which ORNI 47 issued and sold to the Purchasers \$92.5 million aggregate principal amount of its 4.03% Senior Secured Notes due September 27, 2033 (the "Notes") in a private placement exempt from the registration requirements of the Securities Act of 1933, as amended. ORNI 47 is the owner of the Don A. Campbell Phase I ("DAC 1") geothermal power plant, and part of ORPD.

The net proceeds to ORNI 47 from the sale of the Notes, after deducting certain transaction expenses and the funding of a debt service reserve account, were approximately \$87.1 million and ORNI 47 intends to use the proceeds from the sale of the Notes to refinance the development and construction costs of the DAC 1 geothermal power plant, which were originally financed using equity.

ORNI 47 will pay a scheduled amount of principal of the Notes beginning on December 27, 2016 and then quarterly, on the 27th day of each March, June, September and December, until the Notes mature.

The Notes constitute senior secured obligations of ORNI 47 and are secured by all of the assets of ORNI 47. Under the Note Purchase Agreement, ORNI 47 may prepay at any time all, or from time to time any part of, the Notes in an amount equal to at least \$2 million or such lesser amount as may remain outstanding under the Notes at 100% of the principal amount to be prepaid plus the applicable make-whole amount determined for the prepayment date with respect to such principal amount. Upon the occurrence of a Change of Control (as defined in the Note Purchase Agreement), ORNI 47 must make an offer to each holder of Notes to repurchase all of the holder's Notes at 101% of the aggregate principal amount of Notes to be repurchased plus accrued and unpaid interest, if any, on the Notes to be repurchased to, but not including, the date of repurchase. Each holder of Notes may accept such offer in whole or in part. In certain events, including certain asset sales outside the ordinary course of business, ORNI 47 must make mandatory prepayments of the Notes at 100% of the principal amount to be prepaid. The Note Purchase Agreement requires ORNI 47 to comply with certain covenants, including, among others, restrictions on the incurrence of indebtedness or liens, amendment or modification of material project documents, the ability of ORNI 47 to merge or consolidate with another entity. The Note Purchase Agreement also contains customary events of default. In addition, there are restrictions on the ability of ORNI 47 to make distributions to its shareholders, which include a required historical and projected Debt Service Coverage Ratio not less than 1.20 for the four fiscal quarterly periods. As of December 31, 2016, the projected Debt Service Coverage Ratio was 1.85.

As of December 31, 2016, \$92.4 million is outstanding under the DAC 1 Loan.

Full-Recourse Third-Party Debt

Credit Agreements

Union Bank. In February 2012, Ormat Nevada, our wholly owned subsidiary, entered into an amended and restated credit agreement with Union Bank. Under the credit agreement as amended and restated and further amended through the date of this report, the credit termination date is June 30, 2017. On December 31, 2016, the aggregate amount available under the credit agreement was increased by \$10 million to \$60.0 million. The facility is limited to the issuance, extension, modification or amendment of letters of credit. Union Bank is currently the sole lender and issuing bank under the credit agreement, but is also designated as an administrative agent on behalf of banks that may, from time to time in the future, join the credit agreement as parties thereto. In connection with this transaction, we entered into a guarantee in favor of the administrative agent for the benefit of the banks, pursuant to which we agreed to guarantee Ormat Nevada's obligations under the credit agreement. Ormat Nevada's obligations under the credit agreement are otherwise unsecured.

There are various restrictive covenants under the credit agreement, including a requirement for Ormat Nevada to comply with the following financial ratios, which are measured quarterly: (i) a 12-month debt to EBITDA ratio not to exceed 4.5; (ii) 12-month DSCR of not less than 1.35; and (iii) distribution leverage ratio not to exceed 2.0. As of December 31, 2016: (i) the actual 12-month debt to EBITDA ratio was 2.95; (ii) the 12-month DSCR was 2.54; and (iii) the distribution leverage ratio was 0.81. In addition, there are restrictions on dividend distributions in the event of a payment default or noncompliance with such ratios, and subject to specified carve-outs and exceptions, a negative pledge on the assets of Ormat Nevada in favor of Union Bank.

As of December 31, 2016, letters of credit in the aggregate amount of \$32.6 million remain issued and outstanding under this committed credit agreement with Union Bank.

HSBC. In May 2013, Ormat Nevada entered into a credit agreement with HSBC Bank USA, N.A for one year with annual renewals. The current expiration date of the facility under this credit agreement is December 31, 2017. The aggregate amount available under the credit agreement was increased by \$10 million to \$35.0 million. This credit line is limited to the issuance, extension, modification or amendment of letters of credit and \$10.0 million out of this credit line is available to be drawn for working capital needs. HSBC is currently the sole lender and issuing bank under the credit agreement, but is also designated as an administrative agent on behalf of banks that may, from time to time in the future, join the credit agreement as parties thereto. In connection with this transaction, we entered into a guarantee in favor of the administrative agent for the benefit of the banks, pursuant to which we agreed to guarantee Ormat Nevada's obligations under the credit agreement. Ormat Nevada's obligations under the credit agreement are otherwise unsecured.

There are various restrictive covenants under the credit agreement, including a requirement to comply with the following financial ratios, which are measured quarterly: (i) a 12-month debt to EBITDA ratio not to exceed 4.5; (ii) 12-month DSCR of not less than 1.35; and (iii) distribution leverage ratio not to exceed 2.0. As of December 31, 2016: (i) the actual 12-month debt to EBITDA ratio was 2.95; (ii) the 12-month DSCR was 2.54; and (iii) the distribution leverage ratio was 0.81. In addition, there are restrictions on dividend distributions in the event of a payment default or noncompliance with

such ratios, and subject to specified carve-outs and exceptions, a negative pledge on the assets of Ormat Nevada in favor of HSBC.

As of December 31, 2016, letters of credit in the aggregate amount of \$23.2 million remain issued and outstanding under this committed credit agreement.

Other Banks. We also have committed credit agreements with five other commercial banks for an aggregate amount of \$429.8 million. Under the terms of these credit agreements, we or our Israeli subsidiary, Ormat Systems, can request: (i) extensions of credit in the form of loans and/or the issuance of one or more letters of credit in the amount of up to \$215.0 million; and (ii) the issuance of one or more letters of credit in the amount of up to \$214.8 million. The credit agreements mature at the end of March 2017 and July 2019. Loans and draws under the credit agreements or under any letters of credit will bear interest at the respective bank's cost of funds plus a margin. As of December 31, 2016, there was no outstanding loan balance.

As of December 31, 2016, letters of credit with an aggregate stated amount of \$285.7 million were issued and outstanding under these credit agreements.

Letters of Credits under the Credit Agreements

Some of our customers require our project subsidiaries to post letters of credit in order to guarantee their respective performance under relevant contracts. We are also required to post letters of credit to secure our obligations under various leases and licenses and may, from time to time, decide to post letters of credit in lieu of cash deposits in reserve accounts under certain financing arrangements. In addition, our subsidiary, Ormat Systems is required from time to time to post performance letters of credit in favor of our customers with respect to orders of products.

As of December 31, 2016, committed letters of credit in the aggregate amount of \$341.6 million remained issued and outstanding under the credit agreements with Union Bank, HSBC and five of the commercial banks as described under "Credit Agreements".

Term Loans. We have a \$20.0 million term loan with a group of institutional investors, which matures on August 1, 2017, is payable in 12 semi-annual installments commencing February 1, 2012, and bears interest at 6-month LIBOR plus 5.0%. As of December 31, 2016, \$3.3 million was outstanding under this loan.

Senior Unsecured Bonds. We had an aggregate principal amount of approximately \$250.0 million of Senior Unsecured Bonds issued and outstanding. We issued approximately \$142.0 million aggregate principal amount of these bonds in August 2010 and an additional \$107.5 million aggregate principal amount in February 2011. Subject to early redemption, the principal of the bond was repayable in a single bullet payment upon the final maturity of the bonds on August 1, 2017. The bonds bore interest at a fixed rate of 7.00%, payable semi-annually. The bonds that we issued in February 2011 were issued at a premium which reflects an effective fixed interest rate of 6.75%.

In September 2016, the Company concluded an auction tender and accepted subscriptions for \$204 million aggregate principal amount of two tranches (Series 2 approximately \$67 million and Series 3 approximately \$137 million) of senior unsecured bonds. The proceeds from the senior unsecured bonds were used on September 29, 2016, to prepay the Company's \$250 million senior secured bonds that were payable on August 1, 2017.

The senior unsecured bonds, which were issued on September 14, 2016, have an outstanding aggregate principal amount of approximately \$204.0 million consisting of two tranches (approximately \$67 million principal amount of Series 2 and approximately \$137 million principal amount of Series 3). The Series 2 Bonds will mature in September 2020 and bear interest at a fixed rate of 3.7% per annum, payable semi-annually. The Series 3 Bonds will mature in September 2022 and bear interest at a fixed rate of 4.45% per annum, payable semi-annually. The Bonds will be repaid at maturity in a single bullet payment, unless earlier prepaid by Ormat pursuant to the terms and conditions of the trust instrument that governs the Bonds. Both tranches received a rating of iA+ from Maloot S&P in Israel with a stable outlook.

Loan Agreements with DEG (The Olkaria III Complex). OrPower 4 entered into a project financing loan to refinance its investment in Plant 1 of the Olkaria III complex located in Kenya with a group of European DFIs arranged by DEG. The DEG Loan will mature on December 15, 2018, and is payable in 19 equal semi-annual installments. Interest on the loan is variable based on 6-month LIBOR plus 4.0%. We fixed the interest rate on most of the loan at 6.90%. As of December 31, 2016, \$15.8 million is outstanding under the DEG Loan (out of which \$10.8 million bears interest at a fixed rate).

In October 2012, OrPower 4, DEG and the other parties thereto amended and restated the DEG Loan Agreement. The amendment became effective on November 9, 2012 upon the execution by OrPower 4 of the Tranche I and Tranche II Notes under the OPIC loan and the related disbursements of the proceeds thereof under the OPIC Finance Agreement (as described above under the heading “Non-Recourse and Limited –Recourse Third-Party Debt”). As part of the amendment we prepaid in full two loans under the DEG facility in the total principal amount of approximately \$20.5 million. The amended and restated DEG Loan Agreement provides for (i) the release and discharge of all collateral security previously provided by OrPower 4 to the secured parties under the DEG Loan Agreement and the substitution of the Company’s guarantee of OrPower 4’s payment and certain other performance obligations in lieu thereof; (ii) the establishment of a LIBOR floor of 1.25% in respect of one of the loans under the DEG Loan Agreement, and (iii) the elimination of most of the affirmative and negative covenants under the DEG Loan Agreement and certain other conforming provisions as a result of OrPower 4’s execution of the OPIC Finance Agreement and its obligations thereunder.

On October 20, 2016, OrPower 4 entered into a new \$50 million subordinated facility agreement with DEG (the “DEG 2 Facility Agreement”) and on December 21, 2016, OrPower 4 completed a drawdown of the full loan amount of \$50 million, with a fixed interest rate of 6.28% for the duration of the loan (the “DEG 2 Loan”). The DEG 2 Loan will be repaid in 20 equal semi-annual principal installments commencing December 21, 2018, with a final maturity on June 21, 2028. The DEG 2 Loan is intended for the refinance of Plant 4 of the Olkaria III Complex, which was originally financed using equity and is subordinated to the senior loan provided by OPIC for Plants 1-3 of the complex. The loan is guaranteed by the Company.

Under the DEG 2 Facility Agreement, OrPower 4 may prepay at any time all, or from time to time any part of the DEG 2 Loan in an amount equal to at least \$5 million or such lesser amount as may remain outstanding under the DEG 2 Loan at 100% of the principal amount to be prepaid plus the applicable make-whole amount and certain prepayment premium amount determined for the prepayment date with respect to such principal amount. In certain events, OrPower 4 must make mandatory prepayments of the DEG 2 Loan at 100% of the principal amount to be prepaid plus the applicable make-whole amount and certain prepayment premium amount determined for the prepayment date with respect to such principal amount. The DEG 2 Facility Agreement requires OrPower 4 to comply with certain covenants, including, among others, restrictions on the incurrence of indebtedness or liens. The Facility Agreement also contains customary events of default.

As of December 31, 2016, \$50.0 million is outstanding under the DEG 2 Loan.

Restrictive covenants

Our obligations under the credit agreements, the loan agreements, and the trust instrument governing the bonds described above, are unsecured, but we are subject to a negative pledge in favor of the banks and the other lenders and certain other restrictive covenants. These include, among other things, a prohibition on: (i) creating any floating charge or any permanent pledge, charge or lien over our assets without obtaining the prior written approval of the lender; (ii) guaranteeing the liabilities of any third party without obtaining the prior written approval of the lender; and (iii) selling, assigning, transferring, conveying or disposing of all or substantially all of our assets, or a change of control in our ownership structure. Some of the credit agreements, the term loan agreements, and the trust instrument contain cross-default provisions with respect to other material indebtedness owed by us to any third party. In some cases, we have agreed to maintain certain financial ratios, which are measured quarterly, such as: (i) equity of at least \$600 million and in no event less than 25% of total assets; (ii) 12-month debt, net of cash, cash equivalents, and short-term bank deposits to Adjusted EBITDA ratio not to exceed 6.0; and (iii) dividend distributions not to exceed 35% of net income in any calendar year. As of December 31, 2016: (i) total equity was \$1,170.0 million and the actual equity to total assets ratio was 47.53% and (ii) the 12-month debt, net of cash, cash equivalents, to Adjusted EBITDA ratio was 2.32. During the year ended December 31, 2016, we distributed interim dividends in an aggregate amount of \$25.7 million. The failure to perform or observe any of the covenants set forth in such agreements, subject to various cure periods, would result in the occurrence of an event of default and would enable the lenders to accelerate all amounts due under each such agreement.

As described above, we are currently in compliance with our covenants with respect to the credit agreements, the loan agreements and the trust instrument, and believe that the restrictive covenants, financial ratios and other terms of any of our (or Ormat Systems’) full-recourse bank credit agreements will not materially impact our business plan or operations.

Future minimum payments

Future minimum payments under long-term obligations, excluding revolving credit lines with commercial banks and lease payments under the Puna lease transaction described below, as of December 31, 2016, are as follows:

	(Dollars in thousands)
Year ending December 31:	
2017.....	\$ 65,971
2018.....	64,805
2019.....	59,146
2020.....	126,870
2021.....	46,579
Thereafter.....	593,161
Total	<u>\$ 956,532</u>

Puna Power Plant Lease Transactions

In May 2005, our Hawaiian subsidiary, PGV, entered into a transaction involving the original geothermal power plant of the Puna complex located on the Big Island (the Puna Power Plant).

Pursuant to a 31-year head lease (the Head Lease), PGV leased the Puna Power Plant to an unrelated lessor (the Puna lessor) in return for prepaid lease payments in the total amount of \$83.0 million. The carrying value of the leased assets as of September 30, 2016 amounted to \$28.7 million, net of accumulated depreciation of \$32.2 million. The Puna Lessor simultaneously leased back the Puna Power Plant to PGV under a 23-year lease (the Project Lease). PGV's rent obligations under the Project Lease will be paid solely from revenues generated by the Puna Power Plant under a PPA that PGV has with HELCO. The Head Lease and the Project Lease are non-recourse lease obligations to the Company. PGV's rights in the geothermal resource and the related PPA have not been leased to the Puna Lessor as part of the Head Lease but are part of the Puna Lessor's security package.

The transaction was concluded with financing parties by means of a leveraged lease transaction. A secondary stage of the lease transaction relating to two new geothermal wells that PGV drilled in the second half of 2005 (for production and injection) was completed on December 30, 2005. Pursuant to a 31-year head lease, PGV leased its geothermal power plant to the abovementioned financing parties in return for payments of \$83.0 million by such financing parties to PGV, which are accounted for as deferred lease income.

There are various restrictive covenants under the lease agreement, including a requirement to have certain reserve funds that need to be managed by the indenture trustee in accordance with certain balance requirements. Such reserve funds amounted to \$2.9 million and \$2.1 million as of December 31, 2016 and December 31, 2015, respectively, and were included in restricted cash accounts in the consolidated balance sheets and were classified as current as they were used for current payments.

Opal Transaction

On December 19, 2016, Ormat Nevada entered into an equity contribution agreement (the "Equity Contribution Agreement") with OrLeaf LLC ("OrLeaf") and JPM Capital Corporation ("JPM") with respect to Opal Geo LLC ("Opal Geo"). Also on December 16, 2016, OrLeaf, a newly formed limited liability company formed by Ormat Nevada and ORPD LLC, entered into an amended and restated limited liability company agreement of Opal Geo (the "LLC Agreement") with JPM. The transactions contemplated by the Equity Contribution Agreement and LLC Agreement will allow the Company to monetize federal production tax credits ("PTCs") and certain other tax benefits relating to the operation of five geothermal power plants located in Nevada.

In connection with the transactions contemplated by the Equity Contribution Agreement and the LLC Agreement, Ormat Nevada transferred its indirect ownership interest in the McGinness Hills (Phase I and Phase II), Tuscarora, Jersey Valley and Don A. Campbell Phase 2 ("DAC 2") geothermal power plants to Opal Geo. Prior to such transfer, Ormat Nevada held an approximately 63.25% indirect ownership interest in DAC 2 through ORPD LLC, a joint venture between Ormat Nevada and Northleaf Geothermal Holdings LLC ("Northleaf"), an affiliate of

Northleaf Capital Partners, and held, directly or indirectly, a 100% ownership interest in the remaining geothermal power plants that were transferred to Opal Geo.

Pursuant to the Equity Contribution Agreement, JPM contributed approximately \$62.1 million to Opal Geo in exchange for 100% of the Class B Membership Interests of Opal Geo. JPM also agreed to make deferred capital contributions to Opal Geo based on the amount of electricity generated by the DAC 2 and McGinness Hills Phase II power plants which are eligible for the federal production tax credit. The Company expects the aggregate amount of JPM's deferred capital contributions to equal approximately \$21 million and to be paid over time covering the period through December 31, 2022.

Under the LLC Agreement, until December 31, 2022, OrLeaf will receive distributions of 97.5% of any distributable cash generated by operation of the power plants while JPM will receive distributions of 2.5% of any distributable cash generated by operation of the power plants. Unless JPM has already achieved its target internal rate of return on its investment in Opal Geo, from December 31, 2022 until JPM has achieved its target internal rate of return, JPM will receive 100% of any distributable cash generated by operation of the power plants. Thereafter, OrLeaf will receive distributions of 97.5%, and JPM will receive 2.5%, of any distributable cash generated by operation of the power plants.

Under the LLC Agreement, all items of Opal Geo income and loss, gain, deduction and credit (including the federal PTCs relating to the operation of the two PTC eligible power plants) will be allocated, until JPM has achieved its target internal rate of return on its investment in Opal Geo (and for so long as the two PTC eligible power plants are generating PTCs), 99% to JPM and 1% to OrLeaf, or 5% to JPM and 95% to OrLeaf if PTCs are no longer available to either of the two PTC eligible power plants. Once JPM achieves its target internal rate of return, all items of Opal Geo income and loss, gain, deduction and credit will be allocated 5% to JPM and 95% to OrLeaf.

Under the LLC Agreement, OrLeaf, which owns 100% of the Class A Membership Interests in Opal Geo, will serve as the managing member of Opal Geo and control the day-to-day management of Opal Geo and its portfolio of five power plants. However, in certain limited circumstances (such as bankruptcy of OrLeaf, fraud or gross negligence by OrLeaf) JPM may remove OrLeaf as the managing member of Opal Geo. JPM, as the Class B Member of Opal Geo, has consent and approval rights with respect to certain items that are designated as major decisions for Opal Geo and the five power plants. In addition, by virtue of certain provisions in OrLeaf's own limited liability company agreement, and consistent with the ORPD LLC formation documents, Northleaf has similar consent and approval rights with respect to OrLeaf's determination of major decisions pertaining to the DAC 2 power plant. In both cases, these major decisions are generally equivalent to customary minority protection rights. As a result, the Company's wholly owned subsidiary, Ormat Nevada, which serves as the managing member of OrLeaf and as the managing member of ORPD LLC, will effectively retain the day-to-day control and management of Opal Geo and its portfolio of five power plants.

The LLC Agreement contains certain customary restrictions on transfer applicable to both OrLeaf and JPM with respect to their respective Membership Interests in Opal Geo, and also provides OrLeaf with a right of first offer in the event JPM desires to transfer any of its Class B Membership Interests, pursuant to which OrLeaf may purchase such Class B Membership Interests. The LLC Agreement also provides OrLeaf with the option to purchase all of the Class B Membership Interests on either December 31, 2022 or the date that is 9 years after the closing date under the Equity Contribution Agreement at a price equal to the greater of (i) the fair market value of the Class B Membership Interests as of the date of purchase (subject to certain adjustments) and (ii) \$3 million.

Pursuant to the Equity Contribution Agreement, the Company has provided a guaranty for the benefit of JPM of certain of OrLeaf's indemnification obligations to JPM under the LLC Agreement. In addition, Ormat Nevada also provided a guaranty for the benefit of JPM of all present and future payment and performance obligations of OrLeaf under the LLC Agreement and each ancillary document to which OrLeaf is a party.

Pursuant to the Equity Contribution Agreement, JPM contributed approximately \$62.1 million to Opal Geo in exchange for 100% of the Class B Membership Interests of Opal Geo. The contribution was recorded as a \$3.7 million allocation to noncontrolling interests and a \$58.5 million allocation to liabilities associated with sale of tax benefits as described in Note 1. JPM also agreed to make deferred capital contributions to Opal Geo based on the amount of electricity generated by the DAC 2 and McGinness Hills Phase II power plants which are eligible for the federal production tax credit. The Company expects the aggregate amount of JPM's deferred capital contributions to equal approximately \$21 million and to be paid over time covering the period through December 31, 2022.

OPC Transaction

In June 2007, Ormat Nevada entered into agreements with affiliates of Morgan Stanley & Co. Incorporated and Lehman Brothers Inc. (Morgan Stanley Geothermal LLC and Lehman-OPC LLC, respectively), under which those investors purchased, for cash, interests in a newly formed subsidiary of Ormat Nevada, OPC, entitling the investors to certain tax benefits (such as PTCs and accelerated depreciation) and distributable cash associated with four geothermal power plants in Nevada.

The first closing under the agreements occurred in 2007 and covered our Desert Peak 2, Steamboat Hills, and Galena 2 power plants. The investors paid \$71.8 million at the first closing. The second closing under the agreements occurred in 2008 and covered the Galena 3 power plant. The investors paid \$63.0 million at the second closing.

Ormat Nevada continues to operate and maintain the power plants. Under the agreements, Ormat Nevada initially received all of the distributable cash flow generated by the power plants, while the investors received substantially all of the PTCs and the taxable income or loss (together, the Economic Benefits). Once Ormat Nevada recovered the capital that it invested in the power plants, which occurred in the fourth quarter of 2010, the investors began receiving both the distributable cash flow and the Economic Benefits. Once the investors reach a target after-tax yield on their investment in OPC (the OPC Flip Date), Ormat Nevada will receive 95% of both distributable cash and taxable income, on a going forward basis. Following the OPC Flip Date, Ormat Nevada also has the option to purchase the investors' remaining interest in OPC at the then-current fair market value or, if greater, the investors' capital account balances in OPC. If Ormat Nevada were to exercise this purchase option, it would become the sole owner of the power plants again.

Our voting rights in OPC are based on a capital structure that is comprised of Class A and Class B membership units. Through Ormat Nevada, we own all of the Class A membership units, which represent 75% of the voting rights in OPC and the investors(as described below) own all of the Class B membership units, which represent 25% of the voting rights of OPC. Other than in respect of customary protective rights, all operational decisions in OPC are decided by the vote of a majority of the membership units. Following the OPC Flip Date, Ormat Nevada's voting rights will increase to 95% and the investor's voting rights will decrease to 5%. Ormat Nevada retains the controlling voting interest in OPC both before and after the OPC Flip Date and therefore consolidates OPC. We expect the Flip Date to occur in the second quarter of 2017.

The Class B membership units have a 5% residual economic interest in OPC, which commences as of the OPC Flip Date. This residual 5% interest represents a noncontrolling interest and is not subject to mandatory redemption or guaranteed payments. The Class B membership units are currently held by Morgan Stanley Geothermal LLC and JPM. On October 30, 2009, Ormat Nevada acquired from Lehman-OPC LLC all of the Class B membership units of OPC held by Lehman-OPC LLC pursuant to a right of first offer for a purchase price of \$18.5 million in cash and on February 3, 2011, Ormat Nevada sold to JPM all of the Class B membership units of OPC that it had acquired for a sale price of \$24.9 million in cash.

ORTP Transaction

On January 24, 2013, Ormat Nevada entered into agreements with JPM under which JPM purchased interests in a newly formed subsidiary of Ormat Nevada, ORTP, entitling JPM to certain tax benefits (such as PTCs and accelerated depreciation) associated with certain geothermal power plants in California and Nevada.

Under the terms of the transaction, Ormat Nevada transferred the Heber complex, the Mammoth complex, the Ormesa complex, and the Steamboat 2 and 3, Burdette (Galena 1) and Brady power plants to ORTP, and sold Class B membership units in ORTP to JPM. In connection with the closing, JPM paid approximately \$35.7 million to Ormat Nevada and will make additional payments to Ormat Nevada of 25% of the value of PTCs generated by the portfolio over time. The additional payments were expected to be made until December 31, 2016 and total up to a maximum amount of \$11.0 million, of which we received \$1.5 million, \$2.0 million, \$1.7 million and \$2.2 million in the first quarters of 2017, 2016, 2015 and 2014, respectively.

Ormat Nevada will continue to operate and maintain the power plants. Under the agreements, Ormat Nevada will initially receive all of the distributable cash flow generated by the power plants, while JPM will receive substantially all the Economic Benefits. JPM's return is limited by the terms of the transaction. Once JPM reaches a target after-tax yield on its investment in ORTP (the ORTP Flip Date), Ormat Nevada will receive 97.5% of the distributable cash and 95.0% of the taxable income, on a going forward basis. At any time during the twelve-month period after the end of the fiscal year in which the ORTP Flip Date occurs (but no earlier than the expiration of five years following the date that the last of the power plants was placed in service for purposes of federal income taxes), Ormat Nevada also has the option to purchase JPM's remaining

interest in ORTP at the then-current fair market value. If Ormat Nevada were to exercise this purchase option, it would become the sole owner of the power plants again.

The Class B membership units entitle the holder to a 5.0% (allocation of income and loss) and 2.5% (allocation of cash) residual economic interest in ORTP. The 5.0% and 2.5% residual interest commences on achievement by JPM of a contractually stipulated return that triggers the ORTP Flip Date, which occurred on December 31, 2016. This residual 5.0% and 2.5% interest represents noncontrolling interests and are not subject to mandatory redemption or guaranteed payments. We expect to buy out the Class B membership units for \$2.0 million in the second quarter of 2017.

Our voting rights in ORTP are based on a capital structure that is comprised of Class A and Class B membership units. Through Ormat Nevada, we own all of the Class A membership units, which represent 75.0% of the voting rights in ORTP. JPM owns all of the Class B membership units, which represent 25.0% of the voting rights of ORTP. Other than in respect of customary protective rights, all operational decisions in ORTP are decided by the vote of a majority of the membership units. Ormat Nevada retains the controlling voting interest in ORTP both before and after the ORTP Flip Date and therefore will continue to consolidate ORTP.

Liquidity Impact of Uncertain Tax Positions

As discussed in Note 19 to our consolidated financial statements set forth in Item 8 of this annual report, we have a liability associated with unrecognized tax benefits and related interest and penalties in the amount of approximately \$5.7 million as of December 31, 2016. This liability is included in long-term liabilities in our consolidated balance sheet, because we generally do not anticipate that settlement of the liability will require payment of cash within the next twelve months. We are not able to reasonably estimate when we will make any cash payments required to settle this liability.

Dividend

The following are the dividends declared by us during the past two years:

Date Declared	Dividend Amount per Share	Record Date	Payment Date
February 24, 2015	\$ 0.08	March 16, 2015	March 27, 2015
May 6, 2015	\$ 0.06	May 19, 2015	May 27, 2015
August 3, 2015	\$ 0.06	August 18, 2015	September 2, 2015
November 3, 2015	\$ 0.06	November 18, 2015	December 2, 2015
February 23, 2016	\$ 0.31	March 15, 2016	March 29, 2016
May 4, 2016	\$ 0.07	May 18, 2016	May 24, 2016
August 2, 2016	\$ 0.07	August 16, 2016	August 30, 2016
November 7, 2016	\$ 0.07	November 21, 2016	December 6, 2016
February 28, 2017	\$ 0.17	March 15, 2017	March 29, 2017

Historical Cash Flows

The following table sets forth the components of our cash flows for the relevant periods indicated:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Net cash provided by operating activities	\$ 159,285	\$ 190,025	\$ 213,235
Net cash used in investing activities	(158,531)	(90,971)	(129,162)
Net cash provided by (used in) financing activities	43,541	46,635	(101,197)
Net change in cash and cash equivalents	44,295	145,689	(17,124)

For the Year Ended December 31, 2016

Net cash provided by operating activities for the year ended December 31, 2016 was \$159.3 million, compared to \$190.0 million for the year ended December 31, 2015. This decrease of \$30.7 million resulted primarily from (i) an increase in receivables of \$33.3 million in the year ended December 31, 2016, compared to a \$3.8 million in the year ended December

31, 2015, as a result of timing of collections from our customers; and (ii) a decrease in billing in excess of costs and estimated earnings on uncompleted contracts, net of \$29.3 million in our Product segment in the year ended December 31, 2016, compared to an increase of \$11.8 million in the year ended December 31, 2015, as a result of timing in billing of our customers.

Net cash used in investing activities for the year ended December 31, 2016 was \$158.5 million, compared to \$91.0 million for the year ended December 31, 2015. The principal factors that affected our net cash used in investing activities during the year ended December 31, 2016 were capital expenditures of \$151.9 million, primarily for our facilities under construction, and \$20.1 million net cash paid for the acquisition of GB, reduced by a net decrease of \$15.2 million in restricted cash and cash equivalents, due to timing of debt repayments.

Net cash provided by financing activities for the year ended December 31, 2016 was \$43.5 million, compared to \$46.6 million used for the year ended December 31, 2015. The principal factors that affected the net cash provided by financing activities during the year ended December 31, 2016 were: (i) \$203.5 million net proceeds from issuance of two new series of Senior Unsecured Bonds; (ii) net proceeds from issuance of shares to a noncontrolling interest in the amount of \$44.1 million; (iii) \$59.9 million of net proceed from the OPAL Transaction; (iv) \$92.5 million of proceeds from a term loan for our Don A. Campbell power plant and (v) \$50.0 million of proceeds from a term loan for our Olkaria 3 Complex plant 4, reduced by: (i) early repayment of \$249.5 million of Senior Unsecured Bonds; \$6.8 million of cash paid to repurchase our OFC Senior Secured Notes; (ii) the repayment of long-term debt in the amount of \$62.1 million; (iii) \$63.7 million of cash paid to noncontrolling interests ; and (iv) a \$26.0 million cash dividend paid.

For the Year Ended December 31, 2015

Net cash provided by operating activities for the year ended December 31, 2015 was \$190.0 million, compared to \$213.2 million for the year ended December 31, 2014. This decrease of \$23.2 million resulted primarily from (i) an increase in receivables of \$3.8 million in the year ended December 31, 2015, compared to a decrease of \$47.1 million in the year ended December 31, 2014, as a result of timing of collections from our customers; and (ii) a decrease in deferred income tax liabilities of \$39.5 million in the year ended December 31, 2015, mainly due to the deferred tax asset in Kenya, as discussed above, compared to an increase of \$13.1 million in the year ended December 31, 2014. The decrease was partially offset by the increase in cash inflow due to higher net income of \$68.3 million, up from \$55.0 million for the year ended December 31, 2014 to \$123.3 million for the year ended December 31, 2015 as described above.

Net cash used in investing activities for the year ended December 31, 2015 was \$91.0 million, compared to \$129.2 million for the year ended December 31, 2014. The principal factors that affected our net cash used in investing activities during the year ended December 31, 2015 were capital expenditures of \$152.1 million, primarily for our facilities under construction, reduced by a net decrease of \$43.7 million in restricted cash and cash equivalents, due to timing of debt repayments, and \$15.4 million derived from cash of Ormat Industries due to the share exchange.

Net cash provided by financing activities for the year ended December 31, 2015 was \$46.6 million, compared to \$101.2 million used for the year ended December 31, 2014. The principal factors that affected the net cash provided by financing activities during the year ended December 31, 2015 were: net proceeds from issuance of shares to a noncontrolling interest in the amount of \$156.5 million and \$42.0 million of proceeds from a term loan for our Amatitlan power plant, reduced by: (i) \$30.6 million of cash paid to repurchase our OFC Senior Secured Notes; (ii) the repayment of long-term debt in the amount of \$71.7 million; (iii) a net decrease of \$20.3 million against our revolving credit lines with commercial banks; (iv) \$19.1 million of cash paid to noncontrolling interests; and (v) payment of a \$12.7 million cash dividend.

EBITDA and Adjusted EBITDA

We calculate EBITDA as net income before interest, taxes, depreciation and amortization. We calculate Adjusted EBITDA as net income before interest, taxes, depreciation and amortization, adjusted for (i) termination fees, (ii) impairment of long-lived assets, (iii) write-off of unsuccessful exploration activities, (iv) any mark-to-market gains or losses from accounting for derivatives, (v) merger and acquisition transaction costs (vi) stock-based compensation, (vii) gain or loss from extinguishment of liabilities (viii) gain or loss on sale of subsidiary and property, plant and equipment and (ix) other unusual or non-recurring items. EBITDA and Adjusted EBITDA are not measurements of financial performance or liquidity under accounting principles generally accepted in the United States of America, or U.S. GAAP, and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net earnings as indicators of our operating performance or any other measures of performance derived in accordance with U.S. GAAP. EBITDA and Adjusted EBITDA are presented because we believe they are frequently used by securities analysts, investors and other

interested parties in the evaluation of a company's ability to service and/or incur debt. However, other companies in our industry may calculate EBITDA and Adjusted EBITDA differently than we do.

This information should not be considered in isolation from, or as a substitute for, or superior to, measures of financial performance prepared in accordance with GAAP or other non-GAAP financial measures.

Adjusted EBITDA for the year ended December 31, 2016 was \$323.8 million, compared to \$291.3 million for the year ended December 31, 2015 and \$272.7 million for the year ended December 31, 2014.

The following table reconciles net cash provided by operating activities to EBITDA and adjusted EBITDA, for the years ended December 31, 2016, 2015, and 2014:

	Year Ended December 31,		
	2016	2015	2014
	(in thousands)		
Net cash provided by operating activities	\$ 159,285	\$ 190,025	\$ 213,235
Adjusted for:			
Interest expense, net (excluding amortization of deferred financing costs)	60,553	63,802	76,970
Interest income	(971)	(297)	(312)
Income tax provision (benefit)	31,837	(15,258)	27,608
Minority interest in earnings of subsidiaries			
Adjustments to reconcile net income to net cash provided by operating activities (excluding depreciation and amortization) ..	48,208	40,530	(57,422)
EBITDA	298,912	278,802	260,079
Mark-to-market gains or losses from accounting for derivatives	319	1,409	(1,788)
Stock-based compensation	5,157	3,955	5,571
Gain on sale of subsidiary and property, plant and equipment	(686)	-	(7,628)
Termination fee	-	-	-
Impairment of long-lived assets	-	-	-
Loss from extinguishment of liability	5,780	1,710	-
Merger and acquisition transaction costs	335	3,800	1,000
Settlement expenses	11,000	-	-
Write-off of unsuccessful exploration activities	3,017	1,579	15,439
Adjusted EBITDA	<u>\$ 323,834</u>	<u>\$ 291,255</u>	<u>\$ 272,673</u>
Net cash used in investing activities	<u>\$ (158,531)</u>	<u>\$ (90,971)</u>	<u>\$ (129,162)</u>
Net cash provided by (used in) financing activities	<u>\$ 43,541</u>	<u>\$ 46,635</u>	<u>\$ (101,197)</u>

Capital Expenditures

Our capital expenditures primarily relate to the enhancement of our existing power plants and the exploration, development and construction of new power plants.

We have estimated approximately \$406.0 million in capital expenditures for construction of new projects and enhancements to our existing power plants, of which we have invested approximately \$165.0 million as of December 31, 2016. We expect to invest \$165.0 million in 2017 and the remaining \$76.0 million thereafter.

In addition, we estimate approximately \$90.0 million in additional capital expenditures in 2017 to be allocated as follows: (i) \$25.0 million for development of new projects; (ii) \$35.0 million for maintenance capital expenditures to our operating power plants; (iii) \$25.0 million for continued exploration activity under various leases for geothermal resources where we have already started exploration activity; and (iv) \$5.0 million for enhancements to our production facilities.

In the aggregate, we estimate our total capital expenditures for 2017 to be approximately \$255.0 million.

Based on current conditions, we believe that we have sufficient financial resources to fund our activities and execute our business plans. However, the cost of obtaining financing for our project needs may increase significantly or such financing may be difficult to obtain.

Exposure to Market Risks

Based on current conditions, we believe that we have sufficient financial resources to fund our activities and execute our business plans. However, the cost of obtaining financing for our project needs may increase significantly or such financing may be difficult to obtain.

