ORMAT TECHNOLOGIES, INC.

# **SUSTAINABILITY UPDATE 2016-2017**





## **ABOUT THIS UPDATE**

Ormat has shared its progress on sustainability and this for corporate financial disclosure update highlights sustainability purposes. Specific sustainability achievements made in 2016 and reporting content has not been 2017. Check our website www.ormat.com/engagement for regular updates on our sustainability progress.

This sustainability update references the Global Reporting Index's G3 guidelines. However Ormat has not self-declared a GRI disclosure level herein. Ormat is working to further refine data collection processes, and is engaged in efforts to explore other sustainability disclosure and reporting options. Next year, a full sustainability report will be delivered according to the GRI's Sustainability Reporting Standards (SRS).

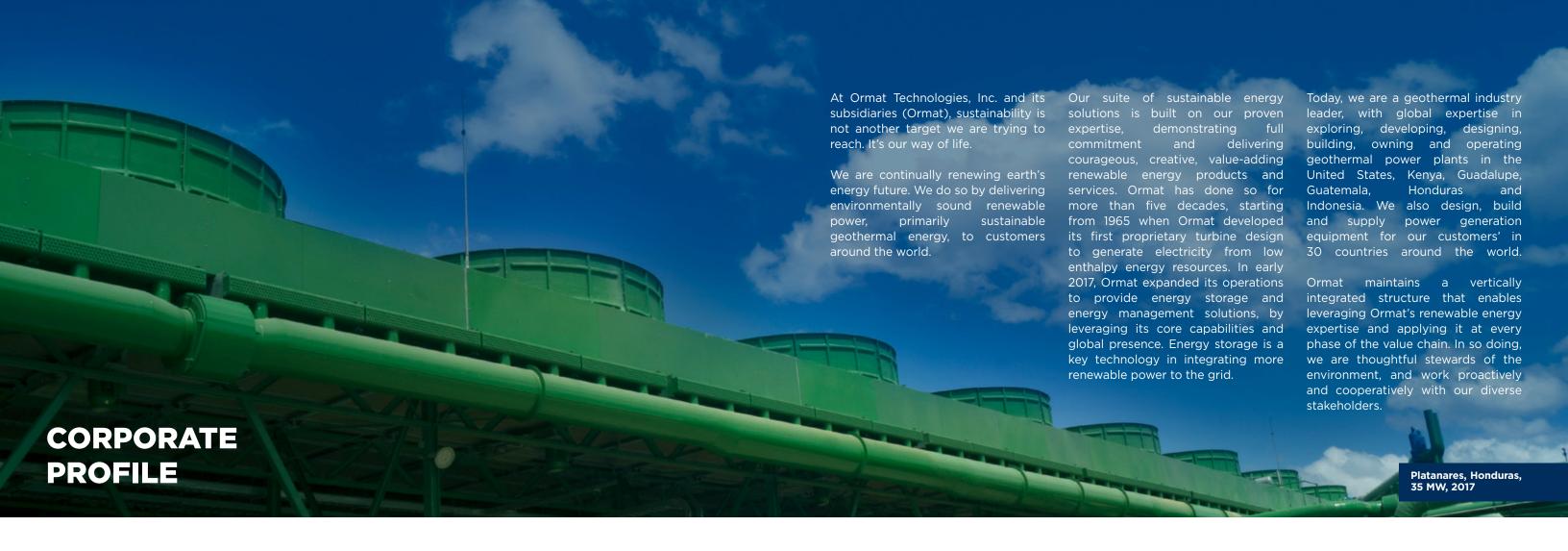
This update is the sixth time All financial and operational data in this update has been verified externally verified.

> Ormat Technologies, Inc. or Ormat refers to the entire company and its subsidiaries. Dollar amounts are in U.S. currency unless otherwise noted.

We welcome your input. Please direct it to sustainability@ormat.com.

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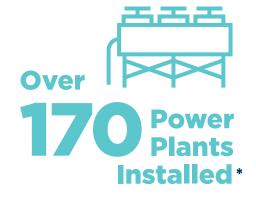
















Largest
Geothermal
power producer
in the US

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\*\* For Reconciliation to US GAAP Financial Information see last page

## RENEWABLE LEADER WITH A GLOBAL PRESENCE









## MESSAGE FROM OUR CEO ISAAC ANGEL

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Ormat was founded and has flourished as a company that develops renewable energy in an environmentally responsible manner. Sustainability has been part of our corporate "DNA" from our inception and continues to be the inspiration

### TO OUR STAKEHOLDERS.

#### **ABOUT THIS UPDATE**

Our commitment to you, our customers, employees, community members, shareholders, regulatory and government representatives, and others in the renewable energy sector, is to report openly and continuously on our sustainability progress.

