ORMAT TECHNOLOGIES, INC.
Form 10-K
March 08, 2010

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

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2009

or

o **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	**88-0326081**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*

6225 Neil Road, Reno, Nevada 89511-1136
(Address of principal executive offices)

Registrant s telephone number, including area code:
(775) 356-9029

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Ormat Technologies, Inc. Common Stock $0.001 Par Value	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 o No þ

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 o No þ

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 þ No o

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 o No o

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. o

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 þ	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

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

As of June 30, 2009, 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 $804,492,831 based on the closing price as reported on the New York Stock Exchange.

The number of outstanding shares of common stock of the registrant, as of March 4, 2010, was 45,430,886.

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, 2009.

ORMAT TECHNOLOGIES, INC.

FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2009

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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:

Term	Definition
Adder	Additional energy rate payment
Amatitlan Loan	$42,000,000 in aggregate principal amount borrowed by our subsidiary Ortitlan from TCW Global Project Fund II, Ltd.
AMM	Administrador del Mercado Mayorista (administrator of the wholesale market Guatemala)
ARRA	American Recovery and Reinvestment Act
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.
BLM	Bureau of Land Management of the U.S. Department of the Interior
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.
CDC	Commonwealth Development Corporation
CNE	National Energy Commission of Nicaragua
CNEE	National Electric Energy Commission of Guatemala
Company	Ormat Technologies, Inc., a Delaware corporation, and subsidiaries
Codification	FASB Accounting Standards Codification
COSO	Committee of Sponsoring Organizations of the Treadway Commission
DEG	Deutsche Investitions-und Entwicklungsgesellschaft mbH
DFIs	Development Finance Institutions
DISNORTE	Empresa Distribudora de Electricidad del Norte (a Nicaragua distribution company)
DISSUR	Empresa Distribudora de Electricidad del Sur (a Nicaragua distribution company)
DOE	U.S. Department of Energy
DOGGR	California Division of Oil, Gas, and Geothermal Resources
EGS	Enhanced Geothermal Systems
ENATREL	Empresa Nicaraguense de Transmision
ENEL	Empresa Nicaraguense de Electricitdad
EPA	U.S. Environmental Protection Agency
EPC	Engineering, procurement and construction
EPS	Earnings per share
Exchange Act	U.S. Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FERC	U.S. Federal Energy Regulatory Commission

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Term	Definition
Flip Date	Date on which the holders of Class B membership units in OPC achieve a target after-tax yield on their investment in OPC.
FPA	U.S. Federal Power Act, as amended
GAAP	Generally accepted accounting principles
GDC	Geothermal Development Company
GDL	Geothermal Development Limited
Geothermal Power Plant	The power generation facility and the geothermal field
Geothermal Steam Act	U.S. Geothermal Steam Act of 1970, as amended
HELCO	Hawaii Electric Light Company
IFC	International Finance Corporation
IID	Imperial Irrigation District
ILA	Israel Land Administration
INDE	Instituto Nacional de Electrification
INE	Nicaragua Institute of Energy
IPPs	Independent Power Producers
ISO	International Organization for Standardization
ITC	Investment Tax Credit
KETRACO	Kenya Electricity Transmission Company Limited
KPL	Kapoho Land Partnership
KPLC	Kenya Power and Lighting Co. Ltd
kW	Kilowatt. A unit of electrical power that is equal to 1,000 watts.
kWh	Kilowatt hour(s), a measure of power produced
LNG	Liquefied Natural Gas
MACRS	Modified Accelerated Cost Recovery System
MW	Megawatt. One MW is equal to 1,000 KW or one million watts.
MWh	Megawatt hour(s), a measure of power produced
NBPL	Northern Border Pipe Line Company
NIS	New Israeli Shekel
NYSE	New York Stock Exchange
OEC	Ormat Energy Converter
OFC	Ormat Funding Corp., a wholly owned subsidiary of the Company
OFC Senior Secured Notes	81/4% Senior Secured Notes Due 2020 issued by OFC
Olkaria Loan	$105,000,000 in aggregate principal amount borrowed by OrPower 4 from a group of European DFIs
OMPC	Ormat Momotombo Power Company, a wholly owned subsidiary of the Company
OPC	OPC LLC
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.
OrCal	OrCal Geothermal Inc., a wholly owned subsidiary of the Company
OrCal Senior Secured Notes	6.21% Senior Secured Notes Due 2020 issued by OrCal

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Term	Definition
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 Nevada	Ormat Nevada Inc., a wholly owned subsidiary of the Company
Ormat Systems	Ormat Systems Ltd., a wholly owned subsidiary of the Company
OrPower 4	OrPower 4 Inc., a wholly owned subsidiary of the Company
Ortitlan	Ortitlan Limitada, a wholly owned subsidiary of the Company
Orgumil	Orgumil I de Electricidad, Limitada, a wholly owned subsidiary of the Company
Parent	Ormat Industries Ltd.
PGV	Puna Geothermal Venture, a wholly owned subsidiary of the Company
Power plant equipment	Interconnection equipment, cooling towers for water cooled power plant, etc.
Power Act	Electric Power Act of 1997 of Kenya
PPA	Power Purchase Agreement
ppm	Part per million
PLN	PT Perusahaan Listrik Negara
PTC	Production tax credit
PUA	Israeli Public Utility Authority
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
PV	Photovoltaic
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.
REG	Recovered Energy Generation
RGGI	Regional Greenhouse Gas Initiative

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Term	Definition
RPS	Renewable Portfolio Standards
SCPPA	Southern California Public Power Authority
SEC	U.S. Securities and Exchange Commission
Securities Act	U.S. Securities Act of 1933, as amended
SOX Act	Sarbanes-Oxley Act of 2002
SPE(s)	Special purpose entity (ies)
Sunday Energy	Sunday Energy Ltd.
Union Bank	Union Bank, N.A.
U.S.	United States of America
WHOH	Waste Heat Oil Heaters

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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 , estimate 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 report are primarily located in the material set forth under the headings Management s Discussion and Analysis of Financial Condition and Results of Operations contained in Part II, Item 7, Risk Factors contained in Part I, Item IA, and Notes to Financial Statements contained in Part II, Item 8 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. 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;
- operating risks, including equipment failures and the amounts and timing of revenues and expenses;
- geothermal resource risk (such as the heat content of the reservoir, useful life and geological formation);
- financial market conditions and the results of financing efforts;
- 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 authorization;
- 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;
- the enforceability of the long-term PPAs for our power plants;
- contract counterparty risk;
- weather and other natural phenomena;
- the impact of recent and future federal, state and local regulatory proceedings and changes, including legislative and regulatory initiatives regarding deregulation and restructuring of the electric utility industry and

incentives for the production of renewable energy in the United States and elsewhere;

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 similar geothermal energy projects, including any such new geothermal energy projects developed in the future, and from alternative electricity producing technologies;

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the effect of and changes in economic conditions in the areas in which we operate;

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 resulting from terrorist incidents or responses to such incidents, including the effect on the availability of and premiums on insurance;

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.

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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 engaged in the geothermal and recovered energy power business. We design, develop, build, 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 all of our recovered energy-based plants have been constructed by us. We conduct our business activities in two business segments, which we refer to as our Electricity Segment and Product Segment. In our Electricity Segment, we develop, build, own and operate geothermal and recovered energy-based power plants in the United States and geothermal power plants in other countries around the world and sell the electricity they generate. In our Product Segment, we design, manufacture and sell equipment for geothermal and recovered energy-based electricity generation, remote power units and other power generating units and provide services relating to the engineering, procurement, construction, operation and maintenance of geothermal and recovered energy power plants.

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The map below shows our current worldwide portfolio of operating geothermal power plants and recovered energy plants, as well as the geothermal and recovered energy-based power plants that are under construction and in development.

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, 2009. 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 .

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The following chart sets forth a breakdown of revenues for the year ended December 31, 2009:

The following chart sets forth the geographical breakdown of the revenues attributable to our Electricity Segment for the year ended December 31, 2009:

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The following chart sets forth the geographical breakdown of the revenues attributable to our Product Segment for the year ended December 31, 2009:

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. Therefore, electricity produced from geothermal energy sources contributes significantly less to local and regional incidences of acid rain and global warming than energy produced by burning fossil fuels. 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 power plants. Recovered energy represents residual heat that is generated as a by-product of gas turbine-driven compressor stations 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.

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. The content of our website, however, is not part of this annual report.

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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

Power Plants in Operation

The table below summarizes certain key non-financial information relating to our power plants as of February 28, 2010.

Power Plants We Own and Operate[1]

Project	Location	Generating Capacity in MW[2]
Domestic		
Geothermal		
Ormesa Complex	California	57.0
Heber Complex	California	92.0
Mammoth Complex	California	14.5[3]
North Brawley	California	50.0[4]
Steamboat Complex	Nevada	85.0
Brady Complex	Nevada	24.0
Puna	Hawaii	30.0
REG		
OREG 1	North Dakota and South Dakota	22.0
OREG 2	Montana, North Dakota and Minnesota	22.0
Peetz	Colorado	3.5
Total domestic owned facilities		**400.0**
Foreign		
Geothermal		
Momotombo	Nicaragua	26.0
Zunil	Guatemala	24.0
Olkaria III Complex	Kenya	48.0
Amatitlan	Guatemala	20.0
Total foreign owned facilities		**118.0**
Total domestic and foreign owned facilities		**518.0**

(1) We own and operate all but two of our power plants. Those exceptions are: the Momotombo power plant in Nicaragua, which we do not own but which we control and operate through a concession arrangement with the Nicaraguan government, and the Mammoth complex, in which we have a 50% ownership interest. A financial institution holds equity interests in one of our consolidated subsidiaries (OPC) that 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. In this chart, we show these power plants as being 100% owned because all of the generating capacity is owned by OPC and we control the operation of the power plants. The nature of the equity interests held by the financial institution is described in Item 7 under the heading OPC Transaction .

(2) References to generating capacity generally refer to the gross capacity less auxiliary power, in the case of all of our existing domestic power plants and the Momotombo, Amatitlan and Olkaria III power plants (three of our foreign power plants), and to the generating capacity that is subject to the take or pay PPAs in the case of the Zunil power plant (one of our foreign power plants). We determine the generating capacity figures taking into account resource capabilities. This column represents our net ownership in such generating capacity.

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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. The capacity factor of the geothermal power plants in commercial operation in 2009 was 90%; the corresponding availability of the power generating facility was higher than 97%. The capacity factor of the REG power plants in 2009 was 40%; the corresponding availability of the power generating equipment was more than 93%.

(3) Represents our 50% ownership.

(4) The North Brawley power plant is not operating at full capacity due to injection challenges we are experiencing. Detailed information on those challenges is provided under Description of our Power Plants.