We, like other power plant operators, are exposed to electricity price volatility risk. Our exposure to such market risk is currently limited because many of our long-term PPAs (except for the 25 MW PPA for the Puna complex and the aggregate 90 MW PPAs for the Heber 2 power plant in the Heber complex, the Ormesa complex and the G2 power plant in the Mammoth complex) have fixed or escalating rate provisions that limit our exposure to changes in electricity prices. The energy payments under the PPAs of the Heber 2 power plant in the Heber complex, the Ormesa complex and the G2 power plant in Mammoth complex are determined by reference to the relevant power purchaser's SRAC. A decline in the price of natural gas will result in a decrease in the incremental cost that the power purchaser avoids by not generating its electrical energy needs from natural gas, or by reducing the price of purchasing its electrical energy needs from natural gas power plants, which in turn will reduce the energy payments that we may charge under the relevant PPA for these power plants. In May 2015 and February 2016, we entered into derivative transactions to reduce our exposure to the price of natural gas under these PPAs, until December 29, 2016. The Puna complex is currently benefiting from energy prices which are higher than the floor under the 25 MW PPA for the Puna complex as a result of the high fuel costs that impact HELCO's avoided costs.

As of December 31, 2016, 94.6% of our consolidated long-term debt was fixed rate debt and therefore was not subject to interest rate volatility risk. As of such date, 5.4% of our long-term debt was floating rate debt, exposing us to interest rate risk in connection therewith. As of December 31, 2016, \$51.4 million of our long-term debt remained subject to some interest rate risk.

We currently maintain our surplus cash in short-term, interest-bearing bank deposits, money market securities and commercial paper (with a minimum investment grade rating of AA by Standard & Poor's Ratings Services).

Our cash equivalents are subject to interest rate risk. Fixed rate securities may have their market value adversely impacted by a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. As a result of these factors, our future investment income may fall short of expectations because of changes in interest rates, or we may suffer losses in principal if we are forced to sell securities that decline in market value because of changes in interest rates.

We are also exposed to foreign currency exchange risk, in particular the fluctuation of the U.S. dollar versus the NIS. Risks attributable to fluctuations in currency exchange rates can arise when we or any of our foreign subsidiaries borrow funds or incur operating or other expenses in one type of currency but receive revenues in another. In such cases, an adverse change in exchange rates can reduce such subsidiary's ability to meet its debt service obligations, reduce the amount of cash and income we receive from such foreign subsidiary, or increase such subsidiary's overall expenses. Risks attributable to fluctuations in foreign currency exchange rates can also arise when the currency denomination of a particular contract is not the U.S. dollar. Substantially all of our PPAs in the international markets are either U.S. dollar-denominated or linked to the U.S. dollar. Our construction contracts from time to time contemplate costs which are incurred in local currencies. The way we often mitigate such risk is to receive part of the proceeds from the contract in the currency in which the expenses are incurred. Currently, we have forward contracts in place to reduce our foreign currency exposure, and expect to continue to use currency exchange and other derivative instruments to the extent we deem such instruments to be the appropriate tool for managing such exposure. We do not believe that our exchange rate exposure has or will have a material adverse effect on our financial condition, results of operations or cash flows.

We performed a sensitivity analysis on the fair values of our swap contracts on oil prices, put options on natural gas prices, long-term debt obligations, and foreign currency exchange forward contracts. The swap contracts on oil prices, put options on natural gas prices and foreign currency exchange forward contracts listed below principally relate to trading activities. The sensitivity analysis involved increasing and decreasing forward rates at December 31, 2016 and 2015 by a hypothetical 10% and calculating the resulting change in the fair values.

At this time, the development of our new strategic plan has not exposed us to any additional market risk. However, as the implementation of the plan progresses, we may be exposed to additional or different market risks.

The results of the sensitivity analysis calculations as of December 31, 2016 and 2015 are presented below:

Risk	Assuming a 10% Increase in Rates		Assuming a 10% Decrease in Rates		Change in the Fair Value of
	As of December 31,		As of December 31,		
	2016	2015	2016	2015	
(In thousands)					
Foreign Currency	\$ (4,665)	\$ (3,894)	\$ 4,632	\$ 4,760	Foreign currency forward contracts
Interest Rate	\$ (254)	\$ (408)	\$ 260	\$ 417	Ormat Funding Corp. ("OFC")
Interest Rate	\$ (281)	\$ (646)	\$ 284	\$ 660	Orcal Geothermal Inc. ("OrCal")
Interest Rate	\$ (7,174)	\$ (9,322)	\$ 7,496	\$ 9,941	OFC 2 LLC ("OFC 2")
Interest Rate	\$ (64)	\$ (175)	\$ 65	\$ 172	Loan from DEG
Interest Rate	\$ (7,667)	\$ (9,164)	\$ 8,039	\$ 9,685	Loan from OPIC
Interest Rate	\$ -(1)	\$ -	\$ -(1)	\$ -	Amatitlan loan
Interest Rate	\$ (4,351)	\$ (1,888)	\$ 4,472	\$ 1,907	Senior unsecured bonds
Interest Rate	\$ (1,568)	\$ -	\$ 1,639	\$ -	New DEG loan ("DEG 2") loan
Interest Rate	\$ (2,749)	\$ -	\$ 2,890	\$ -	Don A. Campbell 1 ("DAC 1 ")
					Senior Secured Notes
Interest Rate	\$ (161)	\$ -	\$ 167	\$ -	Other long-term loans

(1) The application of a 10% increase and decrease to the interest rate, did not exceed the minimum rate as set in the loan agreement

Effect of Inflation

We do not expect that inflation will be a significant risk in the near term, given the current global economic conditions, however, that could change in the future. To address rising inflation, some of our contracts include certain provisions that mitigate inflation risk.

In connection with the Electricity segment, inflation may directly impact an expense we incur for the operation of our projects, thereby increasing our overall operating costs. The negative impact of inflation may be partially offset by price adjustments built into some of our PPAs that could be triggered upon such occurrences. The energy payments pursuant to the PPAs for the Brady power plant, the Steamboat 2 and 3 power plants, the Steamboat Hills power plant, and the Burdette power plant increase every year through the end of the relevant terms of such agreements, though such increases are not directly linked to the CPI or any other inflationary index. Lease payments are generally fixed, while royalty payments are generally calculated as a percentage of revenues and therefore are not significantly impacted by inflation. In our Product segment, inflation may directly impact fixed and variable costs incurred in the construction of our power plants, thereby increasing our operating costs in the Product segment. We are more likely to be able to offset all or part of this inflationary impact through our project pricing. With respect to power plants that we build for our own electricity production, inflationary pricing may impact our operating costs which may be partially offset in the pricing of the new long-term PPAs that we negotiate.

Contractual Obligations and Commercial Commitments

The following tables set forth our material contractual obligations as of December 31, 2016 (in thousands):

	Payments Due By Period						
	Remaining Total	2017	2018	2019	2020	2021	Thereafter
Long-term liabilities principal.....	\$ 956,532	\$ 65,971	\$ 64,805	\$ 59,146	\$ 126,870	\$ 46,579	\$ 593,161
Interest on long-term liabilities ⁽¹⁾	314,475	45,592	41,792	38,097	34,692	31,448	122,854
Future minimum operating lease.....	30,622	8,747	8,944	6,018	2,450	1,723	2,740
Benefits upon retirement ⁽²⁾	13,679	1,867	2,497	1,655	1,119	1,400	5,141
Asset retirement obligation	23,348	—	—	—	—	—	23,348
Purchase commitments ⁽³⁾	108,137	108,137	—	—	—	—	—
	<u>\$ 1,446,793</u>	<u>\$ 230,314</u>	<u>\$ 118,038</u>	<u>\$ 104,916</u>	<u>\$ 165,131</u>	<u>\$ 81,150</u>	<u>\$ 747,244</u>

- (1) Interest on the OFC Senior Secured Notes due in 2020 is fixed at a rate of 8.25%. Interest on the OrCal Senior Secured Notes due in 2020 is fixed at a rate of 6.21%. Interest on the OFC 2 Senior Secured Notes Series A due in 2032 is fixed at a rate of 4.687%. Interest on the DAC1 Senior Secured Notes due in 2033 is fixed at a rate of 4.03%. Interest on the OPIC Loan due in 2030 is fixed at an average rate of 6.29%. Interest on the DEG Loan due in 2018 is fixed for \$10.8 million as of December 31, 2016, at a rate of 6.9% and variable on the remaining balance (which as of December 31, 2016 was \$5.0 million). Interest on the new DEG 2 loan due in 2028 is fixed at a rate of 6.28%. Interest on the senior unsecured bonds due in 2020 is fixed at a rate of 3.7%. Interest on the senior unsecured bonds due in 2022 is fixed at a rate of 4.45%. Interest on the remaining debt is variable (based primarily on changes in LIBOR rates). For purposes of the above calculation of interest payments pertaining to variable rate debt, future LIBOR rates were based on constant maturity swaps.
- (2) The above amounts were determined based on the employees' current salary rates and the number of years' service that will have been accumulated at their expected retirement date. These amounts do not include amounts that might be paid to employees that will cease working with us before reaching their expected retirement age.
- (3) We purchase raw materials for inventories, construction-in-process and services from a variety of vendors. During the normal course of business, in order to manage manufacturing lead times and help assure adequate supply, we enter into agreements with contract manufacturers and suppliers that either allow them to procure goods and services based upon specifications defined by us, or that establish parameters defining our requirements. At December 31, 2016, total obligations related to such supplier agreements were approximately \$108.1 million (approximately \$51.0 million of which relate to construction-in-process). All such obligations are payable in 2017.

The table above does not reflect unrecognized tax benefits of \$5.7 million, the timing of which is uncertain. Refer to Note 19 to our consolidated financial statements set forth in Item 8 of this annual report for additional discussion of unrecognized tax benefits. The above table also does not reflect a liability associated with the sale of tax benefits of \$54.7 million, the timing of which is uncertain. Refer to Note 14 to our consolidated financial statements as set forth in Item 8 of this annual report for additional discussion of our liability associated with the sale of tax benefits.

Concentration of Credit Risk

Our credit risk is currently concentrated with the following major customers: Southern California Edison, Sierra Pacific Power Company and Nevada Power Company (subsidiaries of NV Energy), KPLC, Southern California Public Power Authority and Hyundai. If any of these customers fails to make payments under its PPAs with us, such failure would have a material adverse impact on our financial condition. Also, by implementing our multi-year strategic plan we may be exposed, by expanding our customer base, to different credit profile customers than our current customers.

Southern California Edison accounted for 5.1%, 9.7%, and 13.5% of our total revenues for the three years ended December 31, 2016, 2015, and 2014, respectively. Southern California Edison is also the power purchaser and revenues source for our Mammoth project, which we accounted for separately under the equity method of accounting through August 1, 2010.

Sierra Pacific Power Company and Nevada Power Company accounted for 19.2%, 19.5%, and 16.5% of our total revenues for the three years ended December 31, 2016, 2015, and 2014, respectively.

KPLC accounted for 16.5%, 14.6%, and 15.4% of our total revenues for the three years ended December 31, 2016, 2015, and 2014, respectively.

Southern California Public Power Authority accounted for 10.2%, 5.2% and 3.9% of our total revenues for the three years ended December 31, 2016, 2015 and 2014, respectively.

Hyundai (Sarulla geothermal power project) accounted for 15.2%, 15.7% and 6.8% of our total revenues for the three years ended December 31, 2016, 2015 and 2014, respectively

Tax Benefits

The U.S. government encourages production of electricity from geothermal resources through certain tax subsidies. If we started construction of a new geothermal power plant in the United States by December 31, 2016, we are permitted to claim a tax credit based on the power produced from a geothermal power plant. These production-based credits, which in 2016 were 2.3 cents per kWh, are adjusted annually for inflation and may be claimed for ten years on the electricity produced by the project and sold to third parties after the project is placed in service. In lieu of the production tax credits, we are permitted to claim a tax credit against our U.S. federal income taxes equal to 30% of certain eligible costs when the project is placed in service, so long as the project was under construction by the end of 2016. If the project was not under construction in time, then we are permitted to claim a 10% investment tax credit. The owner of the power plant may not claim both the investment tax credit and the production-based tax credit. New solar projects that are under construction by December 2019 will qualify for a 30% investment tax credit. The credit will fall to 26% for projects starting construction in 2020 and 22% for projects starting construction in 2021. Projects that are under construction before these deadlines must be placed in service by December, 31 2023 to qualify for the higher investment tax credit. Projects placed in service after December, 31, 2023 will only qualify for a 10% investment tax credit. Under current tax rules, any unused tax credit has a one-year carry back and a twenty-year carry forward.

We are also permitted to depreciate, or write off, most of the cost of the plant. In cases where we claim the one-time 30% (or 10%) tax credit, our tax basis in the plant that we can recover through depreciation is reduced by one-half of the tax credit. In cases where we claim the production tax credit, there is no reduction in the tax basis for depreciation. Projects that are placed in service in 2016 and 2017 are eligible for “bonus” depreciation and we will be permitted to write off 50% of the cost of that equipment in the year the power plant is placed in service. Projects placed in service in 2018 would qualify for a 40% bonus and Projects placed in service in 2019 would qualify for a 30% bonus. After applying any depreciation bonus that is available, we can write off the remainder of our tax basis in the plant, if any, over five years on an accelerated basis, meaning that more of the cost may be deducted in the first few years than during the remainder of the depreciation period.

Ormat Systems received “Benefited Enterprise” status under Israel’s Law for Encouragement of Capital Investments, 1959 (the Investment Law), with respect to two of its investment programs through 2011. In January 2011, new legislation amending the Investment Law was enacted. Under the new legislation, a uniform rate of corporate tax will apply to all qualified income of certain industrial companies, as opposed to the previous law’s incentives that are limited to income from a “Benefited Enterprise” during their benefits period. As a result, we now pay a uniform corporate tax rate of 16% with respect to that qualified income.

Ormat Systems tax assessment for fiscal years 2010-2014 was finalized and settled in January 2017. The settlement resulted in no impact to income statement due to release of the related uncertain tax position liability.

As previously reported by the Company, the Kenya Revenue Authority (“KRA”) conducted an audit related to the Company’s operations in Kenya for fiscal years 2012 - 2013. In January 2017, KRA concluded its audit for the subject period and issued a demand letter to the Company for additional tax payments of approximately \$16.1 million, including interest and penalties. KRA’s assessment, among other points, rejected the Company’s income tax deduction of 150% of its investment in geothermal well drilling during the relevant period, on the basis that such work falls under mining activities (and not geothermal activities) which have a different allowable deduction under the Kenya Income Tax Act. The KRA audit and assessment is not final and is subject to objection by the Company. The Company’s operations in Kenya utilize a geothermal resource license from the Ministry of Energy and Petroleum. The Company does not conduct and is not involved in any mining activity under applicable Kenyan law. Therefore, the Company believes that its original tax position was and remains correct under Kenyan tax law and regulations, and has submitted a notice of objection to the KRA which it intends

to pursue vigorously. If the KRA position prevails and is applied to subsequent periods, the Company's deferred tax asset of \$49.4 million recorded in 2015 may be impacted. At present, the Company has recorded a provision based on its assessment of its reasonably expected potential exposure.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

Information responding to Item 7A is included in Item 7 — “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this annual report.

ITEM 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Ormat Technologies, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive income (loss), equity, and cash flows present fairly, in all material respects, the financial position of Ormat Technologies, Inc. and its subsidiaries at December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Francisco, California
March 1, 2017

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2016	2015
	(Dollars in thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents.....	\$ 230,214	\$ 185,919
Restricted cash and cash equivalents (primarily related to VIEs).....	34,262	49,503
Receivables:		
Trade.....	80,807	55,301
Other.....	17,482	7,885
Inventories.....	12,000	18,070
Costs and estimated earnings in excess of billings on uncompleted contracts.....	52,198	25,120
Prepaid expenses and other.....	45,867	33,334
Total current assets.....	472,830	375,136
Deposits and other.....	18,553	17,968
Deferred charges.....	43,773	42,811
Property, plant and equipment, net (\$1,483,224 and \$1,481,258 related to VIEs, respectively).....	1,556,378	1,559,335
Construction-in-process (\$120,853 and \$129,165 related to VIEs, respectively).....	306,709	248,835
Deferred financing and lease costs, net.....	3,923	4,022
Intangible assets, net.....	52,753	25,875
Goodwill.....	6,650	—
Total assets.....	<u>\$ 2,461,569</u>	<u>\$ 2,273,982</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable and accrued expenses.....	\$ 91,650	\$ 91,955
Billings in excess of costs and estimated earnings on uncompleted contracts.....	31,630	33,892
Current portion of long-term debt:		
Limited and non-recourse (primarily related to VIEs):		
Senior secured notes.....	32,234	29,930
Other loans.....	21,495	21,495
Full recourse.....	12,242	11,229
Total current liabilities.....	189,251	188,501
Long-term debt, net of current portion:		
Limited and non-recourse (primarily related to VIEs):		
Senior secured notes (less deferred financing costs of \$9,177 and \$10,852, respectively).....	350,388	294,476
Other loans (less deferred financing costs of \$6,409 and \$7,492, respectively).....	261,845	275,888
Full recourse:		
Senior unsecured bonds (plus unamortized premium based upon 7% of \$0 and \$513, respectively and less deferred financing costs of \$755 and \$283, respectively).....	203,577	249,698
Other loans (less deferred financing costs of \$1,346 and \$435, respectively).....	57,063	18,687
Accumulated losses of unconsolidated company in excess of investment.....	11,081	8,100
Liability associated with sale of tax benefits.....	54,662	11,665
Deferred lease income.....	54,561	58,099
Deferred income taxes.....	35,382	32,654
Liability for unrecognized tax benefits.....	5,738	10,385
Liabilities for severance pay.....	18,600	19,323
Asset retirement obligation.....	23,348	20,856
Other long-term liabilities.....	21,294	1,776
Total liabilities.....	<u>1,286,790</u>	<u>1,190,108</u>
Commitments and contingencies (Note 23)		
Redeemable noncontrolling interest.....	4,772	--
Equity:		
The Company's stockholders' equity:		
Common stock, par value \$0.001 per share; 200,000,000 shares authorized; 49,667,340 and 49,107,901 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively.....	50	49
Additional paid-in capital.....	869,463	849,223
Retained earnings.....	216,644	148,396
Accumulated other comprehensive income (loss).....	(7,732)	(7,667)
Total equity.....	1,078,425	990,001
Noncontrolling interest.....	91,582	93,873
Total equity.....	<u>1,170,007</u>	<u>1,083,874</u>
Total liabilities and equity.....	<u>\$ 2,461,569</u>	<u>\$ 2,273,982</u>

The accompanying notes are an integral part of the consolidated financial statements

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands, except per share data)		
Revenues:			
Electricity	\$ 436,292	\$ 375,920	\$ 382,301
Product	226,299	218,724	177,223
Total revenues	<u>662,591</u>	<u>594,644</u>	<u>559,524</u>
Cost of revenues:			
Electricity	261,573	242,612	246,630
Product	130,223	133,753	109,143
Total cost of revenues	<u>391,796</u>	<u>376,365</u>	<u>355,773</u>
Gross profit	<u>270,795</u>	<u>218,279</u>	<u>203,751</u>
Operating expenses:			
Research and development expenses	2,762	1,780	783
Selling and marketing expenses	16,424	16,077	15,425
General and administrative expenses	46,710	34,782	28,614
Write-off of unsuccessful exploration activities	3,017	1,579	15,439
Operating income	<u>201,882</u>	<u>164,061</u>	<u>143,490</u>
Other income (expense):			
Interest income	971	297	312
Interest expense, net	(67,389)	(72,577)	(84,654)
Derivatives and foreign currency transaction gains (losses)	(5,534)	(1,622)	(5,839)
Income attributable to sale of tax benefits	16,503	25,431	24,143
Gain from sale of property, plant and equipment	—	—	7,628
Other non-operating income (expense), net	<u>(5,345)</u>	<u>(1,991)</u>	<u>756</u>
Income from continuing operations before income taxes and equity in losses of investees	141,088	113,599	85,836
Income tax (provision) benefit	(31,837)	15,258	(27,608)
Equity in losses of investees, net	<u>(7,735)</u>	<u>(5,508)</u>	<u>(3,213)</u>
Income from continuing operations	101,516	123,349	55,015
Net income attributable to noncontrolling interest	(7,586)	(3,776)	(833)
Net income attributable to the Company's stockholders	<u>\$ 93,930</u>	<u>\$ 119,573</u>	<u>\$ 54,182</u>
Comprehensive income:			
Net income	101,516	123,349	55,015
Other comprehensive income (loss), net of related taxes:			
Currency translation adjustments	(1,648)	—	—
Change in unrealized gains or losses in respect of the Company's share in derivatives instruments of unconsolidated investment	1,185	1,028	(8,112)
Loss in respect of derivative instruments designated for cash flow hedge ..	87	91	(902)
Amortization of unrealized gains in respect of derivative instruments designated for cash flow hedge	(96)	(118)	(141)
Comprehensive income	101,044	124,350	45,860
Comprehensive income attributable to noncontrolling interest	(7,179)	(3,776)	(833)
Comprehensive income attributable to the Company's stockholders ..	<u>\$ 93,865</u>	<u>\$ 120,574</u>	<u>\$ 45,027</u>
Earnings per share attributable to the Company's stockholders:			
Basic:			
Net income	<u>\$ 1.90</u>	<u>\$ 2.46</u>	<u>\$ 1.19</u>
Diluted:			
Net income	<u>\$ 1.87</u>	<u>\$ 2.43</u>	<u>\$ 1.18</u>
Weighted average number of shares used in computation of earnings per share attributable to the Company's stockholders:			
Basic	49,469	48,562	45,508
Diluted	<u>50,140</u>	<u>49,187</u>	<u>45,859</u>
Dividend per share declared	<u>\$ 0.52</u>	<u>\$ 0.26</u>	<u>\$ 0.21</u>

The accompanying notes are an integral part of the consolidated financial statements.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF EQUITY

	The Company's Stockholders' Equity							Noncontrolling Interest	Total Equity
	Common Stock		Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (Loss)	Total			
	Shares	Amount							
(Dollars in thousands, except per share data)									
Balance at December 31, 2013.....	45,461	\$ 46	\$ 735,295	\$ (3,088)	\$ 487	\$ 732,740	\$ 12,371	\$ 745,111	
Stock-based compensation	—	—	5,571	—	—	5,571	—	5,571	
Exercise of options by employees and directors	76	—	981	—	—	981	—	981	
Cash paid to non controlling interest.....	—	—	—	—	—	—	(651)	(651)	
Cash dividend declared, \$0.21 per share.....	—	—	—	(9,555)	—	(9,555)	—	(9,555)	
Increase in noncontrolling interest in ORTP LLC	—	—	—	—	—	—	257	257	
Acquisition of noncontrolling interest in Crump	—	—	159	—	—	159	(987)	(828)	
Net (loss) income	—	—	—	54,182	—	54,182	833	55,015	
Other comprehensive income (loss), net of related taxes:									
Currency translation adjustment									
Loss in respect of derivative instruments designated for cash flow hedge (net of related tax of \$554)	—	—	—	—	(902)	(902)	—	(902)	
Change in unrealized gains or losses in respect of the Company's share in derivative instruments of unconsolidated investment (net of related tax of \$0)	—	—	—	—	(8,112)	(8,112)	—	(8,112)	
Amortization of unrealized gains in respect of derivative instruments designated for cash flow hedge (net of related tax of \$87)	—	—	—	—	(141)	(141)	—	(141)	
Balance at December 31, 2014.....	45,537	\$ 46	\$ 742,006	\$ 41,539	\$ (8,668)	\$ 774,923	\$ 11,823	\$ 786,746	
Stock-based compensation	—	—	3,955	—	—	3,955	—	3,955	
Exercise of options by employees and directors	574	—	6,085	—	—	6,085	—	6,085	
Share exchange with Parent (Note 2).....	2,996	3	26,012	—	—	26,015	—	26,015	
Cash paid to non controlling interest.....	—	—	—	—	—	—	(7,196)	(7,196)	
Cash dividend declared, \$0.26 per share.....	—	—	—	(12,716)	—	(12,716)	—	(12,716)	
Issuance of shares to noncontrolling interest, net of transaction costs	—	—	71,165	—	—	71,165	85,470	156,635	
Net income	—	—	—	119,573	—	119,573	3,776	123,349	
Other comprehensive income (loss), net of related taxes:									
Currency translation adjustment									
Loss in respect of derivative instruments designated for cash flow hedge (net of related tax of \$56)	—	—	—	—	91	91	—	91	
Change in unrealized gains or losses in respect of the Company's share in derivative instruments of unconsolidated investment (net of related tax of \$0).....	—	—	—	—	1,028	1,028	—	1,028	
Amortization of unrealized gains in respect of derivative instruments designated for cash flow hedge (net of related tax of \$73)	—	—	—	—	(118)	(118)	—	(118)	
Balance at December 31, 2015.....	49,107	\$ 49	\$ 849,223	\$ 148,396	\$ (7,667)	\$ 990,001	\$ 93,873	\$ 1,083,874	
Stock-based compensation	—	—	5,157	—	—	5,157	—	5,157	
Exercise of options by employees and directors	560	1	7,249	—	—	7,250	—	7,250	
Cash paid to noncontrolling interest.....	—	—	—	—	—	—	(57,391)	(57,391)	
Cash dividend declared, \$0.52 per share.....	—	—	—	(25,682)	—	(25,682)	—	(25,682)	
Increase in noncontrolling interest in Guadeloupe.....	—	—	—	—	—	—	8,240	8,240	
Increase in noncontrolling interest in Opal	—	—	—	—	—	—	3,697	3,697	
Issuance of shares to noncontrolling interest, net of transaction costs	—	—	7,834	—	—	7,834	36,268	44,102	
Net income	—	—	—	93,930	—	93,930	7,302	101,232	
Other comprehensive income (loss), net of related taxes:									
Currency translation adjustment.....	—	—	—	—	(1,241)	(1,241)	(407)	(1,648)	
Loss in respect of derivative instruments designated for cash flow hedge (net of related tax of \$54).....	—	—	—	—	87	87	—	87	
Change in unrealized gains or losses in respect of the Company's share in derivative instruments of unconsolidated investment (net of related tax of \$0) ...	—	—	—	—	1,185	1,185	—	1,185	
Amortization of unrealized gains in respect of derivative instruments designated for cash flow hedge (net of related tax of \$57)	—	—	—	—	(96)	(96)	—	(96)	
Balance at December 31, 2016.....	49,667	\$ 50	\$ 869,463	\$ 216,644	\$ (7,732)	\$ 1,078,425	\$ 91,582	\$ 1,170,000	

The accompanying notes are an integral part of the consolidated financial statements.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Cash flows from operating activities:			
Net income	\$ 101,516	\$ 123,349	\$ 55,015
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	105,977	107,206	100,798
Amortization of premium from senior unsecured bonds	(513)	(306)	(308)
Accretion of asset retirement obligation	1,778	1,198	829
Stock-based compensation	5,157	3,955	5,571
Amortization of deferred lease income	(2,685)	(2,685)	(2,685)
Income attributable to sale of tax benefits, net of interest expense	(6,962)	(17,467)	(13,823)
Equity in losses of investees	7,735	5,508	3,213
Mark-to-market of derivative instruments	319	4,129	(6,960)
Write-off of unsuccessful exploration activities	3,017	1,579	15,439
Gain on severance pay fund asset	(304)	(119)	1,492
Gain on sale of a subsidiary	—	—	(7,628)
Deferred income tax provision	18,473	(39,530)	13,135
Liability for unrecognized tax benefits	(4,647)	2,874	2,561
Deferred lease revenues	(853)	224	(251)
Other	—	484	(181)
Changes in operating assets and liabilities, net of amounts acquired:			
Receivables	(33,280)	(3,806)	47,114
Costs and estimated earnings in excess of billings on uncompleted contracts	(27,078)	2,673	(6,576)
Inventories	6,297	(1,144)	5,359
Prepaid expenses and other	(12,540)	(2,579)	(1,337)
Deposits and other	(1,009)	(648)	584
Accounts payable and accrued expenses	(1,375)	(339)	(9,638)
Due from/to related entities, net	—	451	(9)
Billings in excess of costs and estimated earnings on uncompleted contracts	(2,262)	9,168	16,821
Liabilities for severance pay	(786)	(1,076)	(3,442)
Other long-term liabilities	3,310	(2,561)	(903)
Due from/to Parent	—	(513)	(955)
Net cash provided by operating activities	159,285	190,025	213,235
Cash flows from investing activities:			
Cash acquired in organizational restructuring and share exchange with parent	—	15,391	—
Net change in restricted cash, cash equivalents and marketable securities	15,241	43,745	(42,183)
Cash received from sale of a subsidiary	—	—	35,250
Capital expenditures	(151,930)	(152,450)	(151,153)
Cash grant received from the U.S. Treasury under Section 1603 of the ARRA	—	—	27,427
Investment in unconsolidated companies	(3,569)	—	(631)
Cash paid for acquisition of controlling interest in a subsidiary, net of cash acquired	(20,135)	—	—
Intangible assets acquired	—	(500)	—
Decrease in severance pay fund asset, net of payments made to retired employees	1,862	2,843	2,128
Net cash used in investing activities	(158,531)	(90,971)	(129,162)
Cash flows from financing activities:			
Proceeds from sale of membership interests to noncontrolling interest, net of transaction costs	44,102	156,635	—
Proceeds from long-term loans, net of transaction costs	142,500	42,000	140,000
Proceeds from exercise of options by employees	7,249	6,085	981
Proceeds from issuance of senior unsecured notes, net of transaction costs	203,483	—	—
Purchase of Senior unsecured notes	(249,468)	—	—
Proceeds from the sale of limited liability company interest in OPAL Geo LLC, net of transaction costs	59,897	—	—
Purchase of OFC Senior Secured Notes	(6,815)	(30,638)	(12,860)
Proceeds from revolving credit lines with banks	309,400	598,800	2,830,683
Repayment of revolving credit lines with banks	(309,400)	(619,100)	(2,922,400)
Cash received from noncontrolling interest	1,972	1,654	2,234
Payment for acquisition of noncontrolling interest in Crump	—	—	(1,490)
Repayments of long-term debt	(62,052)	(71,701)	(111,180)
Cash paid to noncontrolling interest	(64,065)	(19,068)	(11,320)
Cash paid for interest rate cap	—	—	(1,505)
Payments of capital leases	(1,178)	—	—
Deferred debt issuance costs	(6,402)	(5,316)	(4,785)
Cash dividends paid	(25,682)	(12,716)	(9,555)
Net cash provided by (used in) financing activities	43,541	46,635	(101,197)
Net change in cash and cash equivalents	44,295	145,689	(17,124)
Cash and cash equivalents at beginning of period	185,919	40,230	57,354
Cash and cash equivalents at end of period	\$ 230,214	\$ 185,919	\$ 40,230
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest, net of interest capitalized	\$ 55,366	\$ 55,492	\$ 62,376
Income taxes, net	\$ 18,490	\$ 10,419	\$ 5,787
Supplemental non-cash investing and financing activities:			
Increase (decrease) in accounts payable related to purchases of property, plant and equipment	\$ (2,219)	\$ 3,810	\$ 3,853
Accrued liabilities related to financing activities	\$ 6,291	\$ 1,665	\$ 658
Increase (decrease) in asset retirement cost and asset retirement obligation	\$ 714	\$ 516	\$ (366)

The accompanying notes are an integral part of the consolidated financial statements.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 — BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

Business

Ormat Technologies, Inc. (the “Company”) is primarily engaged in the geothermal and recovered energy business, including the supply of equipment that is manufactured by the Company and the design and construction of power plants for projects owned by the Company or for third parties. The Company owns and operates geothermal and recovered energy-based power plants in various countries, including the United States of America (“U.S.”), Kenya, and Guatemala. The Company’s equipment manufacturing operations are located in Israel.

Most of the Company’s domestic power plant facilities are Qualifying Facilities under the Public Utility Regulatory Policies Act of 1978 (“PURPA”). The power purchase agreements (“PPAs”) for certain of such facilities are dependent upon their maintaining Qualifying Facility status. Management believes that all of the facilities located in the U.S. were in compliance with Qualifying Facility status requirements as of December 31, 2016.

Cash dividends

During the years ended December 31, 2016, 2015, and 2014, the Company’s Board of Directors declared, approved, and authorized the payment of cash dividends in the aggregate amount of \$25.7 million (\$0.52 per share), \$12.7 million (\$0.26 per share), and \$9.6 million (\$0.21 per share), respectively. Such dividends were paid in the years declared.

Rounding

Dollar amounts, except per share data, in the notes to these financial statements are rounded to the closest \$1,000, unless otherwise indicated.

Basis of presentation

The consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and include the accounts of the Company and of all majority-owned subsidiaries in which the Company exercises control over operating and financial policies, and variable interest entities in which the Company has an interest and is the primary beneficiary. Intercompany accounts and transactions have been eliminated in consolidation.

Investments in less-than-majority-owned entities or other entities in which the Company exercises significant influence over operating and financial policies are accounted for using the equity method of accounting or consolidated if they are a variable interest entity in which the Company has an interest and is the primary beneficiary. Under the equity method, original investments are recorded at cost and adjusted by the Company’s share of undistributed earnings or losses of such companies. The Company’s earnings or losses in investments accounted for under the equity method have been reflected as “equity in income (losses) of investees, net” on the Company’s consolidated statements of operations and comprehensive income (loss).

Cash and cash equivalents

The Company considers all highly liquid instruments, with an original maturity of three months or less, to be cash equivalents.

Restricted cash, cash equivalents, and marketable securities

Under the terms of certain long-term debt agreements, the Company is required to maintain certain debt service reserves, cash collateral and operating fund accounts that have been classified as restricted cash and cash equivalents. Funds that will be used to satisfy obligations due during the next twelve months are classified as current restricted cash and cash equivalents, with the remainder classified as non-current restricted cash and cash equivalents. Such amounts were invested primarily in money market accounts and commercial paper with a minimum investment grade of “AA”.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Concentration of credit risk

Financial instruments which potentially subject the Company to concentration of credit risk consist principally of temporary cash investments and accounts receivable.

The Company places its temporary cash investments with high credit quality financial institutions located in the U.S. and in foreign countries. At December 31, 2016 and 2015, the Company had deposits totaling \$72.5 million and \$19.0 million, respectively, in seven U.S. financial institutions that were federally insured up to \$250,000 per account. At December 31, 2016 and 2015, the Company's deposits in foreign countries of approximately \$166.2 million and \$181.0 million, respectively, were not insured.

At December 31, 2016 and 2015, accounts receivable related to operations in foreign countries amounted to approximately \$53.3 million and \$27.8 million, respectively. At December 31, 2016, and 2015, accounts receivable from the Company's major customers (see Note 20) amounted to approximately 60% and 66%, respectively, of the Company's accounts receivable.

The Company has historically been able to collect on substantially all of its receivable balances, and accordingly, no provision for doubtful accounts has been made.

Inventories

Inventories consist primarily of raw material parts and sub-assemblies for power units, and are stated at the lower of cost or market value, using the weighted-average cost method. Inventories are reduced by a provision for slow-moving and obsolete inventories. This provision was not material at December 31, 2016 and 2015.

Deposits and other

Deposits and other consist primarily of performance bonds for construction projects, long-term insurance contract and receivables, and derivative instruments.

Deferred charges

Deferred charges represent prepaid income taxes on intercompany sales. Such amounts are amortized using the straight-line method and included in income tax provision over the life of the related property, plant and equipment.

Property, plant and equipment, net

Property, plant and equipment are stated at cost. All costs associated with the acquisition, development and construction of power plants operated by the Company are capitalized. Major improvements are capitalized and repairs and maintenance (including major maintenance) costs are expensed. Power plants operated by the Company, which include geothermal wells and exploration and resource development costs, are depreciated using the straight-line method over their estimated useful lives, which range from 15 to 30 years. The other assets are depreciated using the straight-line method over the following estimated useful lives of the assets:

Buildings (in years)	25
Leasehold improvements (in years)	15 - 20
Machinery and equipment — manufacturing and drilling (in years)	10
Machinery and equipment — computers (in years)	3 - 5
Office equipment — furniture and fixtures (in years)	5 - 15
Office equipment — other (in years)	5 - 10
Automobiles (in years)	5 - 7

The cost and accumulated depreciation of items sold or retired are removed from the accounts. Any resulting gain or loss recognized currently and is recorded in the accompanying statements of operations.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company capitalizes interest costs as part of constructing power plant facilities. Such capitalized interest is recorded as part of the asset to which it relates and is amortized over the asset's estimated useful life. Capitalized interest costs amounted to \$3.3 million, \$4.1 million, and \$3.2 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Cash Grants

From 2009 to 2014, the Company was awarded cash grants from the U.S. Department of the Treasury ("U.S. Treasury") for Specified Energy Property in Lieu of Tax Credits under Section 1603 of the American Recovery and Reinvestment Act of 2009 ("ARRA"). The Company recorded the cash grant as a reduction in the carrying value of the related plant and amortized the grants as a reduction in depreciation expense over the plant's estimated useful life.

Exploration and development costs

The Company capitalizes costs incurred in connection with the exploration and development of geothermal resources once it acquires land rights to the potential geothermal resource. Prior to acquiring land rights, the Company makes an initial assessment that an economically feasible geothermal reservoir is probable on that land. The Company determines the economic feasibility of potential geothermal resources internally, with all available data and external assessments vetted through the exploration department and occasionally using outside service providers. Costs associated with the initial assessment are expensed and included in cost of electricity revenues in the consolidated statements of operations and comprehensive income (loss). Such costs were immaterial during the years ended December 31, 2016, 2015, and 2014. It normally takes two to three years from the time active exploration of a particular geothermal resource begins to the time a production well is in operation, assuming the resource is commercially viable. However, in certain sites the process may take longer due to permitting delays, transmission constraints or any other commercial milestones that are required to be reached in order to pursue the development process.