Since 2011, we have produced a series of sustainability reports that materially reference the Global Reporting Index's (GRI) guidelines. Our next full sustainability report will be published in 2019, in closer alignment with the GRI guidelines, as well as the United Nations Development Program's Sustainable Development Goals (SDGs), as we are currently in the process of redefining long-term sustainability goals. In the interim, this update captures key progress we've made since 2015, the date of Ormat's most recent sustainability report.

Ormat was founded and has flourished as a company that develops renewable energy in an environmentally responsible manner. Sustainability has been part of our corporate "DNA" from our inception and continues to be the inspiration for the growing number of renewable energy sectors in which we are participating and the diverse array of products and services we offer. This can be seen in our core values, which we refined through a strategy and rebranding process in 2017.

### **OUR FIVE CORE VALUES**

- Constant renewal has kept Ormat at the forefront of renewable energy development since our first turbine design back in 1965. It's a promise that we fulfill by continuing to seek new challenges, advance new technologies, enter new fields and test new business models.
- **Stability** is a core value that has helped build and sustain our company,

since our beginning. We've always advocated thoughtful, well-planned renewable energy developments supported by a firm financial foundation. In addition, we believe that a stable workforce, technologies, products and operations are the bedrock on which companies flourish.

- Full commitment to our stakeholders and a sustainable future is a value central to our brand promise. It means that wherever we operate, we are fully committed to delivering safe, reliable, clean, renewable energy products and services that minimize environmental impacts and promote a clean energy future for generations to come. It also means every Ormat employee is dedicated to delivering exceptional products, services and value to all of our stakeholders.
- **Courage** comes from leveraging our collective knowledge, experience, prudent risk management and unwavering focus to deliver the very best results for our clients.
- Finally, **creativity** is our core value reflecting our understanding and appreciation for the uniqueness of our stakeholders and how vital creativity is to delivering solutions specific to their needs.

Together, these five values are what will propel Ormat forward as we seek an even larger platform and position in the renewable energy sector of tomorrow.

## RECORD REVENUE AND OPERATIONAL GROWTH

Ormat has continued to experience strong revenue and operational growth in 2016 and 2017. In 2016, total revenues increased to \$662.6 million, an increase of 11.4% over 2015. In 2017, Ormat revenues for the full year were \$692.8 million, another 4.6% increase over 2016's record. These advances are built on our well-established energy assets and the long-term Power Purchase Agreements through which we sell electricity output, primarily to large utility clients.

During that same time frame, the electrical generating capacity of facilities under our ownership and operation expanded to approx. 800 MW in owned power plants from approx. 670 MW in YE 2015, representing a growth rate of 19%. Increases in employees from organic growth and acquisitions enlarged our global team of employees to 1,300 people. Our company has also grown in geographic range, and added new power plants in Honduras and Indonesia and acquired a plant in French island of Guadeloupe, in the south Caribbean.

All of these initiatives demonstrate Ormat's commitment to continue enlarging the world's renewable energy platform, both in high-demand, highly developed countries and geographies where energy development and infrastructure is less advanced.



For a company developing renewable energy projects and solutions, incorporating innovative storage strategies is a way to complement and reinforce its long-term strategy

#### **OPENING NEW VALUE STREAMS**

Energy storage is one of the most promising horizons in the renewable energy sector and in 2017, Ormat strategically reinforced its position by successfully acquiring Philadelphiabased Viridity Energy Solutions, Inc. (Viridity). Viridity has unparalleled expertise in demand response, energy management and storage, and a suite of proprietary software and solutions that serve a growing number of retail energy providers, utilities and large industrial and commercial clients.

## ENERGY STORAGE IS TRANSFORMATIVE

Advances in energy storage technology are delivering more resiliency and reassurance that energy is always available. For a company developing renewable energy projects and solutions, incorporating innovative storage strategies is a way to complement and reinforce its long-term strategy.

Ormat's strengthened position in energy storage, is designed to give us a strong advantage as power grids continue to evolve and change. Increasing flexibility, balancing opportunities and greater cost savings potential are a few of the attractive incentives transformative energy storage technologies are delivering. As energy storage becomes more mainstream, the tools, facilities, software and ability to effectively manage grid stability, balance fluctuations between generation and load, and optimize savings will become increasingly vital and valuable.