Substantially all of the revenues that we currently derive from the sale of electricity are pursuant to long-term power purchase agreements. Approximately 62% of our total revenues in the year ended December 31, 2009 from the sale of electricity by our domestic power plants were derived from 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 development of new power plants, construction of new power plants and expansion of existing power plants. Our growth plan includes approximately 260 MW in generating capacity from geothermal power plants and from recovered energy power plants in the United States that are expected to come on-line in the next four years.

We have various leases and concessions for geothermal resources of approximately 290,000 acres in 22 sites. We have started or plan to start exploration activity at a number of these sites.

In addition, we have approximately 55 MW of solar PV projects under development in Israel (including 36 MW in a joint venture with Sunday Energy).

Our Product Business

We design, manufacture and sell products for electricity generation and provide the related services described below. Generally, we manufacture products only against customer orders and do not manufacture products for our own inventory.

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 power plant 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 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 the same customers described above that we target for the sale of our power units for recovered energy-based power generation. Unlike many other companies that provide EPC services, we have an advantage in that we are using our own manufactured equipment and thus have better control over the timing and delivery of required equipment and its related costs.

Remote Power Units and Other Generators. We design, manufacture and sell fossil fuel powered turbo-generators with a capacity ranging between 200 watts and 5,000 watts, which operate unattended in extreme climate conditions, whether hot or cold. Our customers include contractors installing gas pipelines in remote areas. In

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addition, we design, manufacture, and sell generators for various other uses, including heavy duty direct-current generators.

History

We were formed as a Delaware corporation by Ormat Industries Ltd. (also referred to in this annual report as the Parent , Ormat Industries , the parent company , or our parent) in 1994. Ormat Industries was one of the first compan to focus on the development of equipment for the production of clean, renewable and generally sustainable forms of energy. Ormat Industries owns approximately 56.0% of our outstanding common stock.

Industry Background

Geothermal Energy

Most of our power plants in operation produce electricity from geothermal energy. There are several different sources or methods to obtain 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. The energy necessary to operate a geothermal power plant is typically obtained from several such wells which are drilled using established technology that is in some respects similar to that employed in the oil and gas industry. Geothermal production wells are normally located within approximately one to two miles of the power plant as geothermal fluids cannot be transported economically over longer distances due to heat and pressure loss. The geothermal reservoir is a renewable source of energy if 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 if 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. In addition, because geothermal energy power plants produce 24hr/day weather independent power, the variable operating costs are lower.

EGS An EGS has been broadly defined as a subsurface system that may be artificially created to extract heat from hot rock where the characteristics required for a hydrothermal system, i.e., permeability and aquifers, are non-existent. A geothermal power plant that uses EGS techniques would recover 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 from oil and gas production. This application is referred to as Co-produced Fluids . In some oil and gas fields, water is produced as a by-product of the oil and gas extraction. When the wells are deep the fluids are often at high temperatures and if the water volume 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 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 heat exchanger, which heats a secondary working fluid which has a low boiling point. This is typically an organic fluid, such as isopentane or isobutene, which is vaporized and is used to drive the

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turbine. The organic fluid is then condensed in a condenser which may be cooled by air or by water from a cooling tower. The condensed fluid is then recycled back to the heat exchanger, closing the cycle within the sealed system. The cooled geothermal fluid is then reinjected back into the reservoir. The binary technology is depicted in the graphic 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 in the plant, where any remaining water droplets are removed. This produces a stream of dry saturated steam, which drives a 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 through the removal system in order to optimize the performance of the steam turbines. The condensate is used to provide

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make-up water for the cooling tower. The hot brine remaining after separation of steam is injected back into the geothermal resource through a series of injection wells. The flash technology is depicted in the graphic below.

In some instances, the wells directly produce dry steam (the flashing occurring underground). In such cases, the steam is fed directly to the steam turbine and the rest of the system is similar to the flash power plant described above.

Ormat s Proprietary Technology

Our proprietary technology may be used in power plants operating according to the Organic Rankine Cycle only or in combination with, various other commonly used thermodynamic technologies that convert heat to mechanical power. 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 our motive fluids are non-ozone-depleting substances. Using advanced computerized fluid dynamics 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. In particular, we are examining ways to increase the output of our plants by utilizing evaporative cooling, cold reinjection, performance simulation programs, and topping turbines. In the geothermal as well as the recovered energy (waste heat) areas, we are examining two-level recovered energy systems and new motive fluids.

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We also construct 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. Our combined cycle technology is depicted in the graphic below.

In the conversion of geothermal energy into electricity, our technology has a number of advantages compared with conventional geothermal steam turbine plants. A conventional geothermal steam turbine plant consumes significant quantities of water, causing depletion of the aquifer, and also requires 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 tower 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 and easy maintenance, low round per minute, temperature and pressure in the OEC, a high efficiency turbine, and the fact that there is no contact between the turbine itself and often corrosive geothermal fluids.

We use the same elements of our technology in our recovered energy products. The heat source may be exhaust gases from a simple cycle gas turbine, low pressure steam, or medium temperature liquid found in the process industry. In most cases, we attach an additional heat exchanger in which we circulate thermal oil 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 the OEC used in our geothermal power plants. The same advantages of using the Organic Rankine Cycle apply here as well. In addition, our technology allows for better load following than conventional steam turbines exhibit, requires no water treatment as it is air cooled, and does not require the continuous presence of a steam licensed operator on site.

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Our REG technology is depicted in the graphic below.

Patents

More than 75 United States patents (and about 18 pending patents) cover our products (mainly power units based on the Organic Rankine Cycle) and systems (mainly geothermal power plants and industrial waste heat recovery for electricity production). The systems-related patents cover not only a particular component but also the overall effectiveness of the plant s systems from the fuel (e.g., geothermal fluid, waste heat, biomass or solar) to generated electricity. The duration of such patents ranges from one year to fifteen years. No single patent on its own is material to our business.

The products-related patents cover components such as turbines, heat exchanges, seals and controls. The system patents cover subjects such as disposal of non-condensable gases present in geothermal fluids, power plants for very high pressure geothermal resources, and use of two-phase fluids as well as processes related to EGS. A number of patents cover the 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.

Research and Development

We are conducting research and development of new EGS technologies and their application to our power plants. We are undertaking this development effort in cooperation with GeothermEx Inc., the University of Utah Energy & Geoscience Institute, the University of Nevada-Reno, and the Great Basin Center for Geothermal Energy, with funding support from the DOE, at our Desert Peak 2 and Brady power plants in Nevada.

We are developing an OEC unit for a REG plant designed to use the residual energy from the vaporization process of LNG in LNG receiving terminals. The power plant takes advantage of the available hot and cold sources (sea water and LNG at minus 238 degrees Fahrenheit, respectively) in the regasification process to generate electrical power from unused heat energy.

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In another activity we are examining modifications to the cooling towers and equipment design that will help to reduce the water consumption and costs for cooling towers operating in existing power plants and future projects.

Market Opportunity

Interest in geothermal energy in the United States has increased as production costs for electricity generated from geothermal resources have become more competitive relative to fossil fuel-based electricity generation and as legislative and regulatory incentives have become more prevalent, as described below.

Although electricity generation from geothermal resources is currently concentrated in California, Nevada, Hawaii, Idaho and Utah, there are opportunities for development in other states such as Alaska, Arizona, New Mexico and Oregon due to the availability of geothermal resources and, in some cases, a favorable regulatory environment in such states.

The Western Governors Association estimates that 13,000 MW of identified resources will be developed by 2025. In a report issued in January 2009, the Geothermal Energy Association identified 132 new geothermal projects under various phases of development in 14 U.S. States that have between 4,250 MW and 6,400 MW potential capacity. Approximately 45% of the identified capacity is in the initial phase of exploration.

An additional factor fueling recent growth in the renewable energy industry is global concern about the environment. Power plants that use fossil fuels generate higher levels of air pollution and their emissions have been linked to acid rain and global warming. In response to an increasing demand for green energy, many countries have adopted legislation requiring, and providing incentives for, electric utilities to sell electricity generated from renewable energy sources. In the United States, Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Kansas, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Hampshire, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oregon, Ohio, Pennsylvania, Rhode Island, South Dakota, Texas, Utah, Virginia, Vermont, Washington, West Virginia, Wisconsin and the District of Colombia have all adopted RPS, renewable portfolio goals, or similar laws requiring or encouraging electric utilities in such states to generate or buy a certain percentage of their electricity from renewable energy sources or recovered heat sources.

Twenty-eight states (including California, Nevada, and Hawaii, where we have been the most active in our geothermal energy development and in which all of our U.S. geothermal power plants are located) and the District of Columbia define geothermal resources as renewable .

According to the EPA, fourteen states have enacted RPS and Alternative Portfolio Standards that include some form of combined heat and power and/or waste heat recovery. The fourteen states are: Colorado, Connecticut, Hawaii, Massachusetts, Michigan, Nevada, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Utah, Washington, and West Virginia.

We believe that these legislative measures and initiatives present a significant market opportunity for us. For example, California generally requires that each investor-owned electric utility company operating within the state increase the amount of renewable generation in its resource mix by at least 1% of its retail sales annually so that 20% of its retail sales are procured from eligible renewable energy sources by 2010. In November 2008, California, by Executive Order, adopted a goal for all retailers of electricity to serve 33% of their load with renewable energy by 2020. Governor Arnold Schwarzenegger signed an Executive Order on September 15, 2009, directing the California Air Resources Board to adopt regulations increasing California s RPS to 33% by 2020. California s three large electric utilities collectively served 13% of their 2008 electricity retail sales with renewable power. Nevada s RPS requires each Nevada electric utility to obtain 12% of its annual energy requirements from renewable energy sources in 2009-2010, which requirement thereafter increases by 3% every two years until 2015, when 20% of such annual

energy requirements must be provided from renewable energy sources or energy efficiency projects. As of March 2009, 9% of the electricity retail sales in Nevada were from renewable energy sources. Hawaii s RPS requires each Hawaiian electric utility to obtain 10% of its net electricity sales from renewable energy sources by December 31, 2010, 15% by December 31, 2015 and 20% by December 31, 2020. In 2008, Hawaiian Electric Company and its subsidiaries achieved a consolidated RPS of 17.8%.

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On the federal level, climate change legislation has been approved in the House of Representatives and similar legislation has been proposed in the Senate. In 2009, the EPA issued an endangerment finding under the Clean Air Act for greenhouse gases. This finding allows EPA to promulgate regulations in connection with emissions of greenhouse gases.

Regional initiatives are also being developed to reduce greenhouse gas emissions and develop trading systems for renewable energy credits. For example, ten Northeast and Mid-Atlantic States are part of the RGGI, a regional cap-and-trade system to limit carbon dioxide. The RGGI is the first mandatory, market-based carbon dioxide emissions reduction program in the United States. The first-in-the-nation auction of carbon dioxide allowances was held in September 2008. Under RGGI, the ten participating states plan to reduce carbon emissions from power plants by 10% by 2018.