In most cases, the Company obtains the right to conduct the geothermal development and operations on land owned by the Bureau of Land Management ("BLM"), various states or with private parties. In consideration for certain of these leases, the Company may pay an up-front bonus payment which is a component of the competitive lease process. The up-front bonus payments and other related costs, such as legal fees, are capitalized and included in construction-in-process. The annual land lease payments made during the exploration, development and construction phase are expensed as incurred and included in "electricity cost of revenues" in the consolidated statements of operations and comprehensive income (loss). Upon commencement of power generation on the leased land, the Company begins to pay to the lessors long-term royalty payments based on the utilization of the geothermal resources as defined in the respective agreements. Such payments are expensed when the related revenues are earned and included in "electricity cost of revenues" in the consolidated statements of operations and comprehensive income (loss).

Following the acquisition of land rights to the potential geothermal resource, the Company conducts further studies and surveys, including water and soil analyses among others, and augments its database with the results of these studies. The Company then initiates a suite of geophysical surveys to assess the resource and determine drilling locations. If the results of these activities support the initial assessment of the feasibility of the geothermal resource, the Company then proceeds to exploratory drilling and other related activities which may include drilling of temperature gradient holes, drilling of slim holes, building access roads to drilling locations, drilling full size production and/or injection wells and flow tests. If the slim hole supports a conclusion that the geothermal resource will support a commercially viable power plant, it may be converted to a full-size commercial well, used either for extraction or re-injection of geothermal fluids, or be used as an observation well to monitor and define the geothermal resource. Costs associated with these activities and other directly attributable costs, including interest once physical exploration activities begin and permitting costs are capitalized and included in "construction-in-process". If the Company concludes that a geothermal resource will not support commercial operations, capitalized costs are expensed in the period such determination is made.

When deciding whether to continue holding lease rights and/or to pursue exploration activity, we diligently prioritize our prospective investments, taking into account resource and probability assessments in order to make informed decisions about whether a particular project will support commercial operations. As a result, write-off of unsuccessful activities for the year ended December 31, 2016, 2015 and 2014, was \$3.0 million, \$1.6 million, and \$15.4 million. In 2016 and 2015, the write-offs included the exploration costs related to the Company's exploration activities primarily in the Twilight site in Oregon and the Maui site in Hawaii of \$1.0 million, respectively. In 2014, the write-offs included the exploration costs related to the

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Company's exploration activities in the Wister site in California of \$8.1 million and the Mount Spur site in Alaska of \$7.3 million.

Grants received from the U.S. Department of Energy ("DOE") are offset against the related exploration and development costs. Such grants amounted to \$0.3 million, \$0.8 million, and \$1.7 million for the years ended December 31, 2016, 2015, and 2014, respectively.

All exploration and development costs that are being capitalized, including the up-front bonus payments made to secure land leases, will be depreciated over their estimated useful lives when the related geothermal power plant is substantially complete and ready for use. A geothermal power plant is substantially complete and ready for use when electricity generation commences.

Asset retirement obligation

The Company records the fair value of a legal liability for an asset retirement obligation in the period in which it is incurred. The Company's legal liabilities include plugging wells and post-closure costs of power producing sites. When a new liability for asset retirement obligations is recorded, the Company capitalizes the costs of the liability by increasing the carrying amount of the related long-lived asset. The liability is accreted to its present value each period, and the capitalized cost is depreciated over the useful life of the related asset. At retirement, the obligation is settled for its recorded amount at a gain or loss.

Deferred financing and lease transaction costs

Deferred financing costs are amortized over the term of the related obligation using the effective interest method. Amortization of deferred financing costs is presented as interest expense in the consolidated statements of operations and comprehensive income (loss). Accumulated amortization related to deferred financing costs amounted to \$31.1 million and \$37.2 million at December 31, 2016 and 2015, respectively. Amortization expense for the years ended December 31, 2016, 2015, and 2014 amounted to \$6.9 million, \$8.8 million, and \$6.5 million, respectively. During the years ended December 31, 2016, 2015 and 2014 amounts of \$0.1 million, \$0.5 million and \$0.7 million, respectively, were written-off as a result of the extinguishment of liability.

Deferred transaction costs relating to the Puna operating lease (see Note 13) in the amount of \$4.2 million are amortized using the straight-line method over the 23-year term of the lease. Amortization of deferred transaction costs is presented in cost of revenues in the consolidated statements of operations and comprehensive income (loss). Accumulated amortization related to deferred lease costs amounted to \$2.1 million and \$2.0 million at December 31, 2016 and 2015, respectively. Amortization expense for each of the years ended December 31, 2016, 2015, and 2014 amounted to \$0.2 million.

Goodwill

Goodwill represents the excess of the fair value of consideration transferred in the Guadeloupe business combination transaction over the fair value of tangible and intangible assets acquired net of the fair value of liabilities assumed and the fair value of any noncontrolling interest in the acquisition. Goodwill is not amortized but rather subject to periodic impairment testing on an annual basis or if an event occurs or circumstances change that would more likely than not reduce the fair value of reporting unit below its carrying amount.

Intangible assets

Intangible assets consist of allocated acquisition costs of PPAs, which are amortized using the straight-line method over the 13 to 25-year terms of the agreements (see Note 10).

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Impairment of long-lived assets and long-lived assets to be disposed of

The Company evaluates long-lived assets, such as property, plant and equipment and construction-in-process for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Factors which could trigger an impairment include, among others, significant underperformance relative to historical or projected future operating results, significant changes in the Company's use of assets or its overall business strategy, negative industry or economic trends, a determination that an exploration project will not support commercial operations, a determination that a suspended project is not likely to be completed, a significant increase in costs necessary to complete a project, legal factors relating to its business or when it concludes that it is more likely than not that an asset will be disposed of or sold.

The Company tests its operating plants that are operated together as a complex for impairment at the complex level because the cash flows of such plants result from significant shared operating activities. For example, the operating power plants in a complex are managed under a combined operation management generally with one central control room that controls all of the power plants in a complex and one maintenance group that services all of the power plants in a complex. As a result, the cash flows from individual plants within a complex are not largely independent of the cash flows of other plants within the complex. The Company tests for impairment its operating plants which are not operated as a complex as well as its projects under exploration, development or construction that are not part of an existing complex at the plant or project level. To the extent an operating plant becomes part of a complex, the Company will test for impairment at the complex level.

Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the estimated future net undiscounted cash flows expected to be generated by the asset. The significant assumptions that the Company uses in estimating its undiscounted future cash flows include: (i) projected generating capacity of the complex or power plant and rates to be received under the respective PPA(s) and expected market rates thereafter and (ii) projected operating expenses of the relevant complex or power plant. Estimates of future cash flows used to test recoverability of a long-lived asset under development also include cash flows associated with all future expenditures necessary to develop the asset.

If the assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds their fair value. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. Management believes that no impairment exists for long-lived assets; however, estimates as to the recoverability of such assets may change based on revised circumstances. If actual cash flows differ significantly from the Company's current estimates, a material impairment charge may be required in the future.

Derivative instruments

Derivative instruments (including certain derivative instruments embedded in other contracts) are measured at their fair value and recorded as either assets or liabilities unless exempted from derivative treatment as a normal purchase and sale. All changes in the fair value of derivatives are recognized in earnings unless specific hedge criteria are met, which requires a company to formally document, designate and assess the effectiveness of transactions that receive hedge accounting.

The Company maintains a risk management strategy that incorporates the use of swap contracts and put options on oil and natural gas prices, forward exchange contracts, interest rate swaps, and interest rate caps to minimize significant fluctuation in cash flows and/or earnings that are caused by oil and natural gas prices, exchange rate or interest rate volatility. Gains or losses on contracts that initially qualify for cash flow hedge accounting, net of related taxes, are included as a component of other comprehensive income or loss and accumulated other comprehensive income or loss are subsequently reclassified into earnings when the hedged forecasted transaction affects earnings. Gains or losses on contracts that are not designated as a cash flow hedge are included currently in earnings.

Foreign currency translation

The U.S. dollar is the functional currency for all of the Company's consolidated operations and those of its equity affiliates except for the Guadeloupe power plant. For those entities, all gains and losses from currency translations are included within the line item "Derivatives and foreign currency transaction gains (losses)" within the consolidated statements of operations and comprehensive income (loss). The Euro is the functional currency of the Guadeloupe power plant and thus gains and losses from currency translation adjustments related to Guadeloupe are included as currency translation adjustments in accumulated other comprehensive income in the consolidated statements of equity and in comprehensive income.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Comprehensive income (loss) reporting

Comprehensive income (loss) includes net income or loss plus other comprehensive income (loss), which for the Company consists of changes in unrealized gains or losses in respect of the Company's share in derivatives instruments of unconsolidated investment, foreign currency translation adjustments and the mark-to-market gains or losses on derivative instruments designated as a cash flow hedge. For the years ended December 31, 2016, 2015 and 2014, the Company reclassified \$9 thousand, \$27 thousand and \$141 thousand, respectively, from other comprehensive income, of which \$12.0 thousand, \$44 thousand and \$228 thousand, respectively, were recorded to reduce interest expense and \$3.0 thousand, \$17 thousand and \$87 thousand, respectively, were recorded against the income tax provision, in the consolidated statements of operations and comprehensive income (loss).

Revenues and cost of revenues

Revenues are primarily related to: (i) sale of electricity from geothermal and recovered energy-based power plants owned and operated by the Company and (ii) geothermal and recovered energy-based power plant equipment engineering, sale, construction and installation, and operating services.

Revenues related to the sale of electricity from geothermal and recovered energy-based power plants and capacity payments are recorded based upon output delivered and capacity provided at rates specified under relevant contract terms. For PPAs agreed to, modified, or acquired in business combinations on or after July 1, 2003, the Company determines whether such PPAs contain a lease element requiring lease accounting. Revenue from such PPAs are accounted for in electricity revenues. The lease element of the PPAs is also assessed in accordance with the revenue arrangements with multiple deliverables guidance, which requires that revenues be allocated to the separate earnings processes based on their relative fair value. PPAs with minimum lease rentals which vary over time are generally recognized on the straight-line basis over the term of the PPAs. PPAs with contingent rentals are recognized when earned.

Revenues from engineering, operating services, and parts and product sales are recorded upon providing the service or delivery of the products and parts and when collectability is reasonably assured. Revenues from the supply and/or construction of geothermal and recovered energy-based power plant equipment and other equipment to third parties are recognized using the percentage-of-completion method. Revenue is recognized based on the percentage relationship that incurred costs bear to total estimated costs. Costs include direct material, labor, and indirect costs. Selling, marketing, general, and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions, and estimated profitability, including those arising from contract penalty provisions and final contract settlements, may result in revisions to costs and revenues and are recognized in the period in which the revisions are determined.

In specific instances where there is a lack of dependable estimates or inherent risks cause forecast to be doubtful, then the completed-contract method is followed. Revenue is recognized when the contract is substantially complete and when collectability is reasonably assured. Costs that are closely associated with the project are deferred as contract costs and recognized similarly to the associated revenues.

Warranty on products sold

The Company generally provides a one-year warranty against defects in workmanship and materials related to the sale of products for electricity generation. Estimated future warranty obligations are included in operating expenses in the period in which the related revenue is recognized. Such charges are immaterial for the years ended December 31, 2016, 2015, and 2014.

Research and development

Research and development costs incurred by the Company for the development of existing and new geothermal, recovered energy and remote power technologies are expensed as incurred. Grants received from the DOE are offset against the related research and development expenses. Such grants amounted to \$0 million, \$0 million, and \$0.6 million for the years ended December 31, 2016, 2015, and 2014, respectively.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

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Stock-based compensation

The Company accounts for stock-based compensation using the fair value method whereby compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense over the requisite employee service period (generally the vesting period of the grant). Prior to 2016, the Company used the Black-Scholes formula to estimate the fair value of the stock-based compensation. In 2016, the Company used the Exercise Multiple-Based Lattice SAR-Pricing Model to value the stock-based compensation awards to reflect accumulated historic data retained of behavioral parameters.

Tax monetization Transactions

The Company has three tax monetization transactions, OPC, ORTP and Opal, as described in Note 14. The purpose of these transactions is to form tax partnerships, whereby investors provide cash in exchange for equity interests that provide the holder a right to the majority of tax benefits associated with a renewable energy project. We account for a portion of the proceeds from the transaction as debt under ASC 470. Given that a portion of these transactions is structured as a purchase of an equity interest we also classify a portion as noncontrolling interest consistent with guidance in ASC 810. The portion recorded to noncontrolling interest is initially measured as the fair value of the discounted Tax Attributes and cash distributions which represents the partner's residual economic interest. The residual proceeds is recognized as the initial carrying value of the debt which is classified as a liability associated with sale tax benefits. We apply the effective interest rate method to the liability component as described by ASC 835 and CON 7. The tax benefits and cash distributions realized by the partner each period are treated as the debt servicing amounts, giving rise to income attributable to the sale of tax benefits. The deferred transaction costs have been capitalized and amortized using the effective interest method.

Income taxes

Income taxes are accounted for using the asset and liability approach, which requires the recognition of taxes payable or refundable for the current year and deferred tax assets and liabilities for the future tax consequences of events that have been recognized in the Company's financial statements or tax returns. The measurement of current and deferred tax assets and liabilities are based on provisions of the enacted tax law. The effects of future changes in tax laws or rates are not anticipated. The Company accounts for investment tax credits and production tax credits as a reduction to income taxes in the year in which the credit arises. The measurement of deferred tax assets is reduced, if necessary, by the amount of any tax benefits that, based on available evidence, are not more likely than not expected to be realized. A full valuation allowance has been established to offset the Company's U.S. deferred tax assets. Tax benefits from uncertain tax positions are recognized only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. Interest and penalties assessed by taxing authorities on an underpayment of income taxes are included as a component of income tax provision in the consolidated statements of operations and comprehensive income.

Earnings (loss) per share

Basic earnings (loss) per share attributable to the Company's stockholders ("earnings (loss) per share") is computed by dividing net income or loss attributable to the Company's stockholders by the weighted average number of shares of common stock outstanding for the period. The Company does not have any equity instruments that are dilutive, except for stock-based awards.

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The table below shows the reconciliation of the number of shares used in the computation of basic and diluted earnings per share:

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Weighted average number of shares used in computation of basic earnings per share	49,469	48,562	45,508
Add:			
Additional shares from the assumed exercise of employee stock options	671	625	351
Weighted average number of shares used in computation of diluted earnings per share	50,140	49,187	45,859

The number of stock-based awards that could potentially dilute future earnings per share and were not included in the computation of diluted earnings per share because to do so would have been anti-dilutive was 102,793, 467,766, and 3,237,593, respectively, for the years ended December 31, 2016, 2015, and 2014.

Use of estimates in preparation of financial statements

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the dates of such financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. The most significant estimates with regard to the Company's consolidated financial statements relate to the useful lives of property, plant and equipment, impairment of long-lived assets and assets to be disposed of, revenue recognition of product sales using the percentage of completion method, asset retirement obligations, and the provision for income taxes.

New Accounting Pronouncements

New accounting pronouncements effective in the year ended December 31, 2016

Amendments to Fair Value Measurement

In June 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2015-10, Amendment to Fair Value Measurement, Subtopic 820-10. The amendment provides that the reporting entity shall disclose for each class of assets and liabilities measured at fair value in the statement of financial position the following information: for recurring fair value measurements, the fair value measurement at the end of the reporting period, and for non-recurring fair value measurement, the fair value measurement at the relevant measurement date and the reason for the measurement. The amendments in this update are effective for annual reporting periods beginning after December 15, 2015, including interim periods within those reporting periods. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Amendments to the Consolidation Analysis

In February 2015, the FASB issued ASU 2015-02, Amendments to the Consolidation Analysis, Topic 810. The update provides that all reporting entities that hold a variable interest in other legal entities will need to re-evaluate their consolidation conclusions and potentially revise their disclosures. This amendment affects both variable interest entity ("VIE") and voting interest entity ("VOE") consolidation models. The update does not change the general order in which the consolidation models are applied. A reporting entity that holds an economic interest in, or is otherwise involved with, another legal entity (i.e. has a variable interest) should first determine if the VIE model applies, and if so, whether it holds a controlling financial interest under that model. If the entity being evaluated for consolidation is not a VIE, then the VOE model should be applied to determine whether the entity should be consolidated by the reporting entity. Since consolidation is only assessed for legal

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

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entities, the determination of whether there is a legal entity is important. It is often clear when the entity is incorporated, but unincorporated structures can also be legal entities and judgment may be required to make that determination. The update contains a new example that highlights the discretion used to make this legal entity determination. The update is effective for annual reporting periods beginning after December 15, 2015, including interim periods within those reporting periods. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

Simplifying the Presentation of Debt Costs

In April 2015, the FASB issued ASU 2015-03, Interest-Imputation of Interest: Simplifying the Presentation of Debt Costs, Subtopic 835-30. The update provides that debt issuance costs related to a recognized debt liability be presented in the balance sheet as direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The amendments in this update are effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. The Company retrospectively adopted this update in its interim period beginning January 1, 2016. The impact of the adoption resulted in a reclassification of debt issuance costs totaling \$17.7 million and \$19.1 million as of December 31, 2016 and December 31, 2015, respectively.

In August 2015, the FASB issued ASU 2015-15, Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements, Subtopic 835-30. The update clarifies that given the absence of authoritative guidance within Update 2015-03 for debt issuance costs described below, debt issuance costs related to line-of-credit arrangements can be deferred and presented as assets and subsequently amortized ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings under the line-of-credit arrangement. The amendments in this update are effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. The Company adopted this update in its interim period beginning January 1, 2016 and continues to present debt issuance costs related to such line-of-credit arrangements as assets amortized ratably over the respective term of the line-of credit arrangements. Debt issuance costs related to such line-of-credit arrangements as of December 31, 2016 and December 31, 2015, totaled \$1.1 million and \$1.0 million, respectively.

New accounting pronouncements effective in future periods

Business Combinations

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805). The update clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments in this update primarily provide a screen to determine when a set of assets and activities is not a business and by that reduces the number of transactions that need to be further evaluated. The amendments in this update should be applied prospectively and are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the potential impact of the adoption of these amendments on its consolidated financial statements.

Statement of Cash Flows

In November 2016, the FASB issued ASU 2016-018, Statement of Cash Flows (Topic 230) – Restricted Cash. The amendments in this update require that a statement of cash flows explain the changes during the period in total cash, cash equivalents, and the amounts generally described as restricted cash or cash equivalents. Therefore, amounts of restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The amendments in this update should be applied retrospectively for each period presented and are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted. The Company is currently evaluating the potential impact of the adoption of these amendments on its consolidated financial statements.

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Intra-Entity Transfers of Assets Other than Inventory

In October 2016, the FASB issued ASU 2016-16, Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory. The amendments in this update require that the entity would recognize the tax expense from the sale of the asset in the seller's tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer's jurisdiction would also be recognized at the time of the transfer. The new guidance does not apply to intra-entity transfers on inventory. The amendments in this update should be applied for each period presented and are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The modified retrospective approach will be required for transition to the new guidance, with cumulative-effect adjustment recorded in retained earnings as of the beginning of the period of adoption. Early adoption is permitted in the first quarter of 2017. The Company is currently evaluating the potential impact of the adoption of these amendments on its consolidated financial statements.

Interests Held through Related Parties that are under Common Control

In October 2016, the FASB issued ASU 2016-17, Consolidation (Topic 810): Interests held through Related Parties that are under Common Control. The amendments in this update require that if a decision maker is required to evaluate whether it is the primary beneficiary of a VIE, it will need to consider only its proportionate indirect interest in the VIE held through a common control party. The amendments in this update should be applied retrospectively for each period presented and are effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company is currently evaluating the potential impact of the adoption of these amendments on its consolidated financial statements.

Improvement to Employee Share-Based Payment Accounting

In March 2016, the FASB issued ASU 2016-09, Improvement to Employee Share-Based Payment Accounting, an update to the guidance on stock-based compensation. Under the new guidance, all excess tax benefits and tax deficiencies will be recognized in the income statement as they occur. This will replace the current guidance, which requires tax benefits that exceed compensation cost (windfalls) to be recognized in equity. It will also eliminate the need to maintain a "windfall pool," and will remove the requirement to delay recognizing a windfall until it reduces current taxes payable. The new guidance will also change the cash flow presentation of excess tax benefits, classifying them as operating inflows, consistent with other cash flows related to income taxes. Today, windfalls are classified as financing activities. Also, this will affect the dilutive effects in earnings per share, as there will no longer be excess tax benefits recognized in additional paid in capital. Today those excess tax benefits are included in assumed proceeds from applying the treasury stock method when computing diluted EPS. Under the amended guidance, companies will be able to make an accounting policy election to either (1) continue to estimate forfeitures or (2) account for forfeitures as they occur. This updated guidance is effective for annual and interim periods beginning after December 15, 2016. Early adoption is permitted. The Company is currently evaluating the potential impact, if any, of the adoption of this update on its consolidated financial statements, however, any impact is not expected to be material.

Leases

In February 2016, the FASB issued ASU 2016-02, Leases, Topic 842. The amendment in this Update introduce a number of changes and simplifications from previous guidance, primarily the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases. The Update retains the distinction between finance leases and operating leases and the classification criteria between the two types remain substantially similar. Also, lessor accounting remains largely unchanged from previous guidance, however, key aspects in the Update were aligned with the revenue recognition guidance in Topic 606. Additionally, the Update defines a lease as a contract, or part of a contract, that conveys the right to control the use of identified asset for a period of time in exchange for considerations. Control over the use of the identified means that the customer has both (a) the right to obtain substantially all of the economic benefits from the use of the asset and (b) the right to direct the use of the asset. The amendments in this update are effective for annual reporting periods beginning after December 15, 2018, including interim periods within those reporting periods. Early adoption is permitted. The Company is currently evaluating the potential impact, if any, of the adoption of these amendments on its consolidated financial statements.

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Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities. The update primarily requires that an entity should present separately, in other comprehensive income, the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk if the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. The application of this update should be by means of cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The amendments in this update are effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted as of the beginning of the fiscal year of adoption. The Company is currently evaluating the potential impact, if any, of the adoption of this update on its consolidated financial statements.

Simplifying the Measurement of Inventory

In July 2015, the FASB issued ASU 2015-11, Simplifying the Measurement of Inventory, Topic 330. The update contains no amendments to disclosure requirements, but replaces the concept of 'lower of cost or market' with that of 'lower of cost and net realizable value'. The amendments in this update are effective for annual reporting periods beginning after December 15, 2016, including interim periods within those reporting periods. The amendments should be applied prospectively with early adoption permitted. The Company estimates that the potential impact, if any, of the adoption of this update on its consolidated financial statements is immaterial.

Revenues from Contracts with Customers

In May 2014, the FASB issued ASU 2014-09, Revenues from Contracts with Customers, Topic 606, which was a joint project of the FASB and the International Accounting Standards Board to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and International Financial Reporting Standards. The update provides that an entity should recognize revenue in connection with the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, an entity is required to apply each of the following steps: (1) identify the contract(s) with the customer; (2) identify the performance obligations in the contracts; (3) determine the transaction price; (4) allocate the transaction price to the performance obligation in the contract; and (5) recognize revenue when (or as) the entity satisfies a performance obligation. ASU 2014-09 also prescribes additional financial presentations and disclosures. The amendments in this update are effective for annual reporting periods beginning after December 15, 2017, including interim periods within those reporting periods. Early adoption is permitted no earlier than 2017 for calendar fiscal year entities. The Company expects the adoption of this standard to have an immaterial impact, if any, on its Electricity segment as it accounts for its PPA's under ASC 840, Leases. The Company still evaluates the potential impact of the adoption of the standard on its Product segment, however, it believes that such impact, if any, will be immaterial.

In March 2016, the FASB issued ASU 2016-08, Principal versus Agent Considerations. The amendment in this Update do not change the core principal of the guidance and are intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations. When another entity is involved in providing goods or services to a customer, an entity is required to determine if the nature of its promise is to provide the specific good or service itself (that is, the entity is a principal) or to arrange for that good or service to be provided by the other party (that is, the entity is an agent). The guidance includes indicators to assist an entity in determining whether it acts as a principal or agent in a specified transaction. The amendments in this update are effective for annual reporting periods beginning after December 15, 2017, including interim periods within those reporting periods. Early adoption is permitted no earlier than 2017 for calendar fiscal year entities. The Company is currently evaluating the potential impact, if any, of the adoption of these amendments on its consolidated financial statements, however, it believes that any such impact, if any, will be immaterial.

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NOTE 2 — SHARE EXCHANGE TRANSACTION

Share exchange transaction

On February 12, 2015, the Company completed the share exchange transaction with its then-parent entity, Ormat Industries Ltd. ("OIL") following which, the Company became a noncontrolled public company and its public float increased from approximately 40% to approximately 76% of its total shares outstanding. Under the terms of the share exchange, OIL shareholders received 0.2592 shares in the Company for each share in OIL, or an aggregate of approximately 30.2 million shares, reflecting a net issuance of approximately 3.0 million shares (after deducting the 27.2 million shares that OIL held in the Company). Consequently, the number of total shares of the Company outstanding increased from approximately 45.5 million shares to approximately 48.5 million shares as of the closing of the share exchange.

In exchange, the Company also received \$15.4 million in cash, \$0.6 million in other assets and \$12.1 million in land and buildings and assumed \$0.5 million in liabilities. OIL's principal business purpose was to hold its interest in the Company and the transaction resulted in a transfer of non-material assets from OIL to the Company. Therefore, there was no change in the reporting entity as a result of the transaction and the Company recognized the transfer of net assets at their carrying value as presented in OIL's financial statements. Any activities of OIL will be accounted for prospectively by the Company.

NOTE 3 — NORTHLEAF TRANSACTIONS AND BUSINESS ACQUISITION

Northleaf transactions

On April 30, 2015, Ormat Nevada Inc. ("Ormat Nevada"), a wholly-owned subsidiary of the Company, closed the sale of approximately 36.75% of the aggregate membership interests in ORPD LLC ("ORPD"), a new holding company and subsidiary of Ormat Nevada, that indirectly owns the Puna geothermal power plant in Hawaii, the Don A. Campbell geothermal power plant in Nevada, and nine power plant units across three recovered energy generation assets known as OREG 1, OREG 2 and OREG 3 to Northleaf Geothermal Holdings, LLC for \$162.3 million. The net proceeds to the Company were \$156.8 million after payment of \$5.5 million of transaction costs. The sale was made under the Agreement for Purchase of Membership Interests dated February 5, 2015. This transaction closed on April 30, 2015 and resulted in a taxable gain in the U.S. of approximately \$102.1 million, for which the Company utilized a portion of its Net Operating Loss ("NOL") and tax credit carryforwards to fully offset the tax impact of the gain.

Following the transaction, the Company maintains control of ORPD and continues to consolidate the entity with non-controlling interest being recorded. Consequently, the Company recorded the net proceeds from the issuance of membership interests as an increase to additional paid-in capital of \$71.3 million and non-controlling interests of \$85.5 million. See Note 19 for tax details.

On November 23, 2016, Ormat Nevada, closed a follow-on sale of 36.75% equity interest in the second phase of the Don A. Campbell power plant for proceeds of approximately \$44.2 million. The Don A. Campbell commenced operations in September 2015 and sells its electricity to SCPPA under a 20 year PPA. Following the closing, the power plant was contributed to the existing ORPD, as agreed upon under the ORPD agreement with Northleaf Geothermal Holdings, LLC that was executed on April 30, 2015. The net proceeds to the Company were \$44.1 million after payment of \$0.1 million of transaction costs and resulted in a taxable gain in the U.S. of approximately \$21.4 million, for which the Company utilized a portion of its Net Operating Loss ("NOL") and tax credit carryforwards to fully offset the tax impact of the gain.

Following the transaction, the Company continue to maintain control of ORPD and consolidate the entity with additional noncontrolling interest being recorded. Consequently, the Company recorded the net proceeds from the issuance of membership interests as an increase to additional paid-in capital of \$7.8 million and non-controlling interests of \$36.3 million. See Note 19 for tax details.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Guadeloupe power plant transaction

In July 2016, we announced that we closed the previously announced acquisition of Geothermie Bouillante SA (“GB”). GB owns and operates the 14.75 MW Bouillante geothermal power plant located in Guadeloupe Island, a French territory in the Caribbean, which currently generates approximately 13 MW. GB also owns two exploration licenses providing an expansion potential of up to 45 MW of capacity.

Pursuant to the terms of an Amended and Restated Investment Agreement (“Investment Agreement”) and Shareholders Agreement with Sageos Holding (“Sageos”), a wholly owned subsidiary of Bureau de Recherches Géologiques et Minières (“BRGM”), the Company together with Caisse des Dépôts et Consignations (“CDC”), a French state-owned financial organization, acquired an approximately 80% interest in GB, allocated 75% to the Company and 25% to CDC. The Company and CDC will gradually increase their combined interest in GB to 85% and Sageos will hold the remaining balance. As part of the agreement, CDC will pay the Company a premium.

Pursuant to the agreements, the Company paid approximately \$20.6 million to Sageos for its approximately 60% interest in GB. In addition, the Company is committed to further invest \$8.4 million (approximately €7.5 million) in the next two years, which will increase the Company’s interest to 63.75%. The cash will be used mainly for the enhancement of the power plant.

The Company has planned modifications to the existing equipment as well as to further develop the asset, with a potential of reaching a total of 45 MW in phased development by 2021. Under the Investment Agreement, the Company will pay Sageos an additional amount of up to \$13.4 million (approximately €12 million) subject to the achievement of agreed production thresholds and capacity expansion within a defined time period.

The Bouillante power plant sells its electricity under a 15-year PPA that was entered into in February 2016 with Électricité de France S.A. (“EDF”), the French electric utility. The Company plans to optimize the use of the resource at the existing facilities and recover its current production to its design capacity of 14.75 MW by mid-2017.

The Company accounted for the transaction based on the provision of Accounting Standard Codification 805, Business Combinations, and consequently recorded intangible asset of \$33.0 million pertaining to the 15-year PPA with EDF and \$7.1 million of goodwill. Additionally, following the transaction, the Company gained control over GB effective July 5, 2016 and consolidated the entity with redeemable noncontrolling interest of \$5.0 million and noncontrolling interest of \$8.3 million being recorded. The redeemable noncontrolling interest pertains to Sageos right to sell its equity interest in GB to the Company for cash considerations. The noncontrolling interest pertains to CDC and was included under noncontrolling interest in the consolidated statements of equity.

The revenues of GB of approximately \$8.1 million were included in the Company’s consolidated statements of operations and comprehensive income for year ended December 31, 2016.

Viridity Transaction

On December 29, 2016 the Company entered into a definitive agreement to acquire substantially all of the business and assets of Viridity Energy, Inc. (“Viridity”), a privately held Philadelphia-based company engaged in demand response, energy management and storage of energy. The acquisition is expected to close early 2017. Initial consideration for the acquisition is \$35 million, which will be paid at closing and is subject to adjustment in certain cases. Additional contingent consideration will be payable in two installments upon the achievement of certain performance milestones measured at the end of fiscal years 2017 and 2020. Using proprietary software and solutions, Viridity serves primarily retail energy providers, utilities, and large industrial and commercial clients. Viridity’s offerings enable its clients to optimize and monetize their energy management, demand response and storage facilities potential by interacting on their behalf with regional transmission organizations and independent system operators. Founded in 2008, Viridity has under contract over 850 MW across 3,000 sites, including management of a portfolio of non-utility storage assets located in the northeastern US with over 80,000 operational market hours.

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NOTE 4 — INVENTORIES

Inventories consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Raw materials and purchased parts for assembly	\$ 5,429	\$ 8,819
Self-manufactured assembly parts and finished products	6,571	9,255
Total	<u>\$ 12,000</u>	<u>\$ 18,074</u>

NOTE 5 — COST AND ESTIMATED EARNINGS ON UNCOMPLETED CONTRACTS

Cost and estimated earnings on uncompleted contracts consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Costs and estimated earnings incurred on uncompleted contracts	\$ 402,357	\$ 279,176
Less billings to date	(381,789)	(287,948)
Total	<u>\$ 20,568</u>	<u>\$ (8,772)</u>

These amounts are included in the consolidated balance sheets under the following captions:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Costs and estimated earnings in excess of billings on uncompleted contracts	\$ 52,198	\$ 25,120
Billings in excess of costs and estimated earnings on uncompleted contracts	(31,630)	(33,892)
Total	<u>\$ 20,568</u>	<u>\$ (8,772)</u>

The completion costs of the Company's construction contracts are subject to estimation. Due to uncertainties inherent in the estimation process, it is reasonably possible that estimated contract earnings will be further revised in the near term.

NOTE 6 — ACCUMULATED LOSS OF UNCONSOLIDATED COMPANY IN EXCESS OF INVESTMENT

Accumulated loss of unconsolidated company in excess of investment mainly consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Sarulla	\$ (11,081)	\$ (8,100)

The Sarulla Project

The Company holds a 12.75% equity interest in a consortium which is in the process of developing the Sarulla geothermal power project in Indonesia with an expected generating capacity of approximately 330 megawatts ("MW"). The Sarulla project is located in Tapanuli Utara, North Sumatra, Indonesia and will be owned and operated by the consortium members under the framework of a Joint Operating Contract ("JOC") and Energy Sales Contract ("ESC") that were signed on April 4, 2013. Under the JOC, PT Pertamina Geothermal Energy ("PGE"), the concession holder for the project, has provided the consortium with the right to use the geothermal field, and under the ESC, PT PLN, the state electric utility, will be the off-taker at Sarulla for a period of 30 years. In addition to its equity holdings in the consortium, the Company designed the Sarulla plant and will supply its Ormat Energy Converters ("OECs") to the power plant, as further described below.

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The project is being constructed in three phases of a total 321 MW, utilizing both steam and brine extracted from the geothermal field to increase the power plant's efficiency. The first phase with 110 MW capacity is currently under testing and expected to commence operation in March 2017. For the second phase power plant, engineering and procurement has been substantially completed, site construction is in progress and all of the major generating units including those to be supplied by Ormat were delivered. For the third phase, engineering, procurement and construction work at the site are in progress and manufacturing of equipment to be supplied by Ormat is underway as planned. Drilling for the second and third phases is still ongoing and the project has achieved to date, based on preliminary estimates, approximately 80% of the required production capacity and over 85% of the required injection capacity. The project has missed a few milestones defined under the loan documents, but has received waivers from the lenders and as of now the project is in compliance with lenders requirements. The project is still experiencing delays in the field development and cost overruns resulting from delays and excess drilling costs. Due to the cost overrun in drilling, the lenders have requested from the sponsors to commit for additional equity. The sponsors have agreed and financing documents were revised to reflect this request. With respect to Ormat's role as a supplier, all contractual milestones under the supply agreement were achieved.

On May 16, 2014, the consortium closed \$1.17 billion in financing for the development of the Sarulla project with a consortium of lenders comprised of Japan Bank for International Cooperation ("JBIC"), the Asian Development Bank and six commercial banks and obtained construction and term loans on a limited recourse basis backed by a political risk guarantee from JBIC. Of the \$1.17 billion, \$0.1 billion (which was drawn down by the Sarulla project company on May 23, 2014) bears a fixed interest rate and \$1.07 billion bears interest at a rate linked to LIBOR.

The Sarulla consortium entered into interest rate swap agreements with various international banks in order to fix the Libor interest rate on up to \$0.96 billion of the \$1.07 billion credit facility at a rate of 3.4565%. The interest rate swap became effective as of June 4, 2014 along with the second draw-down by the project company of \$50.0 million.

The Sarulla project company accounted for the interest rate swap as a cash flow hedge upon which changes in the fair value of the hedging instrument, relative to the effective portion, will be recorded in other comprehensive income. As such, during the year ended December 31, 2016 and 2015, the project recorded a gain of \$9.3 million and \$8.0 million, respectively, net of deferred tax, of which the Company's share was \$1.2 million and \$1.0 million, respectively, which was recorded in other comprehensive income. The related accumulated loss recorded by the Company in other comprehensive income (loss) as of December 31, 2016 is \$5.9 million.

Pursuant to a supply agreement that was signed in October 2013, the Company is supplying its OECs to the power plant and has added the \$255.6 million supply contract to its Product Segment backlog. The Company started to recognize revenue from the project during the third quarter of 2014 and will continue to recognize revenue over the course of next year. The Company has eliminated the related intercompany profit of \$12.0 million against equity in loss of investees.

During the year ended December 31, 2016, the Company made an additional cash equity investment contribution to the Sarulla project in the amount of \$3.6 million.

NOTE 7 — VARIABLE INTEREST ENTITIES

The Company's overall methodology for evaluating transactions and relationships under the variable interest entity ("VIE") accounting and disclosure requirements includes the following two steps: (i) determining whether the entity meets the criteria to qualify as a VIE; and (ii) determining whether the Company is the primary beneficiary of the VIE.

In performing the first step, the significant factors and judgments that the Company considers in making the determination as to whether an entity is a VIE include:

- The design of the entity, including the nature of its risks and the purpose for which the entity was created, to determine the variability that the entity was designed to create and distribute to its interest holders;
- The nature of the Company's involvement with the entity;
- Whether control of the entity may be achieved through arrangements that do not involve voting equity;

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- Whether there is sufficient equity investment at risk to finance the activities of the entity; and
- Whether parties other than the equity holders have the obligation to absorb expected losses or the right to receive residual returns.

If the Company identifies a VIE based on the above considerations, it then performs the second step and evaluates whether it is the primary beneficiary of the VIE by considering the following significant factors and judgments:

- Whether the Company has the power to direct the activities of the VIE that most significantly impact the entity's economic performance; and
- Whether the Company has the obligation to absorb losses of the entity that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE.