To that end, Ormat has established engineering and project management teams specializing in energy storage and is actively evaluating other markets where the company's deep engineering expertise can be applied to generating facilities, in front of the meter, for large electricity grids, and behind the retail electricity meters of industrial or commercial facilities.

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We go beyond the basics and aim to ensure that the communities in which we operate are better because of our presence there

#### **OUR BRAND NEW BRAND**

Renewing Ormat's brand is one of the most visible steps forward we've taken throughout 2016 and 2017 and is the actual manifestation of our core values. The brand revitalization process was and continues to be of prime importance to our firm, as we embrace a sustainable future as a global renewable energy leader. Our new branding platform and refreshed look and voice tells the Ormat story with a contemporary new look to clearly articulate our core values, defining who we are and where we are headed.

## COURAGE, CREATIVITY AND COMMUNITY

Ormat's core values are also reflected in our community interactions. Our company has long maintained active community outreach programs. The multiple avenues for information exchange and engagement include regular meetings, open houses, comprehensive stakeholder consultation programs and transparent, and timely sharing of all facility monitoring data.

We go beyond the basics and aim to ensure that the communities in which we operate are better because of our presence there. That's why we also encourage the employment of a local workforce. vendors and contractors. It's also why we work to address pressing community needs - healthcare, education and social services - as a means to improve opportunities and outcomes for the people. We invite you to read about specific community development and support projects Ormat furthers around the world, later on in this report.

In closing, I'd like to thank you for your interest in our company and our record of creating a sustainable future. Our success today and tomorrow is a testament to the

hard work, ingenuity and dedication of our people and I'm extremely proud of their contributions and commitment.

We're always interested in hearing what you think about our reporting and outreach and welcome any comments, questions or feedback you may have. Please email us at: info@ormat.com or visit our website at www.ormat.com.

We look forward to continuing to chart new pathways as one of the world's leading innovators in the renewable energy sector.

Sincerely,

Isaac Angel Chief Executive Officer Ormat Technologies, Inc.



## CORPORATE GOVERNANCE

Our Corporate Governance Guidelines, Code of Business Conduct and Ethics and Anti-Corruption Policy outline our corporate governance practices and the expectations our company has for good governance and business practices. All of our corporate governance policies can be found here www.ormat.com/governance

#### 100% COMPLIANCE CERTIFICATE

All new Ormat employees and senior officers of the company must sign a compliance certificate stating their intention to uphold these standards, as a condition of employment. Employees periodically confirm their compliance with our Code of Business Conduct and Ethics and Anti Corruption Policy.

## A FULLY INDEPENDENT NINE-MEMBER BOARD OF DIRECTORS

Ormat is a publicly traded company managed by a fully independent Board of Directors made up of nine members.

#### **BOARD COMMITTEE MANDATES**

Audit, Compensation and Nominating, and Corporate Governance are three key Board committees. See our website www.ormat.com/governance for our corporate documents and charters for each committee of the Board.

## PROFITS ALLOCATED TO DIVIDENDS

Ormat has a dividend policy designed to distribute at least 20% of annual profits (available for distribution, if approved by our Board of Directors) by way of quarterly dividends to registered shareholders.

## **ETHICS SUPPORT FOR EMPLOYEES**

Ormat has a dedicated telephone line and website, where employees may confidentially report concerns about unethical behaviour. In addition, Ormat has an Anti Corruption Committee composed of senior management representatives from various disciplines, who oversee implementation of such principles. Ormat also has a Chief Compliance Officer who reports directly to the Audit committee of the Board of Directors for certain matters.

## PWC-VERIFIED FINANCIAL CONTROL SYSTEMS

PriceWaterhouseCoopers LLP, a registered global professional services firm, is tasked to independently verify the effectiveness of Ormat's internal financial control systems.