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

The federal government also encourages production of electricity from geothermal resources through certain tax subsidies. Under the ARRA, we are permitted to claim 30% of the qualified cost of the equipment and construction of each new geothermal power plant in the United States, when such plant is placed in service as an ITC against our federal income taxes. Alternatively, we are permitted to claim a PTC, which in 2009 was 2.1 cents per kWh and which is adjusted annually for inflation. The PTC may be claimed for ten years on the electricity output from any new geothermal power plants put into service prior to December 31, 2013. 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 one-year carry back and a twenty-year carry forward. Another alternative available is a cash grant in lieu of the tax credits (ITC and PTC), for the amount of the ITC. That option will be available for projects placed in service in 2010, or that started construction during 2009 or 2010 and are completed by 2013. There have been several legislative efforts to extend this cash grant program, one of which would use a refundable tax credit modeled on the grant program. Whether we claim the PTC or the ITC, we are 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 we claim the ITC or receive the cash grant, our tax basis in the plant that we can recover through depreciation must be reduced by half of the tax credit or cash grant; if we claim a PTC, there is no reduction in the tax basis for depreciation.

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

Production of electricity from geothermal resources is also supported under the new Temporary Program For Rapid Deployment of Renewable Energy and Electric Power Transmission Projects established with the DOE as part of the DOE s existing Innovative Technology Loan Guarantee Program. The new program (i) extends the scope of the existing federal loan guarantee program to cover renewable energy projects, renewable energy component manufacturing facilities and electricity transmission projects that embody established commercial, as well as innovative, technologies; and (ii) provides an appropriation to cover the credit subsidy costs of such projects (meaning the estimated average costs to the federal government from issuing the loan guarantee, equivalent to a lending bank s loan loss reserve).

To be eligible for a guarantee under the new program, a supported project must break ground, and the guarantee must be issued by September 30, 2011. A project supported by the federal guarantee under the new program must pay prevailing federal wages.

Operations outside of the United States may be subject to and/or benefit from requirements under the Kyoto Protocol.

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On December 7, 2009 the United Nations Climate Change Conference, commonly known as the Copenhagen Summit, was held in Copenhagen, Denmark. The conference included the 15th Conference of the Parties to the United Nations Framework Convention on Climate Change and the fifth Meeting of the Parties to the Kyoto Protocol. The U.S., China, India, Brazil, and South Africa signed up to the Copenhagen Accord which recognized that climate change is one of the greatest challenges of the present day and that actions should be taken to keep any temperature increases to below 2 degrees Celsius. While the document is not legally binding and does not contain any legally binding commitments for reducing CO_2 emissions, the conference is another step in the direction of a binding agreement on climate change and may be consolidated at the next Conference of the Parties meeting in Mexico City later this year.

Outside of the United States, 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 and have encouraged 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 countries have also adopted active governmental programs designed to encourage clean renewable energy power generation. Several Latin American countries have rural electrification programs and renewable energy programs. For example, Guatemala, where our Zunil and Amatitlan power plants are located, approved in November 2003 a law which created incentives for power generation from renewable energy sources by, 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. Another example is New Zealand, where Ormat has been actively designing and supplying geothermal power solutions since 1986. The New Zealand government s policies to fight climate change include a target for greenhouse gas emissions reductions of between 10% and 20% below 1990 levels by 2020 and the target of increasing renewable electricity generation to 90% of New Zealand s total electricity generation by 2025. In Indonesia, the government has implemented policies and regulations intended to accelerate the development of renewable energy and geothermal projects in particular. These include designating approximately 4,000 MW of geothermal projects in its 2nd phase of power acceleration projects to be implemented by 2014, of which the majority is IPP projects and the remaining state utility PLN projects. For the IPP, geothermal projects regulations have been implemented providing for incentives such as investment tax credits and accelerated depreciation, and pricing guidelines intended to allow preferential power prices from generators. In addition, there is a regulation providing feed-in tariffs for small scale renewable energy projects up to 10 MW. On a macro level, the Government of Indonesia has committed at the United Natopn Climate Change Conference 2009 in Copenhagen to reduce its CO_2 emissions by 20% by 2020, which is intended to be achieved mainly through prevention of deforestation and accelerated renewable energy development. Another example is Chile, where we were recently awarded an exploration concession. The Chilean Renewable Energy Act of 2008 requires that 5% of electricity sold come from renewable sources beginning in 2010, increasing gradually to 10% by 2024.

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.

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 benefit from the increased attention to energy efficiency. For example, in the United States, the FERC has expressed its position that the primary goal of natural gas pipeline design should be the efficient, low-cost transportation of fuel, including 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 requested natural gas pipeline operators filing for a certificate of approval for new pipeline construction or expansion

projects to discuss opportunities to enhance efficiencies for any energy consumption processes in the development and operation of the new pipeline. We have initially targeted the North American market, where we have begun to build power plants which generate electricity from waste heat

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from gas turbine-driven compressor stations along interstate natural gas pipelines, from midstream gas processing facilities, and from processing industries in general.

Further supporting recovered energy-based power generation, several states, as well as the federal government, have recognized the environmental benefits of recovered energy-based power generation. For example, Colorado, Connecticut, Hawaii, Massachusetts, Nevada, North Carolina, North Dakota, Ohio, Pennsylvania, South Dakota, Utah, and Washington allow electric utilities to include recovered energy-based power generation in calculating their compliance with RPS. In addition, North Dakota, South Dakota, and the U.S. Department of Agriculture (through the Rural Utilities Service) have approved recovered energy-based power generation units as renewable energy resources, which qualifies recovered energy-based power generators (whether in those two states or elsewhere in the United States) for federally funded, low interest loans, but currently do not qualify for ITC. Recovery of waste heat is also considered environmentally friendly in the western Canadian provinces. We believe that the European market has similar potential and we expect to leverage our early success in North America in order to expand into Europe and other markets worldwide. In North America alone, we estimate the potential total market for recovered energy-based power generation to be over 1,000 MW. However, much of this potential is in states where the cost of electricity is relatively low, which creates marketing challenges.

Competitive Strengths

Competitive Assets. Our assets are competitive for the following reasons:

Contracted Generation. Virtually all of the electricity generated by our geothermal power plants is currently sold pursuant to long-term PPAs, providing generally predictable cash flows.

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. We have a competitive advantage over other renewable energy sources, such as wind power, solar power or hydro-electric power (to the extent dependent on precipitation), which compete with us to meet electric utilities renewable portfolio requirements but which cannot serve baseload capacity because of their weather dependence and thus intermittent nature of these other renewable energy sources.

Competitive Pricing. Geothermal power plants, while site specific, are economically feasible to develop, construct, own, and operate in many locations, and the electricity they generate is generally price competitive compared to electricity generated from fossil fuels or other renewable sources under existing economic conditions and existing tax and regulatory regimes.

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 our exploration, development, and construction activities, to a certain level, without the need to tap into external liquidity sources. We believe that this gives us a competitive advantage over certain competitors whose activities are dependent on external credit and financing sources, particularly in light of the current global credit and financial crisis.

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 most of the equipment 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

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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.

We design, manufacture, and sell to third parties power units and other power generating equipment for geothermal and recovered energy-based electricity generation. Our extensive experience in the development of state-of-the-art, environmentally sound power solutions enable our customers to relatively easily finance their power plants.

Exploration and Drilling Capabilities. We have in-house capabilities to explore and develop geothermal resources. In 2007, we established a drilling subsidiary that currently owns four drilling rigs. We employ an experienced resource group that includes engineers, geologists, and drillers. This resource group 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. Key members of our senior management team have worked in the power industry for most of their careers and average over 25 years of industry experience.

Technological Innovation. We have been granted more than 75 U.S. patents relating to various processes and renewable resource technologies. All of our patents are internally developed and therefore costs related thereto are expensed as incurred. 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.

No 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 and the drilling of wells is complete, 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 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 leading manufacturer and provider of products and services related to renewable energy. 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 and recovered energy-based 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 and which meet our investment criteria;

Development and Construction of Recovered Energy Power Plants establishing a first-to-market leadership position in recovered energy power plants in North America and building on that experience to expand into other markets worldwide;

Acquisition of New Assets acquiring from third parties additional geothermal and other renewable assets that meet our investment criteria;

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; and

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Technological Expertise investing in research and development of renewable energy technologies including in the solar energy field 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.

We are also considering various opportunities in the solar energy market in addition to our activity in research and development in the solar field. There are several reasons for this including:

the recent decline in the cost of solar PV technologies;

the attractive electricity prices that may be achieved in certain jurisdictions;

reliance on our EPC and development expertise in geothermal and recovered-energy power generation facilities; and

in certain applications the potential synergies for operating solar PV or solar thermal in conjunction with our geothermal power plants.

Among other things, we have considered, and expect to continue considering, a number of different opportunities including:

acquisitions and joint ventures;

expanding our internal research and development activity, or acquiring other companies engaged in solar research and development activities; and

constructing and operating solar electric power generation facilities, either:

at some of our current plants to augment power output during day-time hours of peak demand when geothermal capacity can decrease because of ambient air temperature and solar generation capacity tends to peak; or

at new locations on a stand-alone basis.

For example, as noted below, we entered into a joint venture with Sunday Energy for 36 MW PV energy systems in Israel. We have considered, and expect to continue to consider, various acquisition opportunities of companies engaged in various segments of the solar energy power generation business.

Recent Developments

In February 2010, we signed a letter of intent with KPLC, the off-taker, of the Olkaria III complex located in Naivasha, Kenya, to expand the Olkaria III complex by up to 52 MW (from 48 MW to up to 100 MW) within the framework of the existing PPA. The expansion is to be developed in two phases. Phase I will be comprised of 36 MW within 3.5 years from finalizing the amendment to the existing PPA. An optional phase II may be comprised of up to 16 MW within 4.5 years from finalizing the amendment to the existing PPA. The amendment to the existing PPA is subject to applicable governmental approvals and the consent of the lenders that provided the financing to the existing power plant.

In February 2010, we announced that the North Brawley geothermal power plant in California has been placed in service and is currently operating at a stable capacity of 17 MW. We plan to request the PPA off-taker to agree to an extension of the firm operation date to the end of the year. This extension would give us time to bring the power plant s generation to its full design capacity of 50MW. Further details on this plant s status are provided under Description of Our Power Plants below.

In February 2010, we signed an agreement to acquire 100% of the membership interests in HSS II, LLC, which owns the Tuscarora Project in the northern Independence Valley of northeast Nevada. The project is in an advanced stage of development and has one successful well. We plan to construct and operate a geothermal plant on the site, which is expected to become operational in 2012, and sell electricity under a new PPA which we signed with Nevada Power Company (a subsidiary of NV Energy, Inc).