The Company's VIEs include certain of its wholly owned subsidiaries that own one or more power plants with long-term PPAs. In most cases, the PPAs require the utility to purchase substantially all of the plant's electrical output over a significant portion of its estimated useful life. Most of the VIEs have associated project financing debt that is non-recourse to the general creditors of the Company, is collateralized by substantially all of the assets of the VIE and those of its wholly owned subsidiaries (also VIEs) and is fully and unconditionally guaranteed by such subsidiaries. The Company has concluded that such entities are VIEs primarily because the entities do not have sufficient equity at risk and/or subordinated financial support is provided through the long-term PPAs. The Company has evaluated each of its VIEs to determine the primary beneficiary by considering the party that has the power to direct the most significant activities of the entity. Such activities include, among others, construction of the power plant, operations and maintenance, dispatch of electricity, financing and strategy. Except for power plants that it acquired, the Company is responsible for the construction of its power plants and generally provides operation and maintenance services. Primarily due to its involvement in these and other activities, the Company has concluded that it directs the most significant activities at each of its VIEs and, therefore, is considered the primary beneficiary. The Company performs an ongoing reassessment of the VIEs to determine the primary beneficiary and may be required to deconsolidate certain of its VIEs in the future. The Company has aggregated its consolidated VIEs into the following categories: (i) wholly owned subsidiaries with project debt; and (ii) wholly owned subsidiaries with PPAs.

The tables below detail the assets and liabilities (excluding intercompany balances which are eliminated in consolidation) for the Company's VIEs, combined by VIE classifications, that were included in the consolidated balance sheets as of December 31, 2016 and 2015:

	December 31, 2016	
	Project Debt	PPAs
	(Dollars in thousands)	
Assets:		
Restricted cash and cash equivalents	\$ 34,262	\$ —
Other current assets	157,351	7,482
Property, plant and equipment, net	1,305,254	177,970
Construction-in-process	48,128	72,725
Other long-term assets	24,802	—
Total assets	<u>\$ 1,569,797</u>	<u>\$ 258,177</u>
Liabilities:		
Accounts payable and accrued expenses	\$ 10,900	\$ 3,992
Long-term debt	668,815	—
Other long-term liabilities	126,879	5,779
Total liabilities	<u>\$ 806,594</u>	<u>\$ 9,771</u>

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	December 31, 2015	
	Project Debt	PPAs
	(Dollars in thousands)	
Assets:		
Restricted cash, cash equivalents and marketable securities	\$ 49,503	\$ —
Other current assets	114,500	4,044
Property, plant and equipment, net	1,310,027	171,231
Construction-in-process	127,825	1,340
Other long-term assets	44,279	(1)
Total assets	<u>\$ 1,646,134</u>	<u>\$ 176,614</u>
Liabilities:		
Accounts payable and accrued expenses	\$ 11,404	\$ 2,931
Long-term debt	648,028	—
Other long-term liabilities	78,843	5,358
Total liabilities	<u>\$ 738,275</u>	<u>\$ 8,289</u>

NOTE 8— FAIR VALUE OF FINANCIAL INSTRUMENTS

The fair value measurement guidance clarifies that fair value is an exit price, representing the amount that would be received upon selling an asset or paid upon transferring a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The guidance establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under the fair value measurement guidance are described below:

Level 1 — Unadjusted quoted prices in active markets that are accessible at the measurement date for identical assets or liabilities;

Level 2 — Quoted prices in markets that are not active, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability;

Level 3 — Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

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The following table sets forth certain fair value information at December 31, 2016 and 2015 for financial assets and liabilities measured at fair value by level within the fair value hierarchy, as well as cost or amortized cost. As required by the fair value measurement guidance, assets and liabilities are classified in their entirety based on the lowest level of inputs that is significant to the fair value measurement.

		December 31, 2016			
		Fair Value			
	Carrying Value at December 31, 2016	Total	Level 1	Level 2	Level 3
(Dollars in thousands)					
Assets:					
Current assets:					
Cash equivalents (including restricted cash accounts)	\$ 14,922	\$ 14,922	\$ 14,922	\$ —	\$ —
Derivatives:					
Contingent receivable ⁽¹⁾	1,443	1,443	—	—	1,443
Liabilities:					
Current liabilities:					
Derivatives:					
Contingent payables ⁽¹⁾	(11,581)	(11,581)	—	—	(11,581)
Warrants ⁽¹⁾	(3,429)	(3,429)	—	—	(3,429)
Currency forward contracts ⁽²⁾	(481)	(481)	—	(481)	—
	<u>\$ 874</u>	<u>\$ 874</u>	<u>\$ 14,922</u>	<u>\$ (481)</u>	<u>\$ (13,567)</u>
		December 31, 2015			
		Fair Value			
	Carrying Value at December 31, 2015	Total	Level 1	Level 2	Level 3
(Dollars in thousands)					
Assets					
Current assets:					
Cash equivalents (including restricted cash accounts)	\$ 31,428	\$ 31,428	\$ 31,428	\$ —	\$ —
Derivatives:					
Currency forward contracts ⁽²⁾	7	7	—	7	—
Liabilities:					
Current liabilities:					
Derivatives:					
Currency forward contracts ⁽²⁾	(169)	(169)	—	(169)	—
	<u>\$ 31,266</u>	<u>\$ 31,266</u>	<u>\$ 31,428</u>	<u>\$ (162)</u>	<u>\$ —</u>

⁽¹⁾ These amounts relate to contingent receivables and payables pertaining to the Guadeloupe power plant purchase transaction, valued primarily based on unobservable inputs and are included within "Prepaid expenses and other" and "Other long-term liabilities" on December 31, 2016 in the consolidated balance sheets with the corresponding gain or loss being recognized within "Derivatives and foreign currency transaction gains (losses)" in the consolidated statement of operations and comprehensive income.

⁽²⁾ These amounts relate to derivatives which represent currency forward contracts valued primarily based on observable inputs, including forward and spot prices for currencies, netted against contracted rates and then multiplied against notional amounts, and are included within "prepaid expenses and other" and "accounts payable and accrued expenses" on December 31, 2016 and December 31, 2015, in the consolidated balance sheet with the corresponding gain or loss being recognized within "Derivatives and foreign currency transaction gains (losses)" in the consolidated statement of operations and comprehensive income.

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The amounts set forth in the tables above include investments in debt instruments and money market funds (which are included in cash equivalents). Those securities and deposits are classified within Level 1 of the fair value hierarchy because they are valued using quoted market prices in an active market.

The following table presents the amounts of gain (loss) recognized in the consolidated statements of operations and comprehensive income (loss) on derivative instruments not designated as hedges:

Derivatives not designated as hedging instruments	Location of recognized gain (loss)	Amount of recognized gain (loss)		
		2016	2015	2014
(Dollars in thousands)				
Call options on natural gas price ..	Derivatives and foreign currency transaction gain (losses)	\$ (1,340)	\$ —	\$ —
Call and put options on oil price ..	Derivatives and foreign currency transaction gain (losses)	(1,313)	—	—
Swap transaction on oil price	Electricity revenues	—	—	2,728
Swap transactions on natural gas price.....	Electricity revenues	—	1,158	2,996
Contingent considerations	Derivatives and foreign currency transaction gain (losses)	(1,527)	—	—
Currency forward contracts	Derivatives and foreign currency transaction gain (losses)	238	(1,206)	(4,949)
		<u>\$ (3,942)</u>	<u>\$ (48)</u>	<u>\$ 775</u>

On September 3, 2013, the Company entered into a Natural Gas Index (“NGI”) swap contract with a bank covering a notional quantity of approximately 4.4 million British Thermal Units (“MMBtu”) for settlement effective January 1, 2014 until December 31, 2014, in order to reduce its exposure to fluctuations in natural gas prices under its Power Purchase Agreements (“PPAs”) with Southern California Edison to below \$4.035 per MMBtu. The contract did not have up-front costs. Under the terms of this contract, the Company made floating rate payments to the bank and received fixed rate payments from the bank on each settlement date. The swap contract had a monthly settlement whereby the difference between the fixed price of \$4.035 per MMBtu and the market price on the first commodity business day on which the relevant commodity reference price is published in the relevant calculation period (January 1, 2014 to December 1, 2014) was settled on a cash basis.

On October 16, 2013, the Company entered into an NGI swap contract with a bank covering a notional quantity of approximately 4.2 million MMBtu for settlement effective January 1, 2014 until December 31, 2014, in order to reduce its exposure to fluctuations in natural gas prices under its PPAs with Southern California Edison to below \$4.103 per MMBtu. The contract did not have any up-front costs. Under the terms of this contract, the Company made floating rate payments to the bank and received fixed rate payments from the bank on each settlement date. The swap contract had a monthly settlement whereby the difference between the fixed price of \$4.103 per MMBtu and the market price on the first commodity business day on which the relevant commodity reference price is published in the relevant calculation period (January 1, 2014 to December 1, 2014) was settled on a cash basis.

On October 16, 2013, the Company entered into a New York Harbor Ultra-Low Sulfur Diesel swap contract with a bank covering a notional quantity of 275,000 BBL effective from January 1, 2014 until December 31, 2014 to reduce the Company’s exposure to fluctuations in the energy rate caused by fluctuations in oil prices under the 25 MW PPA for the Puna complex. The Company entered into this contract because the swap had a high correlation with the avoided costs (which are incremental costs that the power purchaser avoids by not having to generate such electrical energy itself or purchase it from others) that Hawaii Electric Light Company (“HELCO”) uses to calculate the energy rate. The contract did not have any up-front costs. Under the term of this contract, the Company made floating rate payments to the bank and received fixed rate payments from the bank on each settlement date (\$125.15 per BBL). The swap contract had a monthly settlement whereby the difference between the fixed price of \$125.15 per BBL and the monthly average market price was settled on a cash basis.

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On March 6, 2014, and on May 14, 2015, the Company entered into NGI swap contracts with a bank covering a notional quantity of approximately 2.2 MMBtu for settlement effective January 1, 2015 until March 31, 2015, and covering a notional quantity of approximately 2.4 MMBtu for settlement effective June 1, 2015 until December 31, 2015, respectively, in order to reduce its exposure to fluctuations in natural gas prices under its PPAs with Southern California Edison to below \$4.95 per MMBtu and below \$3.00 per MMBtu, respectively. The contracts did not have any up-front costs. Under the terms of these contracts, the Company made, and will make, floating rate payments to the bank and received, and will receive, fixed rate payments from the bank on each settlement date. The swap contracts have monthly settlements whereby the difference between the fixed price and the market price on the first commodity business day on which the relevant commodity reference price is published in the relevant calculation period (January 1, 2015 to March 1, 2015 and June 1, 2015 to December 31, 2015) are settled on a cash basis.

On February 2, 2016, the Company entered into Henry Hub Natural Gas Future contracts under which it has written a number of call options covering a notional quantity of approximately 4.1 MMBtu with exercise prices of \$2 and expiration dates ranging from February 24, 2016 until December 27, 2016 in order to reduce its exposure to fluctuations in natural gas prices under its PPAs with Southern California Edison. The Company received an aggregate premium of approximately \$1.9 million from these call options. The call option contracts have monthly expiration dates at which the options can be called and the Company would have to settle its liability on a cash basis.

On February 24, 2016, the Company entered into Brent Oil Future contracts under which it has written a number of call options covering a notional quantity of approximately 185,000 barrels (“BBL”) of Brent with exercise prices of \$32.80 to \$35.50 and expiration dates ranging from March 24, 2016 until December 22, 2016 in order to reduce its exposure to fluctuations in Brent prices under its PPA with HELCO. The Company received an aggregate premium of approximately \$1.1 million from these call options. The call option contracts have monthly expiration dates whereby the options can be called and the Company would have to settle its liability on a cash basis. Moreover, during March 2016, the Company rolled 2 existing call options covering a total notional quantity of 31,800 BBL of Brent in order to limit its exposure to \$41 to \$42.50 instead of \$32.80 to \$33.50. In addition, the Company entered into short risk reversal transactions (sell call and buy put options) by rolling existing call options covering notional quantities of 16,500 BBL and 17,000 BBL in order to limit its exposure from the outstanding call options originally entered into in February 2016 to a range of \$28.50 to \$37.50 and \$28 to \$38.50, respectively.

The foregoing future, forward and swap transactions have not been designated as hedge transactions and are marked to market with the corresponding gains or losses recognized within “Derivatives and foreign currency transaction gains (losses)” and “Electricity revenues” in the consolidated statements of operations and comprehensive income, respectively. The Company recognized a net loss from these transactions of \$2.4 million, \$1.2 million and \$4.9 million in the years ended December 31, 2016, 2015 and 2014, respectively, under Derivatives and foreign currency transaction gains (losses), and a net gain of \$1.2 million and \$5.7 million, in the years ended December 31, 2015, and 2014, respectively, under Electricity revenues.

There were no transfers of assets or liabilities between Level 1, Level 2 and Level 3 during the year ended December 31, 2016.

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The fair value of the Company's long-term debt is as follows:

	Fair Value		Carrying Amount	
	2016	2015	2016	2015
	(Dollars in millions)		(Dollars in millions)	
Olkaria III Loan - DEG	\$ 16.3	\$ 24.2	\$ 15.8	\$ 23.7
Olkaria III Loan - OPIC	253.4	262.6	246.6	264.6
Olkaria IV Loan - DEG 2	50.9	—	50.0	—
Amatitlan Loan.....	37.3	41.7	36.8	40.3
Senior Secured Notes:				
Ormat Funding Corp. ("OFC")	17.0	30.0	17.0	30.0
OrCal Geothermal Inc. ("OrCal").....	37.4	43.8	35.2	43.3
OFC 2 LLC ("OFC 2").....	249.0	231.1	247.2	262.0
Don A. Campbell 1 ("DAC1").....	88.9	—	92.4	—
Senior Unsecured Bonds	200.1	264.5	204.3	250.0
Other long-term debt	10.4	6.7	11.2	6.7

The fair value of OFC Senior Secured Notes was determined using observable market prices as these securities are traded. The fair value of all the long-term debt is determined by a valuation model, which is based on a conventional discounted cash flow methodology and utilizes assumptions of current borrowing rates. The fair value of revolving lines of credit is determined using a comparison of market-based price sources that are reflective of similar credit ratings to those of the Company.

The carrying value of other financial instruments, such as revolving lines of credit and deposits approximates fair value.

The following table presents the fair value of financial instruments as of December 31, 2016:

	Level 1	Level 2	Level 3	Total
	(Dollars in millions)			
Olkaria III - DEG	\$ —	\$ —	\$ 16.3	\$ 16.3
Olkaria III - OPIC	—	—	253.4	253.4
Olkaria IV - DEG 2	—	—	50.9	50.9
Amatitlan loan.....	—	37.3	—	37.3
Senior Secured Notes:				
OFC	—	17.0	—	17.0
OrCal	—	—	37.4	37.4
OFC 2	—	—	249.0	249.0
Don A. Campbell 1 ("DAC1").....	—	—	88.9	88.9
Senior unsecured bonds.....	—	—	200.1	200.1
Other long-term debt	—	3.3	7.1	10.4
Deposits.....	14.4	—	—	14.4

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The following table presents the fair value of financial instruments as of December 31, 2015:

	Level 1	Level 2	Level 3	Total
	(Dollars in millions)			
Olkaria III Loan - DEG	\$ —	\$ —	\$ 24.2	\$ 24.2
Olkaria III Loan - OPIC	—	—	262.6	262.6
Amatitlan Loan.....	—	41.7	—	41.7
Senior Secured Notes:				
OFC	—	30.0	—	30.0
OrCal	—	—	43.8	43.8
OFC 2	—	—	231.1	231.1
Senior unsecured bonds.....	—	—	264.5	264.5
Other long-term debt	—	6.7	—	6.7
Deposits.....	15.9	—	—	15.9

NOTE 9 — PROPERTY, PLANT AND EQUIPMENT AND CONSTRUCTION-IN-PROCESS

Property, plant and equipment

Property, plant and equipment, net, consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Land owned by the Company where the geothermal resource is located.....	\$ 31,904	\$ 31,465
Leasehold improvements.....	3,848	3,691
Machinery and equipment.....	152,821	133,457
Land, buildings and office equipment	28,634	29,247
Automobiles	11,161	7,782
Geothermal and recovered energy generation power plants, including geothermal wells and exploration and resource development costs:		
United States of America, net of cash grants and impairment charges	1,658,195	1,637,081
Foreign countries	541,626	494,105
Asset retirement cost	8,669	7,961
	2,436,858	2,344,789
Less accumulated depreciation.....	(880,480)	(785,454)
Property, plant and equipment, net.....	<u>\$ 1,556,378</u>	<u>\$ 1,559,335</u>

Depreciation expense for the years ended December 31, 2016, 2015, and 2014 amounted to \$94.8 million, \$95.2 million and \$87.9 million, respectively. Depreciation expense for the years ended December 31, 2016, 2015 and 2014 is net of the impact of the cash grant in the amount of \$5.5 million, \$5.5 million and \$5.3 million, respectively.

U.S. Operations

The net book value of the property, plant and equipment, including construction-in-process, located in the United States was approximately \$1,376.1 million and \$1,335.0 million as of December 31, 2016 and 2015, respectively. These amounts as of December 31, 2016 and 2015 are net of cash grants in the amount of \$138.7 million and \$144.2 million, respectively.

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Foreign Operations

The net book value of property, plant and equipment, including construction-in-process, located outside of the United States was approximately \$487.0 million and \$473.1 million as of December 31, 2016 and 2015, respectively.

The Company, through its wholly owned subsidiary, OrPower 4, Inc. (“OrPower 4”) owns and operates geothermal power plants in Kenya. The net book value of assets associated with the power plants was \$315.0 million and \$355.8 million as of December 31, 2016 and 2015, respectively. The Company sells the electricity produced by the power plants to Kenya Power and Lighting Co. Ltd. (“KPLC”) under a 20-year PPA.

The Company, through its wholly owned subsidiary, Orzunil I de Electricidad, Limitada (“Orzunil”), owns a power plant in Guatemala. On January 22, 2014, Orzunil signed an amendment to the PPA with Instituto Nacional de Electrificación (“INDE”) a Guatemalan power utility for its Zunil geothermal power plant in Guatemala. The amendment extends the term of the PPA from 2019 to 2034. The PPA amendment also transfers operation and management responsibilities of the Zunil geothermal field from INDE to the Company for the term of the amended PPA in exchange for a tariff increase. Additionally, INDE exercised its right under the PPA to become a partner in the Zunil power plant with a 3% equity interest. The net book value of the assets related to the power plant was \$12.2 million and \$19.2 million at December 31, 2016 and 2015, respectively.

The Company, through its wholly owned subsidiary, Ortitlan, Limitada (“Ortitlan”), owns a power plant in Guatemala. The net book value of the assets related to the power plant was \$40.3 million and \$46.0 million at December 31, 2016 and 2015, respectively.

Construction-in-process

Construction-in-process consists of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Projects under exploration and development:		
Up-front bonus lease costs	\$ 17,385	\$ 26,491
Exploration and development costs	36,359	35,726
Interest capitalized	703	703
	<u>54,447</u>	<u>62,920</u>
Projects under construction:		
Up-front bonus lease costs	37,713	27,473
Drilling and construction costs	202,211	150,467
Interest capitalized	12,338	7,975
	<u>252,262</u>	<u>185,915</u>
Total	<u>\$ 306,709</u>	<u>\$ 248,835</u>

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Projects under Exploration and Development				
	Up-front Bonus Lease Costs	Exploration and Development Costs	Interest Capitalized	Total
(Dollars in thousands)				
Balance at December 31, 2013	\$ 30,141	\$ 38,220	\$ 1,278	\$ 69,639
Cost incurred during the year	—	19,231	—	19,231
Write off of unsuccessful exploration costs.....	(3,523)	(11,474)	(442)	(15,439)
Balance at December 31, 2014	26,618	45,977	836	73,431
Cost incurred during the year	37	10,104	869	11,010
Write off of unsuccessful exploration costs.....	(164)	(1,415)	—	(1,579)
Transfer of projects under exploration and development to projects under construction	—	(18,940)	(1,002)	(19,942)
Balance at December 31, 2015	26,491	35,726	703	62,920
Cost incurred during the year	1,514	25,165	—	26,679
Write off of unsuccessful exploration costs.....	(380)	(2,637)	—	(3,017)
Transfer of projects under exploration and development to projects under construction	(10,240)	(21,895)	—	(32,135)
Balance at December 31, 2016	<u>\$ 17,385</u>	<u>\$ 36,359</u>	<u>\$ 703</u>	<u>\$ 54,447</u>

Projects under Construction				
	Up-front Bonus Lease Costs	Drilling and Construction Costs	Interest Capitalized	Total
(Dollars in thousands)				
Balance at December 31, 2013	\$ 27,473	\$ 184,766	\$ 6,948	\$ 219,187
Cost incurred during the year	—	132,597	3,206	135,803
Transfer of completed projects to property, plant and equipment.....	—	(105,126)	(970)	(106,096)
Sale of property, plant and equipment.....	—	(24,692)	(911)	(25,603)
Balance at December 31, 2014	27,473	187,545	8,273	223,291
Cost incurred during the year	—	140,977	3,556	144,533
Transfer of exploration and development projects to projects under construction	—	18,940	1,002	19,942
Transfer of completed projects to property, plant and equipment.....	—	(196,995)	(4,856)	(201,851)
Sale of property, plant and equipment.....	—	—	—	—
Balance at December 31, 2015	27,473	150,467	7,975	185,915
Cost incurred during the year	—	116,247	6,510	122,757
Transfer of exploration and development projects to projects under construction.....	10,240	21,895	—	32,135
Transfer of completed projects to property, plant and equipment.....	—	(86,398)	(2,147)	(88,545)
Balance at December 31, 2016	<u>\$ 37,713</u>	<u>\$ 202,211</u>	<u>\$ 12,338</u>	<u>\$ 252,262</u>

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NOTE 10 — INTANGIBLE ASSETS AND GOODWILL

Intangible assets amounting to \$52.8 million and \$25.9 million consist mainly of the Company's power purchase agreements ("PPAs") acquired in business combinations, net of accumulated amortization of \$42.8 million and \$38.4 million as of December 31, 2016 and 2015, respectively. Amortization expense for the years ended December 31, 2016, 2015, and 2014 amounted to \$4.4 million, \$3.3 million, and \$3.3 million, respectively. Additions of intangible assets for the years ended December 31, 2016, 2015 and 2014, amounted to \$33.0 million, \$0.5 million and \$0, respectively. The addition to intangible assets in 2016 relates to the purchase of the Guadeloupe plant (Note 3). There were no disposals of intangible assets in 2016, 2015 and 2014.

Estimated future amortization expense for the intangible assets as of December 31, 2016 is as follows:

	(Dollars in thousands)
Year ending December 31:	
2017.....	\$ 5,042
2018.....	4,912
2019.....	4,839
2020.....	4,522
2021.....	4,522
Thereafter.....	28,916
Total.....	<u>\$ 52,753</u>

Goodwill

Goodwill amounting to \$7.1 million was recorded as a result of the Guadeloupe power plant purchase transaction that was closed in July 2016 (see Note 3 for more details). During 2016, there were no additions or adjustments to the carrying value of goodwill except for the impact of currency translation adjustments. The carrying value of goodwill as of December 31, 2016 is \$6.7 million.

NOTE 11 — ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Trade payables.....	\$ 48,309	\$ 41,364
Salaries and other payroll costs.....	17,977	14,671
Customer advances.....	576	2,533
Accrued interest.....	3,524	8,252
Income tax payable.....	8,824	11,353
Property tax payable.....	1,884	3,609
Scheduling and transmission.....	964	1,547
Royalty accrual.....	1,639	1,818
Other.....	7,953	6,808
Total.....	<u>\$ 91,650</u>	<u>\$ 91,955</u>

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NOTE 12 — LONG-TERM DEBT AND CREDIT AGREEMENTS

Long-term debt consists of notes payable under the following agreements:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Limited and non-recourse agreements:		
Loans:		
Non-recourse:		
Other loans	\$ 6,368	\$ -
Limited recourse:		
Loan agreement with OPIC (the Olkaria III power plant)	246,630	264,624
Loan agreement with Banco Industrial S.A. and Westrust Bank (International) Limited	36,750	40,250
Senior Secured Notes:		
Non-recourse:		
Ormat Funding Corp. ("OFC")	17,026	29,968
OrCal Geothermal Inc. ("OrCal")	35,181	43,332
Don A. Campbell 1 ("DAC1")	92,361	
Limited recourse:		
OFC 2 LLC ("OFC 2")	247,232	261,959
	<u>681,548</u>	<u>640,133</u>
Less current portion	(53,729)	(51,425)
Non current portion	<u>\$ 627,819</u>	<u>\$ 588,708</u>
Full recourse agreements:		
Senior unsecured bonds	\$ 204,332	\$ 249,981
Loans from institutional investors	3,333	6,667
Loan agreements with DEG (the Olkaria III and IV power plants)	65,789	23,684
Loan from a commercial bank	1,529	-
Revolving credit lines with banks	-	-
	<u>274,983</u>	<u>280,332</u>
Less current portion	(12,242)	(11,229)
Non current portion	<u>\$ 262,741</u>	<u>\$ 269,103</u>

Loan Agreement with Banco Industrial S.A. and Westrust Bank (International) Limited

On July 31, 2015, one of our indirect wholly-owned subsidiaries, Ortitlân, Limitada, obtained a 12-year secured term loan in the principal amount of \$42.0 million for the 20 MW Amatitlan power plant in Guatemala. Under the credit agreement with Banco Industrial S.A. and Westrust Bank (International) Limited, we can expand the Amatitlan power plant with financing to be provided either via equity, additional debt from Banco Industrial S.A. or from other lenders, subject to certain limitations on expansion financing in the credit agreement.

The loan is payable in 48 quarterly payments commencing September 30, 2015. The loan bears interest at a rate *per annum* equal to of the sum of the LIBO Rate (which cannot be lower than 1.25%) plus a margin of (i) 4.35% as long as the Company's guaranty of the loan (as described below) is outstanding or (ii) 4.75% otherwise. Interest is payable quarterly, on March 30, June 30, September 30 and December 30 of each year, on the stated maturity date of the loan and on any prepayment or payment of the loan. The loan must be prepaid on the occurrence of certain events, such as casualty, condemnation, asset sales and expansion financing not provided by the lenders under the credit agreement, among others. The loan may be voluntarily prepaid if certain conditions are satisfied, including payment of a premium (ranging from 100-50 basis points) if prepayment occurs prior to the eighth anniversary of the loan.

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There are various restrictive covenants under the Amatitlan credit agreement. These include, among others, (i) a financial covenant to maintain a Debt Service Coverage Ratio (as defined in the credit agreement) of not less than 1.15 to 1.00 as of the last day of any fiscal quarter and (ii) limitations on Restricted Payments (as defined in the credit agreement) that among other things would limit dividends that could be paid to us unless the historical and projected Debt Service Coverage Ratio is not less than 1.25 to 1.00 for the four fiscal quarterly periods (calculated as a single accounting period). As of December 31, 2016, the actual historical and projected 12-month Debt Service Coverage Ratio was 1.87 and 1.92, respectively. The credit agreement includes various events of default that would permit acceleration of the loan (subject in some cases to grace and cure periods). These include, among others, a Change of Control (as defined in the credit agreement) and failure to maintain certain required balances in debt service and maintenance reserve accounts. The credit agreement includes certain equity cure rights for failure to maintain the Debt Service Coverage Ratio and the minimum amounts required in the debt service and maintenance reserve accounts.

The loan is secured by substantially all the assets of the borrower and a pledge of all of the membership interests of the borrower.

The Company has guaranteed payment of all obligations under the credit agreement and related financing documents. The guaranty is limited in the sense that the Company is only required to pay the guaranteed obligations if a “trigger event” occurs. A trigger event is the occurrence and continuation of a default by Instituto Nacional de Electricidad (“INDE”) in its payment obligations under the power purchase agreement for the Amatitlan power plant or a refusal by INDE to receive capacity and energy sold under that power purchase agreement. Our obligations under the guaranty may be terminated prior to payment in full of the guaranteed obligations under certain circumstances described in the guaranty. If our guaranty is terminated early, the interest rate payable on the loan would increase as described above.

As of December 31, 2016, \$36.8 million of this loan is outstanding.

Finance Agreement with OPIC (the Olkaria III Complex)

On August 23, 2012, the Company’s wholly owned subsidiary, OrPower 4 entered into a Finance Agreement with Overseas Private Investment Corporation (“OPIC”), an agency of the United States government, to provide limited-recourse senior secured debt financing in an aggregate principal amount of up to \$310.0 million (the “OPIC Loan”) for the refinancing and financing of the Olkaria III geothermal power complex in Kenya. The Finance Agreement was amended on November 9, 2012.

The OPIC Loan is comprised of up to three tranches:

- Tranche I in an aggregate principal amount of \$85.0 million, which was drawn in November 2012, was used to prepay approximately \$20.5 million (plus associated prepayment penalty and breakage costs of \$1.5 million) of the DEG Loan, as described below. The remainder of Tranche I proceeds was used for reimbursement of prior capital costs and other corporate purposes.
- Tranche II in an aggregate principal amount of \$180.0 million was used to fund the construction and well field drilling for the expansion of the Olkaria III geothermal power complex (“Plant 2”). In November 2012, an amount of \$135.0 million was disbursed under this Tranche II, and in February 2013, the remaining \$45.0 million was distributed under this Tranche II.
- Tranche III in an aggregate principal amount of \$45.0 million was used to fund the construction of Plant 3 of the Olkaria III complex. In November 2013, an amount of \$45.0 million was disbursed under this Tranche.

In July 2013, we completed the conversion of the interest rate applicable to both Tranche I and Tranche II from a floating interest rate to a fixed interest rate. The average fixed interest rate for Tranche I, which has an outstanding balance as of December 31, 2016 of \$66.0 million and matures on December 15, 2030, and Tranche II, which has an outstanding balance as of December 31, 2016 of \$142.9 million and matures on June 15, 2030, is 6.31%. In November 2013, we fixed the interest rate for Tranche III. The fixed interest rate for Tranche III, which has an outstanding balance as of December 31, 2016 of \$37.6 million and matures on December 15, 2030, is 6.12%.

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OrPower 4 has a right to make voluntary prepayments of all or a portion of the OPIC Loan subject to prior notice, minimum prepayment amounts, and a prepayment premium of 2.0% in the first two years after the Plant 2 commercial operation date, declining to 1% in the third year after the Plant 2 commercial operation date, and without premium thereafter, plus a redemption premium. In addition, the OPIC Loan is subject to customary mandatory prepayment in the event of certain reductions in generation capacity of the power plants, unless such reductions will not cause the projected ratio of cash flow to debt service to fall below 1.7.

The OPIC Loan is secured by substantially all of OrPower 4's assets and by a pledge of all of the equity interests in OrPower 4.

The finance agreement includes customary events of default, including failure to pay any principal, interest or other amounts when due, failure to comply with covenants, breach of representations and warranties, non-payment or acceleration of other debt of OrPower 4, bankruptcy of OrPower 4 or certain of its affiliates, judgments rendered against OrPower 4, expropriation, change of control, and revocation or early termination of security documents or certain project-related agreements, subject to various exceptions and notice, cure and grace periods.

The repayment of the remaining outstanding DEG Loan (see "Full-Recourse Third-Party Debt" below) in the amount of approximately \$15.8 million as of December 31, 2016, has been subordinated to the OPIC Loan.

There are various restrictive covenants under the OPIC Loan, which include a required historical and projected 12-month DSCR of not less than 1.4 (measured as of March 15, June 15, September 15 and December 15 of each year). If OrPower 4 fails to comply with these financial ratios it will be prohibited from making distributions to its shareholders. In addition, if the DSCR falls below 1.1, subject to certain cure rights, such failure will constitute an event of default by OrPower 4. This covenant in respect of Tranche I became effective on December 15, 2014. As of December 31, 2016, the actual historical and projected 12-month DSCR was 2.69 and 2.96, respectively.

As of December 31, 2016, \$246.6 million of the OPIC Loan was outstanding.

Debt service reserve

As required under the terms of the OPIC Loan, OrPower 4 maintains an account which may be funded by cash or backed by letters of credit in an amount sufficient to pay scheduled debt service amounts, including principal and interest, due under the terms of the OPIC Loan in the following six months. This restricted cash account is classified as current in the consolidated balance sheets. As of December 31, 2016 and 2015, the balance of the account was \$4.3 million and \$7.2 million, respectively. In addition, as of December 31, 2016, part of the required debt service reserve was backed by a letter of credit in the amount of \$17.3 million (see Note 23).

Well drilling reserve

As required under the terms of the OPIC Loan, OrPower 4 may be required to maintain an account which may be funded by cash or backed by letters of credit to reserve funds for future well drilling, based on determination upon the completion of the expansion work.

OFC Senior Secured Notes

In February 2004, OFC, a wholly owned subsidiary, issued \$190.0 million of 8.25% Senior Secured Notes ("OFC Senior Secured Notes") and received net cash proceeds of approximately \$179.7 million, after deduction of issuance costs of approximately \$10.3 million. The OFC Senior Secured Notes have a final maturity of December 30, 2020. Principal and interest on the OFC Senior Secured Notes are payable in semi-annual payments. The OFC Senior Secured Notes are collateralized by substantially all of the assets of OFC and those of its wholly owned subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OFC. There are various restrictive covenants under the OFC Senior Secured Notes, which include limitations on additional indebtedness of OFC and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OFC. In addition, there are restrictions on the ability of OFC to make distributions to its shareholders, which include a required historical and projected 12-month DSCR of not less than 1.25 (measured semi-annually as of June 30 and

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December 31 of each year). If OFC fails to comply with the DSCR ratio it will be prohibited from making distributions to its shareholders. The Company believes that the transition to variable energy prices under the Ormesa and Mammoth PPAs and the impact of the currently low natural gas prices on the revenues under these PPAs may cause OFC to not meet the DSCR ratio requirements for making distributions, but it does not believe that there will be an event of default by OFC. OFC is only required to measure these covenants on a semi-annual basis and as of December 31, 2016, the last measurement date of the covenants, the actual historical 12-month DSCR was 1.25 and the pro-forma 12-month DSCR was 1.38. There were \$17.0 million and \$30.0 million of OFC Senior Secured Notes outstanding as of December 31, 2016 and December 31, 2015, respectively.

In February 2013, the Company repurchased \$12.8 million aggregate principal amount of OFC Senior Secured Notes from the OFC noteholders and recognized a gain of approximately \$0.8 million in the first quarter of 2013.

In January 2014, the Company repurchased \$13.2 million aggregate principal amount of OFC Senior Secured Notes from the OFC noteholders and recognized a gain of approximately \$0.3 million in the first quarter of 2014.

In June 2015, the Company repurchased \$30.6 million aggregate principal amount of OFC Senior Secured Notes from the OFC noteholders and recognized a loss of approximately \$1.7 million in the second quarter of 2015.

In September 2016, the Company repurchased \$6.8 million aggregate principal amount of OFC Senior Secured Notes from the OFC noteholders and recognized a loss of \$0.6 million, in the third quarter of 2016.

OFC may redeem the OFC Senior Secured Notes, in whole or in part, at any time, at redemption price equal to the principal amount of the OFC Senior Secured Notes to be redeemed plus accrued interest, premium and liquidated damages, if any, plus a “make-whole” premium. Upon certain events, as defined in the indenture governing the OFC Senior Secured Notes, OFC may be required to redeem a portion of the OFC Senior Secured Notes at a redemption price ranging from 100% to 101% of the principal amount of the OFC Senior Secured Notes being redeemed plus accrued interest, premium and liquidated damages, if any.

Debt service reserve

As required under the terms of the OFC Senior Secured Notes, OFC maintains an account which may be funded by cash or backed by letters of credit (see below) in an amount sufficient to pay scheduled debt service amounts, including principal and interest, due under the terms of the OFC Senior Secured Notes in the following six months. This restricted cash account is classified as current in the consolidated balance sheets. As of each of December 31, 2016 and 2015, the balance of such account was \$2.1 million and \$1.4 million, respectively. In addition, as of each of December 31, 2016 and 2015, part of the required debt service reserve was backed by a letter of credit in the amount of \$11.5 million and \$11.6 million (see Note 23), respectively.

OrCal Senior Secured Notes

In December 2005, OrCal, a wholly owned subsidiary, issued \$165.0 million, 6.21% Senior Secured Notes (“OrCal Senior Secured Notes”) and received net cash proceeds of approximately \$161.1 million, after deduction of issuance costs of approximately \$3.9 million, which have been included in deferred financing costs in the consolidated balance sheet. The OrCal Senior Secured Notes have been rated BBB- by Fitch Ratings. The OrCal Senior Secured Notes have a final maturity of December 30, 2020. Principal and interest on the OrCal Senior Secured Notes are payable in semi-annual payments. The OrCal Senior Secured Notes are collateralized by substantially all of the assets of OrCal, and those of its subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OrCal. There are various restrictive covenants under the OrCal Senior Secured Notes, which include limitations on additional indebtedness of OrCal and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OrCal. In addition, there are restrictions on the ability of OrCal to make distributions to its shareholders, which include a required historical and projected 12-month DSCR of not less than 1.25 (measured semi-annually as of June 30 and December 31 of each year). If OrCal fails to comply with the DSCR ratio it will be prohibited from making distributions to its shareholders. OrCal is only required to measure these covenants on a semi-annual basis and as of December 31, 2016, the last measurement date of the covenants, the actual historical 12-month DSCR was 1.77 and the pro-forma 12-month DSCR

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was 2.57. There was \$35.2 million and \$43.3 million of OrCal Senior Secured Notes outstanding as of December 31, 2016 and December 31, 2015, respectively.

OrCal may redeem the OrCal Senior Secured Notes, in whole or in part, at any time at a redemption price equal to the principal amount of the OrCal Senior Secured Notes to be redeemed plus accrued interest, and a “make-whole” premium. Upon certain events, as defined in the indenture governing the OrCal Senior Secured Notes, OrCal may be required to redeem a portion of the OrCal Senior Secured Notes at a redemption price of 100% of the principal amount of the OrCal Senior Secured Notes being redeemed plus accrued interest.