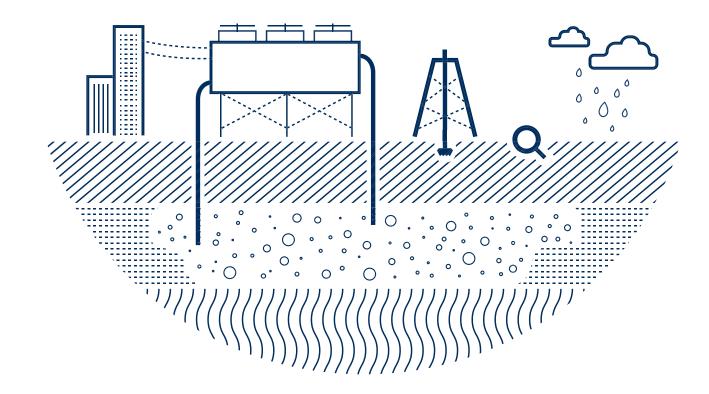
## RENEWABLE ENERGY SOURCES BY ORMAT



## **GEOTHERMAL ENERGY**HARNESSING THE EARTH'S HEAT

Geothermal energy is heat energy derived from the earth's molten core and transported to the surface by movements of crustal plates, to intrusion of molten magma and deep circulation of groundwater. Reservoirs of hot water under pressure are the result of these forces - and it is these underground reservoirs that Ormat harnesses, targets and develops. Drilling wells into geothermal reservoirs enables the steam and high-pressure hot water to be captured and directed to drive turbines in power plants, converting earth-bound energy into electrical energy.

Geothermal energy offers numerous benefits for a world seeking alternatives to polluting and high emission fossil fuels. Geothermal energy is a naturally occruing and locally available resource. It provides firm, flexible and reliable base-load electricity. Equally vital, geothermal is a low carbon alternative that consumes fewer resources such as land capacity and water and it has a much lower impact on the environment, compared with conventional fossil fuel combustion.



## ORMAT TECHNOLOGY

To date Ormat has developed manufactured 2600 MW\* of geothermal and recovered energy power plants since our company was established over 50 years ago. All these power plants operate without fossil fuel consumption and create virtually no air emissions. We are proud of the sustainable focus we've achieved across our entire suite of renewable energy generation technologies and the advances we have helped pioneer in the geothermal industry.

Ormat's vertically integrated structure enables our company to supply complete renewable energy solutions from project start to start-up, from the location identification, permitting, exploration, to equipment design, manufacturing. construction. commissioning and operating. The ability to leverage our experience, knowledge and know-how, gained through years of owning and operating our own geothermal and renewable energy power plants heightens the overall rigor and precision of the solutions we offer.





Ormat has also developed unique expertise in the production of electricity from recovered energy waste heat sources that result as a byproduct of many common industrial processes. Cement manufacturing and gas pipeline compression stations are two examples of processes and equipment that

generate residual heat that has value and can be reused as an energy source. When captured, it can be used to generate electricity without burning additional fuel or generating emissions.

**ENERGY STORAGE** AND DEMAND **RESPONSE SERVICES** 

power markets and is focused on meeting customer and market needs in innovative ways. Early on, we saw how procurement changes and the impacts of intermittent renewable resources would impact the market. Ormat expanded from marketing our renewable power services to investor-owned utilities (IOUs) to creating portfolio Power Purchase Agreements (PPAs) to meet the needs of publicly owned utilities (POUs) as well. In addition, Ormat is developing the next generation of clean energy solutions, including the expansion of our renewables, demand response and energy storage to meet the market needs of consumer choice aggregators.

Ormat recognizes the importance

of being attuned to the constantly

evolving needs of today's modern

Ormat sees a bright future ahead with the fast-developing energy storage, demand response, energy management and micro grid services for electricity, especially in the welldeveloped, high-demand regions of the United States.

In 2017, Ormat secured a strategic foothold in this sector, with the successful acquisition of Viridity Energy Solutions, Inc. This privately held, Philadelphia-based company has nearly a decade of expertise and leadership in demand response, energy management and storage and an array of proprietary software and solutions for primarily retail energy providers, utilities and large commercial and industrial (C&I) clients.

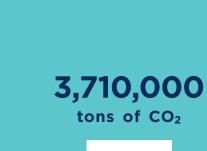
Viridity manages curtailable customer loads under contracts with leading US retail energy providers (in front of the meter) and directly (behind the meter) with large C&I clients. This unique and valuable experience initiating, analyzing, designing and operating energy storage projects, with stateof-the-art grid technologies enable Viridity's customers to optimize their electricity assets. This contributes to a more stable electricity grid for all users, while providing substantial opportunities for customers to monetize savings from smarter electricity management.

**SOLAR ENERGY** HARNESSING THE SUN Solar power is a part of Ormat's renewable energy history. One of Ormat's first units ever manufactured back in 1966 was entirely solar-powered. In the 1970s, Ormat advanced the development of solar pond technology, in which saltwater pools collect and store solar thermal energy.