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In January 2010, we were awarded a geothermal exploration concession in Chile. The concession is on approximately 26,000 acres located to the north of the San Pablo/San Pedro twin volcanic complex in northern Chile and is close to access roads and to copper mines that could be potential users of the electricity. We plan to engage in preliminary testing and studies to assess the feasibility of the site for commercial development in accordance with the milestones set forth in the concession.

In January 2010, we sold our interest in GDL for NZ$3.5 million (approximately US$2.6 million), and we were repaid a loan we made to GDL with an outstanding balance of NZ$24.3 million (approximately US$18.0 million).

In December 2009, the PUCN approved certain amendments to certain of our PPAs for our power plants in Nevada that, among other things, removed partially the provisions for us to pay liquidated damages if certain minimum performance or availability criteria were not met.

On November 4, 2009, we signed a 20-year PPA with Nevada Power Company for a 30 MW power plant for the McGinness Hills project in Nevada. The PPA is still subject to various approvals, including PUCN approval.

In November 2009, we entered into a loan agreement for $50.0 million with a commercial bank. The loan matures on November 10, 2014 and is payable in 10 semi-annual installments commencing on May 10, 2010. The loan bears interest at 6-month LIBOR plus 3.25%.

In October 2009, Ormat Nevada was awarded $13.7 million in grants under the DOE s Innovative Exploration and Drilling Projects program for three of its projects: Maui, Glass Buttes, and Wister. The total amount of the grants accounts for approximately 50% of the total exploration budget of these projects. Ormat Nevada will use a combination of technologies to locate fault zones within geothermal reservoirs.

On October 30, 2009, Ormat Nevada acquired Lehman-OPC LLC s 30% interest in the Class B membership units of OPC, pursuant to a right of first offer for a price of $18.5 million. The repurchase of these interests at a discount resulted in a pre-tax gain of $13.3 million in the fourth quarter of 2009.

In October 2009, Ormat Systems signed a joint venture agreement with Sunday Energy, a private company incorporated under the laws of Israel, to develop, construct and operate solar PV energy systems in Israel with a total capacity of 36 MW. Sunday will contribute the rights to all of its property required to develop solar energy systems above 1 MW to SPEs. Ormat Systems will own 70% of each SPE. Ormat Systems and Sunday will act, jointly, as the EPC contractor and the operator of each project in accordance with each company s share in the SPEs. The electricity generated from the projects will be sold to Israel Electric Corporation Ltd. under a 20-year long-term PPA. The expected aggregate annual revenue from these agreements across all SPEs is approximately $30 million. The SPEs expect to finance their capital expenditure with 80% non-recourse third-party project financing debt.

In July 2009, we entered into a 6-year loan agreement and an 8-year loan agreement for $20.0 million each with two separate groups of institutional investors. The 6-year loan matures on July 16, 2015, is payable in 12 semi-annual installments commencing January 16, 2010, and bears annual interest of 6.5%. The 8-year loan 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%.

In May 2009, Ortitlan entered into a project financing loan of $42.0 million to refinance its investment in the 20.5 MW Amatitlan geothermal power plant. The loan was provided by TCW Global Project Fund II, Ltd.

In the second quarter of 2009, we completed construction of a new 75,000 square foot manufacturing facility, which we lease from our parent, adjacent to our existing facility in Yavne, Israel. The new facility will enable us to expand our manufacturing capabilities.

In March 2009, we declared commercial operation of the Peetz REG power plant that converts recovered waste heat from the exhaust of an existing gas turbine at a compressor station located along a natural gas pipeline near Denver, Colorado. The electricity produced by the power plant is sold under a 20-year PPA to Highline Electric Association Inc., a consumer-owned cooperative in Colorado and Nebraska.

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Operations of our Power Generation 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 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 power plants, with the exception of the Puna power plant, which is an Exempt Wholesale Generator, 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, particularly in Nevada. These activities generally involve:

Identifying and evaluating potential geothermal resources using information available to us from public and private resources as described under Initial Evaluation below.

Acquisition of land rights to any geothermal resources our initial evaluation indicates could potentially support a commercially viable power plant, taking into account various factors described under Land Acquisition below.

Conducting geophysical and geochemical surveys on some or all of the sites acquired, as described under Surveys below.

Obtaining permits to conduct exploratory drilling, as described under Environmental Permits below.

Drilling one or more exploratory wells on some or all of the sites to confirm and/or define the geothermal resource where indicated by our surveys, creating access roads to drilling locations and related activities, as described under Exploratory Drilling below.

Drilling a full-size well (as described below) if our exploratory drilling indicates the geothermal resource can support a commercially viable power plant taking into account various factors described under Drilling below. Drilling a full-size well is the point at which we consider a site moves from exploration to construction.

It normally takes us one to two 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.

Initial Evaluation. As part of our initial evaluation, we generally follow the following process, although our process can vary from site to site depending on the particular circumstances involved:

We evaluate historic geologic and geothermal information available from public and private databases.

For some sites, we may obtain and evaluate additional information from other industry participants, such as where oil or gas wells may have been drilled on or near a site.

We generally create a digital, spatial geographic information systems database containing all pertinent information, including thermal water temperature gradients derived from historic drilling, geologic mapping information (e.g., formations, structure 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).

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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 of a site range from $20,000 to $100,000.

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

Land Acquisition. For domestic power plants, we either lease or own the sites on which our power plants are located. In 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 other agreement granting us the exclusive right to extract geothermal resources from specified areas of land, with the owners (or sublessors) of such land. This documentation will usually give 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 United States are regulated by the BLM and the Minerals Management Service. These agencies have rules governing the geothermal leasing process as discussed under the heading Description of Our Leases and Lands .

For most of our current exploration sites in Nevada, 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. There is a summary of our typical lease terms under the heading 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. Following the acquisition of land rights for a potential geothermal resource, we conduct surface water analyses and soil surveys to determine proximity to possible heat flow anomalies and up-flow/permeable zones and augment our digital database with the results of those analyses. We then initiate a suite of geophysical surveys (e.g., gravity, magnetics, resistivity, magnetotellurics, and spectral surveys) to assess surface and sub-surface structure (e.g., faults and fractures) and develop a roadmap of fluid-flow conduits and overall permeability. All pertinent geophysical data are then used to create three-dimensional geothermal reservoir models that are used to identify drill locations.

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 and geophysical surveys. If the results from the geochemical and geophysical surveys are poor (i.e., low derived resource temperatures or poor permeability), we will re-evaluate the commercial viability of the geothermal resource and may not proceed to exploratory drilling.

Exploratory Drilling. If we proceed to exploratory drilling, we generally will use outside contractors to create access roads to drilling sites. After obtaining drilling permits, we generally drill temperature gradient holes and/or slim holes using either our own drilling equipment or outside contractors. However, exploration of some geothermal resources can require drilling a full-size well, particularly where the resource is deep underground. If the slim hole is dry , it may be capped and the area reclaimed if we conclude that the geothermal resource will not

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support a commercially viable power project. If the slim hole supports a conclusion that the geothermal resource will support a commercially viable power plant, it may either be:

- Converted to a full-size commercial well, used either for extraction or reinjection of geothermal fluids (Production Well).

- Used as an observation well to monitor and define the geothermal resource.

The costs we incur for exploratory drilling vary from site to site based on various factors, including market demand for drilling contractors and equipment (which may be affected by on-shore oil and gas exploration activities, etc.), the accessibility of the drill site, the geology of the site, and the depth of the resource, among other things. However, on average, exploration drilling costs approximately $5 million for each site.

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

- New information 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.

- Current and expected market conditions and rates for contracted and merchant electric power in the market(s) to be serviced.

- Anticipated costs associated with further exploration activities.

- 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 power plants are as follows:

- Drilling Production Wells.

- Designing the well field, power plant, equipment, controls, and transmission facilities.

- Obtaining any required permits.

- 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 Wells. As noted above, we consider drilling the first Production Well as the beginning of our construction phase for a power plant. 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 to maintain the geothermal resource and surface conditions. The Production Wells are normally drilled by our own drilling equipment. In some cases we use outside contractors, generally firms that service the on-shore oil and gas industry.

The cost for each Production 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. On average, however, our costs for each Production Well range from $3 million to $5 million.

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Design. We use our own employees to design the well field and the power plant, including equipment that we manufacture. 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 the heading Environmental Permits .

Manufacturing. Generally, we manufacture most of the power generating unit equipment we use at our power plants. Multiple sources of supply are 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 the year ended December 31, 2009, two sites moved from the exploration stage into construction, compared to one site during the year ended December 31, 2008. For 2009, these sites were Carson Lake, where a full-sized Production Well was drilled, and McGinness Hills. For 2008, this site was Jersey Valley. During the years ended December 31, 2008 and 2009, we discontinued exploration activities at two sites and one site, respectively, after drilling slim holes and concluding that the geothermal resource at those sites would not support commercially viable power plants at this time. Those sites are Buffalo Valley, Grass Valley and Rock Hills, all in northern Nevada. The costs associated with exploration activities at those sites were expensed during the years ended December 31, 2008 and 2009, respectively (see Write-off of Unsuccessful Exploration Activities under Item 7 Management Discussion and Analysis of Financial Condition and Results of Operations). Six new sites were added to our exploration activities in 2009, compared with five sites that were added to our exploration activities in 2008.

How We Operate and Maintain Our Power Plants. We usually employ one of our subsidiaries (Ormat Nevada, for our domestic power plants) to act as operator of our power plants pursuant to the terms of an operation and maintenance agreement. 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 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 at our power plants.

How We Sell Electricity. In the United States, the purchasers of power from our power plants are typically investor-owned electric utility companies. Outside of the United States, 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 called PPAs) for

the sale of electricity or the conversion of geothermal resources into electricity. A power plant s revenues under a PPA used to consist of two payments energy payments and capacity payments, however 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, such as us) 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

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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.

How We Finance Our Power Plants. Historically we have funded our power plants with a combination of non-recourse or limited recourse debt, lease financing, parent company loans, and internally generated cash, which includes funds from operation, as well as proceeds from loans under corporate credit facilities, sale of securities, and other sources of liquidity. 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 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. To the extent of these limited recourse obligations, creditors of a project financing of a particular power plant may have direct recourse to us.

We have also used a financing structure to monetize PTCs and other favorable tax benefits derived from the financed power plants and an operating lease arrangement for one of our power plants.

For the next few years we expect to qualify for non-recourse or limited recourse debt financings under the DOE loan guaranty program under the ARRA.

The continuing effects of the economic crisis of 2009 could adversely affect our ability to obtain the kind of financing arrangements we have used in the past, and even if those arrangements are still available, the pricing and other terms of such arrangements may not be as favorable to us as in the past.

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 the heading Insurance . To date, our political risk insurance contracts are with 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% to 90% of our revenue loss derived from a specified governmental act such as confiscation, expropriation, riots, the inability to convert local currency into hard

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currency, and, in certain cases, the breach of agreements. We have obtained such insurance for all of our foreign power plants in operation.