Debt service reserve

As required under the terms of the OrCal Senior Secured Notes, OrCal maintains an account which may be funded by cash or backed by letters of credit (see below) in an amount sufficient to pay scheduled debt service amounts, including principal and interest, due under the terms of the OrCal Senior Secured Notes in the following six months. This restricted cash account is classified as current in the consolidated balance sheets. As of December 31, 2016 and 2015, the balance of such account was \$1.9 million and \$1.6 million, respectively. In addition, as of December 31, 2016 and 2015, part of the required debt service reserve was backed by a letter of credit in the amount of \$4.6 million and \$5.5 million, respectively (see Note 23).

OFC 2 Senior Secured Notes

In September 2011, the Company’s subsidiary OFC 2 and its wholly owned project subsidiaries (collectively, the “OFC 2 Issuers”) entered into a note purchase agreement (the “Note Purchase Agreement”) with OFC 2 Noteholder Trust, as purchaser, John Hancock Life Insurance Company (U.S.A.), as administrative agent, and the DOE, as guarantor, in connection with the offer and sale of up to \$350.0 million aggregate principal amount of OFC 2 Senior Secured Notes (“OFC 2 Senior Secured Notes”) due December 31, 2034.

Subject to the fulfillment of customary and other specified conditions precedent, the OFC 2 Senior Secured Notes may be issued in up to six distinct series associated with the phased construction (Phase I and Phase II) of the Jersey Valley, McGinness Hills and Tuscarora geothermal power plants, which are owned by the OFC 2 Issuers. The OFC 2 Senior Secured Notes will mature and the principal amount of the OFC 2 Senior Secured Notes will be payable in equal quarterly installments and in any event not later than December 31, 2034. Each series of notes will bear interest at a rate calculated based on a spread over the Treasury yield curve that will be set at least ten business days prior to the issuance of such series of notes. Interest will be payable quarterly in arrears. The DOE will guarantee payment of 80% of principal and interest on the OFC 2 Senior Secured Notes pursuant to Section 1705 of Title XVII of the Energy Policy Act of 2005, as amended. The conditions precedent to the issuance of the OFC 2 Senior Secured Notes includes certain specified conditions required by the DOE in connection with its guarantee of the OFC 2 Senior Secured Notes.

On October 31, 2011, the Issuers completed the sale of \$151.7 million in aggregate principal amount of 4.687% Series A Notes due 2032 (the “Series A Notes”). The net proceeds from the sale of the Series A Notes, after deducting transaction fees and expenses, were approximately \$141.1 million, and were used to finance a portion of the construction costs of Phase I of the McGinness Hills and Tuscarora power plants and to fund certain reserves. Principal and interest on the Series A Notes are payable quarterly in arrears on the last day of March, June, September and December of each year.

On June 20, 2014, Phase 1 of Tuscarora Facility achieved Project Completion under the OFC 2 Note Purchase Agreement. In accordance with the terms of the Note Purchase Agreement and following recalibration of the financing assumptions, the loan amount was adjusted through a principal prepayment of \$4.3 million.

On August 29, 2014, OFC 2 signed a \$140.0 million loan under the OFC 2 Senior Secured Notes to finance the construction of the McGinness Hills 2 Phase project. This drawdown is the last tranche (Series C notes) under the Note Purchase Agreement with John Hancock Life Insurance Company and guaranteed by the DOE’s Loan Programs Office in accordance with and subject to the DOE’s Loan Guarantee Program under Section 1705 of Title XVII of the Energy Policy Act of 2005. The \$140.0 million loan, which matures in December 2032, carries a 4.61% coupon with principal to be repaid on a quarterly basis. The OFC 2 Senior Secured Notes, which include loans for the Tuscarora, Jersey Valley and McGinness Hills complexes, are rated “BBB” by Standard & Poor’s.

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In connection with the anticipated drawdown, on August 13, 2014, the Company entered into an on-the-run interest rate lock agreement with a financial institution with a termination date of August 15, 2014. This on-the-run interest rate lock agreement had a notional amount of \$140.0 million and was designated by us as a cash flow hedge. The objective of this cash flow hedge was to eliminate the variability in the changes in the 10-year U.S. Treasury rate as that is one of the components in the annual interest rate of the OFC 2 loan that was forecasted to be fixed on August 15, 2014. As such, the Company hedged the variability in total proceeds attributable to changes in the 10-year U.S. Treasury rate for the forecasted issuance of fixed rate OFC 2 loan. On August 18, 2014, the settlement date, the Company paid \$1.5 million to the counterparty of the on-the-run interest rate lock agreement.

The Company concluded that the cash flow hedge was fully effective with no ineffective portion and no amounts excluded from the effectiveness testing, thus, in 2014, the total loss from the cash flow hedge was fully recognized in "Loss in respect of derivatives instruments designated for cash flow hedge" under other comprehensive income of \$0.9 million noted above, which was net of related taxes of \$0.6 million. The cash flow hedge loss recorded is amortized over the life of the OFC 2 loan using the effective interest method. In 2016 and 2015, the Company reclassified \$0.1 million, each year, of the loss from "Accumulated other comprehensive income (loss)" into interest expense.

The OFC 2 Senior Secured Notes are collateralized by substantially all of the assets of OFC 2 and those of its wholly owned subsidiaries and are fully and unconditionally guaranteed by all of the wholly owned subsidiaries of OFC 2. There are various restrictive covenants under the OFC 2 Senior Secured Notes, which include limitations on additional indebtedness of OFC 2 and its wholly owned subsidiaries. Failure to comply with these and other covenants will, subject to customary cure rights, constitute an event of default by OFC 2. In addition, there are restrictions on the ability of OFC 2 to make distributions to its shareholders.

Among other things, the distribution restrictions include a historical debt service coverage ratio requirement of at least 1.2 (on a blended basis for all OFC 2 power plants), measured, at the time of any proposed distribution, over each of the two six-months periods comprised of distinct consecutive fiscal quarters immediately preceding the proposed distribution, and a projected future debt service coverage ratio requirement of at least 1.5 (on a blended basis for all OFC 2 power plants), measured, at the time of any proposed distribution, over each of the two six-months periods comprised of distinct consecutive fiscal quarters immediately following such proposed distribution. As of December 31, 2016, our historical debt service coverage ratio was 2.49 and 2.09, respectively for each of the two six-month periods, and our projected future debt service coverage ratio was 1.98 and 2.05, respectively for each of the two six-month periods.

There were \$247.2 million and \$262.0 million of OFC 2 Senior Secured Notes outstanding as of December 31, 2016 and December 31, 2015, respectively.

The Company provided a guarantee in connection with the issuance of the Series A and C Notes. One trigger event is the failure of any facility financed by the relevant Series of OFC 2 Senior Secured Notes to reach completion and meet certain operational performance levels (the non-performance trigger) which gives rise to a prepayment obligation on the OFC 2 Senior Secured Notes. The other trigger event is a payment default on the OFC 2 Senior Secured Notes or the occurrence of certain fundamental defaults that result in the acceleration of the OFC 2 Senior Secured Notes, in each case that occurs prior to the date that the relevant facility(ies) financed by such OFC 2 Senior Secured Notes reaches completion and meets certain operational performance levels. A demand on the Company's guarantee based on the non-performance trigger is limited to an amount equal to the prepayment amount on the OFC 2 Senior Secured Notes necessary to bring the OFC 2 Issuers into compliance with certain coverage ratios. A demand on the Company's guarantee based on the other trigger event is not so limited.

Debt service reserve; other restricted funds

Under the terms of the OFC 2 Senior Secured Notes, OFC 2 is required to maintain a debt service reserve and certain other reserves, as follows:

- (i) A debt service reserve account which may be funded by cash or backed by letters of credit (see below) in an amount sufficient to pay scheduled debt service amounts, including principal and interest, due under the terms of the OFC 2 Senior Secured Notes in the following six months. This restricted cash account is classified as current

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in the consolidated balance sheet. As of December 31, 2016, part of the required debt service reserve was backed by a letter of credit in the amount of \$21.0 million (see Note 23).

- (ii) A performance level reserve account, intended to provide additional security for the OFC 2 Senior Secured Notes, which may be funded by cash or backed by letters of credit. This reserve builds up over time and reduces gradually each time the project achieves certain milestones. Upon issuance of the Series A Notes, this reserve was funded in the amount of \$28.0 million. As of December 31, 2016, the balance of such account was \$9.7 million and there was no requirement for an additional letter of credit to be issued.
- (iii) Under the terms of the OFC 2 Senior Secured Notes, OFC 2 is also required to maintain a well field drilling and maintenance reserve that builds up over time and is dedicated to costs and expenses associated with drilling and maintenance of the project's well field, which may be funded by cash or backed by letters of credit.
- (iv) A performance level reserve account for McGinness Hills Phase II, intended to provide additional security for the OFC 2 Senior Secured Notes, which may be funded by cash or backed by letters of credit. Upon issuance of the Series C Notes, this reserve was funded in the amount of \$53.4 million in letter of credit. As of December 31, 2016, there was no requirement for an additional letter of credit to be issued.

Don A. Campbell Senior Secured Notes — Non-Recourse

On November 29, 2016, a Company subsidiary, ORNI 47 LLC (“ORNI 47”), entered into a note purchase agreement (the “Note Purchase Agreement”) with MUFG Union Bank, N.A., as collateral agent, Munich Reinsurance America, Inc. and Munich American Reassurance Company (the “Purchasers”) pursuant to which ORNI 47 issued and sold to the Purchasers \$92.5 million aggregate principal amount of its 4.03% Senior Secured Notes due September 27, 2033 (the “Notes”) in a private placement exempt from the registration requirements of the Securities Act of 1933, as amended. ORNI 47 is the owner of the Don A. Campbell Phase I (“DAC 1”) geothermal power plant, and part of ORPD.

The net proceeds from the sale of the Notes, after deducting certain transaction expenses and the funding of a debt service reserve account, were approximately \$87.1 million and ORNI 47 intends to use the proceeds from the sale of the Notes to refinance the development and construction costs of the DAC 1 geothermal power plant, which were originally financed using equity.

ORNI 47 will pay a scheduled amount of principal of the Notes beginning on December 27, 2016 and then quarterly, on the 27th day of each March, June, September and December, until the Notes mature.

The Notes constitute senior secured obligations of ORNI 47 and are secured by all of the assets of ORNI 47. Under the Note Purchase Agreement, ORNI 47 may prepay at any time all, or from time to time any part of, the Notes in an amount equal to at least \$2 million or such lesser amount as may remain outstanding under the Notes at 100% of the principal amount to be prepaid plus the applicable make-whole amount determined for the prepayment date with respect to such principal amount. Upon the occurrence of a Change of Control (as defined in the Note Purchase Agreement), ORNI 47 must make an offer to each holder of Notes to repurchase all of the holder's Notes at 101% of the aggregate principal amount of Notes to be repurchased plus accrued and unpaid interest, if any, on the Notes to be repurchased to, but not including, the date of repurchase. Each holder of Notes may accept such offer in whole or in part. In certain events, including certain asset sales outside the ordinary course of business, ORNI 47 must make mandatory prepayments of the Notes at 100% of the principal amount to be prepaid. The Note Purchase Agreement requires ORNI 47 to comply with certain covenants, including, among others, restrictions on the incurrence of indebtedness or liens, amendment or modification of material project documents, the ability of ORNI 47 to merge or consolidate with another entity. The Note Purchase Agreement also contains customary events of default. In addition, there are restrictions on the ability of ORNI 47 to make distributions to its shareholders, which include a required historical and projected Debt Service Coverage Ratio not less than 1.20 for the four fiscal quarterly periods. As of December 31, 2016, the projected Debt Service Coverage Ratio was 1.85.

As of December 31, 2016, \$92.4 million is outstanding under the DAC 1 Loan.

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Senior Unsecured Bonds

In August 2010, the Company entered into a trust instrument governing the issuance of, and accepted subscriptions for, an aggregate principal amount of approximately \$142.0 million of senior unsecured bonds (the “Bonds”). Subject to early redemption, the principal of the Bonds was repayable in a single bullet payment upon the final maturity of the Bonds on August 1, 2017. The Bonds bore interest at a fixed rate of 7%, payable semi-annually. In February 2011, the Company accepted subscription for an aggregate principal amount of approximately \$107.5 million of additional senior unsecured bonds (the “Additional Bonds”) under two addendums to the trust instrument. The terms and conditions of the Additional Bonds were identical to the original Bonds. The Additional Bonds were issued at a premium which reflects an effective fixed interest of 6.75%.

In September 2016, the Company concluded an auction tender and accepted subscriptions for \$204 million aggregate principal amount of two tranches (Series 2 approximately \$67 million and Series 3 approximately \$137 million) of senior unsecured bonds. The proceeds from the senior unsecured bonds were used on September 29, 2016, to prepay the Company’s \$250 million senior secured bonds that were payable on August 1, 2017.

The senior unsecured bonds, which were issued on September 14, 2016, have an outstanding aggregate principal amount of approximately \$204.0 million consisting of two tranches (approximately \$67 million principal amount of Series 2 and approximately \$137 million principal amount of Series 3). The Series 2 Bonds will mature in September 2020 and bear interest at a fixed rate of 3.7% per annum, payable semi-annually. The Series 3 Bonds will mature in September 2022 and bear interest at a fixed rate of 4.45% per annum, payable semi-annually. The Bonds will be repaid at maturity in a single bullet payment, unless earlier prepaid by Ormat pursuant to the terms and conditions of the trust instrument that governs the Bonds. Both tranches received a rating of iA+ from Maloot S&P in Israel with a stable outlook.

Loans from institutional investors

In July 2009, the Company entered into a 6-year loan agreement of \$20.0 million with a group of institutional investors (the “First Loan”). The First Loan matured on July 16, 2015, was payable in 12 semi-annual installments, which commenced on January 16, 2010, and bore interest of 6.5%. As of December 31, 2015, this loan was fully repaid.

In July 2009, the Company entered into an 8-year loan agreement of \$20.0 million with another group of institutional investors (the “Second Loan”). The Second Loan matures on August 1, 2017, is payable in 12 semi-annual installments, which commenced on February 1, 2012, and bears interest at 6-month LIBOR plus 5.0%. As of December 31, 2016, \$3.3 million was outstanding under this loan.

In November 2010, the Company entered into a 6-year loan agreement of \$20.0 million with a group of institutional investors (the “Third Loan”). The Third Loan maturity date was November 16, 2016, was payable in ten semi-annual installments, which commenced on May 16, 2012, and bore interest of 5.75%. In October 2015, the Company prepaid this term loan in full and in accordance with the loan’s prepayment provisions. The total prepayment amount was \$6.2 million comprising principal and interest.

Loan Agreements with DEG (the Olkaria III Complex)

In March 2009, the Company’s wholly owned subsidiary, OrPower 4, entered into a project financing loan of \$105.0 million to refinance its investment in Phase I of the Olkaria III complex located in Kenya (the “DEG Loan”). The DEG Loan was provided by a group of European Development Finance Institutions (“DFIs”) arranged by DEG — Deutsche Investitions — und Entwicklungsgesellschaft mbH (“DEG”). The first disbursement of \$90.0 million occurred on March 23, 2009 and the second disbursement of \$15.0 million occurred on July 10, 2009. The DEG Loan will mature on December 15, 2018, and is payable in 19 equal semi-annual installments, commencing December 15, 2009. Interest on the DEG Loan is variable based on 6-month LIBOR plus 4.0% and OrPower 4 had the option to fix the interest rate upon each disbursement. Upon the first disbursement, the Company fixed the interest rate on \$77.0 million of the DEG Loan at 6.90%. As of December 31, 2016, \$15.8 million is outstanding under the DEG Loan (out of which \$10.8 million bears interest at a fixed rate).

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In October 2012, OrPower 4, DEG and the parties thereto amended and restated the DEG Loan agreement (the “DEG Amendment”). The DEG Amendment became effective on November 9, 2012 upon the execution by OrPower 4 of the Tranche I and Tranche II Notes and the related disbursements of the proceeds thereof under the OPIC Finance Agreement (as described above). The amended and restated DEG Loan Agreement provides for: (i) the prepayment in full of two loans thereunder in the total principal amount of approximately \$20.5 million; (ii) the release and discharge of all collateral security previously provided by OrPower 4 to the secured parties under the DEG Loan agreement and the substitution of the Company’s guarantee of OrPower 4’s payment and certain other performance obligations in lieu thereof; and (iii) the establishment of a LIBOR floor of 1.25% in respect of one of the loans under the DEG Loan agreement, and (iv) the elimination of most of the affirmative and negative covenants under the DEG Loan agreement and certain other conforming provisions to take into account OrPower 4’s execution of the OPIC Finance Agreement and its obligations thereunder.

On October 20, 2016, OrPower 4 entered into a new \$50 million subordinated facility agreement with DEG (the “DEG 2 Facility Agreement”) and on December 21, 2016, OrPower 4 completed a drawdown of the full loan amount of \$50 million, with a fixed interest rate of 6.28% for the duration of the loan (the “DEG 2 Loan”). The DEG 2 Loan will be repaid in 20 equal semi-annual principal installments commencing December 21, 2018, with a final maturity on June 21, 2028. The DEG 2 Loan is intended for the refinance of Plant 4 of the Olkaria III Complex, which was originally financed using equity and is subordinated to the senior loan provided by OPIC for Plants 1-3 of the complex. The loan is guaranteed by the Company.

Under the DEG 2 Facility Agreement, OrPower 4 may prepay at any time all, or from time to time any part of the DEG 2 Loan in an amount equal to at least \$5 million or such lesser amount as may remain outstanding under the DEG 2 Loan at 100% of the principal amount to be prepaid plus the applicable make-whole amount and certain prepayment premium amount determined for the prepayment date with respect to such principal amount. In certain events, OrPower 4 must make mandatory prepayments of the DEG 2 Loan at 100% of the principal amount to be prepaid plus the applicable make-whole amount and certain prepayment premium amount determined for the prepayment date with respect to such principal amount. The DEG 2 Facility Agreement requires OrPower 4 to comply with certain covenants, including, among others, restrictions on the incurrence of indebtedness or liens. The Facility Agreement also contains customary events of default.

As of December 31, 2016, \$50.0 million is outstanding under the DEG 2 Loan.

Revolving credit lines with commercial banks

As of December 31, 2016, the Company has credit agreements with eight commercial banks for an aggregate amount of \$524.8 million (including \$60.0 million from Union Bank, N.A. (“Union Bank”) and \$35.0 million from HSBC), see below. Under the terms of these credit agreements, the Company, or its Israeli subsidiary, Ormat Systems, can request: (i) extensions of credit in the form of loans and/or the issuance of one or more letters of credit in the amount of up to \$215.0 million; and (ii) the issuance of one or more letters of credit in the amount of up to \$309.8 million. The credit agreements mature between end of March, 2017 and July 2019. Loans and draws under the credit agreements or under any letters of credit will bear interest at the respective bank’s cost of funds plus a margin.

As of December 31, 2016, no loans were outstanding, and letters of credit with an aggregate stated amount of \$341.6 million were issued and outstanding under such credit agreements.

Credit Agreements

Credit agreement with Union Bank

In February 2012, the Company’s wholly owned subsidiary, Ormat Nevada Inc. (“Ormat Nevada”), entered into an amended and restated credit agreement with Union Bank. Under the amended and restated agreement, the credit termination date was extended to February 7, 2014 (which was subsequently extended to March 31, 2014 pursuant to Amendment No. 1 to the agreement and then to June 30, 2017), and the aggregate amount available under the credit agreement was increased from \$39.0 million to \$60.0 million. The facility is limited to the issuance, extension, modification or amendment of letters of credit. Union Bank is currently the sole lender and issuing bank under the credit agreement, but is also designated as an administrative agent on behalf of banks that may, from time to time in the future, join the credit agreement as parties thereto. In connection with this transaction, the Company entered into a guarantee in favor of the administrative agent for the benefit of the banks, pursuant to which the Company agreed to guarantee Ormat Nevada’s obligations under the credit agreement.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Ormat Nevada's obligations under the credit agreement are otherwise unsecured. There are various restrictive covenants under the credit agreement, which include a requirement to comply with the following financial ratios, which are measured quarterly: (i) a 12-month debt to EBITDA ratio not to exceed 4.5; (ii) 12-month DSCR of not less than 1.35; and (iii) distribution leverage ratio not to exceed 2.0. As of December 31, 2016: (i) the actual 12-month debt to EBITDA ratio was 2.95; (ii) the 12-month DSCR was 2.54; and (iii) the distribution leverage ratio was 0.81. In addition, there are restrictions on dividend distributions in the event of a payment default or noncompliance with such ratios, and subject to specified carve-outs and exceptions, a negative pledge on the assets of Ormat Nevada in favor of Union Bank. As of December 31, 2016, letters of credit in the aggregate amount of \$32.6 million remain issued and outstanding under this credit agreement with Union Bank.

Credit agreement with HSBC

In May 2013, Ormat Nevada, entered into a credit agreement with HSBC Bank USA, N.A for one year with annual renewals. The current expiration date of the facility under this credit agreement is December 31, 2017. The aggregate amount available under the credit agreement was increased by \$10 million to \$35.0 million. This credit line is limited to the issuance, extension, modification or amendment of letters of credit and \$10.0 million out of this credit line for working capital needs. HSBC is currently the sole lender and issuing bank under the credit agreement, but is also designated as an administrative agent on behalf of banks that may, from time to time in the future, join the credit agreement as parties thereto. In connection with this transaction, we entered into a guarantee in favor of the administrative agent for the benefit of the banks, pursuant to which we agreed to guarantee Ormat Nevada's obligations under the credit agreement. Ormat Nevada's obligations under the credit agreement are otherwise unsecured. There are various restrictive covenants under the credit agreement, including a requirement to comply with the following financial ratios, which are measured quarterly: (i) a 12-month debt to EBITDA ratio not to exceed 4.5; (ii) 12-month DSCR of not less than 1.35; and (iii) distribution leverage ratio not to exceed 2.0. As of December 31, 2016: (i) the actual 12-month debt to EBITDA ratio was 2.95; (ii) the 12-month DSCR was 2.54; and (iii) the distribution leverage ratio was 0.81. In addition, there are restrictions on dividend distributions in the event of a payment default or noncompliance with such ratios, and subject to specified carve-outs and exceptions, a negative pledge on the assets of Ormat Nevada in favor of HSBC. As of December 31, 2016, letters of credit in the aggregate amount of \$23.2 million remain issued and outstanding under this credit agreement.

Restrictive covenants

The Company's obligations under the credit agreements, the loan agreements, and the trust instrument governing the bonds, described above, are unsecured, but are subject to a negative pledge in favor of the banks and the other lenders and certain other restrictive covenants. These include, among other things, a prohibition on: (i) creating any floating charge or any permanent pledge, charge or lien over our assets without obtaining the prior written approval of the lender; (ii) guaranteeing the liabilities of any third party without obtaining the prior written approval of the lender; and (iii) selling, assigning, transferring, conveying or disposing of all or substantially all of our assets, or a change of control in our ownership structure. Some of the credit agreements, the term loan agreements, as well as the trust instrument contain cross-default provisions with respect to other material indebtedness owed by us to any third party. In some cases, the Company has agreed to maintain certain financial ratios, which are measured quarterly, such as: (i) equity of at least \$600.0 million and in no event less than 25% of total assets; (ii) 12-month debt, net of cash, cash equivalents marketable securities and short-term bank deposits to Adjusted EBITDA ratio not to exceed 6; and (iii) dividend distribution not to exceed 35% of net income for that year. As of December 31, 2016: (i) total equity was \$1,170.0 million and the actual equity to total assets ratio was 47.53%, and (ii) the 12-month debt, net of cash, cash equivalents marketable securities and short-term bank deposits to Adjusted EBITDA ratio was 2.32. During the year ended December 31, 2016, the Company distributed interim dividends in an aggregate amount of \$25.7 million.

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Future minimum payments

Future minimum payments under long-term obligations, excluding revolving credit lines with commercial banks, as of December 31, 2016 are as follows:

	(Dollars in thousands)
Year ending December 31:	
2017.....	\$ 65,971
2018.....	64,805
2019.....	59,146
2020.....	126,870
2021.....	46,579
Thereafter.....	593,161
Total.....	<u>\$ 956,532</u>

NOTE 13 — PUNA POWER PLANT LEASE TRANSACTIONS

In 2005, the Company's wholly owned subsidiary in Hawaii, Puna Geothermal Ventures ("PGV"), entered into transactions involving the original geothermal power plant of the Puna complex located on the Big Island (the "Puna Power Plant").

Pursuant to a 31-year head lease (the "Head Lease"), PGV leased the Puna Power Plant to an unrelated company in return for prepaid lease payments in the total amount of \$83.0 million (the "Deferred Lease Income"). The carrying value of the leased assets as of December 31, 2016 and 2015 amounted to \$28.0 million and \$30.7 million, net of accumulated depreciation of \$32.9 million and \$30.2 million, respectively. The unrelated company (the "Lessor") simultaneously leased back the Puna Power Plant to PGV under a 23-year lease (the "Project Lease"). PGV's rent obligations under the Project Lease will be paid solely from revenues generated by the Puna Power Plant under a PPA that PGV has with Hawaii Electric Light Company ("HELCO"). The Head Lease and the Project Lease are non-recourse lease obligations to the Company. PGV's rights in the geothermal resource and the related PPA have not been leased to the Lessor as part of the Head Lease but are part of the Lessor's security package.

The Head Lease and the Project Lease are being accounted for separately. Each was classified as an operating lease in accordance with the accounting standards for leases. The Deferred Lease Income is amortized into revenue, using the straight-line method, over the 31-year term of the Head Lease. Deferred transaction costs amounting to \$4.2 million are being amortized, using the straight-line method, over the 23-year term of the Project Lease.

Future minimum lease payments under the Project Lease, as of December 31, 2016, are as follows:

	(Dollars in thousands)
Year ending December 31:	
2017.....	\$ 8,747
2018.....	8,944
2019.....	6,018
2020.....	2,450
2021.....	1,723
Thereafter.....	2,740
Total.....	<u>\$ 30,622</u>

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Depository accounts

As required under the terms of the lease agreements, there are certain reserve funds that need to be managed by the indenture trustee in accordance with certain balance requirements. Such reserve funds amounted to \$2.9 million and \$2.1 million as of December 31, 2016 and 2015, respectively, and were included in restricted cash accounts in the consolidated balance sheets and were classified as current as they were used for current payments.

Distribution account

PGV maintains an account to deposit its remaining cash, after making all of the necessary payments and transfers as provided for in the lease agreements, in order to make distributions to Ormat Nevada. The distributions are allowed only if PGV maintains various restrictive covenants under the lease agreements, which include limitations on additional indebtedness. As of December 31, 2016 and 2015, the balance of such account was \$0.

NOTE 14 —TAX MONETIZATION TRANSACTIONS

OPAL TRANSACTION

On December 16, 2016, the Company's wholly owned subsidiary Ormat Nevada Inc. ("Ormat Nevada") entered into an equity contribution agreement (the "Equity Contribution Agreement") with OrLeaf LLC ("OrLeaf") and JPM Capital Corporation ("JPM") with respect to Opal Geo LLC ("Opal Geo"). Also on December 16, 2016, OrLeaf, a newly formed limited liability company formed by Ormat Nevada and ORPD LLC, entered into an amended and restated limited liability company agreement of Opal Geo (the "LLC Agreement") with JPM. The transactions contemplated by the Equity Contribution Agreement and LLC Agreement will allow the Company to monetize federal production tax credits ("PTCs") and certain other tax benefits relating to the operation of five geothermal power plants located in Nevada.

In connection with the transactions contemplated by the Equity Contribution Agreement and the LLC Agreement, Ormat Nevada transferred its indirect ownership interest in the McGinness Hills (Phase I and Phase II), Tuscarora, Jersey Valley and Don A. Campbell Phase 2 ("DAC 2") geothermal power plants to Opal Geo. Prior to such transfer, Ormat Nevada held an approximately 63.25% indirect ownership interest in DAC 2 through ORPD LLC, a joint venture between Ormat Nevada and Northleaf Geothermal Holdings LLC ("Northleaf"), an affiliate of Northleaf Capital Partners, and held, directly or indirectly, a 100% ownership interest in the remaining geothermal power plants that were transferred to Opal Geo.

Pursuant to the Equity Contribution Agreement, JPM contributed approximately \$62.1 million to Opal Geo in exchange for 100% of the Class B Membership Interests of Opal Geo. JPM also agreed to make deferred capital contributions to Opal Geo based on the amount of electricity generated by the DAC 2 and McGinness Hills Phase II power plants which are eligible for the federal production tax credit. The Company expects the aggregate amount of JPM's deferred capital contributions to equal approximately \$21 million and to be paid over time covering the period through December 31, 2022.

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Under the LLC Agreement, until December 31, 2022, OrLeaf will receive distributions of 97.5% of any distributable cash generated by operation of the power plants while JPM will receive distributions of 2.5% of any distributable cash generated by operation of the power plants. Unless JPM has already achieved its target internal rate of return on its investment in Opal Geo, from December 31, 2022 until JPM has achieved its target internal rate of return, JPM will receive 100% of any distributable cash generated by operation of the power plants. Thereafter, OrLeaf will receive distributions of 97.5%, and JPM will receive 2.5%, of any distributable cash generated by operation of the power plants.

Under the LLC Agreement, all items of Opal Geo income and loss, gain, deduction and credit (including the federal production tax credits relating to the operation of the two PTC eligible power plants) will be allocated, until JPM has achieved its target internal rate of return on its investment in Opal Geo (and for so long as the two PTC eligible power plants are generating PTCs), 99% to JPM and 1% to OrLeaf, or 5% to JPM and 95% to OrLeaf if PTCs are no longer available to either of the two PTC eligible power plants. Once JPM achieves its target internal rate of return, all items of Opal Geo income and loss, gain, deduction and credit will be allocated 5% to JPM and 95% to OrLeaf.

Under the LLC Agreement, OrLeaf, which owns 100% of the Class A Membership Interests in Opal Geo, will serve as the managing member of Opal Geo and control the day-to-day management of Opal Geo and its portfolio of five power plants. However, in certain limited circumstances (such as bankruptcy of OrLeaf, fraud or gross negligence by OrLeaf) JPM may remove OrLeaf as the managing member of Opal Geo. JPM, as the Class B Member of Opal Geo, has consent and approval rights with respect to certain items that are designated as major decisions for Opal Geo and the five power plants. In addition, by virtue of certain provisions in OrLeaf's own limited liability company agreement, and consistent with the ORPD LLC formation documents, Northleaf has similar consent and approval rights with respect to OrLeaf's determination of major decisions pertaining to the DAC 2 power plant. In both cases, these major decisions are generally equivalent to customary minority protection rights. As a result, the Company's wholly owned subsidiary, Ormat Nevada, which serves as the managing member of OrLeaf and as the managing member of ORPD LLC, will effectively retain the day-to-day control and management of Opal Geo and its portfolio of five power plants.

The LLC Agreement contains certain customary restrictions on transfer applicable to both OrLeaf and JPM with respect to their respective Membership Interests in Opal Geo, and also provides OrLeaf with a right of first offer in the event JPM desires to transfer any of its Class B Membership Interests, pursuant to which OrLeaf may purchase such Class B Membership Interests. The LLC Agreement also provides OrLeaf with the option to purchase all of the Class B Membership Interests on either December 31, 2022 or the date that is 9 years after the closing date under the Equity Contribution Agreement at a price equal to the greater of (i) the fair market value of the Class B Membership Interests as of the date of purchase (subject to certain adjustments) and (ii) \$3 million.

Pursuant to the Equity Contribution Agreement, the Company has provided a guaranty for the benefit of JPM of certain of OrLeaf's indemnification obligations to JPM under the LLC Agreement. In addition, Ormat Nevada also provided a guaranty for the benefit of JPM of all present and future payment and performance obligations of OrLeaf under the LLC Agreement and each ancillary document to which OrLeaf is a party.

Pursuant to the Equity Contribution Agreement, JPM contributed approximately \$62.1 million to Opal Geo in exchange for 100% of the Class B Membership Interests of Opal Geo. The contribution was recorded as \$3.7 million allocation to noncontrolling interests and \$58.5 million allocation to liability associated with sale of tax benefits as described in Note 1. JPM also agreed to make deferred capital contributions to Opal Geo based on the amount of electricity generated by the DAC 2 and McGinness Hills Phase II power plants which are eligible for the federal production tax credit.

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OPC TRANSACTION

In June 2007, Ormat Nevada entered into agreements with affiliates of Morgan Stanley & Co. Incorporated and Lehman Brothers Inc. (Morgan Stanley Geothermal LLC and Lehman-OPC LLC), under which those investors purchased, for cash, interests in a newly formed subsidiary of Ormat Nevada, OPC LLC ("OPC"), entitling the investors to certain tax benefits (such as production tax credits ("PTCs") and accelerated depreciation) and distributable cash associated with four geothermal power plants.

The first closing under the agreements occurred in 2007 and covered the Company's Desert Peak 2, Steamboat Hills, and Galena 2 power plants. The investors paid \$71.8 million at the first closing. The second closing under the agreements occurred in 2008 and covered the Galena 3 power plant. The investors paid \$63.0 million at the second closing.

Ormat Nevada continues to operate and maintain the power plants. Under the agreements, Ormat Nevada initially received all of the distributable cash flow generated by the power plants, while the investors received substantially all of the production tax credits and taxable income or loss (together, the "Economic Benefits"). Once Ormat Nevada recovered the capital that it has invested in the power plants, which occurred in the fourth quarter of 2010, the investors receive both the distributable cash flow and the Economic Benefits. The investors' return is limited by the term of the transaction. Once the investors reach a target after-tax yield on their investment in OPC (the "OPC Flip Date"), Ormat Nevada will receive 95% of both distributable cash and taxable income, on a going forward basis. Following the OPC Flip Date, Ormat Nevada also has the option to buy out the investors' remaining interest in OPC at the then-current fair market value or, if greater, the investors' capital account balances in OPC. Should Ormat Nevada exercise this purchase option, it would thereupon revert to being sole owner of the power plants.

The Class B membership units are provided with a 5% residual economic interest in OPC. The 5% residual interest commences on achievement by the investors of a contractually stipulated return that triggers the OPC Flip Date. The actual OPC Flip Date is expected to occur in the second quarter of 2017. This residual 5% interest represents a noncontrolling interest and is not subject to mandatory redemption or guaranteed payments. Cash is distributed each period in accordance with the cash allocation percentages stipulated in the agreements. Until the fourth quarter of 2010, Ormat Nevada was allocated the cash earnings in OPC and therefore, the amount allocated to the 5% residual interest represented the noncash loss of OPC which principally represented depreciation on the property, plant and equipment. As from the fourth quarter of 2010, the distributable cash is allocated to the Class B membership units. As a result of the acquisition by Ormat Nevada, on October 30, 2009, of all of the Class B membership units of OPC held by Lehman-OPC LLC (see below), the residual interest decreased to 3.5%. Such residual interest increased to 5% on February 3, 2011 when Ormat Nevada sold its Class B membership units to JPM Capital Corporation ("JPM") (see below).

The Company's voting rights in OPC are based on a capital structure that is comprised of Class A and Class B membership units. Through Ormat Nevada, the Company owns all of the Class A membership units, which represent 75% of the voting rights in OPC. The investors own all of the Class B membership units, which represent 25% of the voting rights in OPC. In the period from October 30, 2009 to February 3, 2011, the Company owned, through Ormat Nevada, all of the Class A membership units, which represented 75% of the voting rights in OPC, and 30% of the Class B membership units, which represented 7.5% of the voting rights of OPC. In total the Company had 82.5% of the voting rights in OPC as of December 31, 2010. In that period, the investors owned 70% of the Class B membership units, which represented 17.5% of the voting rights of OPC. Other than in respect of customary protective rights, all operational decisions in OPC are decided by the vote of a majority of the membership units. Following the OPC Flip Date, Ormat Nevada's voting rights will increase to 95% and the investor's voting rights will decrease to 5%. Ormat Nevada retains the controlling voting interest in OPC both before and after the OPC Flip Date and therefore consolidates OPC.

On October 30, 2009, Ormat Nevada acquired from Lehman-OPC LLC all of the Class B membership units of OPC held by Lehman-OPC pursuant to a right of first offer for a price of \$18.5 million. A substantial portion of the initial sale of the Class B membership units by Ormat Nevada was accounted for as a financing transaction. As a result, the repurchase of these interests at a discount resulted in a pre-tax gain of \$13.3 million in the year ended December 31, 2009. In addition, an amount of approximately \$1.1 million has been reclassified from noncontrolling interest to additional paid-in capital representing the 1.5% residual interest of Lehman-OPC's Class B membership units.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

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On February 3, 2011, Ormat Nevada sold to JPM all of the Class B membership units of OPC that it had acquired on October 30, 2010 for a sale price of \$24.9 million in cash. The Company did not record any gain from the sale of its Class B membership interests in OPC to JPM. A substantial portion of the Class B membership units are accounted for as a financing transaction. As a result, the majority of these proceeds were recorded as a liability. In addition, \$2.3 million has been reclassified from additional paid-in capital to noncontrolling interest representing the 1.5% residual interest of JPM's Class B membership units.

ORTP TRANSACTION

In January 2013, Ormat Nevada entered into agreements with JP Morgan ("JPM") under which JPM purchased interests in a newly formed subsidiary of Ormat Nevada, ORTP, LLC ("ORTP"), entitling JPM to certain tax benefits (such as PTCs and accelerated depreciation) associated with certain geothermal power plants in California and Nevada.