## **ENVIRONMENTAL IMPACT OF** A RENEWABLE **ENERGY LEADER**

## CONTRIBUTING **TO A LOWER CARBON FUTURE**

load electricity generation methods,







**OIL PLANTS** 

80,000 tons of CO<sub>2</sub>

**ORMAT PLANTS** 





**COAL PLANTS** 

5,190,000

tons of CO<sub>2</sub>







## RESPONSIBLY RESPECTING THE ENVIRONMENT

We have outlined how Ormat's technology has a profound and positive impact on the environment. We take our commitment to the environment even further, by going to great lengths to minimize and mitigate our impact on the environment, adhering to all regulations in each of the different countries in which we operate and by going beyond compliance where we deem fit.

## COMPLIANCE WITH ENVIRONMENTAL LEGISLATION

The countries in which Ormat operates have local environmental protection laws regulating:

- the effect on the environment outside of the power plant, including restrictions on noise, air emissions and discharge of pollutants and contaminants;
- air quality and noise levels inside our power plants, to protect employees;
- Ormat maps and monitors laws regulating our sites and maintains a multi-year plan for the continuous improvement of our environmental performance.

In addition to meeting all legal and regulatory requirements in the multiple jurisdictions in which we operate, Ormat meets the exacting standards of various international operating guidelines and has earned ISO14001 certification.

#### **ENVIRONMENTAL INCIDENTS**

Ormat's facilities and the people who operate them strive to work in full compliance with all applicable environmental regulations. Despite our best efforts, sometimes exceedances (emissions beyond what a facility is licensed to emit), spills or other incidents may occur.

That's why Ormat continually monitors facility performance and reports any incidents that may occur. Close monitoring of our environmental performance provides the information necessary to improve or modify procedures over time, with the goal of preventing future incidents.

## MINIMIZING IMPACTS TO LOCAL RESOURCES

In the U.S. Ormat minimizes our facility footprint by operating in accordance with National Environmental Policy Act (40 CRS 1500.1) if the sites are located on public land. Ormat interacts with various government and regulatory agencies in the U.S., most frequently with the federal Bureau of Land Management (BLM), as well as with the U.S. Forest Service (USFS) and the Department of Defense (DOD). Other federal agencies we consult with on proposed geothermal projects or during permitting application and review processes may include: U.S. Fish and Wildlife Service (USFWS), U.S. Army Corp of Engineers (ACOE), Advisory Council on Historic Preservation (ACHP), U.S. Environmental Protection Agency (EPA), Department of Energy (DOE), National Park Service (NPS), State Historic Preservation Office (SHPO). Ormat is also active in Wildlife Working Groups.



## THE ENVIRONMENT AND TECHNOLOGY – ALWAYS INNOVATING

Ormat's sustainable approach to energy development is based on key technological pillars and an ongoing commitment to advancing the science of renewable energy technologies. It also means finding new ways to operate more sustainably, at every facility, every day.

## OPTIMIZING EVERY FACILITY THROUGH RESOURCE EFFICIENCY

At Ormat, being a responsible facility operator means continually seeking ways to make the most out of every square meter of land our plants occupy and constantly evaluating opportunities to improve our operational efficiency.

Ongoing research equipment helps keep facilities running as cleanly and incident-free as possible. In 2017, our engineering and research and development teams enabled a series of improvements. For example, several facilities were reconfigured to accommodate larger pumps, which can more efficiently extract and process fluids from geothermal reservoirs. This, in turn, reduces the number of wells that are required to properly exploit a geothermal reservoir, thereby reducing our overall land use, while at the same time enhancing the overall operational capacity of the facilities.

The installation of more efficient, angled air-cooling equipment was another compelling improvement that significantly reduced energy consumption at a number of Ormat facilities.

### **LOCAL SERVICE CENTERS**

Ormat provides renewable energy solutions to clients worldwide and we strive to ensure that we minimize the distance that our equipment needs to be transported, again to



reduce unnecessary environmental impacts, while maintaining a streamlined and efficient value chain.

Turkey is one of Ormat's key markets, with Ormat supplying Turkey with over 30 of our power plants in just over a decade. In the past two years we've established a manufacturing workshop in Turkey, which employs 22 local professional workers, and provides the capability to build everything required for local customers in-house. This center better accommodates our client's needs, provides fast and more efficient service to allow the customers to enjoy higher incentives per the Turkish incentive regulation. Another incentive for Ormat to opt for this localized approach was environmental; it reduces both the amount of shipping and logistics issues, as well as time constraints for our customers.