Description of Our Leases and Lands

We have domestic leases on approximately 398,300 acres of federal, state, and private land in California, Nevada, Utah, Alaska, Hawaii, Oregon, and Idaho. The approximate breakdown between federal, state, and private leases is as follows:

81% are leases with the U.S. government, acting through the BLM;

10% are leases with various states, none of which is currently material; and

9% are leases with private landowners and/or leaseholders.

Each of the leases within each of the categories has standard terms and requirements, as summarized below.

We own approximately 5,400 acres of land in Nevada and California.

Internationally, our land position includes approximately 27,220 acres.

Bureau of Land Management 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 communitization or unitization agreement if a common geothermal resource is at risk of being overdeveloped.

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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 de-mineralized 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 1-2.5% 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% 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

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dispose of waste brine and other waste products as well as the right to reinject 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 Power Plants

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

Brady Complex

Location Churchill County, Nevada

Generating Capacity	24 MW
Number of Power Plants	2 (Brady and Desert Peak 2 power plants)
Technology	The Brady complex utilizes binary and flash systems. The complex uses air and water cooling systems.
Subsurface Improvements	12 production wells and 6 injection wells connected to the plants through a gathering system.

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Material Equipment	Three OEC units and three steam turbines along with Balance of Plant equipment.
Age	The Brady power plant commenced commercial operations in 1992 and a new OEC unit was added in 2004. The Desert Peak 2 power plant commenced commercial operation in 2007.
Land and Mineral Rights	The Brady complex area is comprised of mainly 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 .
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 leases, and the Brady power plant holds Right of Ways from the BLM and from the private owner that allows access to and from the plant.
Resource Information	The resource temperature at Brady is 284 degrees Fahrenheit and at Desert Peak 2 is 370 degrees Fahrenheit. 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 for a distance of 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.
Temperature Cooling	Approximately 4 degrees Fahrenheit per year was observed during the past 15 years of production. The temperature decline at Desert Peak is less than 1 degree Fahrenheit per year.
Sources of Makeup Water	Condensed steam is used for makeup water.
Power Purchaser	Brady power plant Sierra Pacific Power Company.

	Desert Peak 2 power plant Nevada Power Company.
Power Contract Expiration Date	Brady power plant 2022. Desert Peak 2 power plant 2027.
Financing	OFC Senior Secured Notes (Brady) and OPC Transaction (Desert Peak 2).
Heber Complex	
Location	Heber, Imperial County, California
Generating Capacity	92 MW
Number of Power Plants	5 (Heber 1, Heber 2, Heber South, G-1 and G-2)

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Technology	The Heber 1 plant utilizes dual flash and the Heber 2, Heber South, G-1 and G-2 plants utilize binary systems. The complex uses a water cooling system.
Subsurface Improvements	29 production wells and 34 injection wells connected to the plants through a gathering system.
Material Equipment	17 OEC units and 1 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 G-1 plant commenced commercial operation in 2006 and the G-2 plant in 2005. The Heber South plant commenced commercial operation in 2008.
Land and Mineral Rights	The total Heber area is comprised of mainly 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 in Description of Our Leases and Lands .
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 leases.
Resource Information	The resource supplying the flash flowing Heber 1 wells averages 350 degrees Fahrenheit. The resource supplying the pumped Heber 2 wells averages 325 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 H1 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.
Temperature Cooling	1 degree Fahrenheit per year was observed during the past 20 years of production

Sources of Makeup Water	Water is provided by condensate and by the IID.
Power Purchaser	2 PPAs with Southern California Edison and 1 with SCPPA (Heber South plant).
Power Contract Expiration Date	Heber 1 2015, Heber 2 2023, and Heber South 2031. The output from the G-1 and G-2 power plants is sold under the Heber 1 and 2 PPAs.
Financing	OrCal Senior Secured Notes

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Mammoth Complex

Location	Mammoth Lakes, California
Generating Capacity	29 MW (out of which our ownership is 50)%
Number of Power Plants	3 (G-1, G-2, and G-3)
Technology	The Mammoth complex utilizes binary systems. The complex uses an air cooling system.
Subsurface Improvements	9 production wells and 5 injection wells connected to the plants through a gathering system.
Material Equipment	8 Rotoflow expanders together with the Balance of Plant equipment.
Age	The G-1 plant commenced commercial operations in 1984 and G2 and G-3 commenced commercial operation in 1990.
Land and Mineral Rights	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 in Description of Our Leases and Lands .
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 leases.
Resource Information	The resource temperature is an average of 340 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 (> 3,500 feet) along faults and fracture zones from northwest to southeast east into the field area. The produced fluid has no scaling potential.
Temperature Cooling	1 degree Fahrenheit per year was observed during the past 20 years of production.
Power Purchaser	Southern California Edison

Power Contract Expiration Date	G-1 2014, G2, and G-3 2020
Financing	OFC Senior Secured Notes
North Brawley Power Plant	
Location	Imperial County, California
Generating Capacity	50 MW (See supplemental information below)
Number of Power Plants	1
Technology	Binary system, the plant uses a water cooling system.

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Subsurface Improvements	15 production wells and 15 injection wells are currently connected to the plant through a gathering system.
Material Equipment	5 OEC units together with the Balance of Plant Equipment.
Age	The power plant was placed in service on January 15, 2010.
Land and Mineral Rights	The total North Brawley area is comprised 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 plant 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 .
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 leases.
Resource Information	North Brawley production is from deltaic and marine sedimentary sands and sandstones deposited in the subsiding Salton Trough of the Imperial Valley. The total thickness of these sediments is over 15,000 feet in the Brawley area based on seismic refraction surveys. The shallow production reservoir (1,500 4,500 feet) being developed has matrix permeability and is conductively heated from the underlying fractured reservoir which convectively circulates fluid magmatically heated by the deep basement rocks. Temperatures in the current producing reservoir range from 300 to 380 degrees Fahrenheit (335 degrees Fahrenheit average). Produced fluid salinity ranges from 20,000 to 50,000 ppm, and modest scaling and corrosion potential is chemically inhibited. The deeper fractured reservoir fluids exceed 525 degrees Fahrenheit, but are hypersaline and are not yet developed because of severe scaling and corrosion potential. The deep reservoir is not dedicated to the North Brawley power plant. The resource temperature is an average of 335 degrees Fahrenheit.
Sources of Makeup Water	Water is provided by IID.
Power Purchaser	Southern California Edison
Power Contract Expiration Date	2030
Financing	Corporate funds
Supplemental Information	On January 15, 2010, the power plant was placed in service and it is currently generating at stable level of 17 MW.

While we believe that the power plant s reservoir has sufficient flow to support the 50 MW output, the re-injection of the geothermal fluid has been a challenge due to the existence of an exceptional amount of sand in the geothermal fluid.

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We have made substantial progress in our ability to manage the large quantities of sand in the reservoir by installing certain temporary measures for handling solids. As a result, we are able to maintain a stable generation level of 17 MW, while awaiting the arrival of what is expected to be permanent equipment for the solids handling. The permanent equipment is expected to provide better efficiency as well as a lower operating cost for the facility.

However, it appears that even with the solids in check, the injection capacity of some of the wells is disappointing and we are evaluating how to gradually bring the injection capability to its design capacity.

We plan to request the power purchaser to agree to an extension of the firm operation date to the end of the year. This would give us more time to bring the power plant s generation to its full design capacity of 50 MW.

We have temporarily deferred submitting an application for the ITC cash grant for the project. The cash grant is expected to be more than $100 million.

The power plant currently has an interim transmission agreement with IID. A transmission study expected to be released shortly will allow IID to enter into a permanent transmission agreement.

OREG 1 Power Plant

Location	Gas compressor stations along natural gas pipeline in North and South Dakota.
Generating Capacity	22 MW
Number of Units	4
Technology	The OREG 1 power plant utilizes our OEC units. The plant uses air cooled units.
Material Equipment	4 WHOH and 4 OEC units together with the Balance of Plant equipment.
Age	The OREG 1 power plant commenced commercial operations in 2006.
Land	Easement from NBPL
Access to Property	Direct access to the plant from public roads
Power Purchaser	Basin Electric Power Cooperative

Power Contract Expiration Date	2031
Financing	Corporate Funds

OREG 2 Power Plant

Location	Four gas compressor stations along the Northern Border natural gas pipeline; one in Montana, two in North Dakota, and one in Minnesota.
Generating Capacity	22 MW
Number of Units	4
Technology	The OREG 2 power plant utilizes our OEC units. The plants use air cooled units.

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Material Equipment	4 WHOH and 4 OEC units together with the Balance of Plant equipment.
Age	The OREG 2 power plant commenced commercial operations during 2009.
Land	Easement from NBPL
Access to Property	Direct access to the plant from public roads
Power Purchaser	Basin Electric Power Cooperative
Power Contract Expiration Date	2034
Financing	Corporate funds

Ormesa Complex

Location	East Mesa, Imperial County, California
Generating Capacity	57 MW
Number of Power Plants	4 (OG I, OG II, GEM 2 and GEM 3)
Technology	The OG plants utilize a binary system and the GEM plants utilize a flash system. The complex uses a water cooling system.
Subsurface Improvements	34 production wells and 50 injection wells connected to the plants through a gathering system.
Material Equipment	32 OEC units and 2 steam turbines with the Balance of Plant Equipment.
Age	The various OG I units commenced commercial operations between 1987 and 1989, and the OG II plant commenced commercial operation in 1988. Between 2005 and 2007 significant portion of the old equipment in the OG plants was replaced (including turbines through repowering). The GEM plants commenced commercial operation in 1989, and a new bottoming unit was added in 2007.
Land and Mineral Rights	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 in Description of Our Leases and Lands .

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 leases.
Resource Information	The resource temperature is an average of 307 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.

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Temperature Cooling	1 degree Fahrenheit per year was observed during the past 20 years of production
Sources of Makeup Water	Water is provided by the IID.
Power Purchaser	Southern California Edison under a single PPA.
Power Contract Expiration Date	2018
Financing	OFC Senior Secured Notes

Peetz Power Plant

Location	Gas compressor stations along natural gas pipeline in Denver, Colorado.
Generating Capacity	3.5 MW
Number of Units	1
Technology	The Peetz power plant utilizes our OEC units. The plant uses an air cooled unit.
Material Equipment	2 WHOH and 1 OEC unit together with the Balance of Plant equipment.
Age	The Peetz power plant commenced commercial operations during 2009.
Land	Easement from Trailblazer Pipeline Company
Access to Property	Direct access to the plant from public roads
Power Purchaser	Highline Electric Association
Power Contract Expiration Date	2029
Financing	Corporate funds

Puna Power Plant

Location	Puna district, Big Island, Hawaii
Generating Capacity	30 MW (See supplemental information below)
Number of Power Plants	1
Technology	

	The Puna plant utilizes an Ormat geothermal combined cycle system. The plant uses an air cooling system.
Subsurface Improvements	5 production wells and 3 injection wells connected to the plants through a gathering system.
Material Equipment	10 OEC units consisting of 10 binary turbines, 10 steam turbines along with the Balance of Plant equipment.
Age	The Puna plant commenced commercial operations in 1993.
Land and Mineral Rights	The Puna area is comprised of private leases. The private lease is between PGV and KPL and it expires in 2046. PGV pays annual rental payment to KPL, which is adjusted every 5 years based on the CPI.