Under the terms of the transaction, Ormat Nevada transferred the Heber complex, the Mammoth complex, the Ormesa complex, and the Steamboat 2 and 3, Burdette (Galena 1) and Brady power plants to ORTP, and sold class B membership units in ORTP to JPM. In connection with the closing, JPM paid approximately \$35.7 million to Ormat Nevada and will make additional payments to Ormat Nevada of 25% of the value of PTCs generated by the portfolio over time. The additional payments were expected to be made until December 31, 2016 up to maximum amount of \$11.0 million. In the first quarter of 2017 and 2016, the Company received \$1.6 million and \$2.0 million, respectively.

Ormat Nevada will continue to operate and maintain the power plants. Under the agreements, Ormat Nevada will initially receive all of the distributable cash flow generated by the power plants, while JPM will receive substantially all of PTCs and the taxable income or loss (together, the "Economic Benefits"). JPM's return is limited by the terms of the transaction. Once JPM reaches a target after-tax yield on its investment in ORTP (the "ORTP Flip Date"), Ormat Nevada will receive 97.5% of the distributable cash and 95% of the taxable income, on a going forward basis. At any time during the twelve-month period after the end of the fiscal year in which the ORTP Flip Date occurs (but no earlier than the expiration of five years following the date that the last of the power plants was placed in service for purposes of federal income taxes), Ormat Nevada also has the option to buy out JPM's remaining interest in ORTP at the then-current fair market value. If Ormat Nevada were to exercise this purchase option, it would become the sole owner of the power plants again.

The Class B membership units entitle the holder to 5.0% (allocation of income and loss) and 2.5% (allocation of cash) residual economic interests in ORTP. The 5.0% and 2.5% residual interests commence on achievement by JPM of a contractually stipulated return that triggers the ORTP Flip Date. The actual ORTP Flip Date is expected to occur in the second quarter of 2017. These residual 5.0% and 2.5% interests represent noncontrolling interests and are not subject to mandatory redemption or guaranteed payments.

The Company's voting rights in ORTP are based on a capital structure that is comprised of Class A and Class B membership units. Through Ormat Nevada the Company owns all of the Class A membership units, which represent 75% of the voting rights in ORTP. JPM owns all of the Class B membership units, which represent 25% of the voting rights of ORTP. Other than in respect of customary protective rights, all operational decisions in ORTP are decided by the vote of a majority of the membership units. Ormat Nevada retains the controlling voting interest in ORTP both before and after the ORTP Flip Date and therefore will continue to consolidate ORTP.

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NOTE 15 — ASSET RETIREMENT OBLIGATION

The following table presents a reconciliation of the beginning and ending aggregate carrying amount of asset retirement obligation for the years presented below:

	Year Ended December 31,	
	2016	2015
	(Dollars in thousands)	
Balance at beginning of year	\$ 20,856	\$ 19,142
Revision in estimated cash flows	303	(681)
Liabilities incurred	540	859
Accretion expense	1,649	1,536
Balance at end of year	<u>\$ 23,348</u>	<u>\$ 20,856</u>

NOTE 16 — STOCK-BASED COMPENSATION

The Company makes an estimate of expected forfeitures and recognizes compensation costs only for those stock-based awards expected to vest. As of December 31, 2016, the total future compensation cost related to unvested stock-based awards that are expected to vest is \$11.3 million, which will be recognized over a weighted average period of 1.4 years.

During the years ended December 31, 2016, 2015 and 2014, the Company recorded compensation related to stock-based awards as follows:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands, except per share data)		
Cost of revenues	\$ 2,400	\$ 1,753	\$ 3,076
Selling and marketing expenses	247	123	261
General and administrative expenses	2,510	2,079	2,234
Total stock-based compensation expense	<u>5,157</u>	<u>3,955</u>	<u>5,571</u>
Tax effect on stock-based compensation expense	617	440	836
Net effect of stock-based compensation expense	<u>\$ 4,540</u>	<u>\$ 3,515</u>	<u>\$ 4,735</u>

During the fourth quarters of 2016, 2015 and 2014, the Company evaluated the trends in the stock-based award forfeiture rate and determined that the actual rates are 10.3%, 9.66% and 8.02%, respectively. This represents an increase of 7%, 20% and 12%, respectively, from prior estimates. As a result of the change in the estimated forfeiture rate, there was an immaterial impact on stock-based compensation expense in the respective periods.

Valuation assumptions

Prior to 2016, the fair value of each grant of stock-based awards was estimated using the Black-Scholes valuation model and the assumptions noted in the following table. The Company's expected term represented the period that the Company's stock-based awards were expected to be outstanding. In the absence of enough historical information, the expected term was determined using the simplified method giving consideration to the contractual term and vesting schedule. In 2016, The Company estimated the fair value of the stock-based awards using the Exercise Multiple-Based Lattice Model as it enables a degree of accounting for the complexities of option valuation and reduces the probability of a measurement error. The dividend yield forecast is expected to be 20% of the Company's yearly net profit, which is equivalent to a 1.1% yearly weighted average dividend rate in the year ended December 31, 2016. The risk-free interest rate was based on the yield from U.S. constant treasury maturities bonds with an equivalent term. The forfeiture rate is based on trends in actual stock-based awards forfeitures.

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The Company calculated the fair value of each stock-based award on the date of grant based on the following assumptions:

	Year Ended December 31,		
	2016	2015	2014
For stock options issued by the Company:			
Risk-free interest rates	1.3%	1.4%	1.7%
Expected lives (in years).....	4.5	4.0	5.1
Dividend yield	1.1%	0.7%	0.9%
Expected volatility	30.7%	29.2%	35.1%
Forfeiture rate (weighted average).....	8.4%	0%	0%

Stock-based awards

The 2004 Incentive Compensation Plan

In 2004, the Company's Board of Directors adopted the 2004 Incentive Compensation Plan ("2004 Incentive Plan"), which provides for the grant of the following types of awards: incentive stock options, non-qualified stock options, restricted stock, stock appreciation rights ("SARs"), stock units, performance awards, phantom stock, incentive bonuses, and other possible related dividend equivalents to employees of the Company, directors and independent contractors. Under the 2004 Incentive Plan, a total of 3,750,000 shares of the Company's common stock have been reserved for issuance, all of which could be issued as options or as other forms of awards. Options and SARs granted to employees under the 2004 Incentive Plan cliff vest and are exercisable from the grant date as follows: 25% after 24 months, 25% after 36 months, and the remaining 50% after 48 months. Options granted to non-employee directors under the 2004 Incentive Plan cliff vest and are exercisable one year after the grant date. Vested shares may be exercised for up to ten years from the date of grant. The shares of common stock will be issued upon exercise of options or SARs from the Company's authorized share capital. The 2004 Incentive Plan expired in May 2012 upon adoption of the 2012 Incentive Plan, except as to share based awards outstanding on that date.

The 2012 Incentive Compensation Plan

In May 2012, the Company's shareholders adopted the 2012 Incentive Compensation Plan ("2012 Incentive Plan"), which provides for the grant of the following types of awards: incentive stock options, non-qualified stock options, restricted stock, SARs, stock units, performance awards, phantom stock, incentive bonuses, and other possible related dividend equivalents to employees of the Company, directors and independent contractors. Under the 2012 Incentive Plan, a total of 4,000,000 shares of the Company's common stock have been reserved for issuance, all of which could be issued as options or as other forms of awards. Options and SARs granted to employees under the 2012 Incentive Plan will vest and become exercisable as follows: 25% vest 24 months after the grant date, an additional 25% vest 36 months after the grant date, and the remaining 50% vest 48 months after the grant date. Options granted to non-employee directors under the 2012 Incentive Plan will vest and become exercisable one year after the grant date. Vested stock-based awards may be exercised for up to ten years from the date of grant. The shares of common stock will be issued upon exercise of options or SARs from the Company's authorized share capital.

The 2012 Incentive Plan empowers our Board of Directors, in its discretion, to amend the 2012 Incentive Plan in certain respects. Consistent with its authority to amend the Incentive Plan, in February 2014 the Board adopted and approved certain amendments to the 2012 Incentive Plan. The key amendments are as follows:

Increase of per grant limit: Section 15(a) of the 2012 Incentive Plan was amended to allow the grant of up to 400,000 shares of our common stock with respect to the initial grant of an equity award to newly hired executive officers in any calendar year. This amendment was adopted by our stockholders on May 31, 2014; and

Acceleration of vesting: Section 15(l) of the 2012 Incentive Plan was amended to clarify our ability to provide in the applicable award agreement that part and/or all of the award will be accelerated upon the occurrence of certain pre-determined events and/or conditions, such as a "change in control" (as defined in the 2012 Incentive Plan, as amended).

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On February 11, 2014, the Company granted its Chief Financial Officer options to purchase 32,500 shares of common stock under the 2012 Incentive Plan. The exercise price of each option is \$24.57, which represented the fair market value of the Company's common stock on the grant date. Such options will expire five years from the date of grant and will vest in equal annual installments over a period of three years from the grant date, subject to acceleration upon a change of control.

The fair value of each stock option on the grant date was \$5.78. The Company calculated the fair value of each stock option on the date of grant using the Black-Scholes valuation model based on the following assumptions:

Risk-free interest rates	0.81%
Expected life (in years)	3.375
Dividend yield.....	0.80%
Expected volatility	33.50%
Forfeiture rate.....	0.00%

On April 2, 2014, the Company granted its newly appointed Chief Executive Officer options to purchase up to an aggregate of 400,000 shares of common stock under the 2012 Incentive Plan. The exercise price of each option is \$29.52 per share, which represented the fair market value of the Company's common stock on the date of the grant. Options to purchase 300,000 shares of common stock will expire six years following the date of grant and will vest in equal annual installments over four years from the grant date, subject to acceleration in the event of a change of control. The remaining options to purchase 100,000 shares of common stock will vest on March 31, 2021, subject to acceleration associated with a change of control, and will expire seven and a half years from the date of grant.

The fair value of each option on the grant date was \$12.88 for grant of options to purchase 300,000 shares of common stock, and \$8.33 for the grant of options to purchase 100,000 shares of common stock. The Company calculated the fair value of each stock option on the date of grant using the Black-Scholes valuation model based on the following assumptions:

	Grant of options to purchase 300,000 shares of common stock	Grant of options to purchase 100,000 shares of common stock
Risk-free interest rates.....	2.36%	1.64%
Expected life (in years)	7.25	4.75
Dividend yield.....	0.90%	0.90%
Expected volatility	42.80%	33.10%

On November 5, 2014, the Company granted its directors options to purchase 52,500 shares of common stock under the 2012 Incentive Plan. The exercise price of each option is \$28.23, which represented the fair market value of the Company's common stock on the grant date. Such options will expire seven years from the date of grant and will fully vest one year from the grant date.

The fair value of each stock option on the grant date was \$7.01. The Company calculated the fair value of each stock option on the date of grant using the Black-Scholes valuation model based on the following assumptions:

Risk-free interest rates	1.30%
Expected life (in years)	4.0
Dividend yield.....	0.70%
Expected volatility	32.40%
Forfeiture rate.....	0.00%

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On November 3, 2015, the Company granted its directors options to purchase 45,000 shares of common stock under the 2012 Incentive Plan. The exercise price of each option is \$38.24, which represented the fair market value of the Company's common stock on the grant date. Such options will expire seven years from the date of grant and will fully vest one year from the grant date.

The fair value of each stock option on the grant date was \$8.68. The Company calculated the fair value of each stock option on the date of grant using the Black-Scholes valuation model based on the following assumptions:

Risk-free interest rates	1.35%
Expected life (in years)	4.0
Dividend yield.....	0.70%
Expected volatility	29.20%
Forfeiture rate.....	0.00%

On June 13, 2016, the Company granted its employees, in aggregated 1,080,000 SAR under the Company's 2012 Incentive Plan. The exercise price of each SAR is \$42.87, which represented the fair market value of the Company's common stock on the grant date. Such SARs will expire six years from the date of the grant and will vest over 4 years as follows: 50% after two years; an additional 25% after three years and the remaining 25% after four years from the grant date.

The fair value of each SAR on the grant date was \$11.98 for senior management and \$11.42 for other employees. The Company calculated the fair value of each SAR on the grant date using the Exercise Multiple-Based Lattice SAR-Pricing model based on the following assumptions:

Risk-free interest rate	1.29%
Expected life (in years)	6
Dividend yield.....	1.14
Expected volatility	30.7%
Forfeiture rate:	
Senior management	0.0%
Other employees.....	10.5%
Sub-Optimal Exercise Factor:	
Senior management	2.5
Other employees.....	2.0

On November 8, 2016, the Company granted its directors, in aggregated 60,000 SAR's under the Company's 2012 Incentive Plan. The exercise price of each SAR is \$47.46, which represented the fair market value of the Company's common stock on the grant date. Such SARs will expire seven years from the date of the grant and will vest at the end of the first year from the grant date.

The fair value of each SAR on the grant date was \$14.51. The Company calculated the fair value of each SAR on the grant date using the Exercise Multiple-Based Lattice SAR-Pricing model based on the following assumptions:

Risk-free interest rate	1.65%
Expected life (in years)	7
Dividend yield.....	1.1
Expected volatility	30.6%
Forfeiture rate.....	0.0%
Sub-Optimal Exercise Factor:	2.5

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	Year Ended December 31,					
	2016		2015		2014	
	Shares (in thousands)	Weighted Average Exercise Price	Shares (in thousands)	Weighted Average Exercise Price	Shares (in thousands)	Weighted Average Exercise Price
Outstanding at beginning of year	2,438	\$ 25.38	4,477	\$ 27.48	4,710	\$ 28.23
Granted, at fair value:						
Stock Options.....	1,155	43.01	45	38.24	485	29.05
SARs*	—	—	—	—	—	—
Exercised.....	(967)	25.33	(1,589)	26.77	(243)	24.10
Forfeited.....	(57)	24.12	(125)	27.33	(116)	23.20
Expired.....	(4)	26.84	(370)	45.78	(359)	42.70
Outstanding at end of year	<u>2,565</u>	33.36	<u>2,438</u>	25.38	<u>4,477</u>	27.48
Options and SARs exercisable at end of year	<u>557</u>	25.22	<u>858</u>	26.75	<u>2,106</u>	31.25
Weighted-average fair value of options and SARs granted during the year.....		<u>\$ 11.61</u>		<u>\$ 8.68</u>		<u>\$ 9.00</u>

* Upon exercise, SARs entitle the recipient to receive shares of common stock equal to the increase in value of the award between the grant date and the exercise date.

As of December 31, 2016, 1,058,150 shares of the Company's common stock are available for future grants under the 2012 Incentive Plan. No shares of the Company's common stock are available for future grants under the 2004 Incentive Plan as of such date.

The following table summarizes information about stock-based awards outstanding at December 31, 2016 (shares in thousands):

Exercise Price	Options Outstanding			Options Exercisable		
	Number of Stock-based Awards Outstanding	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value	Number of Stock-based Awards Exercisable	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
\$ 18.56	15	2.8	\$ 526	15	2.8	\$ 526
19.69	15	2.6	509	15	2.6	509
20.13	108	2.3	3,608	108	2.3	3,608
20.54	53	2.3	1,761	28	2.3	934
23.34	635	2.4	19,226	140	2.4	4,247
24.57	9	2.1	269	1	2.1	33
25.65	68	1.3	1,905	68	1.3	1,905
26.70	15	3.8	404	15	3.8	404
28.23	30	4.8	762	30	4.8	762
29.52	400	3.6	9,640	75	3.6	1,807
29.95	17	0.3	400	17	0.3	400
35.15	15	6.1	277	-	-	-
38.24	45	5.8	692	45	5.8	692
42.87	1,080	5.5	11,610	-	-	-
47.46	60	6.9	370	-	-	-
	<u>2,565</u>	<u>4.1</u>	<u>\$ 51,959</u>	<u>557</u>	<u>2.7</u>	<u>\$ 15,827</u>

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The following table summarizes information about stock-based awards outstanding at December 31, 2015 (shares in thousands):

Exercise Price	Options Outstanding			Options Exercisable		
	Number of Stock-based Awards Outstanding	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value	Number of Stock-based Awards Exercisable	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
\$ 18.56	15	3.8	\$ 269	15	3.8	\$ 269
19.69	15	3.6	252	15	3.6	252
20.13	326	3.3	5,327	69	3.3	1,135
20.54	100	3.3	1,593	50	3.3	797
23.34	938	3.4	12,315	126	3.4	1,655
24.57	33	3.1	387	16	3.1	193
25.65	135	2.3	1,462	135	2.3	1,462
26.70	45	4.8	440	45	4.8	440
26.84	64	0.2	618	64	0.2	618
28.19	15	1.8	124	15	1.8	124
28.23	45	5.8	371	45	5.8	371
29.21	3	1.3	22	3	1.3	22
29.52	400	4.6	2,780	-	-	-
29.95	148	1.3	963	148	1.3	963
34.13	96	0.3	225	96	0.3	225
38.24	15	6.8	-	-	-	-
38.50	15	0.8	-	15	0.8	-
	<u>2,438</u>	<u>3.3</u>	<u>\$ 27,148</u>	<u>857</u>	<u>2.4</u>	<u>\$ 8,526</u>

The aggregate intrinsic value in the above tables represents the total pretax intrinsic value, based on the Company's stock price of \$53.62 and \$36.47 as of December 31, 2016 and 2015, respectively, which would have potentially been received by the stock-based award holders had all stock-based award holders exercised their stock-based award as of those dates. The total number of in-the-money stock-based awards exercisable as of December 31, 2016 and 2015 was 557,350 and 842,911, respectively.

The total pretax intrinsic value of options exercised during the year ended December 31, 2016 and 2015 was \$18.0 million and \$14.1 million, respectively, based on the average stock price of \$43.99 and \$35.64 during the years ended December 31, 2016 and 2015, respectively.

NOTE 17 — POWER PURCHASE AGREEMENTS

Substantially all of the Company's electricity revenues are recognized pursuant to PPAs in the U.S. and in various foreign countries, including Kenya and Guatemala. These PPAs generally provide for the payment of energy payments or both energy and capacity payments through their respective terms which expire in varying periods from 2017 to 2036. Generally, capacity payments are calculated based on the amount of time that the power plants are available to generate electricity. The energy payments are calculated based on the amount of electrical energy delivered at a designated delivery point. The price terms are customary in the industry and include, among others, a fixed price, short-run avoided cost ("SRAC") (the incremental cost that the power purchaser avoids by not having to generate such electrical energy itself or purchase it from others), and a fixed price with an escalation clause that includes the value for environmental attributes, known as renewable energy credits. Certain of the PPAs provide for bonus payments in the event that the Company is able to exceed certain target levels and potential payments by the Company if it fails to meet minimum target levels. One PPA gives the power purchaser or its designee the right of first refusal to acquire the geothermal power plants at fair market value. Upon satisfaction of certain conditions specified in this PPA, and subject to receipt of requisite approvals and negotiations between the parties, the

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Company has the right to demand that the power purchaser acquire the power plant at fair market value. The Company's subsidiaries in Guatemala sell power at an agreed upon price subject to terms of a "take or pay" PPA.

Pursuant to the terms of certain of the PPAs, the Company may be required to make payments to the relevant power purchaser under certain conditions, such as shortfall in delivery of renewable energy and energy credits, and not meeting certain performance threshold requirements, as defined in the relevant PPA. The amount of payment required is dependent upon the level of shortfall in delivery or performance requirements and is recorded in the period the shortfall occurs. In addition, if the Company does not meet certain minimum performance requirements, the capacity of the power plant may be permanently reduced.

As discussed in Note 1, the Company assessed all PPAs agreed to, modified or acquired in business combinations on or after July 1, 2003, and evaluated whether such PPAs contained a lease element requiring lease accounting. Future lease revenues under PPAs which contain a lease element as of December 31, 2016 including the PPAs that provide for minimum production or performance guarantees are accounted for as contingent lease revenues as they are production-based payments and contingent on generation levels that are impacted by climatic variables that are inherently uncertain including geological conditions and ambient temperature.

The PPAs considered to be leases were also assessed for inclusion of embedded derivatives, which required that they be separately accounted for at fair value. However, none of such PPAs were determined to include embedded derivatives.

NOTE 18 — INTEREST EXPENSE, NET

The components of interest expense are as follows:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Interest related to sale of tax benefits	\$ 9,349	\$ 9,620	\$ 12,413
Interest expense	61,327	67,032	75,447
Less — amount capitalized	(3,287)	(4,075)	(3,206)
	<u>\$ 67,389</u>	<u>\$ 72,577</u>	<u>\$ 84,654</u>

NOTE 19 — INCOME TAXES

U.S. and foreign components of income (loss) from continuing operations, before income taxes and equity in income (losses) of investees consisted of:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
U.S.	\$ (7,109)	\$ (236)	\$ (2,623)
Non-U.S. (foreign)	148,197	113,835	88,459
	<u>\$ 141,088</u>	<u>\$ 113,599</u>	<u>\$ 85,836</u>

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The components of the provision (benefit) for income taxes, net are as follows:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Current:			
Federal	\$ —	\$ 51	\$ —
State	(276)	252	490
Foreign	14,040	19,175	13,983
	<u>\$ 13,764</u>	<u>\$ 19,478</u>	<u>\$ 14,473</u>
Deferred:			
Foreign	18,073	(34,736)	13,135
	<u>18,073</u>	<u>(34,736)</u>	<u>13,135</u>
	<u>\$ 31,837</u>	<u>\$ (15,258)</u>	<u>\$ 27,608</u>

The significant components of the deferred income tax expense (benefit) are as follows:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Other deferred tax expense (exclusive of the effect of other components listed below)	\$ (1,105)	\$ 541	\$ (18,424)
Usage (benefit) of operating loss carryforwards - U.S.	(14,072)	(30,596)	7,764
Change in valuation allowance	16,411	(14,324)	3,526
Change in foreign valuation allowance	—	(49,701)	—
Change in foreign income tax	18,073	14,965	13,135
Change in lease transaction	—	(452)	2,136
Change in tax monetization transaction	48,000	16,386	5,184
Change in depreciation	(55,462)	28,370	9,431
Change in intangible drilling costs	10,227	10,335	(9,706)
Change in production tax credits and alternative minimum tax credit	(11,659)	610	89
Basis difference in partnership interests	7,660	(10,870)	—
	<u>\$ 18,073</u>	<u>\$ (34,736)</u>	<u>\$ 13,135</u>

Reconciliation of the U.S. federal statutory tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31,		
	2016	2015	2014
U.S. federal statutory tax rate	35.0%	35.0%	35.0%
Valuation allowance - U.S.	11.1	(1.4)	(1.7)
Valuation allowance - foreign	-	(43.8)	-
Tax monetization	-	-	2.5
State income tax, net of federal benefit	(0.2)	0.6	(0.7)
Effect of foreign income tax, net	(14.1)	(5.1)	(4.9)
Production tax credits	(8.3)	(0.1)	0.9
Subpart F income	0.3	1.3	1.4
Depletion	-	-	(1.1)
Other, net	(1.3)	-	0.8
Effective tax rate	<u>22.5%</u>	<u>(13.5)%</u>	<u>32.2%</u>

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The net deferred tax assets and liabilities consist of the following:

	December 31,	
	2016	2015
	(Dollars in thousands)	
Deferred tax assets (liabilities):		
Net foreign deferred taxes, primarily depreciation	\$ (35,382)	\$ (32,654)
Depreciation	148,419	87,943
Intangible drilling costs	(112,762)	(102,013)
Net capital loss carryforward - U.S.	117,924	103,850
Tax monetization transaction.....	(105,789)	(80,478)
Investment tax credits	1,341	1,341
Production tax credits	82,451	70,792
Stock options amortization	3,241	3,467
Basis difference in partnership interest.....	(24,462)	(16,801)
Accrued liabilities and other	(752)	2,435
	74,229	37,882
Less - valuation allowance	(109,611)	(70,536)
Total	<u>\$ (35,382)</u>	<u>\$ (32,654)</u>

The following table presents a reconciliation of the beginning and ending valuation allowance:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Balance at beginning of the year	\$ 70,536	\$ 111,280	\$ 114,806
Additions to (release of) valuation allowance	39,075	(40,744)	(3,526)
Balance at end of the year	<u>\$ 109,611</u>	<u>\$ 70,536</u>	<u>\$ 111,280</u>

At December 31, 2016, the Company had U.S. federal net operating loss (“NOL”) carryforwards of approximately \$299.6 million and state NOL carryforwards of approximately \$244.7 million, available to reduce future taxable income, which expire between 2029 and 2036 for federal NOLs and between 2018 and 2036 for state NOLs. The investment tax credits (“ITCs”) in the amount of \$1.3 million at December 31, 2016 are available for a 20-year period and expire between 2022 and 2024. The Production Tax Credits (“PTCs”) in the amount of \$82.5 million at December 31, 2016 are available for a 20-year period and expire between 2026 and 2036.

Realization of the deferred tax assets and tax credits is dependent on generating sufficient taxable income in appropriate jurisdictions prior to expiration of the NOL carryforwards and tax credits. Based upon available evidence of the Company’s ability to generate additional taxable income in the future and historical losses in prior years, a valuation allowance in the amount of \$109.6 million and \$70.5 million is recorded against the U.S. deferred tax assets as of December 31, 2016 and 2015, respectively, as it is more likely than not that the deferred tax assets will not be realized. The increase in valuation allowance is due to increases in investment tax credits and step-up in basis relating to the tax monetization transaction.

As more fully described in Note 3, On November 23, 2016, the Company closed a follow-on sale of 36.75% of equity interest in the second phase of the Don A. Campbell power plant, as a result of this sale, the Company will recognize \$21.4 million of taxable income in 2016. Following the closing, DACII was contributed to the existing ORPD, as agreed upon under the ORPD agreement with Northleaf.

On December 16, 2016, upon the formation of Opal and Orleaf, Orleaf distributed \$43.1 million to Ormat and \$19 million to ORPD. Upon this distribution, Ormat will recognize taxable gain of \$4.8 million.

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In November 2015, the FASB issued Accounting Standards Update 2015-17, Balance Sheet Classification of Deferred Taxes (ASU 2015-17), effective in fiscal years beginning after December 15, 2016. The new guidance requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The Company has elected early adoption of the aforementioned Update in 2015. The Company has adopted the Update prospectively. As such, the deferred tax assets and liabilities in 2016 and 2015 are being presented as noncurrent on the balance sheet.

In March 2016, the FASB issued Accounting Standards Update 2016-09, Improvements to Employee Share-Based Payment Accounting (ASU 2016-09), effective in fiscal years beginning after December 15, 2016 for public companies. In general, the new guidance allows entities to record all excess tax benefits and tax deficiencies as income tax benefit or expense in the income statement. The Company has not elected an early adoption of the aforementioned Update.

In October 2016, the FASB issued Accounting Standards Update 2016-16, Income Taxes on Intercompany Transfers (ASU 2016-16), effective in fiscal years beginning after December 15, 2017 for public companies. In general, the new guidance provides that the seller and buyer will immediately recognize the current and deferred income tax consequences of the intercompany asset transfer. The Company has not elected an early adoption of the aforementioned Update.

The following table presents the deferred taxes on the balance sheets as of the dates indicated:

Year Ended December 31,			
	2016	2015	2014
	(Dollars in thousands)		
Current deferred tax assets	\$ —	\$ —	\$ 251
Current deferred tax liabilities	—	—	(975)
Non-current deferred tax liabilities	(35,382)	(32,654)	(66,219)
	<u>\$ (35,382)</u>	<u>\$ (32,654)</u>	<u>\$ (66,943)</u>

The total amount of undistributed earnings of foreign subsidiaries for income tax purposes was approximately \$367 million at December 31, 2016. It is the Company's intention to reinvest undistributed earnings of its foreign subsidiaries and thereby indefinitely postpone their remittance. Accordingly, no provision has been made for foreign withholding taxes or U.S. income taxes which may become payable if undistributed earnings of foreign subsidiaries were paid as dividends to the Company. The additional taxes on that portion of undistributed earnings which is available for dividends are not practicably determinable.

The Company believes that based on our plans to increase the operations outside of the U.S., the cash generated from our operations outside of the U.S. will be reinvested outside of the U.S. and, accordingly, we do not currently plan to repatriate the funds we have designated as being permanently invested outside the U.S. If we change our plans, we may be required to accrue and pay U.S. taxes to repatriate these funds.

Uncertain tax positions

We are subject to income taxes in the U.S. (federal and state) and numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining our provision for income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which additional taxes will be due. These reserves are established when we believe that certain positions might be challenged despite our belief that our tax return positions are fully supportable. We adjust these reserves in light of changing facts and circumstances, such as the outcome of tax audits. The provision for income taxes includes the impact of reserve positions and changes to reserves that are considered probable.

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At December 31, 2016 and 2015, there are \$5.7 million and \$10.4 million of unrecognized tax benefits that if recognized would affect the annual effective tax rate. Interest and penalties assessed by taxing authorities on an underpayment of income taxes are included as a component of income tax provision in the consolidated statements of operations and comprehensive income.

A reconciliation of our unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Balance at beginning of year	\$ 10,385	\$ 7,511	\$ 4,950
Additions based on tax positions taken in prior years	675	(198)	230
Additions based on tax positions taken in the current year	1,059	4,386	2,980
Reduction based on tax positions taken in prior years	(6,381)	(1,314)	(649)
Balance at end of year	<u>\$ 5,738</u>	<u>\$ 10,385</u>	<u>\$ 7,511</u>

The Company and its U.S. subsidiaries file consolidated income tax returns for federal and state purposes. As of December 31, 2016, the Company has not been subject to U.S. federal or state income tax examinations. The Company remains open to examination by the Internal Revenue Service for the years 2000-2016 and by local state jurisdictions for the years 2002-2016. These examinations may lead to ordinary course adjustments or proposed adjustments to our taxes or our net operating losses with respect to years under examination as well as subsequent periods.

The reduction of \$6.4 million, \$1.3 million and \$0.6 million in 2016, 2015 and 2014, respectively, was due to the statute of limitations expiration on certain tax positions as well as Ormat System's tax settlement as detailed below.

The Company's foreign subsidiaries remain open to examination by the local income tax authorities in the following countries for the years indicated:

Israel.....	2015 — 2016
Kenya	2001 — 2016
Guatemala	2010 — 2016
Philippines.....	2010 — 2016
New Zealand	2011 — 2016

Management believes that the liability for unrecognized tax benefits is adequate for all open tax years based on its assessment of many factors, including among others, past experience and interpretations of local income tax regulations. This assessment relies on estimates and assumptions and may involve a series of complex judgments about future events. As a result, it is possible that federal, state and foreign tax examinations will result in assessments in future periods. To the extent any such assessments occur, the Company will adjust its liability for unrecognized tax benefits.

Tax benefits in the U.S.

The U.S. government encourages production of electricity from geothermal resources through certain tax subsidies under the ARRA which has been extended by the Consolidated Appropriations Act, 2016 (CAA) until December 31, 2019. The Company is permitted to claim 30% of the eligible cost of each new geothermal power plant in the United States, which is placed in service before January 1, 2017, as an ITC against its federal income taxes. After this date, the ITC is reduced to 10%. Alternatively, the Company is permitted to claim a PTC, which in 2016 is 2.3 cents per kWh and which may be adjusted annually for inflation. The PTC may be claimed for ten years on the electricity output of new geothermal power plants that have commenced construction by December 31, 2016. The owner of the power plant must choose between the PTC and the 30% ITC described above. In either case, under current tax rules, any unused tax credit has a 1-year carry back and a 20-year carry forward. Whether the Company claims the PTC or the ITC, it is also permitted to depreciate most of the plant for tax purposes over five years on an accelerated basis, meaning that more of the cost may be deducted in the first few years than during the remainder of the depreciation period. If the Company claims the ITC, the Company's "tax base" in the plant that

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it can recover through depreciation must be reduced by half of the ITC. If the Company claims the PTC, there is no reduction in the tax basis for depreciation. Companies that place qualifying renewable energy facilities in service, during 2009, 2010 or 2011, or that begin construction of qualifying renewable energy facilities during 2012, 2013, 2014 or 2015 and place them in service by December 31, 2016, may choose to apply for a cash grant from the U.S. Department of the Treasury ("U.S. Treasury") in an amount equal to the ITC. Likewise, the tax base for depreciation will be reduced by 50% of the cash grant received. Under the ARRA revised by the CAA, the U.S. Treasury is instructed to pay the cash grant within 60 governmental business days of the application or the date on which the qualifying facility is placed in service.

Income taxes related to foreign operations

Guatemala — The enacted tax rate is 25%. Orzunil, a wholly owned subsidiary, was granted a benefit under a law which promotes development of renewable power sources. The law allows Orzunil to reduce the investment made in its geothermal power plant from income tax payable, which reduces the effective tax rate to zero. Ortitlan, another wholly owned subsidiary, was granted a tax exemption for a period of ten years ending August 2017. The effect of the tax exemption in the years ended December 31, 2016, 2015, and 2014 is \$3.3 million, \$3.6 million, and \$1.9 million, respectively (\$0.07, \$0.08, and \$0.04 per share of common stock, respectively).

Israel — The Company's operations in Israel through its wholly owned Israeli subsidiary, Ormat Systems Ltd. ("Ormat Systems"), are taxed at the regular corporate tax rate of 25% in 2012, 25% in 2013, 26.5% in 2014 and 2015 and 25% in 2016 and thereafter. Ormat Systems received "Benefited Enterprise" status under Israel's Law for Encouragement of Capital Investments, 1959 (the "Investment Law"), with respect to two of its investment programs. As a Benefited Enterprise, Ormat Systems was exempt from Israeli income taxes with respect to income derived from the first benefited investment for a period of two years that started in 2004, and thereafter such income was subject to reduced Israeli income tax rates which will not exceed 25% for an additional five years until 2010. Ormat Systems was also exempt from Israeli income taxes with respect to income derived from the second benefited investment for a period of two years that started in 2007, and thereafter such income is subject to reduced Israeli income tax rates which will not exceed 25% for an additional five years until 2013. These benefits are subject to certain conditions, including among other things, that all transactions between Ormat Systems and its affiliates are at arm's length, and that the management and control of Ormat Systems will be from Israel during the whole period of the tax benefits. A change in control should be reported to the Israel Tax Authority in order to maintain the tax benefits. In January 2011, new legislation amending the Investment Law was enacted. Under the new legislation, a uniform rate of corporate tax would apply to all qualified income of certain industrial companies, as opposed to the current law's incentives that are limited to income from a "Benefited Enterprise" during their benefits period. According to the amendment, the uniform tax rate applicable to the zone where the production facilities of Ormat Systems are located would be 15% in 2011 and 2012, 12.5% in 2013, and 16% in 2014 and thereafter. Under the transitory provisions of the new legislation, Ormat Systems had the option either to irrevocably comply with the new law while waiving benefits provided under the previous law or to continue to comply with the previous law during a transition period with the option to move from the previous law to the new law at any stage. Ormat Systems decided to irrevocably comply with the new law starting in 2011.

In November 2012, new legislation amending the Investment Law was enacted. Under the new legislation, companies that have retained earnings as of December 31, 2011 from Benefited Enterprises may elect by November 11, 2013 to pay a reduced corporate tax rate as set forth in the new legislation on such income and distribute a dividend from such income without being required to pay additional corporate tax with respect to such income. Ormat Systems decided not to make such election.

Ormat Systems tax assessment for fiscal years 2010-2014 was finalized and settled in January 2017. The settlement resulted in no impact to income statement due to release of the related uncertain tax position liability.

Kenya - The Company's operations in Kenya are taxed at the rate of 37.5%. On September 11, 2015, Kenya's Income Tax Act was amended pursuant to certain provisions of the recently adopted Finance Act, 2015. Among other matters, these amendments retain the enhanced investment deduction of 150% under Section 17B of the Income Tax Act, extend the period for deduction of tax losses from 5 years to 10 years under Sections 15(4) and 15(5) of the Income Tax Act, and amend the effective date from January 1, 2016 to January 1, 2015 under Sections 15(4) and 15(5) of the Income Tax Act. Previously, the Company had a valuation allowance for the additional 50% investment deduction reducing its deferred tax asset in Kenya as the utilization of the related tax losses was not probable within the original five year carryforward period. As a result of the change in legislation and the expected continued profitability during the extended carryforward period, the Company

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expects that it will be able to fully utilize the carryforward tax losses within the ten year period and as such released the valuation allowance in Kenya resulting in a \$49.4 million of tax benefits in the year ended December 31, 2015.

During the fourth quarter of 2016, the Company determined that its income statement tax provision and deferred tax liabilities in Kenya in prior periods were overstated by approximately \$4.7 million as a result of errors in the determination of the exchange rate impact used in the calculation of taxable income at its Kenya operations. The Company recorded an adjustment to reduce income tax expense and deferred tax liabilities by \$4.7 million in the fourth quarter of 2016 to correct this matter.

As previously reported by the Company, the Kenya Revenue Authority (“KRA”) conducted an audit related to the Company’s operations in Kenya for fiscal years 2012 - 2013. In January 2017, KRA concluded its audit for the subject period and issued a demand letter to the Company for additional tax payments of approximately \$16.1 million, including interest and penalties. KRA’s assessment, among other points, rejected the Company’s income tax deduction of 150% of its investment in geothermal well drilling during the relevant period, on the basis that such work falls under mining activities (and not geothermal activities) which have a different allowable deduction under the Kenya Income Tax Act. The KRA audit and assessment is not final and is subject to objection by the Company. The Company’s operations in Kenya utilize a geothermal resource license from the Ministry of Energy and Petroleum. The Company does not conduct and is not involved in any mining activity under applicable Kenyan law. Therefore, the Company believes that its original tax position was and remains correct under Kenyan tax law and regulations, and has submitted a notice of objection to the KRA which it intends to pursue vigorously. If the KRA position prevails and is applied to subsequent periods, the Company’s deferred tax asset of \$49.4 million recorded in 2015 may be impacted. At present, the Company has recorded a provision based on its assessment of its reasonably expected potential exposure.

Other significant foreign countries — The Company’s operations in New Zealand are taxed at the rate of 28% in 2015, 2014 and 2013.

NOTE 20 — BUSINESS SEGMENTS

The Company has two reporting segments: the Electricity and Product segments. These segments are managed and reported separately as each offers different products and serves different markets. The Electricity segment is engaged in the sale of electricity from the Company’s power plants pursuant to PPAs. The Product segment is engaged in the manufacture, including design and development, of turbines and power units for the supply of electrical energy and in the associated construction of power plants utilizing the power units manufactured by the Company to supply energy from geothermal fields and other alternative energy sources. Transfer prices between the operating segments were determined on current market values or cost plus markup of the seller’s business segment.

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Summarized financial information concerning the Company's reportable segments is shown in the following tables:

	<u>Electricity</u>	<u>Product</u>	<u>Consolidated</u>
	(Dollars in thousands)		
Year Ended December 31, 2016:			
Net revenues from external customers.....	\$ 436,292	\$ 226,299	\$ 662,591
Intersegment revenues	—	56,075	56,075
Depreciation and amortization expense	102,698	3,279	105,977
Operating income	126,828	75,054	201,882
Segment assets at period end	2,204,444	257,125	2,461,569
Expenditures for long-lived assets	147,211	4,719	151,930
Year Ended December 31, 2015:			
Net revenues from external customers.....	\$ 375,920	\$ 218,724	\$ 594,644
Intersegment revenues	—	48,559	48,559
Depreciation and amortization expense	103,892	3,314	107,206
Operating income	99,345	64,716	164,061
Segment assets at period end	2,044,346	229,636	2,273,982
Expenditures for long-lived assets	149,666	2,784	152,450
Year Ended December 31, 2014 :			
Net revenues from external customers.....	\$ 382,301	\$ 177,223	\$ 559,524
Intersegment revenues	—	44,718	44,718
Depreciation and amortization expense	97,826	2,973	100,799
Operating income	90,401	53,089	143,490
Segment assets at period end	1,963,486	158,070	2,121,556
Expenditures for long-lived assets	155,323	3,458	158,781

Reconciling information between reportable segments and the Company's consolidated totals is shown in the following table:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Revenues:			
Total segment revenues.....	\$ 662,591	\$ 594,644	\$ 559,524
Intersegment revenues.....	56,075	48,559	44,718
Elimination of intersegment revenues.....	(56,075)	(48,559)	(44,718)
Total consolidated revenues.....	<u>\$ 662,591</u>	<u>\$ 594,644</u>	<u>\$ 559,524</u>
Operating income:			
Operating income.....	\$ 201,882	\$ 164,061	\$ 143,490
Interest income.....	971	297	312
Interest expense, net.....	(67,389)	(72,577)	(84,654)
Foreign currency translation and transaction losses.....	(5,534)	(1,622)	(5,839)
Income attributable to sale of equity interest	16,503	25,431	24,143
Gain from sale of property, plant and equipment.....	—	—	7,628
Other non-operating income, net.....	(5,345)	(1,991)	756
Total consolidated income before income taxes and equity in income of investees	\$ 141,088	\$ 113,599	\$ 85,836

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The Company sells electricity and products for power plants and others, mainly to the geographical areas according to location of the customers, as detailed below. The following tables present certain data by geographic area:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Revenues from external customers attributable to: ⁽¹⁾			
United States.....	\$ 307,025	\$ 286,509	\$ 293,710
Indonesia.....	100,856	93,191	38,174
Kenya.....	109,270	86,545	86,074
Turkey.....	46,270	57,356	86,340
Chile	58,032	34,478	—
Guatemala.....	30,086	27,897	28,439
Other foreign countries	11,052	8,668	26,787
Consolidated total	<u>\$ 662,591</u>	<u>\$ 594,644</u>	<u>\$ 559,524</u>

⁽¹⁾Revenues as reported in the geographic area in which they originate.

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Long-lived assets (primarily power plants and related assets) located in:			
United States.....	\$ 1,414,523	\$ 1,374,465	\$ 1,369,136
Kenya.....	327,157	375,257	330,200
Other foreign countries	199,559	107,407	90,735
Consolidated total	<u>\$ 1,941,239</u>	<u>\$ 1,857,129</u>	<u>\$ 1,790,071</u>

The following table presents revenues from major customers:

	Year Ended December 31,					
	2016		2015		2014	
	Revenues (Dollars in thousands)	%	Revenues (Dollars in thousands)	%	Revenues (Dollars in thousands)	%
Southern California Edison ⁽¹⁾	\$ 33,552	5.1	\$ 56,026	9.4	\$ 75,803	13.5
Southern California Public Power Authority ⁽¹⁾	67,566	10.2	30,947	5.2	21,799	3.9
Sierra Pacific Power Company and Nevada Power Company ⁽¹⁾⁽²⁾	127,226	19.2	115,876	19.5	92,580	16.5
Hyundai ⁽³⁾	100,856	15.2	93,131	15.7	38,174	6.8
KPLC ⁽¹⁾	109,270	16.5	86,545	14.6	86,074	15.4

⁽¹⁾Revenues reported in Electricity segment.

⁽²⁾Subsidiaries of NV Energy, Inc.

⁽³⁾Revenues related to the Sarulla project that are reported in Products segment.

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NOTE 21 — TRANSACTIONS WITH RELATED ENTITIES

Transactions between the Company and related entities, other than those disclosed elsewhere in these financial are summarized below:

	Year Ended December 31,		
	2016	2015	2014
	(Dollars in thousands)		
Property rental fee expense paid to the Parent	\$ —	\$ 303	\$ 1,821
Corporate financial, administrative, executive services, and research and development services provided to the Parent.....	\$ —	\$ 148	\$ 148
Services rendered by an indirect shareholder of the Parent.....	\$ —	\$ 15	\$ 51

The current asset due from the Parent at December 31, 2015 in the amount of \$1,337,000 represented the net obligation resulting from ongoing operations and transactions with the Parent and is payable from available cash flow. Interest was computed on balances greater than 60 days at LIBOR plus 1% (but not less than the change in the Israeli Consumer Price Index plus 4%) compounded quarterly, and was accrued and paid to the Parent annually. The amount of such balance as of December 31, 2015 is \$0.

Restructuring with the Parent

On February 5, 2015, the Tel Aviv Stock Exchange (“TASE”) approved the listing of the Company’s common stock on the TASE. On February 10, 2015, the Company’s common stock was successfully listed on the TASE. The TASE also confirmed that the Company will be included in the TA-25 Index, which is the TASE flagship index that tracks the share prices of the 25 companies with the highest market capitalization on the exchange. The Company will remain subject to the rules and regulations of the New York Stock Exchange (“NYSE”) and of the U.S. Securities and Exchange Commission (“SEC”). Under the local regime for dual listing, the Company will use the same periodic reports, financial and other relevant disclosure information that The Company submits to the SEC and NYSE.

On February 12, 2015, the Company completed the share exchange transaction with its then-Parent entity, Ormat Industries Ltd. (“OIL”) following which, the Company became a noncontrolled public company and its public float increased from approximately 40% to approximately 76% of its total shares outstanding. Under the terms of the share exchange, OIL shareholders received 0.2592 shares in the Company for each share in OIL, or an aggregate of approximately 30.2 million shares, reflecting a net issuance of approximately 3.0 million shares (after deducting the 27.2 million shares that OIL held in the Company). Consequently, the number of total shares of the Company outstanding increased from approximately 45.5 million shares to approximately 48.5 million shares as of the closing of the share exchange.

In exchange, the Company also received \$15.4 million in cash, \$0.6 million in other assets and \$12.1 million in land and buildings and assumed \$0.5 million in liabilities. OIL’s principal business purpose was to hold its interest in the Company and the transaction resulted in a transfer of non-material assets from OIL to the Company. Therefore, there was no change in the reporting entity as a result of the transaction and the Company recognized the transfer of net assets at their carrying value as presented in OIL’s financial statements. Any activities of OIL will be accounted for prospectively by the Company

Corporate and administrative services agreement with the Parent

Ormat Systems and the Parent had agreements whereby Ormat Systems provided to the Parent, for a monthly fee of \$10,000 (adjusted annually, in part based on changes in the Israeli Consumer Price Index), certain corporate administrative services, including the services of executive officers. In addition, Ormat Systems agreed to provide the Parent with services of certain skilled engineers and other research and development employees at Ormat Systems’ cost plus 10%.

Lease agreements with the Parent

Ormat Systems had a rental agreement with the Parent entered into in July 2004 for the sublease of office and manufacturing facilities in Yavne, Israel, for a monthly rent of \$52,000, adjusted annually for changes in the Israeli Consumer Price Index,

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plus taxes and other costs to maintain the properties. The term of the rental agreement was for a period ending the earlier of: (i) 25 years from July 1, 2004; or (ii) the remaining periods of the underlying lease agreements between the Parent and the Israel Land Administration (which terminate between 2018 and 2047).

Effective April 1, 2009, Ormat Systems entered into an additional rental agreement with the Parent for the sublease of additional manufacturing facilities adjacent to the current manufacturing facilities in Yavne, Israel. The term of the additional rent agreement was to expire on the same day as the abovementioned lease agreement entered into in July 2004. Pursuant to the additional lease agreement, Ormat Systems paid a monthly rent of \$77,000, adjusted annually for changes in the Israeli Consumer Price Index, plus tax and other costs to maintain the properties.

Registration rights agreement

Prior to the closing of the Company's initial public offering in November 2004, the Company and the Parent entered into a registration rights agreement pursuant to which the Parent may require the Company to register its common stock for sale on Form S-1 or Form S-3. The Company also agreed to pay all expenses that result from the registration of the Company's common stock under the registration rights agreement, other than underwriting commissions for such shares and taxes. The Company has also agreed to indemnify the parent, its directors, officers and employees against liability that may result from their sale of the Company's common stock, including Securities Act liabilities.

As of February 12, 2015, the above-mentioned agreements are no longer effective as a result of the restructuring transaction described above.

NOTE 22 — EMPLOYEE BENEFIT PLAN

401(k) Plan

The Company has a 401(k) Plan (the "Plan") for the benefit of its U.S. employees. Employees of the Company and its U.S. subsidiaries who have completed one year of service or who had one year of service upon establishment of the Plan are eligible to participate in the Plan. Contributions are made by employees through pretax deductions up to 60% of their annual salary. In 2016, 2015 and 2014, contributions made by the Company were matched up to a maximum of 3%, 2% and 2% of the employee's annual salary, respectively. The Company's contributions to the Plan were \$1.0 million, \$0.6 million, and \$0.5 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Severance plan

The Company, through Ormat Systems, provides limited non-pension benefits to all current employees in Israel who are entitled to benefits in the event of termination or retirement in accordance with the Israeli Government sponsored programs. These plans generally obligate the Company to pay one month's salary per year of service to employees in the event of involuntary termination. There is no limit on the number of years of service in the calculation of the benefit obligation. The liabilities for these plans are recorded at each balance sheet date by determining the undiscounted obligation as if it were payable at that point in time. Such liabilities have been presented in the consolidated balance sheets as "liabilities for severance pay". The Company has an obligation to partially fund the liabilities through regular deposits in pension funds and severance pay funds. The amounts funded amounted to \$12.8 million and \$14.2 million at December 31, 2016 and 2015, respectively, and have been presented in the consolidated balance sheets as part of "deposits and other". The severance pay liability covered by the pension funds is not reflected in the financial statements as the severance pay risks have been irrevocably transferred to the pension funds. Under the Israeli severance pay law, restricted funds may not be withdrawn or pledged until the respective severance pay obligations have been met. As allowed under the program, earnings from the investment are used to offset severance pay costs. Severance pay expenses for the years ended December 31, 2016, 2015, and 2014 were \$2.3 million, \$2.5 million, and \$2.1 million, respectively, which are net of income (including loss) amounting to \$0.3 million, \$0.1 million, and \$(1.5) million, respectively, generated from the regular deposits and amounts accrued in severance funds.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company expects to pay the following future benefits to its employees upon their reaching normal retirement age:

	(Dollars in thousands)
Year ending December 31:	
2017	\$ 1,867
2018	2,497
2019	1,655
2020	1,119
2021	1,400
2022-2026	5,141
.....	<u>\$ 13,679</u>

The above amounts were determined based on the employees' current salary rates and the number of years' service that will have been accumulated at their retirement date. These amounts do not include amounts that might be paid to employees that will cease working with the Company before reaching their normal retirement age.

NOTE 23 — COMMITMENTS AND CONTINGENCIES

Geothermal resources

The Company, through its project subsidiaries in the United States, controls certain rights to geothermal fluids through certain leases with the Bureau of Land Management ("BLM") or through private leases. Royalties on the utilization of the geothermal resources are computed and paid to the lessors as defined in the respective agreements. Royalty expense under the geothermal resource agreements were \$17.1 million, \$15.4 million, and \$16.3 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Letters of credit

In the ordinary course of business with customers, vendors, and lenders, the Company is contingently liable for performance under letters of credit totaling \$341.6 million at December 31, 2016. Management does not expect any material losses to result from these letters of credit because performance is not expected to be required, and, therefore, is of the opinion that the fair value of these instruments is zero.

Purchase commitments

The Company purchases raw materials for inventories, construction-in-process and services from a variety of vendors. During the normal course of business, in order to manage manufacturing lead times and help assure adequate supply, the Company enters into agreements with contract manufacturers and suppliers that either allow them to procure goods and services based upon specifications defined by the Company, or that establish parameters defining the Company's requirements.

At December 31, 2016, total obligations related to such supplier agreements were approximately \$108.1 million (out of which approximately \$51.0 million relate to construction-in-process). All such obligations are payable in 2017.

Grants and royalties

The Company, through Ormat Systems, had historically, through December 31, 2003, requested and received grants for research and development from the Office of the Chief Scientist of the Israeli Government. Ormat Systems is required to pay royalties to the Israeli Government at a rate of 3.5% to 5.0% of the revenues derived from products and services developed using these grants. No royalties were paid for the years ended December 31, 2016, 2015, and 2014. The Company is not liable for royalties if the Company does not sell such products and services. Such royalties are capped at the amount of the grants received plus interest at LIBOR. The cap at December 31, 2016 and 2015, amounted to \$1.8 million and \$1.7 million, respectively, of which approximately \$0.8 million and \$0.8 million, respectively, represents interest based on the LIBOR rate, as defined above.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Lease commitments

At December 31, 2016, 2015 and 2014, total lease expenses for leasing of land, building and equipment outside of the Puna lease (separately described in Note 13) amounted to \$0.4 million, \$0.4 million and \$0.3 million respectively. The related future minimum lease payments are immaterial for each year.

In 2015, the Company entered into a lease transaction for a fleet of vehicles. The lease transaction was classified as a capital lease and the leased vehicles were classified under Property, Plant and Equipment in total amount of \$6.9 million, representing vehicles that were received during 2015 and 2016. The terms of the lease are monthly payments in equal installments over 5 years. The related future minimum lease payments are immaterial for each year.

Contingencies

- Jon Olson and Hilary Wilt, together with Puna Pono Alliance filed a complaint on February 17, 2015 in the Third Circuit Court for the State of Hawaii, requesting declaratory and injunctive relief requiring that PGV comply with an ordinance that the plaintiffs allege will prohibit PGV from engaging in night drilling operations at its KS-16 well site. On May 17, 2015, the original complaint was amended to add the county of Hawaii and the State of Hawaii Department of Land and Natural Resources as defendants to the case. On October 10, 2016, the court issued its decision in response to each of the plaintiffs' and defendants' motions for summary judgment, denying plaintiffs' motion and granting defendant PGV's and the County of Hawaii's cross motions for summary judgment, effectively rendering the plaintiffs' action moot. On January 17, 2017, the plaintiffs filed a notice of appeal of the October 10, 2016 decision. Procedural issues as to the ability of the plaintiffs to appeal the decision at this time, including the jurisdiction of the appellate court to hear the appeal, are also before the court.
- On July 8, 2014, Global Community Monitor, LiUNA, and two residents of Bishop, California filed a complaint in the U.S. District Court for the Eastern District of California, alleging that Mammoth Pacific, L.P., the Company and Ormat Nevada are operating three geothermal generating plants in Mammoth Lakes, California (MP-I, MP-II and PLES-I) in violation of the federal Clean Air Act and Great Basin Unified Air Pollution Control District rules. On June 26, 2015, in response to a motion by the defendants, the court dismissed all but one of the plaintiffs' causes of action. On January 6, 2017, the court issued its order regarding several pending motions, including plaintiffs' motion for partial summary judgment, defendants' motion for summary judgment, defendants' motion to exclude and defendants' motion for leave to file a sur-reply. The impact of the court's January 6 order is to deny the plaintiffs' sole remaining cause of action.
- On April 5, 2012, the International Brotherhood of Electrical Workers Local 1260 ("Union") filed a petition with the NLRB seeking to organize the operations and maintenance employees at the Puna project. A global settlement was reached in principle in February 2016, which includes a Union disclaimer of interest, the withdrawal of letters from the Union to the NLRB and signed individual settlement agreements, all of which are immaterial. All issues are now settled and closed.
- In January 2014, Ormat learned that two former employees filed a "qui tam" complaint seeking damages, penalties and other relief of approximately \$375 million, alleging that the Company and certain of its subsidiaries (collectively, the "Ormat Parties") submitted fraudulent applications and certifications to obtain grants for the Puna and North Brawley projects. The U.S. Department of Justice declined to intervene. On October 25, 2016, the parties entered into a final settlement agreement providing for the dismissal of the claim without any admission of wrongdoing by the Ormat Parties and payment of \$11 million (inclusive of fees and costs). The settlement amount of \$11 million was included in general and administrative expenses in the consolidated statements of operations and comprehensive income for the year ended December 31, 2016.
- On March 29, 2016, a former local sales representative in Chile, Aquavant, S.A., filed a claim on the basis of unjust enrichment against Ormat's subsidiaries in the 27th Civil Court of Santiago, Chile. The claim requests that the court order Ormat to pay Aquavant \$4.6 million in connection with its activities in Chile, including the EPC contract for the Cerro Pabellon project and various geothermal concessions, plus 3.75% of Ormat geothermal products sales in Chile over the next 10 years. Pursuant to various petitions submitted by defendants, including a motion describing preliminary, procedural defenses, on August 18, 2016, and then on October 10, 2016, the 27th Civil Court issued a number of decisions, which include removal of the case to the 11th Civil Court of Santiago, thereby delaying a

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

determination on the larger issues of jurisdiction and competency of the Chilean courts as a substantive (and not procedural) defense. The Company believes that it has valid defenses under law, and intends to defend itself vigorously.

- On August 5, 2016, George Douvris, Stephanie Douvris, Michael Hale, Cheryl Cacocci, Hillary E. Wilt and Christina Bryan, acting for themselves and on behalf of all other similarly situated residents of the lower Puna District, filed a complaint in the Third Circuit Court for the State of Hawaii seeking certification of a class action for preliminary and permanent injunctive relief, consequential and punitive damages, attorney's fees and statutory interest against PGV and other presently unknown defendants. The complaint purports that injuries and other damages in an undisclosed amount were caused to the plaintiffs as a result of an alleged toxic release by PGV in the wake of Hurricane Iselle in August 2014. On August 25, 2016, the Company filed to remove the case to the U.S. District Court for the District of Hawaii. On December 12, 2016, the District Court granted plaintiffs' motion for joinder of HELCO as an additional defendant, to amend the complaint, and to remand the case back to the Third Circuit Court. The Company believes that it has valid defenses under law, and intends to defend itself vigorously.
- On May 21, 2014, Elko County, Nevada appealed to the Supreme Court of Nevada the Nevada Governor's Office of Energy's award of an energy tax abatement to ORNI 42 LLC for our Tuscarora power plant. Lander County, Nevada similarly appealed the Office of Energy's Award of an energy tax abatement to ORNI 39 LLC for one of our McGinness power plant. Both of the appeals request that the Court overturn the Office of Energy's decision and deny, retroactively and going forward, the tax abatement benefits for the full 20 year period, valued at approximately \$18.6 million for one of our McGinness power plant and approximately \$6.2 million for our Tuscarora power plant, of which only a small portion was utilized as of September 30, 2016. Following full briefing on both plaintiffs' and defendants' motions for summary judgment, on December 21, 2016, the Supreme Court of Nevada issued its Order of Affirmance of the judgement of the District Court denying the petitions for judicial review of both Lander County and Elko County, and affirming ORNI 39 and ORNI 42's rights to obtain the partial property tax abatements for their respective facilities.
- On June 20, 2016, Nadia Garcia, individually and as successor in interest to Thomas Garcia Valenzuela, and as guardian ad litem to Emerie Garcia, Khamilla Garcia and Reyene Adam, filed a complaint against Ormat Technologies, Ormat Nevada and Ormesa LLC in the Superior Court of Imperial County seeking unspecified monetary damages. The complaint alleges that the Ormat defendants caused the wrongful death, personal injury and other harm to Thomas Garcia when he was employed by Martin Hydroblasting Services, Inc. and suffered injuries leading to his death while performing work at the Ormesa plant site on or around March 31, 2016. Early discovery and conferences are underway. The insurer of the deceased's employer, and Ormat's insurer, have accepted tender of this claim and are providing Ormat with a defense in the lawsuit, subject to reservation of rights to deny coverage under the policy and under the law.

In addition, from time to time, the Company is named as a party to various other lawsuits, claims and other legal and regulatory proceedings that arise in the ordinary course of our business. These actions typically seek, among other things, compensation for alleged personal injury, breach of contract, property damage, punitive damages, civil penalties or other losses, or injunctive or declaratory relief. With respect to such lawsuits, claims and proceedings, the Company accrues reserves when a loss is probable and the amount of such loss can be reasonably estimated. It is the opinion of the Company's management that the outcome of these proceedings, individually and collectively, will not be material to the Company's consolidated financial statements as a whole.

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 24 — QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

	Three Months Ended							
	Mar. 31, 2015	June 30, 2015	Sept. 30, 2015	Dec. 31, 2015	Mar. 31, 2016	June 30, 2016	Sept. 30, 2016	Dec. 31, 2016
	(Dollars in thousands, except per share amounts)							
Revenues:								
Electricity	\$ 89,953	\$ 90,926	\$ 97,245	\$ 97,796	\$ 107,868	\$ 104,001	\$ 109,795	\$ 114,628
Product	30,278	49,561	65,607	73,278	43,726	55,860	74,822	51,891
Total revenues	<u>120,231</u>	<u>140,487</u>	<u>162,852</u>	<u>171,074</u>	<u>151,594</u>	<u>159,861</u>	<u>184,617</u>	<u>166,519</u>
Cost of revenues:								
Electricity	55,581	62,522	61,501	63,008	63,686	62,243	66,481	69,163
Product	20,625	27,182	42,019	43,927	24,035	31,822	43,647	30,719
Total cost of revenues	<u>76,206</u>	<u>89,704</u>	<u>103,520</u>	<u>106,935</u>	<u>87,721</u>	<u>94,065</u>	<u>110,128</u>	<u>99,882</u>
Gross profit	<u>44,025</u>	<u>50,783</u>	<u>59,332</u>	<u>64,139</u>	<u>63,873</u>	<u>65,796</u>	<u>74,489</u>	<u>66,637</u>
Operating expenses:								
Research and development expenses	363	414	335	668	349	595	1,086	732
Selling and marketing expenses	3,433	4,283	4,383	3,978	3,675	3,668	4,793	4,288
General and administrative expenses	10,204	7,443	7,950	9,185	8,749	8,783	19,093	10,085
Write-off of unsuccessful exploration activities	174	--	185	1,220	557	863	1,294	303
Operating income	<u>29,851</u>	<u>38,643</u>	<u>46,479</u>	<u>49,088</u>	<u>50,543</u>	<u>51,887</u>	<u>48,223</u>	<u>51,229</u>
Other income (expense):								
Interest income	9	44	53	191	320	245	266	140
Interest expense, net	(17,828)	(18,859)	(17,748)	(18,142)	(16,023)	(18,401)	(17,137)	(15,828)
Foreign currency translation and transaction gains (losses)	(1,366)	(571)	1,296	(981)	1,962	(4,332)	(222)	(2,942)
Income attributable to sale of tax benefits	5,552	4,731	8,634	6,514	4,398	4,519	3,463	4,123
Other non-operating income (expense), net	<u>283</u>	<u>(1,675)</u>	<u>(131)</u>	<u>(468)</u>	<u>191</u>	<u>49</u>	<u>(5,546)</u>	<u>(39)</u>
Income (loss) from continuing operations, before income taxes and equity in income of investees	16,501	22,313	38,583	36,202	41,391	33,967	29,047	36,683
Income tax benefit (provision)	(5,459)	(6,056)	38,211	(11,438)	(9,509)	(7,890)	(11,988)	(2,450)
Equity in income (losses) of investees	<u>(775)</u>	<u>(984)</u>	<u>(3,133)</u>	<u>(616)</u>	<u>(937)</u>	<u>(1,144)</u>	<u>(2,653)</u>	<u>(3,001)</u>
Net income (loss)	<u>10,267</u>	<u>15,273</u>	<u>73,661</u>	<u>24,148</u>	<u>30,945</u>	<u>24,933</u>	<u>14,406</u>	<u>31,232</u>
Net loss (income) attributable to noncontrolling interest	<u>(235)</u>	<u>(859)</u>	<u>(1,522)</u>	<u>(1,160)</u>	<u>(1,674)</u>	<u>(584)</u>	<u>(2,326)</u>	<u>(3,002)</u>
Net income (loss) attributable to the Company's stockholders	<u>\$ 10,032</u>	<u>\$ 14,414</u>	<u>\$ 72,139</u>	<u>\$ 22,988</u>	<u>\$ 29,271</u>	<u>\$ 24,349</u>	<u>\$ 12,080</u>	<u>\$ 28,230</u>
Earnings (loss) per share attributable to the Company's stockholders								
Basic:								
Net income	<u>\$ 0.21</u>	<u>\$ 0.29</u>	<u>\$ 1.47</u>	<u>\$ 0.47</u>	<u>\$ 0.60</u>	<u>\$ 0.49</u>	<u>\$ 0.24</u>	<u>\$ 0.57</u>
Diluted:								
Net income	<u>\$ 0.21</u>	<u>\$ 0.28</u>	<u>\$ 1.41</u>	<u>\$ 0.46</u>	<u>\$ 0.59</u>	<u>\$ 0.49</u>	<u>\$ 0.24</u>	<u>\$ 0.56</u>
Weighted average number of shares used in computation of earnings per share attributable to the Company's stockholders:								
Basic	<u>47,244</u>	<u>48,881</u>	<u>49,023</u>	<u>49,074</u>	<u>49,173</u>	<u>49,456</u>	<u>49,599</u>	<u>49,647</u>
Diluted	<u>48,079</u>	<u>50,600</u>	<u>51,113</u>	<u>49,668</u>	<u>49,782</u>	<u>50,137</u>	<u>50,289</u>	<u>50,293</u>

ORMAT TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 25 — SUBSEQUENT EVENTS

Cash dividend

On February 28, 2017, the Company's Board of Directors declared, approved and authorized payment of a quarterly dividend of \$8.4 million (\$0.17 per share) to all holders of the Company's issued and outstanding shares of common stock on March 15, 2017, payable on March 29, 2017.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management, including its Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of the end of the period covered by this Annual Report on Form 10-K. Based on that evaluation, the Company's management, including the Chief Executive Officer and Chief Financial Officer, concluded as of December 31, 2016, that the disclosure controls and procedures were effective in ensuring that all material information required to be filed in reports that the Company files or submits under the Exchange Act has been recorded, processed, summarized and reported when required and the information is accumulated and communicated to the Company's management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as defined under Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Management, under the supervision and participation of the Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting as of December 31, 2016 using criteria established in *Internal Control — Integrated Framework (2013)* issued by the COSO and concluded that the Company maintained effective internal control over financial reporting as of December 31, 2016.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Changes in Internal Control over Financial Reporting

No changes in the Company's internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act, have been identified during the Company's fourth fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

The following table sets forth the name, age and positions of our directors, executive officers and persons who are executive officers of certain of our subsidiaries who perform policy making functions for us:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Stanley B. Stern.....	59	Independent Director ⁽¹⁾
Gillon Beck	55	Chairman of the Board of Directors ⁽³⁾
Dan Falk	72	Independent Director ⁽³⁾
Ami Boehm	45	Independent Director ⁽²⁾
Ravit Bar-Niv	53	Independent Director ⁽²⁾
Robert F. Clarke	74	Independent Director ⁽²⁾
Robert E. Joyal	72	Independent Director ⁽¹⁾
David Granot	70	Independent Director ⁽¹⁾
Isaac Angel.....	60	Chief Executive Officer*
Doron Blachar	49	Chief Financial Officer*
Zvi Krieger	61	Executive Vice President - Electricity Segment*
Bob Sullivan.....	54	Executive Vice President - Business Development Sales & Marketing
Shlomi Argas.....	52	Executive Vice President - Projects*
Shimon Hatzir	55	Executive Vice President - Engineering*
Erez Klein	51	Executive Vice President - Production*
Nir Wolf	51	Executive Vice President - Market Development*
Etty Rosner.....	61	Corporate Secretary; Senior Vice President - Contract Management*

* Performs the functions described in the table, but is employed by Ormat Systems

- 1) Denotes Class I Director – Term expiring at 2017 Annual Shareholders Meeting
- 2) Denotes Class II Director – Term expiring at 2018 Annual Shareholders Meeting
- 3) Denotes Class III Director – Term expiring at 2019 Annual Shareholders Meeting

Audit Committee

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

ITEM 11. *EXECUTIVE COMPENSATION*

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

ITEM 12. *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

ITEM 13. *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

ITEM 14. *PRINCIPAL ACCOUNTANT FEES AND SERVICES*

Information required by this Item and not set forth below is incorporated herein by reference to the Company's definitive proxy statement for the 2017 annual meeting .

PART IV

ITEM 15. *EXHIBITS, FINANCIAL STATEMENT SCHEDULES*

(a) (1) List of Financial Statements

See Index to Financial Statements in Part II, Item 8 of this annual report.

(2) List of Financial Statement Schedules

All applicable schedule information is included in our Financial Statements in Part II, Item 8 of this annual report.

(b) Exhibit Index. We hereby file, as exhibits to this Annual Report, those exhibits listed on the Exhibit Index immediately following the signature page hereto.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ORMAT TECHNOLOGIES, INC.

By: /s/ Isaac Angel

Name: Isaac Angel

Title: Chief Executive Officer

Date: March 1, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated, on March 1, 2017.

<u>Signature</u>	<u>Capacity</u>
<u>/s/ ISAAC ANGEL</u> Isaac Angel	Chief Executive Officer (Principal Executive Officer)
<u>/s/ DORON BLACHAR</u> Doron Blachar	Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ GILLON BECK</u> Gillon Beck	Chairman of the Board of Directors
<u>/s/ AMI BOEHM</u> Ami Boehm	Director
<u>/s/ DAN FALK</u> Dan Falk	Director
<u>/s/ DAVID GRANOT</u> David Granot	Director
<u>/s/ RAVIT BAR NIV</u> Ravit Bar Niv	Director
<u>/s/ ROBERT E. JOYAL</u> Robert E. Joyal	Director
<u>/s/ ROBERT F. CLARKE</u> Robert F. Clarke	Director
<u>/s/ STANLEY B. STERN</u> Stanley B. Stern	Director

(C) EXHIBIT INDEX

Exhibit NO.	
<u>No.</u>	<u>Document</u>
3.1	Second Amended and Restated Certificate of Incorporation, incorporated by reference to Exhibit 3.1 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
3.2	Third Amended and Restated By-laws, incorporated by reference to Exhibit 3.2 to Ormat Technologies, Inc. Current Report on Form 8-K filed with the Securities and Exchange Commission on February 26, 2009.
3.3	Amended and Restated Limited Liability Company Agreement of OPC LLC dated June 7, 2007, by and among Ormat Nevada Inc., Morgan Stanley Geothermal LLC, and Lehman-OPC LLC, incorporated by reference to Exhibit 3.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on June 13, 2007.
3.4	Amended and Restated Limited Liability Company Agreement of ORPD LLC, dated April 30, 2015, by and among Ormat Nevada Inc., Northleaf Geothermal Holdings LLC, and ORPD Holding LLC incorporated by reference to Exhibit 3.4 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 6, 2015.
4.1	Form of Common Share Stock Certificate, incorporated by reference to Exhibit 4.1 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
4.2	Form of Preferred Share Stock Certificate, incorporated by reference to Exhibit 4.2 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
4.3	Form of Rights Agreement by and between Ormat Technologies, Inc. and American Stock Transfer & Trust Company, incorporated by reference to Exhibit 4.3 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 22, 2004.
4.4	Indenture for Senior Debt Securities, dated as of January 16, 2006, between Ormat Technologies, Inc. and Union Bank of California, incorporated by reference to Exhibit 4.2 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-3 (File No. 333-131064) to the Securities and Exchange Commission on January 26, 2006.
4.5	Indenture for Subordinated Debt Securities, dated as of January 16, 2006, between Ormat Technologies, Inc. and Union Bank of California, incorporated by reference to Exhibit 4.3 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-3 (File No. 333-131064) to the Securities and Exchange Commission on January 26, 2006.
4.6	Deed of Trust, dated as of August 3, 2010, between Ormat Technologies, Inc. and Ziv Haft Trust Company Ltd., as trustee, incorporated by reference to Exhibit 4.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on February 2, 2011.
4.7	Addendum, dated as of January 27, 2011, to the Deed of Trust, dated as of August 3, 2010, between Ormat Technologies, Inc. and Ziv Haft Trust Company Ltd., as trustee, incorporated by reference to Exhibit 4.2 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on February 2, 2011.
4.8	Form of Bond issued pursuant to the Deed of Trust, dated as of August 3, 2010 (as amended or supplemented), between Ormat Technologies, Inc. and Ziv Haft Trust Company Ltd., as trustee, incorporated by reference to Exhibit 4.3 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on February 2, 2011.