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	The State of Hawaii owns all mineral rights (including geothermal resources) in the State. The State has issued a Geothermal Resources Mining Lease to KPL, and KPL in turn has entered into a sublease agreement with PGV, with the State s consent. Under this arrangement, the State receives royalties of approximately 3% of the gross revenues.
Access to Property	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.
Resource Information	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.
Temperature Cooling	The resource temperature is stable.
Power Purchaser	Two PPAs with HELCO
Power Contract Expiration Date	December 31, 2027
Financing	Operating Lease
Supplemental Information	The power plant is currently operating at approximately 17 MW as a result of a decline of the steam supply to the power plant. Our analysis determined that the decline is not related to the reservoir parameters. We believe the issue is a wellbore restriction that reduces the flow from the existing wells to the power plant. We are in the process of implementing a repair through a chemical or mechanical cleaning of the wells. We started the drilling of a new production well to increase the capacity of the power plant. Drilling the new well and connecting it to the power plant is expected to be completed by the end of the second quarter of 2010. We believe this should enable the power plant to generate at full capacity and will support the additional 8 MW project which is under construction. The estimated cost for the new well is approximately $11 million. We are currently negotiating with HELCO a fixed energy rate that would apply to any energy generated and sold above 25 MW.

Steamboat Complex

Location	Steamboat, Washoe County, Nevada
Generating Capacity	85 MW
Number of Power Plants	7 (Steamboat 1A, Steamboat 2/3, Burdette, Steamboat Hills, Galena 2 and Galena 3).
Technology	Binary system (except for Steamboat Hills, which utilizes a single flash system). The complex uses air and water cooling systems.

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Subsurface Improvements	23 production wells and 8 injection wells connected to the plants through a gathering system.
Material Equipment	12 individual air cooled OEC units and one steam turbine together with the Balance of Plant equipment.
Age	The Steamboat 1A plant commenced commercial operation in 1988 and the other plants commenced commercial operation in 1992, 2005, 2007 and 2008. During 2008, the Rotoflow expanders at Steamboat 2/3 were replaced with four turbines manufactured by us and repowered Steamboat 1A.
Land and Mineral Rights	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 in Description of Our Leases and Lands . We have easements for the transmission lines we use to deliver power to our power purchasers.
Resource Information	The resource temperature is an average of 300 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 ft below the surface. Horizontal zones of permeability permit the hot water to flow eastward in an out-flow plume. 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.
Temperature Cooling	2 degrees Fahrenheit per year was observed during the past 20 years of production.
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 leases.

Sources of Makeup Water	Water is provided by condensate and the local utility.
Power Purchaser	Sierra Pacific Power Company (for Steamboat 1A, Steamboat 2/3, Burdette, Steamboat Hills, and Galena 3) and Nevada Power Company (for Galena 2).
Power Contract Expiration Date	Steamboat 1A 2018, Steamboat 2/3 2022, Burdette 2026, Steamboat Hills 2018, Galena 3 2028, and Galena 2 2027.
Financing	OPC Transaction (Steamboat Hills, Galena 2, and Galena 3) and OFC Senior Secured Notes (Steamboat 1A, Steamboat 2/3, and Burdette).

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Foreign Power Plants

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

Amatitlan Power Plant (Guatemala)

Location	Amatitlan, Guatemala
Generating Capacity	20 MW
Number of Power Plants	1
Technology	Binary system and a small back pressure steam turbine (1MW). The plant is air cooled.
Subsurface Improvements	5 production wells and 2 injection wells connected to the plants through a gathering system.
Material Equipment	1 steam turbine and 2 OEC units together with the Balance of Plant Equipment.
Age	The plant commenced commercial operation in 2007.
Land and Mineral Rights	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 3% the of concession area. Under the agreement with INDE, the power plant company pays royalties of 3.5% of revenues up to 20.5 MW and 2% of revenues exceeding 20.5 MW. The generated electricity is sold at the plant fence. The transmission line is owned by INDE.
Resource Information	The resource temperature is an average of 530 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.
Temperature 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 Purchasers	INDE and another local purchaser.
Power Contract Expiration Date	Contract with INDE expires in 2028.
Financing	Senior secured project loan from TCW Global Project Fund II, Ltd.
Supplemental Information	The power plant was registered by the United Nations Framework Convention on Climate Change as a Clean Development Mechanism. It is expected to offset emissions of approximately 83,000 tons of CO_2 per year. The power plant has a long-term contract to sell all of its emission reduction credits to a European buyer.

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Momotombo Power Plant (Nicaragua)

Location	Momotombo, Nicaragua
Generating Capacity	26 MW
Number of Power Plants	1
Technology	Single flash and binary systems. The plant uses air and water cooling systems.
Subsurface Improvements	10 production wells and 7 injection wells connected to the plants through a gathering system.
Material Equipment	1 steam turbine and 1 OEC unit together with the Balance of Plant equipment.
Age	The plant commenced commercial operation in 1983 and was already in existence when we signed the concession agreement in 1999.
Land and Mineral Rights	The total Momotombo area is under a concession agreement which expires in 2014. We sell the generated electricity at the boundary of the plant. The transmission line is owned by the utility.
Resource Information	The resource temperature is an average of 470 degrees Fahrenheit. The Momotombo geothermal reservoir is located within sedimentary and andesitic volcanic formations that relate to the Momotombo volcano. Main flow paths in the geothermal system are a hot reservoir layer. The shallow layer conducted deep fluids that eventually will be discharged at surface at the eastern edge of the geothermal system at the shore of the Lake Managua.
Temperature Cooling	Approximately 3.5 degrees Fahrenheit per year was observed during the past 10 years of production.
Access to Property	Direct access to public roads and access across the property are provided under surface rights granted pursuant to the concession assignment agreement.
Sources of Makeup Water	Condensed steam is used for makeup water.
Power Purchaser	DISNORTE and DISSUR

Power Contract Expiration Date	2014
Financing	Project finance Bank Hapoalim B.M. The loan will be fully paid off in March 2010.

Olkaria III Complex (Kenya)

Location	Naivasha, Kenya
Generating Capacity	48 MW
Number of Power Plants	2 (Olkaria III phase 1 and Olkaria III phase II).
Technology	Binary system. The plants are air cooled.

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Subsurface Improvements	9 production wells and 3 injection wells connected to the plants through a gathering system.
Material Equipment	6 OEC units together with the Balance of Plant Equipment.
Age	Phase I plant commenced commercial operation in 2000 and was incorporated into the phase II plant in January 2009.
Land and Mineral Rights	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 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 220kV sub-station within the power plant before the transmission lines which belong to the utility.
Resource Information	The resource temperature is an average of 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 through low permeability at depth to a high productivity two phase region from 3,280 to 4,270 feet above sea level.
Temperature 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
Power Contract Expiration Date	2029
Financing	Senior secured project finance loan from a group of European DFI

Supplemental Information	We recently signed a letter of intent with KPLC with a view to expansion of the Olkaria III Complex within the framework of the existing PPA. See Projects under Development and Future Projects Olkaria III Phase 3 (Kenya) .

Zunil Power Plant (Guatemala)

Location	Zunil, Guatemala
Generating Capacity	24 MW
Number of Power Plants	1
Technology	Binary system. The plant is air cooled.

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Material Equipment	7 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 the company. The geothermal wells and resource are owned by INDE. Our produced power is sold at our fence; power transmission lines are owned and operated by INDE.
Access to Property	Direct access to public roads.
Power Purchaser	INDE
Power Contract Expiration Date	2019
Financing	Senior secured project loan from IFC and CDC
Supplemental Information	The energy output of the power plant is sold, until the end of 2011, under a take or pay arrangement, under which the revenues are calculated based on 24 MW capacity unrelated to the actual performance of the reservoir (currently 14 MW). From the beginning of 2012, the energy revenues will be paid based on the actual generation of the power plant. In 2009, the energy revenues were approximately 27% of the total revenues of the power plant.

Projects under Construction

We are in varying stages of construction or enhancement of domestic and foreign projects. Based on our current construction schedule, we have new generating capacity of approximately 125 MW under construction in California, Nevada, Minnesota, and Hawaii.

The following is a description of the projects currently undergoing construction:

Carson Lake Project (U.S.)

Location	Churchill County, Nevada
Projected Generating Capacity	20 MW
Projected Technology	Binary system. The plant will be air cooled.

Subsurface Improvements	Awaiting drilling permits.
Land and Mineral Rights	The Carson Lake area is comprised of BLM leases. The leases are currently held by the payment of annual rental payments, as described 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. The project 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 .
Resource Information	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.

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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	Nevada Power Company
Power Contract Expiration Date	20 years after date of commercial operation.
Financing	Corporate funds.
Supplemental Information	Commercial operation of the power plant is expected in 2013. Our initial joint venture with Nevada Power Company for this project contemplated a larger project. We are in preliminary discussions to address the implications of a smaller project.

East Brawley Project (U.S.)

Location	Imperial County, California
Projected Generating Capacity	30 MW
Projected Technology	Binary system. The plant will be water cooled.
Subsurface Improvements	In process.
Material Equipment	Drilling equipment for wells.
Condition	Equipment manufacturing is in process. The project is still awaiting the required construction permits.
Land and Mineral Rights	The East Brawley area is comprised of mainly private leases, on which annual rental payments are paid, as described under Description of Our Leases and Lands. Unless steam is produced in commercial quantities, the primary term for these leases will expire on various dates commencing in June 2012.
Resource Information	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
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 leases.
Power Purchaser	We are negotiating a PPA with Southern California Edison that was allocated from the Wister project.

Power Contract Expiration Date	20 years from commercial operation.
Financing	Corporate funds
Supplemental Information	Based on the assumption that the permit to construct will be obtained in the third quarter of 2010 commercial operation of the power plant is expected in 2012. The project is eligible for financing under section 1703 of the DOE loan guaranty program.

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GRE Project (U.S.)

Location	Gas compressor stations along Northern Boarder natural gas pipeline in Martin County, Minnesota.
Generating Capacity	5.5 MW
Number of Units	1
Technology	Binary system. The plant will use an air cooled unit.
Material Equipment	One WHOH and one OEC unit along with the Balance of Plant Equipment.
Land	Easement from NBPL
Access to Property	Direct access to the plant from public roads
Power Purchaser	Great River Energy
Power Contract Expiration Date	2029
Financing	Corporate funds
Supplemental Information	Plant interconnection to the utility grid line is expected to take place in the spring of 2010. Commercial operation will commence shortly thereafter.