Exhibit**No.****Document**

- 4.9 Second Addendum, dated as of February 11, 2011, to the Deed of Trust, dated as of August 3, 2010 (as amended or supplemented), between Ormat Technologies, Inc. and Ziv Haft Trust Company Ltd., incorporated by reference to Exhibit 4.7 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 6, 2011.
- 4.10 Indenture of Trust and Security Agreement, dated September 23, 2011, among OFC 2 LLC, ORNI 15 LLC, ORNI 39 LLC, ORNI 42 LLC, HSS II, LLC, and Wilmington Trust Company, as Trustee and Depository, incorporated by reference to Exhibit 4.8 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on November 4, 2011.
- 4.11 Third Addendum, dated as of December 1, 2011, to a Deed of Trust, dated as of August 3, 2010 as amended on January 31, 2011 (effective as of January 27, 2011) and on February 13, 2011, between Ormat Technologies, Inc. and Mishmeret — Trusts Services Company Ltd. (formerly Ziv Haft Trust Company Ltd.), as trustee, incorporated by reference to Exhibit 4.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on December 1, 2011.
- 10.1.1 Indenture, dated February 13, 2004, among Ormat Funding Corp., Brady Power Partners, Steamboat Development Corp., Steamboat Geothermal LLC, OrMammoth Inc., ORNI 1 LLC, ORNI 2 LLC, ORNI 7 LLC, Ormesa LLC and Union Bank of California, incorporated by reference to Exhibit 10.1.7 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.2 First Supplemental Indenture, dated May 14, 2004, among Ormat Funding Corp., Brady Power Partners, Steamboat Development Corp., Steamboat Geothermal LLC, OrMammoth Inc., ORNI 1 LLC, ORNI 2 LLC, ORNI 7 LLC, Ormesa LLC and Union Bank of California, incorporated by reference to Exhibit 10.1.8 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.3 Fifth Supplemental Indenture, dated April 26, 2006, among Ormat Funding Corp. and Union Bank of California, N.A., incorporated by reference to Exhibit 10.1.6 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q (File No 001-32347) to the Securities and Exchange Commission on August 7, 2006.
- 10.1.4 Loan Agreement, dated October 1, 2003, by and between Ormat Technologies, Inc. and Ormat Industries Ltd., incorporated by reference to Exhibit 10.1.9 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.5 Amendment No. 1 to Loan Agreement, dated September 20, 2004, by and between Ormat Technologies, Inc. and Ormat Industries Ltd., incorporated by reference to Exhibit 10.1.10 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.6 Guarantee Fee Agreement, dated January 1, 1999, by and between Ormat Technologies, Inc. and Ormat Industries Ltd., incorporated by reference to Exhibit 10.1.13 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.7 Reimbursement Agreement, dated July 15, 2004, by and between Ormat Technologies, Inc. and Ormat Industries Ltd., incorporated by reference to Exhibit 10.1.14 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.1.8 Services Agreement, dated July 15, 2004, by and between Ormat Industries Ltd. and Ormat Systems Ltd., incorporated by reference to Exhibit 10.1.15 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.1.9 Agreement for Purchase of Membership Interests in OPC LLC dated June 7, 2007, by and among Ormat Nevada Inc., Morgan Stanley Geothermal LLC and Lehman-OPC LLC, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on June 13, 2007.
- 10.1.10 First Amendment to Agreement for Purchase of Membership Interests in OPC LLC, dated as of April 17, 2008, by and among Ormat Nevada Inc., Morgan Stanley Geothermal LLC, and Lehman-OPC LLC, incorporated by reference to Exhibit 10.1.18 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 7, 2008.
- 10.1.11 Membership Interest Purchase Agreement, dated as of October 30, 2009, by and among Lehman-OPC LLC, Ormat Nevada Inc. and OPC LLC, incorporated by reference to Exhibit 10.1.13 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 3, 2009.
- 10.1.12 Agreement for Purchase of Membership Interests in ORPD LLC, dated as of February 5, 2015, by and between Ormat Nevada Inc. and Northleaf Geothermal Holdings LLC is incorporated by reference to Exhibit 3.4 to Ormat Technologies, Inc.'s Current Report on Form 8-K filed with the Securities and Exchange Commission on May 6, 2015.
- 10.1.13 Agreement for Purchase of Membership Interests in ORNI 37 LLC, dated as of November 22, 2016, by and between Northleaf Geothermal Holdings LLC and Ormat Nevada Inc., filed herewith.
- 10.1.14 Amended and Restated Limited Liability Company Agreement of Opal Geo LLC, dated as of December 16, 2016, by and between OrLeaf LLC and JPM Capital Corporation, filed herewith.
- 10.1.15 Equity Contribution Agreement, dated as of December 16, 2016, by and among JPM Capital Corporation, Ormat Nevada Inc. and OrLeaf LLC, filed herewith.
- 10.2.1 Power Purchase Contract, dated July 18, 1984, between Southern California Edison Company and Republic Geothermal, Inc., incorporated by reference to Exhibit 10.3.1 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.2 Amendment No. 1, to the Power Purchase Contract, dated December 23, 1988, between Southern California Edison Company and Ormesa Geothermal, incorporated by reference to Exhibit 10.3.2 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.3 Power Purchase Contract, dated June 13, 1984, between Southern California Edison Company and Ormat Systems, Inc., incorporated by reference to Exhibit 10.3.3 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.4 Power Purchase and Sales Agreement, dated as of August 26, 1983, between Chevron U.S.A. Inc. and Southern California Edison Company, incorporated by reference to Exhibit 10.3.4 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.5 Amendment No. 1, to Power Purchase and Sale Agreement, dated as of December 11, 1984, between Chevron U.S.A. Inc., HGC and Southern California Edison Company, incorporated by reference to Exhibit 10.3.5 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.6 Settlement Agreement and Amendment No. 2, to Power Purchase Contract, dated August 7, 1995, between HGC and Southern California Edison Company, incorporated by reference to Exhibit 10.3.6 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.2.7 Power Purchase Contract dated, April 16, 1985, between Southern California Edison Company and Second Imperial Geothermal Company, incorporated by reference to Exhibit 10.3.7 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.8 Amendment No. 1, dated as of October 23, 1987, between Southern California Edison Company and Second Imperial Geothermal Company, incorporated by reference to Exhibit 10.3.8 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.9 Amendment No. 2, dated as of July 27, 1990, between Southern California Edison Company and Second Imperial Geothermal Company, incorporated by reference to Exhibit 10.3.9 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.10 Amendment No. 3, dated as of November 24, 1992, between Southern California Edison Company and Second Imperial Geothermal Company, incorporated by reference to Exhibit 10.3.10 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.11 Amended and Restated Power Purchase and Sales Agreement, dated December 2, 1986, between Mammoth Pacific and Southern California Edison Company, incorporated by reference to Exhibit 10.3.11 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.12 Amendment No. 1, to Amended and Restated Power Purchase and Sale Agreement, dated May 18, 1990, between Mammoth Pacific and Southern California Edison Company, incorporated by reference to Exhibit 10.3.12 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.13 Power Purchase Contract, dated April 15, 1985, between Mammoth Pacific and Southern California Edison Company, incorporated by reference to Exhibit 10.3.13 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.14 Amendment No. 1, dated as of October 27, 1989, between Mammoth Pacific and Southern California Edison Company, incorporated by reference to Exhibit 10.3.14 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.15 Amendment No. 2, dated as of December 20, 1989, between Mammoth Pacific and Southern California Edison Company, incorporated by reference to Exhibit 10.3.15 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.16 Power Purchase Contract, dated April 16, 1985, between Southern California Edison Company and Santa Fe Geothermal, Inc., incorporated by reference to Exhibit 10.3.16 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.17 Amendment No. 1, to Power Purchase Contract, dated October 25, 1985, between Southern California Edison Company and Mammoth Pacific, incorporated by reference to Exhibit 10.3.17 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.18 Amendment No. 2, to Power Purchase Contract, dated December 20, 1989, between Southern California Edison Company and Pacific Lighting Energy Systems, incorporated by reference to Exhibit 10.3.18 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.2.19 Interconnection Facilities Agreement, dated October 20, 1989, by and between Southern California Edison Company and Mammoth Pacific, incorporated by reference to Exhibit 10.3.19 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.20 Interconnection Facilities Agreement, dated October 13, 1985, by and between Southern California Edison Company and Mammoth Pacific (II), incorporated by reference to Exhibit 10.3.20 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.21 Interconnection Facilities Agreement, dated October 20, 1989, by and between Southern California Edison Company and Pacific Lighting Energy Systems, incorporated by reference to Exhibit 10.3.21 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.22 Interconnection Agreement, dated August 12, 1985, by and between Southern California Edison Company and Heber Geothermal Company incorporated by reference to Exhibit 10.3.22 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.23 Plant Connection Agreement for the Heber Geothermal Plant No. 1, dated, July 31, 1985, by and between Imperial Irrigation District and Heber Geothermal Company incorporated by reference to Exhibit 10.3.23 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.24 Plant Connection Agreement for the Second Imperial Geothermal Company Power Plant No. 1, dated, October 27, 1992, by and between Imperial Irrigation District and Second Imperial Geothermal Company incorporated by reference to Exhibit 10.3.24 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.25 IID-SIGC Transmission Service Agreement for Alternative Resources, dated, October 27, 1992, by and between Imperial Irrigation District and Second Imperial Geothermal Company incorporated by reference to Exhibit 10.3.25 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.2.26 Plant Connection Agreement for the Ormesa Geothermal Plant, dated October 1, 1985, by and between Imperial Irrigation District and Ormesa Geothermal incorporated by reference to Exhibit 10.3.26 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.27 Plant Connection Agreement for the Ormesa IE Geothermal Plant, dated, October 21, 1988, by and between Imperial Irrigation District and Ormesa IE incorporated by reference to Exhibit 10.3.27 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.28 Plant Connection Agreement for the Ormesa IH Geothermal Plant, dated, October 3, 1989, by and between Imperial Irrigation District and Ormesa IH incorporated by reference to Exhibit 10.3.28 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.29 Plant Connection Agreement for the Geo East Mesa Limited Partnership Unit No. 2, dated, March 21, 1989, by and between Imperial Irrigation District and Geo East Mesa Limited Partnership incorporated by reference to Exhibit 10.3.29 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.2.30 Plant Connection Agreement for the Geo East Mesa Limited Partnership Unit No. 3, dated, March 21, 1989, by and between Imperial Irrigation District and Geo East Mesa Limited Partnership incorporated by reference to Exhibit 10.3.30 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.31 Transmission Service Agreement for the Ormesa I, Ormesa IE and Ormesa IH Geothermal Power Plants, dated, October 3, 1989, between Imperial Irrigation District and Ormesa Geothermal incorporated by reference to Exhibit 10.3.31 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.32 Transmission Service Agreement for the Geo East Mesa Limited Partnership Unit No. 2, dated, March 21, 1989, by and between Imperial Irrigation District and Geo East Mesa Limited Partnership incorporated by reference to Exhibit 10.3.32 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.33 Transmission Service Agreement for the Geo East Mesa Limited Partnership Unit No. 3, dated, March 21, 1989, by and between Imperial Irrigation District and Geo East Mesa Limited Partnership incorporated by reference to Exhibit 10.3.33 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.34 IID-Edison Transmission Service Agreement for Alternative Resources, dated, September 26, 1985, by and between Imperial Irrigation District and Southern California Edison Company incorporated by reference to Exhibit 10.3.34 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.35 Plant Amendment No. 1, to IID-Edison Transmission Service Agreement for Alternative Resources, dated, August 25, 1987, by and between Imperial Irrigation District and Southern California Edison Company incorporated by reference to Exhibit 10.3.35 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.36 Agreement Addressing Renewable Energy Pricing and Payment Issues, dated June 15, 2001, by and between Second Imperial Geothermal Company QFID No. 3021 and Southern California Edison Company incorporated by reference to Exhibit 10.3.39 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.37 Amendment No. 1 to Agreement Addressing Renewable Energy Pricing and Payment Issues, dated November 30, 2001, by and between Second Imperial Geothermal Company QFID No. 3021 and Southern California Edison Company incorporated by reference to Exhibit 10.3.40 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.38 Agreement Addressing Renewable Energy Pricing and Payment Issues, dated June 15, 2001, by and between Heber Geothermal Company QFID No. 3001 and Southern California Edison Company incorporated by reference to Exhibit 10.3.41 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.39 Amendment No. 1 to Agreement Addressing Renewable Energy Pricing and Payment Issues, dated November 30, 2001, by and between Heber Geothermal Company QFID No. 3001 and Southern California Edison Company incorporated by reference to Exhibit 10.3.42 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.40 Energy Services Agreement, dated February 2003, by and between Imperial Irrigation District and ORMESA, LLC incorporated by reference to Exhibit 10.3.43 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.2.41 Purchase Power Contract, dated March 24, 1986, by and between Hawaii Electric Light Company and Thermal Power Company incorporated by reference to Exhibit 10.3.44 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.42 Firm Capacity Amendment to Purchase Power Contract, dated July 28, 1989, by and between Hawaii Electric Light Company and Puna Geothermal Venture incorporated by reference to Exhibit 10.3.45 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.43 Amendment to Purchase Power Contract, dated October 19, 1993, by and between Hawaii Electric Light Company and Puna Geothermal Venture incorporated by reference to Exhibit 10.3.46 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.44 Third Amendment to the Purchase Power Contract, dated March 7, 1995, by and between Hawaii Electric Light Company and Puna Geothermal Venture incorporated by reference to Exhibit 10.3.47 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.45 Performance Agreement and Fourth Amendment to the Purchase Power Contract, dated February 12, 1996, by and between Hawaii Electric Light Company and Puna Geothermal Venture incorporated by reference to Exhibit 10.3.48 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.2.46 Agreement to Design 69 KV Transmission Lines, a Substation at Pohoiki, Modifications to Substations at Puna and Kaumana, and a Temporary 34.5 Facility to Interconnect PGV's Geothermal Electric Plant with HELCO's System Grid (Phase II and III), dated June 7, 1990, by and between Hawaii Electric Light Company and Puna Geothermal Venture incorporated by reference to Exhibit 10.3.49 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.1 Ormesa BLM Geothermal Resources Lease CA 966 incorporated by reference to Exhibit 10.4.1 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.2 Ormesa BLM License for Electric Power Plant Site CA 24678 incorporated by reference to Exhibit 10.4.2 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.3 Geothermal Resources Mining Lease, dated February 20, 1981, by and between the State of Hawaii, as Lessor, and Kapoho Land Partnership, as Lessee incorporated by reference to Exhibit 10.4.3 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.4 Geothermal Lease Agreement, dated October 20, 1975, by and between Ruth Walker Cox and Betty M. Smith, as Lessor, and Gulf Oil Corporation, as Lessee incorporated by reference to Exhibit 10.4.4 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.5 Geothermal Lease Agreement, dated August 1, 1976, by and between Southern Pacific Land Company, as Lessor, and Phillips Petroleum Company, as Lessee incorporated by reference to Exhibit 10.4.5 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

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- 10.3.6 Geothermal Resources Lease, dated November 18, 1983, by and between Sierra Pacific Power Company, as Lessor, and Geothermal Development Associates, as Lessee incorporated by reference to Exhibit 10.4.6 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.7 Lease Agreement, dated November 1, 1969, by and between Chrisman B. Jackson and Sharon Jackson, husband and wife, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.7 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.8 Lease Agreement, dated September 22, 1976, by and between El Toro Land & Cattle Co., as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.8 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.9 Lease Agreement, dated February 17, 1977, by and between Joseph L. Holtz, as Lessor, and Chevron U.S.A. Inc., as Lessee incorporated by reference to Exhibit 10.4.9 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.10 Lease Agreement, dated March 11, 1964, by and between John D. Jackson and Frances Jones Jackson, also known as Frances J. Jackson, husband and wife, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.10 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.11 Lease Agreement, dated February 16, 1964, by and between John D. Jackson, conservator for the estate of Aphia Jackson Wallan, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.11 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.12 Lease Agreement, dated March 17, 1964, by and between Helen S. Fugate, a widow, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.12 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.13 Lease Agreement, dated February 16, 1964, by and between John D. Jackson and Frances J. Jackson, husband and wife, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.13 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.14 Lease Agreement, dated February 20, 1964, by and between John A. Straub and Edith D. Straub, also known as John A. Straub and Edythe D. Straub, husband and wife, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.14 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.15 Lease Agreement, dated July 1, 1971, by and between Marie L. Gisler and Harry R. Gisler, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.15 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.16 Lease Agreement, dated February 28, 1964, by and between Gus Kurupas and Guadalupe Kurupas, husband and wife, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.16 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.

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- 10.3.17 Lease Agreement, dated April 7, 1972, by and between Nowlin Partnership, as Lessor, and Standard Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.17 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.18 Geothermal Lease Agreement, dated July 18, 1979, by and between Charles K. Corfman, an unmarried man as his sole and separate property, and Lessor, and Union Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.18 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.19 Lease Agreement, dated January 1, 1972, by and between Holly Oberly Thomson, also known as Holly F. Oberly Thomson, also known as Holly Felicia Thomson, as Lessor, and Union Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.19 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.20 Lease Agreement, dated June 14, 1971, by and between Fitzhugh Lee Brewer, Jr., a married man as his separate property, Donna Hawk, a married woman as her separate property, and Ted Draper and Helen Draper, husband and wife, as Lessor, and Union Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.20 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.21 Lease Agreement, dated May 13, 1971, by and between Mathew J. La Brucherie and Jane E. La Brucherie, husband and wife, and Robert T. O'Dell and Phyllis M. O'Dell, husband and wife, as Lessor, and Union Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.21 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.22 Lease Agreement, dated June 2, 1971, by and between Dorothy Gisler, a widow, Joan C. Hill, and Jean C. Browning, as Lessor, and Union Oil Company of California, as Lessee incorporated by reference to Exhibit 10.4.22 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.23 Geothermal Lease Agreement, dated February 15, 1977, by and between Walter J. Holtz, as Lessor, and Magma Energy Inc., as Lessee incorporated by reference to Exhibit 10.4.23 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.24 Geothermal Lease, dated August 31, 1983, by and between Magma Energy Inc., as Lessor, and Holt Geothermal Company, as Lessee incorporated by reference to Exhibit 10.4.24 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.25 Unprotected Lease Agreement, dated July 15, 2004, by and between Ormat Industries Ltd. and Ormat Systems Ltd. incorporated by reference to Exhibit 10.4.25 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
- 10.3.26 Geothermal Resources Lease, dated June 27, 1988, by and between Bernice Guisti, Judith Harvey and Karen Thompson, Trustees and Beneficiaries of the Guisti Trust, as Lessor, and Far West Capital, Inc., as Lessee incorporated by reference to Exhibit 10.4.26 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.27 Amendment to Geothermal Resources Lease, dated January, 1992, by and between Bernice Guisti, Judith Harvey and Karen Thompson, Trustees and Beneficiaries of the Guisti Trust, as Lessor, and Far West Capital, Inc., as Lessee incorporated by reference to Exhibit 10.4.27 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.

Exhibit**No.****Document**

- 10.3.28 Second Amendment to Geothermal Resources Lease, dated June 25, 1993, by and between Bernice Guisti, Judith Harvey and Karen Thompson, Trustees and Beneficiaries of the Guisti Trust, as Lessor, and Far West Capital, Inc. and its Assignee, Steamboat Development Corp., as Lessee incorporated by reference to Exhibit 10.4.28 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.29 Geothermal Resources Sublease, dated May 31, 1991, by and between Fleetwood Corporation, as Lessor, and Far West Capital, Inc., as Lessee incorporated by reference to Exhibit 10.4.29 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.30 KLP Lease and Agreement, dated March 1, 1981, by and between Kapoho Land Partnership, as Lessor, and Thermal Power Company, as Lessee incorporated by reference to Exhibit 10.4.30 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.31 Amendment to KLP Lease and Agreement, dated July 9, 1990, by and between Kapoho Land Partnership, as Lessor, and Puna Geothermal Venture, as Lessee incorporated by reference to Exhibit 10.4.31 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.32 Second Amendment to KLP Lease and Agreement, dated December 31, 1996, by and between Kapoho Land Partnership, as Lessor, and Puna Geothermal Venture, as Lessee incorporated by reference to Exhibit 10.4.32 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.3.33 Participation Agreement, dated May 18, 2005, by and among Puna Geothermal Venture, SE Puna, L.L.C., Wilmington Trust Company, S.E. Puna Lease, L.L.C., AIG Annuity Insurance Company, American General Life Insurance Company, Allstate Life Insurance Company and Union Bank of California, incorporated by reference to Exhibit 10.4.33 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q/A to the Securities and Exchange Commission on December 22, 2005.
- 10.3.34 Project Lease Agreement, dated May 18, 2005, by and between SE Puna, L.L.C. and Puna Geothermal Venture, incorporated by reference to Exhibit 10.4.34 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q/A to the Securities and Exchange Commission on December 22, 2005.
- 10.4.1 Patent License Agreement, dated July 15, 2004, by and between Ormat Industries Ltd. and Ormat Systems Ltd. incorporated by reference to Exhibit 10.5.4 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
- 10.4.2 Form of Registration Rights Agreement by and between Ormat Technologies, Inc. and Ormat Industries Ltd. incorporated by reference to Exhibit 10.5.5 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 22, 2004.
- 10.5.1 Ormat Technologies, Inc. 2004 Incentive Compensation Plan incorporated by reference to Exhibit 10.6.1 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 22, 2004.
- 10.5.2 Form of Incentive Stock Option Agreement incorporated by reference to Exhibit 10.6.2 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 22, 2004.
- 10.5.3 Form of Nonqualified Stock Option Agreement incorporated by reference to Exhibit 10.6.3 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 22, 2004.

Exhibit No.	Document
10.6.1	Waiver executed by Lucien Bronicki in favor of Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.6.3 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.6.2	Undertaking executed by Lucien Bronicki in favor of Ormat Industries Ltd. and Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.6.4 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.7.1	Waiver executed by Yehudit Bronicki in favor of Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.7.4 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.7.2	Undertaking executed by Yehudit Bronicki in favor of Ormat Industries Ltd. and Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.7.5 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.8.1	Form of Executive Employment Agreement of Yoram Bronicki incorporated by reference to Exhibit 10.9 to Ormat Technologies, Inc. Registration Statement Amendment No. 1 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on September 28, 2004.
10.8.2	Amendment to Employment Agreement of Yoram Bronicki, dated March 28, 2008, by and between Ormat Technologies, Inc. and Yoram Bronicki, incorporated by reference to Exhibit 10.8.1 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 7, 2008.
10.8.3	Amendment to Employment Agreement of Yoram Bronicki, dated November 4, 2009, by and between Ormat Technologies, Inc. and Yoram Bronicki, incorporated by reference to Exhibit 10.8.3 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 9, 2009.
10.8.4	Waiver executed by Yoram Bronicki in favor of Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.8.4 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.8.5	Undertaking executed by Yoram Bronicki in favor of Ormat Industries Ltd. and Ormat Technologies, Inc., dated May 22, 2012, incorporated by reference to Exhibit 10.8.5 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
10.8.6	Amendment to Employment Agreement of Yoram Bronicki, dated December 10, 2013, by and between Ormat Technologies, Inc. and Yoram Bronicki, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on December 10, 2013.
10.9	Form of Indemnification Agreement incorporated by reference to Exhibit 10.11 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 20, 2004.
10.10	Note Purchase Agreement, dated December 2, 2005, among Lehman Brothers Inc., OrCal Geothermal Inc., OrHeber 1 Inc., OrHeber 2 Inc., Second Imperial Geothermal Company, Heber Field Company and Heber Geothermal Company, incorporated by reference to Exhibit 10.12 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 28, 2006.
10.11.1	Indenture dated as of December 8, 2005 among OrCal Geothermal Inc., OrHeber 1 Inc., OrHeber 2 Inc., Second Imperial Geothermal Company, Heber Field Company and Heber Geothermal Company and Union Bank of California, incorporated by reference to Exhibit 10.13 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 28, 2006.

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- 10.11.2 First Supplemental Indenture dated as of June 14, 2006 amending the Indenture dated as of December 8, 2005 among OrCal Geothermal Inc., OrHeber 1 Inc., OrHeber 2 Inc., Second Imperial Geothermal Company, Heber Field Company and Heber Geothermal Company and Union Bank of California, incorporated by reference to Exhibit 10.13.2 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q (File No 001-32347) to the Securities and Exchange Commission on August 7, 2006.
- 10.12 Guarantee dated as of December 8, 2005 among OrCal Geothermal Inc., OrHeber 1 Inc., OrHeber 2 Inc., Second Imperial Geothermal Company, Heber Field Company and Heber Geothermal Company, incorporated by reference to Exhibit 10.14 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 28, 2006.
- 10.13 Note Purchase Agreement, dated February 6, 2004, among Lehman Brothers Inc., Ormat Funding Corp., Brady Power Partners, Steamboat Geothermal LLC, OrMammoth Inc., ORNI 1 LLC, ORNI 2 LLC and ORNI 7 LLC, incorporated by reference to Exhibit 10.15 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 28, 2006.
- 10.14 Agreement No. 2 Addressing Renewable Energy Pricing Issues, dated May 10, 2006, between Ormesa LLC and Southern California Edison Company, incorporated by reference to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 16, 2006.
- 10.15 Agreement No. 2 Addressing Renewable Energy Pricing Issues, dated May 10, 2006, between Ormesa LLC and Southern California Edison Company, incorporated by reference to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 16, 2006.
- 10.16 Agreement No. 2 Addressing Renewable Energy Pricing Issues, dated May 10, 2006, between Heber Geothermal Company and Southern California Edison Company, incorporated by reference to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 16, 2006.
- 10.17 Agreement No. 2 Addressing Renewable Energy Pricing Issues, dated May 10, 2006, between Second Imperial Geothermal Company and Southern California Edison Company, incorporated by reference to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 16, 2006.
- 10.18.1 Amended and Restated Power Purchase Agreement for Olkaria III Geothermal Plant, dated January 19, 2007, between OrPower 4 Inc. and The Kenya Power and Lighting Company Limited, incorporated by reference to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 12, 2007.
- 10.18.2 Olkaria III Project Security Agreement, dated January 19, 2007, between OrPower 4 Inc. and The Kenya Power and Lighting Company Limited, incorporated by reference to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 12, 2007.
- 10.18.3 Common Terms Agreement, dated January 5, 2009, between OrPower 4, Inc. and DEG — Deutsche Investitions-Und Entwicklungsgesellschaft MBH, Societe de Promotion et de Participation pour la Cooperation Economique, and BNY Corporate Trustee Services Limited, incorporated by reference to Exhibit 10.18.3 to Ormat Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2008 to the Securities and Exchange Commission on March 2, 2009.
- 10.18.4 DEG A Facility Loan Agreement, dated January 5, 2009, between OrPower 4, Inc. and DEG — Deutsche Investitions-Und Entwicklungsgesellschaft MBH and Societe de Promotion et de Participation pour la Cooperation Economique, incorporated by reference to Exhibit 10.18.4 to Ormat Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2008 to the Securities and Exchange Commission on March 2, 2009.

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- 10.18.5 DEG B Facility Loan Agreement, dated January 5, 2009, between OrPower 4, Inc. and DEG — Deutsche Investitions-Und Entwicklungsgesellschaft MBH and Societe de Promotion et de Participation pour la Cooperation Economique, incorporated by reference to Exhibit 10.18.5 to Ormat Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2008 to the Securities and Exchange Commission on March 2, 2009.
- 10.18.6 DEG C Facility Loan Agreement, dated January 5, 2009, between OrPower 4, Inc. and DEG — Deutsche Investitions-Und Entwicklungsgesellschaft MBH and Societe de Promotion et de Participation pour la Cooperation Economique, incorporated by reference to Exhibit 10.18.6 to Ormat Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2008 to the Securities and Exchange Commission on March 2, 2009.
- 10.18.7 Proparco A Facility Loan Agreement, dated January 5, 2009, between OrPower 4, Inc. and DEG — Deutsche Investitions-Und Entwicklungsgesellschaft MBH and Societe de Promotion et de Participation pour la Cooperation Economique, incorporated by reference to Exhibit 10.18.7 to Ormat Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2008 to the Securities and Exchange Commission on March 2, 2009.
- 10.19 Amendment No. 2 to the Power Purchase Contract between Ormesa LLC and Ormat Technologies, Inc., and Southern California Edison Company (RAP ID 3012) dated April 23, 2006, incorporated by reference to Exhibit 10.21.2 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on August 8, 2007.
- 10.20 Joint Ownership Agreement for the Carson Lake Project, dated as of March 12, 2008, by and between Nevada Power Company and ORNI 16 LLC, incorporated by reference to Exhibit 10.24 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 7, 2008.
- 10.21 Note Purchase Agreement, dated as of May 18, 2009, among Ortitlan, Limitada and TCW Global Project Fund II, Ltd., incorporated by reference to Exhibit 10.23 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on May 21, 2009.
- 10.22 Sale and Purchase Agreement dated August 2, 2010, between ORNI 44 LLC and CD Mammoth Lakes I, Inc. and CD Mammoth Lakes II, Inc., incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on November 4, 2010.
- 10.23 Note Purchase Agreement, dated September 23, 2011, among OFC 2 LLC, ORNI 15 LLC, ORNI 39 LLC, ORNI 42 LLC, and HSS II, LLC, as Issuers, OFC 2 Noteholder Trust, as Purchaser, John Hancock Life Insurance Company (U.S.A.), as Administrative Agent, and the United States Department of Energy (DOE), as Guarantor, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on November 4, 2011.
- 10.24.1 Credit Agreement, dated as of November 21, 2011, between Lightning Dock Geothermal HI-01, LLC, and Ormat Nevada Inc., incorporated by reference to Exhibit 10.24.1 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.
- 10.24.2 Subordination Agreement, dated as of January 11, 2012, among CYRQ ENERGY, Inc., Lightning Dock Geothermal HI-01, LLC, and Ormat Nevada Inc., incorporated by reference to Exhibit 10.24.2 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.
- 10.24.3 Accounts Agreement, dated as of January 25, 2012, among Lightning Dock Geothermal HI-01, LLC, Ormat Nevada Inc., and Wells Fargo Bank, National Association, as Depositary, incorporated by reference to Exhibit 10.24.3 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.
- 10.25.1 Credit Agreement, dated December 19, 2011, between Thermo NO. 1 BE-01, LLC, and Ormat Nevada Inc., incorporated by reference to Exhibit 10.25.1 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.

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- 10.25.2 Subordination Agreement, dated as of January 11, 2012, among CYRQ ENERGY, INC., Thermo NO. 1 BE-01, LLC, and Ormat Nevada Inc., incorporated by reference to Exhibit 10.25.2 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.
- 10.25.3 Accounts Agreement, dated as of January 25, 2012 among Thermo NO. 1 BE-01, LLC, Ormat Nevada Inc., and Wells Fargo Bank, National Association, as Depositary, incorporated by reference to Exhibit 10.25.3 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 29, 2012.
- 10.25.4 Subordination Agreement, dated as of January 11, 2012, among CYRQ ENERGY, INC., Thermo NO. 1 BE-01, LLC, and Ormat Nevada Inc., incorporated by reference to Exhibit 10.25.4 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
- 10.25.5 Accounts Agreement, dated as of January 25, 2012 among Thermo NO. 1 BE-01, LLC, Ormat Nevada Inc., and Wells Fargo Bank, National Association, as Depositary, incorporated by reference to Exhibit 10.25.5 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 11, 2013.
- 10.26.1 Finance Agreement, dated as of August 23, 2012, between OrPower 4, Inc., an indirect wholly-owned subsidiary of Ormat Technologies, Inc., and Overseas Private Investment Corporation, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on November 8, 2012.
- 10.26.2 Amendment No. 1 to the Finance Agreement, dated as of August 23, 2012, between OrPower 4, Inc., an indirect wholly-owned subsidiary of Ormat Technologies, Inc., and Overseas Private Investment Corporation, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 9, 2012.
- 10.27 Amendment Agreement relating to a Common Terms Agreement, dated October 31, 2012, between OrPower 4, Inc., an indirect wholly-owned subsidiary of Ormat Technologies, Inc., and Deutsche Investitions-und Entwicklungsgesellschaft mbH, incorporated by reference to Exhibit 10.2 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 9, 2012.
- 10.28 Equity Contribution Agreement with respect to ORTP, dated as of January 24, 2013, between Ormat Nevada, Inc., a wholly-owned subsidiary of Ormat Technologies, Inc., and JPM Capital Corporation, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on January 30, 2013.
- 10.29 Limited Liability Company Agreement of ORTP, LLC dated as of January 24, 2013, between Ormat Nevada, Inc., a wholly-owned subsidiary of Ormat Technologies, Inc., and JPM Capital Corporation, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on January 30, 2013.
- 10.30.1 Employment Agreement, dated as of February 11, 2014, between Ormat Technologies, Inc. and Isaac Angel, incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on February 11, 2014.
- 10.30.2 Employment Agreement, dated as of January 6, 2013, between Ormat Systems, Ltd. and Doron Blachar, incorporated by reference to Exhibit 10.30.2 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 28, 2014.
- 10.31.1 Amended and Restated Ormat Technologies, Inc. 2012 Incentive Compensation Plan, incorporated by reference to Exhibit 10.2 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on February 11, 2014.

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- 10.31.2 Form of Incentive Stock Option Agreement to Ormat Technologies, Inc. 2012 Incentive Compensation Plan, incorporated by reference to Exhibit 10.31.2 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 28, 2014.
- 10.31.3 Form of Freestanding Stock Appreciation Right Agreement to Amended and Restated Ormat Technologies, Inc. 2012 Incentive Compensation Plan, Nonqualified Stock Option Agreement to Ormat Technologies 2012 Incentive Compensation Plan, incorporated by reference to Exhibit 10.31.2 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on February 28, 2014.
- 10.32 Membership Interest Purchase and Sale Agreement between RET Holdings LLC and Ormat Nevada Inc., dated March 26, 2014, incorporated by reference to Exhibit 10 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on March 31, 2014.
- 10.33.1 JBIC Facility Agreement, dated March 28, 2014, by and among Kyuden Sarulla Pte. Ltd., OrSarulla Inc., PT Medco Geopower Sarulla, Sarulla Operations Ltd, Sarulla Power Asset Limited, Japan Bank for International Cooperation and Mizuho Bank, Ltd., dated March 28, 2014, incorporated by reference to Exhibit 10.7 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 9, 2014.
- 10.33.2 Common Terms Agreement, dated March 28, 2014, by and among Kyuden Sarulla Pte. Ltd., OrSarulla Inc., PT Medco Geopower Sarulla, Sarulla Operations Ltd, Sarulla Power Asset Limited, Japan Bank for International Cooperation, Asian Development Bank, The Bank of Tokyo-Mitsubishi UFJ, Ltd., ING Bank N.V., Tokyo Branch, National Australia Bank Limited, Mizuho Bank, Ltd., Mizuho Bank (USA), Pt. Bank Mizuho Indonesia, Société Générale, Société Générale Tokyo Branch, and Sumitomo Mitsui Banking Corporation, dated March 28, 2014, incorporated by reference to Exhibit 10.8 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 9, 2014.
- 10.33.3 Covered Lenders Facility Agreement, dated March 28, 2014, by and among Kyuden Sarulla Pte. Ltd., Orsarulla Inc., PT Medco Geopower Sarulla, Sarulla Operations Ltd, Sarulla Power Asset Limited, The Bank of Tokyo-Mitsubishi UFJ, Ltd., ING Bank N.V., Tokyo Branch, National Australia Bank Limited, Société Générale, Tokyo Branch, and Sumitomo Mitsui Banking Corporation, dated March 28, 2014, incorporated by reference to Exhibit 10.9 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 9, 2014.
- 10.33.4 ADB Facility Agreement, dated March 28, 2014, by and among Kyuden Sarulla Pte. Ltd., OrSarulla Inc., PT Medco Geopower Sarulla, Sarulla Operations Ltd, Sarulla Power Asset Limited and Asian Development Bank, dated March 28, 2014, incorporated by reference to Exhibit 10.10 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 9, 2014.
- 10.33.5 Ormat Equity Support Deed, dated March 28, 2014, by and among Ormat International, Inc., Ormat Holding Corp., OrPower 11 Inc., OrSarulla Inc., Sarulla Operations Ltd, Mizuho Bank, Ltd. and Mizuho Bank (USA), dated March 28, 2014, incorporated by reference to Exhibit 10.11 to Ormat Technologies, Inc. Quarterly Report on Form 10-Q to the Securities and Exchange Commission on May 9, 2014.
- 10.34.1 Share Exchange Agreement and Plan of Merger dated as of November 10, 2014 by and among Ormat Technologies, Inc., Ormat Industries Ltd. and Ormat Systems Ltd., incorporated by reference to Exhibit 2 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.
- 10.34.2 Voting Agreement dated as of November 10, 2014 by and between Ormat Technologies, Inc. and Ormat Industries Ltd., incorporated by reference to Exhibit 10.1 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.
- 10.34.3 Voting and Undertaking Agreement dated as of November 10, 2014 by and between Ormat Technologies, Inc. and FIMI ENRG, Limited Partnership and FIMI ENRG, L.P., incorporated by reference to Exhibit 10.2 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.

Exhibit No.	Document
10.34.4	Voting and Undertaking Agreement dated as of November 10, 2014 by and between Ormat Technologies, Inc. and Bronicki Investments Ltd., incorporated by reference to Exhibit 10.3 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.
10.34.5	Voting Neutralization Agreement dated as of November 10, 2014 among Ormat Technologies, Inc. and FIMI ENRG, Limited Partnership and FIMI ENRG, L.P., incorporated by reference to Exhibit 10.4 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.
10.34.6	Voting Neutralization Agreement dated as of November 10, 2014 between Ormat Technologies, Inc. and Bronicki Investments Ltd., incorporated by reference to Exhibit 10.5 to Ormat Technologies, Inc. Current Report on Form 8-K to the Securities and Exchange Commission on November 17, 2014.
21.1	Subsidiaries of Ormat Technologies, Inc., incorporated by reference to Exhibit 21.1 to Ormat Technologies, Inc. Annual Report on Form 10-K to the Securities and Exchange Commission on March 28, 2006.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm, filed herewith.
31.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
31.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.
99.1	Material terms with respect to BLM geothermal resources leases incorporated by reference to Exhibit 99.1 to Ormat Technologies, Inc. Registration Statement Amendment No. 2 on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on October 20, 2004.
99.2	Material terms with respect to BLM site leases incorporated by reference to Exhibit 99.2 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.
99.3	Material terms with respect to agreements addressing renewable energy pricing and payment issues incorporated by reference to Exhibit 99.3 to Ormat Technologies, Inc. Registration Statement on Form S-1 (File No. 333-117527) to the Securities and Exchange Commission on July 20, 2004.

Exhibit No.	<u>Document</u>
101.INS*	XBRL Instance Document.*
101.SCH*	XBRL Taxonomy Extension Schema Document.*
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.*
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.*
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.*
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.*

* Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that the Company specifically incorporates such information by reference.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Registration Nos. 333-129583, 333-143488 and 333-181509) of Ormat Technologies, Inc. of our report dated March 1, 2017 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Francisco, California
March 1, 2017

Ormat Technologies, Inc.
Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Isaac Angel, certify that:

1. I have reviewed this annual report on Form 10-K of Ormat Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ Isaac Angel

Name: Isaac Angel

Title: Chief Executive Officer

Date: March 1, 2017

Ormat Technologies, Inc.
Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Doron Blachar, certify that:

1. I have reviewed this annual report on Form 10-K of Ormat Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By: /s/ DORON BLACHAR

Name: Doron Blachar

Title: Chief Financial Officer

Date: March 1, 2017

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Isaac Angel, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the annual report of Ormat Technologies, Inc. on Form 10-K for the year ended December 31, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such annual report on Form 10-K fairly presents in all material respects the financial condition, results of operations and cash flows of Ormat Technologies, Inc. as of and for the periods presented in such annual report on Form 10-K. This written statement is being furnished to the Securities and Exchange Commission as an exhibit accompanying such annual report and shall not be deemed filed pursuant to the Securities Exchange Act of 1934.

By: /s/ Isaac Angel

Name: Isaac Angel

Title: Chief Executive Officer

Date: March 1, 2017

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Doron Blachar, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the annual report of Ormat Technologies, Inc. on Form 10-K for the year ended December 31, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such annual report on Form 10-K fairly presents in all material respects the financial condition, results of operations and cash flows of Ormat Technologies, Inc. as of and for the periods presented in such annual report on Form 10-K. This written statement is being furnished to the Securities and Exchange Commission as an exhibit accompanying such annual report and shall not be deemed filed pursuant to the Securities Exchange Act of 1934.

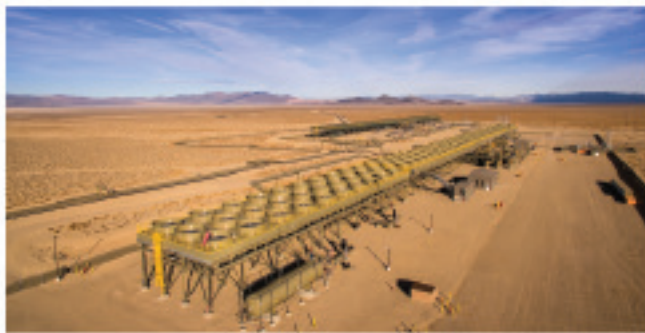
By: /s/ DORON BLACHAR

Name: Doron Blachar

Title: Chief Financial Officer

Date: March 1, 2017

Meeting the Needs of Our Customers in 75 Countries



● Geothermal Energy



Recovered Energy Generation (REG)



● Solar PV



● Remote Power Unit (RPU)



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*Olkaria III Geothermal
Complex in Kenya Expanded
to Nearly 140 MW in 2016*