Jersey Valley Project (U.S.)

Location	Pershing County, Nevada
Projected Generating Capacity	15 MW
Projected Technology	Binary system. The plant will use hybrid water and air cooled units.
Subsurface Improvements	In process
Condition	Field development for phase 1 completed. Power generating equipment is in production. Engineering in progress. Construction permit application not yet received.
Land and Mineral Rights	The Jersey Valley area is comprised of BLM leases. The leases are currently held by the payment of annual rental payments, as described in Description of Our Leases and Lands.

	Unless steam is produced in commercial quantities, the primary term for these leases will expire commencing September 30, 2012. The project 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 .
Resource Information	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
Access to Property	Direct access to public roads from leased property and access across leased property under surface rights granted in leases from BLM.
Power Purchaser	Nevada Power Company
Power Contract Expiration Date	20 years after date of commercial operation.

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Financing	Corporate funds We are discussing a possible DOE-guaranteed financing with an institutional investor.
Supplemental Information	Commercial operation of the power plant is expected at the end of 2010.

McGinness Hills Project (U.S.)

Location	Lander County, Nevada
Projected Generating Capacity	30 MW
Projected Technology	Binary system. The plant will use hybrid water and air cooled units.
Subsurface Improvements	1 production well completed and tested.
Material Equipment	Drilling equipment for wells.
Condition	Basic well field site preparation has been completed. Permits to drill have been obtained. One production well was drilled. Drilling for an additional well has begun. Engineering of the power plant is in process. Application for construction permits has not been completed yet. Long lead items are on order or in production.
Land and Mineral Rights	The McGinness Hills area is comprised of BLM leases. The leases are currently held by the payment of annual rental payments, as described in Description of Our Leases and Lands. Unless steam is produced in commercial quantities, the primary term for these leases will expire commencing September 30, 2017. The project 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 .
Resource Information	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
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	Nevada Power Company
Power Contract Expiration Date	20 years after date of commercial operation.

Financing	Corporate funds We are discussing a possible DOE-guaranteed financing with an institutional investor.
Supplemental Information	Commercial operation of the power plant is expected in 2012.
Puna Power Plant (U.S.)	
Location	Puna district, Big Island, Hawaii
Projected Generating Capacity	Additional 8 MW to the Puna power plant.
Projected Technology	Binary system. The plant will be air cooled.

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Subsurface Improvements	In process
Material Equipment	Drilling equipment for wells and Balance of Plant equipment.
Condition	Permits to start construction have been obtained and site construction has begun. Equipment manufacturing was completed.
Land and Mineral Rights	The total Puna area, including the existing power plant, is comprised of private leases. See further description under Puna existing power plant above.
Resource Information	See description of our Puna power plant above.
Access to Property	See description of our Puna power plant above.
Power Purchaser	Negotiations of a PPA are underway with HELCO
Power Contract Expiration Date	Expected to coincide with the PPA of the existing Puna power plant: December 2027.
Financing	Corporate funds
Supplemental Information	Commercial operation of the power plant is expected in 2010.

Tuscarora Project (U.S.)

Location	Elko County, Nevada
Projected Generating Capacity	16 MW (Phase I)
Projected Technology	Binary system. The plant is expected to use hybrid water and air cooled units.
Subsurface Improvements	One full-size production well completed.
Material Equipment	Drilling equipment for wells.
Land and Mineral Rights	The Tuscarora area is comprised of private and BLM leases. The leases are currently held by payment of annual rental payments, as described in Description of Our Leases and Lands. Unless steam is produced in commercial quantities, the primary term for these leases will expire commencing November 20, 2014.

	The project 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 .
Resource Information	The expected average temperature of the resource cannot be estimated as field development has not been completed yet.
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	Nevada Power Company
Power Contract Expiration Date	20 years after date of commercial operation.

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Financing	Corporate funds We are discussing a possible DOE-guaranteed financing with an institutional investor.
Supplemental Information	Commercial operation of the power plant is expected in 2012. The project was acquired in February 2010. Under the PPA, the off-taker will purchase up to approximately 40 MW of electricity from the project, which will be developed in stages with the first stage of approximately 16 MW. The PPA allows for adjustment of the supply amount after the first year of commercial operation. The PPA is subject to approval by the PUCN.

Projects under Exploration and Development and Future Projects

We also have other projects under various stages of development in the United States, Guatemala, Chile, and Indonesia. 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 generation capacity. Upon completion of these projects, their combined generating capacity would be approximately 184 MW.

Mammoth Phase II (U.S.)

We are currently developing Phase II of the Mammoth complex located in Mammoth Lakes, California. We have a 50% ownership interest in the power plant and the other 50% is owned by an unrelated third party.

We were unable to finalize a PPA based on a proposal short-listed by Southern California Edison last year, and recently resubmitted a new proposal for this power plant. An interconnection study is under way. In addition, we are negotiating certain modifications to our joint venture agreement with our 50% partner in this project.

Assuming the successful resolution of the negotiations described above and that we obtain the permits required to commence construction without delays, we anticipate that commercial operation of a 25 MW power plant will occur in 2013.

Olkaria III Phase 3 (Kenya)

We are currently developing Phase 3 of the Olkaria III complex located in Naivasha, Kenya. We recently signed a letter of intent with the off-taker, KPLC, to expand the Olkaria III complex by up to 52 MW (from 48 MW to up to 100MW) within the framework of the existing PPA.

The expansion is to be developed in two phases. Phase I will be comprised of 36 MW within 3.5 years from finalizing the amendment to the existing PPA. An optional phase II may be comprised of up to 16 MW within 4.5 years from finalizing the amendment to the existing PPA. The amendment to the existing PPA is subject to applicable governmental approvals and the consent of the lenders that provided the financing to the existing power plant.

Solar PV Projects (Israel)

We are currently in the process of developing solar PV projects. The following are projects we plan to develop together with Sunday Energy under a joint venture agreement we signed in October 2009. Our ownership interest in these projects is 70%:

A 2 MW project to be built on non-agricultural land located in the north of Israel and comprised of approximately 10 acres. The joint venture will own 50% of the project.

Four 8 MW projects each to be built on agricultural land located in the south of Israel and comprised of approximately 480 acres.

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Two 8 MW projects and an additional 5 MW project to be built on non-agrarian land located in the south of Israel and comprised of approximately 80 acres.

Sarulla Project (Indonesia)

We are a member of a consortium which is in the process of developing a geothermal power project in Indonesia of approximately 340 MW. We own 12.75% of the Indonesian special purpose entity that will operate the project.

The project, located in Tapanuli Utara, North Sumatra, represents the largest single-contract geothermal power project to date, and reflects the large scale, high productivity and potential of Indonesian geothermal resources. The project will be owned and operated by the consortium members under the framework of a Joint Operating Contract with PT Pertamina Geothermal Energy, and is to be constructed in three phases over five years, with each phase utilizing Ormat s 110 MW to 120 MW combined cycle geothermal 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 Sarulla consortium is in negotiations with the state power utility PLN (the off-taker) to adjust the tariff of the PPA, and to introduce other amendments to satisfy lenders requirements. The government has allowed PLN to make contract amendments, including to the tariff, for the Sarulla project and a state audit agency team shall review these contract amendments, which shall also require approval of the Ministry of Energy and Mineral Resources and Ministry of State Owned Enterprises. From past experience it is hard to estimate when these negotiations will be concluded. Construction is expected to start after the Sarulla Consortium obtains financing, a process which we expect to take approximately one year from completion of the PPA negotiations with PLN.

Wister Project (U.S.) (previously known as Imperial Valley)

We are currently developing the Wister project on private leases located in Imperial County, California.

We reallocated the signed PPA for this project (which contemplated a 30-100 MW power plant) to our East Brawley project in Imperial County, California. We intend to negotiate a new PPA for this project.

We secured what we believe to be the appropriate land position for the project. We currently expect the first phase of the project to be 30 MW and expect commercial operation of the first phase in 2012 or 2013.

The project received an exploration grant of $4.5 million under the DOE s Innovative Exploration and Drilling Projects program and the exploration activity under this program has started.

In addition to the geothermal projects listed above, we have various leases for geothermal resources, under which we have started exploration activity but we cannot yet determine their expected generating capacity. These geothermal resources are located in Nevada, California, Alaska, Hawaii, Oregon, and Utah in the U.S., and in Guatemala and Chile. These leases are comprised of approximately 290,000 acres, including the following:

Name of Project	Status
Nevada	
Dead Horse Wells	Completed exploration studies and have started exploratory drilling at the site.

Dixie Meadows	Completed exploration studies and are awaiting permits to start exploratory drilling at the site.
Gabbs	Completed exploration studies and have started exploratory drilling at the site.
Humboldt House	Lease acquired but no further action has yet been taken.
Hyder Hot Springs	Lease acquired but no further action has yet been taken.
Leach Hot Springs	Completed exploration studies and are awaiting permits to start exploratory drilling at the site.
Seven Devils	Lease acquired but no further action has yet been taken.
Smith Creek	Started exploration studies.

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Name of Project	Status
Tungsten Mountain	Acquired 400 acres in the project area, and we plan to start physical exploration work once we secure more acreage.
Wildhorse	Lease acquired but no further action has yet been taken.
California	
East & North Brawley	Deep resource lease acquired but no further action has yet been taken.
Truck Haven	Lease acquired but no further action has yet been taken.
Hawaii	
Maui	Started exploration studies and a $4.9 million DOE exploration grant has been awarded.
Oregon	
Glass Buttes Mahogany	Started exploration studies and a $4.3 million DOE exploration grant has been awarded.
Glass Buttes Midnight Point	Started exploration studies.
Alaska	
Mount Spurr	Started exploration studies.
Utah	
Drum Mountain	Started exploration studies.
Whirlwind Valley	Started exploration studies.
Drum Mountain Expansion	Lease acquired but no further action has yet been taken.
Guatemala	
Amatitlan Phase II	Started exploration studies.
Tecumburu	Surface rights have been obtained but no further action has yet been taken.
Chile	
San Pablo	Exploration concession has been approved but no further action has yet been taken.

In addition to the geothermal resources listed above, we have leases pending for approximately 16,500 acres.

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 consideration for the power units is usually paid 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 at times supported by letters of credit. We have not received any claims under the performance guarantees to date.

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.

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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, such as our PPA with Great River Energy for power from our REG facility on the Northern Border natural gas pipeline.

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. The Neptune recovered energy project is an example of such a model. There, we installed one of our recovered energy-based generation units at Enterprise Product s Neptune gas processing plant in Louisiana. The unit utilizes exhaust gas from two gas turbines at the plant and is providing electrical power that is consumed internally by the facility (although a portion of the generated electricity is also sold to the local electric utility).

Remote Power Units and other Generators. We design, manufacture and sell fossil fuel powered turbo-generators with a capacity ranging between 200 watts and 5,000 watts, which operate unattended in extreme climate conditions, whether hot or cold. 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 for various other uses, including heavy duty direct current generators. The terms of sale of the turbo-generators are similar to those for the power units produced 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 the same customers described above that we target for the sale of our power units for recovered energy-based power generation. Unlike many other companies that provide EPC services, we have an advantage in that we are using our own manufactured equipment and thus have better control over the timing and delivery of required equipment and its 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. We also design and construct the REG units on a turnkey basis, and may provide a long-term agreement to supply non-routine maintenance for such units. Our customers are interstate natural gas pipeline owners and operators, gas processing plant owners and operators, cement plant owners and operators, and companies engaged in the process industry.

In connection with the sale of our power units for geothermal power plants, power units for recovered energy-based power generation and remote power units and other generators, we, from time to time, enter into sales agreements 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.

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Backlog

We have a product backlog of approximately $90.0 million as of February 28, 2010, which includes revenues for the period between January 1, 2010 and February 23, 2010, compared to $194.0 million as of February 24, 2009. The following is a breakdown of the Product Segment backlog:

	Expected Completion of the Contract	Sales Expected to be Recognized in 2010 (In millions)	Sales Expected to be Recognized in the Years Following 2010 (In millions)	Expected Sales Until the End of the Contract (In millions)
Geothermal	2010-2011	$ 40.4	$ 3.8	$ 44.2
Recovered Energy	2010	10.0		10.0
Remote Power Units	2010-2011	27.3*	3.6	30.9
Other	2010	4.4		4.4
Total Product Backlog		**$ 82.1**	**$ 7.4**	**$ 89.5**

* Including $19.4 million, which will become effective upon receipt of a down payment from the customer.

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 and suppliers.

Electricity Segment

Our main competitors among geothermal power plant owners and developers in the United States are CalEnergy, Calpine, Terra-Gen Power LLC, ENEL SpA and other smaller-sized pure play developers such as U.S. Geothermal Inc., Nevada Geothermal Power Corp., Raser Technologies Inc., Sierra Geothermal Company, Magma Energy Inc., Ram Power Corp., and Vulcan Power. Some of these companies are also active outside of the United States. Other competitors outside of the United States, aside from these companies, include affiliates of Chevron Corporation, Energy Development Corporation in the Philippines, developers such as Star Energy and Medco Energi in Indonesia, Mighty River Power in New Zealand and Colbus S.A. in Chile. We may also face competition from national electric utilities or state-owned oil companies.

Our competitors among renewable energy providers include companies engaged in the power generation business from renewable energy sources other than geothermal energy, 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. However, current demand for renewable energy is large enough that this increased competition

has not materially impacted our ability to obtain new PPAs. We cannot ascertain at this time whether the competition from wind and solar energy will have an impact on electricity prices for new renewable projects.

If our plans to become a developer of solar PV power plants succeed, we will be competing with many other developers in this market.

Product Segment

Our competitors among power plant equipment suppliers are divided into two groups: high enthalpy and low enthalpy competitors. The main high enthalpy competitors are industrial turbine manufacturers such as Mitsubishi, Fuji and Toshiba of Japan, GE/Nuovo Pignone, Ansaldo Energia, and Alstom S.A. of France.

The low enthalpy competitors are either binary systems manufacturers using the Organic Rankine Cycle such as Fuji of Japan, United Technologies Company, Mafi Trench, GE Rotoflow of the U.S., and Turboden s.r.l. of Italy, or systems integrators such as Turbine Air Systems and Geothermal Development Associates of the U.S.

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In the REG business, our competitors are Siemens AG of Germany, as well as other manufacturers of conventional steam turbines. We believe that our REG system has technological and economical advantages over the Siemens/Kalina technology and, under certain conditions, conventional steam technology.

In the remote power unit business, we face competition from Global Thermoelectric, as well as from manufacturers of diesel generator sets.

None of our competitors compete with us both in the sale of electricity and in the product business.

Customers

Most of our revenues from the sale of electricity in the year ended December 31, 2009 were derived from fully-contracted energy and/or capacity payments under long-term PPAs with governmental and private utility companies. Southern California Edison, Sierra Pacific Power Company and Nevada Power Company (subsidiaries of NV Energy, Inc.), HELCO, and SCPPA accounted for 21.0%, 12.9%, 6.3% and 2.1% of revenues, respectively, for the year ended December 31, 2009. Based on publicly available information, as of December 31, 2009, the issuer ratings of Southern California Edison, HELCO, Sierra Pacific Power Company, Nevada Power Company, and SCPPA were as set forth below:

Issuer	Standard & Poor s Ratings Services	Moody s Investors Service Inc.
Southern California Edison	BBB+ (stable outlook)	A3 (stable outlook)
HELCO	BBB (Negative outlook)	Ratings Withdrawn
Sierra Pacific Power Company	BB (stable outlook)	Ratings Withdrawn
Nevada Power Company	BB (stable outlook)	Ba3 (stable outlook)
SCPPA	A (Negative 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 business are derived from contractors or owners or operators of power plants, process companies, and pipelines, none of which traditionally account for more than 10% of our product segment revenues. However, for the year ended December 31, 2009, Blue Mountain and Las Pailas accounted for more than 57% of our product segment revenues and 22% of our total revenues.

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 such raw materials are readily available from various suppliers.

Since 2005, we have increased the volume of work ordered from subcontractors for some of the manufacturing for our products components and for construction activities of our power plants, which allowed 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, 2009, we employed 1,090 employees, of which 472 were located in the United States, 468 were located in Israel and 150 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.

None of our employees (other than the Momotombo power plant s employees) are represented by a labor union, and 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.

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We have no collective bargaining agreements with respect to our Israeli employees. However, by order of the Israeli Ministry of Industry, Trade and Labor, 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 non-managerial, finance and administrative, and sales and marketing personnel. This collective bargaining agreement principally concerns cost of living increases, length of the workday, minimum wages, insurance for work-related accidents, procedures for dismissing employees, annual and other vacation, sick pay, 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 and earthquake coverage, and primary and excess liability insurance, as well as customary worker s compensation and automobile insurance and such other 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 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 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 the Multilateral Investment Guarantee Agency (a member of the World Bank Group), and from private sector providers, such as Zurich Re and other such companies. To date all of our political risk insurance contracts are with the Multilateral Investment Guarantee Agency and with Zurich Re. We have obtained such insurance for all of our foreign power plants. Such insurance policies generally cover, subject to the limitations and restrictions contained therein, 80% to 90% of our revenue loss 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.

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 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 megawatts; (ii) the primary energy source of the facility is biomass, waste, renewable resources, or any combination thereof, and 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 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 the FERC prior to December 21, 1994, and construction of the facility commenced prior to December 31, 1999.

PURPA exempts Qualifying Facilities from regulation under the PUHCA 2005 and exempts Qualifying Facilities from most provisions of the FPA and state laws relating to the financial, organization and rate regulation of electric utilities. In addition, FERC s regulations promulgated under PURPA require that electric utilities offer to

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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).

Following passage of the Energy Policy Act of 2005, FERC issued a final rule that requires small power Qualifying Facilities to obtain market-based rate authority pursuant to the FPA for sales of energy or capacity from 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 this final rule is to require Qualifying Facilities that are larger than 20 MW in size that seek to engage in non-PURPA sales of power (i.e., power that is sold in a manner that is not pursuant to a pre-existing contract or state implementation of PURPA) to obtain market-based rate authority from FERC for these non-PURPA sales. However, the rule protects a Qualifying Facility s rights under any contract or obligation for the sale of energy in effect or pending approval before the appropriate state regulatory authority or non-regulated electric utility on August 8, 2005. Until that contract expires, the Qualifying Facility will not be required to file for market based rates.

The Energy Policy Act of 2005 also allows FERC 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 issued a rule to implement these provisions of the Energy Policy Act of 2005. This rule gives utilities the right to apply to eliminate the mandatory purchase obligation. The rule also creates a rebuttable presumption that a utility provides nondiscriminatory access if it has an open access transmission tariff in compliance with FERC s pro forma open access transmission tariff. Further, the rule provides a procedure for utilities that are not members of the four named regional transmission organizations to file to obtain relief from the mandatory purchase obligation on a service territory-wide basis, and establishes procedures for affected Qualifying Facilities to seek reinstatement of the purchase obligation. The rule protects 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.

In addition, the Energy Policy Act of 2005 eliminated the restriction on utility ownership of a Qualifying Facility. Prior to the Energy Policy Act of 2005, electric utilities or electric utility holding companies could not own more than a 50% equity interest in a Qualifying Facility. Under the Energy Policy Act of 2005, electric utilities or holding companies may own up to 100% of the equity interest in a Qualifying Facility.

We expect that our power plants in the United States 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 an elimination of the mandatory-purchase obligation in their service territories. If this occurs, the power plants existing PPAs will not be affected, but the utilities will not be obligated under PURPA to renew these PPAs or execute new PPAs upon the existing PPAs expiration.

PUHCA

The PUHCA was repealed, effective February 8, 2006, pursuant to the Energy Policy Act of 2005. Although PUHCA was repealed, the Energy Policy Act of 2005 created the new PUHCA 2005. 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

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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 that make only wholesale sales of electricity are not subject to state commissions rate, financial, and organizational 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, the FERC has exclusive rate-making jurisdiction over 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. Qualifying Facilities are exempt from most 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 is terminated or otherwise expires, a power plant in excess of 20 MW will become subject to rate regulation under the Federal Power Act.

If a power plant in the United States 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, the FERC may determine that the rates currently set forth in the PPA are not appropriate and may set rates that are lower than the rates currently charged. In addition, the 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 received 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. 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 utility commissions. Sierra Pacific Power Company and Nevada Power Company are regulated by the PUCN. Southern California Edison and a small portion of Sierra Pacific Power Company in the Lake Tahoe area are regulated by the California Public Utility Commission.

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 Hawaii Public Utilities Commission 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

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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 reinject the brine back into the subsurface resource. 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. 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 surface water discharges associated with construction activities. Each well requires a preconstruction air permit before it can be drilled. In addition, the wells that are to be used for production require and those used for injection may require air emissions permits to operate. 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 hazardous materials storage and management permits and pressure vessel operating permits. We are also required to obtain water rights permits in Nevada and may be required to obtain groundwater permits in California to use groundwater resources for makeup water. 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 power plants have been obtained. Although there are some environmental permits and approvals that will be required in the future, we believe that we will be able to obtain those environmental permits and approvals without material delay and without incurring additional material costs.

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 or other penalties.

Environmental Laws and Regulations

Our facilities are subject to a number of environmental laws and regulations relating to development, construction and operation of geothermal facilities. In the United States, 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.

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Our 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, 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 requirement