## MCGINNESS HILLS PHASE THREE - AN EVEN SMALLER IMPACT OF THE PLANT ON ITS SURROUNDINGS

Every new facility Ormat develops requires detailed environmental plans to minimize impacts to the surrounding natural lands and wildlife ecosystems, with the hope of minimizing the level of disruption to nearby communities.

After extensive work in 2016 and 2017, Ormat's plan for the 48 MW Phase Three of the McGinness Hills geothermal complex received regulatory approval.

Construction for the expansion, which will boost the overall complex's capacity to 138 MW, is expected to be completed by year-end 2018. This latest expansion incorporates cutting edge facility features designed to reduce impacts such as light and sound pollution and others intended to prevent raven and raptor perching.

## RESERVOIR CONSERVATION THROUGH REINJECTION

A key sustainability driver for geothermal power generation is the conservation and recycling of the water that conveys the heat from deep underground to geothermal power plants on the earth's surface. Ormat, through its unique designs and operating processes, makes strong efforts to ensure that this precious water is not depleted.

The geothermal resources Ormat develops involve reinjection and recirculation essentially of all of the geothermal fluids back into their respective reservoirs, in what are known as "closed loop" systems. This highly efficient method

continuously recharges geothermal systems, by maintaining consistent water flow and pressures. Reinjection of geothermal fluids, which are often referred to as "brines", as they contain water, salts and other minerals, help reduce production-related pressure drawdown and promote enhanced thermal energy extraction from the heated rocks within the reservoir. Importantly, reinjection also avoids the need for disposal of wastewater into nearby surface water bodies and minimizes make-up water required to keep a geothermal reservoir viable. resource Ormat emphasizes management and almost all of our plants are air-cooled without requiring make-up water. Our company is known for our pioneering advances, which achieve 100% recirculation of the exploited geothermal fluid (condensate and brine) back into geothermal reservoirs while avoiding the unsustainable use of water to enhance depleted resources.

#### REDUCING VISIBLE IMPACT

Optimizing locations for energy generating facilities to lessen their visual impact is an important part of reducing the footprint associated with geothermal energy generation. The visible plumes geothermal power plants emit consist of water



vapor emissions in the form of steam. Geothermal power plants do not combust fossil fuels, hence they produce no harmful emissions such as carbon dioxide. Sulphur dioxide or nitrous oxides. Even so, a steam plume's impact can be further reduced by thoughtful design. Ormat designs and sites geothermal facilities to blend into the surrounding landscape, taking into consideration the actual physical location of each facility, the configuration of units that are used to build it, landscaping, paint and other surface finishes. Studies show that over a typical 30-year lifespan of a power plant, a geothermal facility consumes 404 square meters of land per gigawatt hour, while a coal facility consumes 3,632 square meters per gigawatt hour.<sup>2</sup>

## ADVANCING TECHNOLOGY THROUGH PROGRESSIVE RESEARCH

Ormat participates in different research programs that are furthering the understanding of geothermal reservoirs and advancing methodologies efficiencies. increase Ormat was part of the Frontier Observatory for Research in Geothermal Energy (FORGE) initiative (in partnership with Sandia National Laboratory and others) initiated by the U.S. Department of Energy. FORGE yielded new insights and techniques in characterizing potential EGS sites as well as tested new techniques and tools in the field of geothermal drilling technologies.

Currently Ormat is partnering on several proposals to the Dept. of Energy for federally-funded research on drilling technology and machine learning. Ormat is actively looking to partner with organizations, entities and governments on new and emerging technologies in the renewable energy field. INNOVATION IN THE FIELD OF ENERGY STORAGE AND DEMAND

#### **RESPONSE SERVICES**

**Brake-Through Energy Storage** - SEPTA - Viridity has worked with the Southeastern Pennsylvania Transit Authority (SEPTA) since 2012 to develop and operate a fleet of distributed energy storage assets. This "value-stacking" innovation applies a power control system to the subway trains that run on the system, and as they brake, the kinetic energy flows to three storage systems deployed at three separate traction power substations. The battery storage assets are charged from voltage surges caused by regenerative braking events from subway cars and discharge to offset electric supply costs. Viridity manages the system and is the market operator for this stored "braking" power. This dynamic system is designed to achieve higher performance and better subway system electricity use by leveraging flexibility, reducing risk and providing a faster return on investment for system operators.

Value-Stacking in the Village of Minster, Ohio - The Village of Minster. Ohio has a large industrial customer base, and in 2016 Viridity delivered a value stacking and system control with energy storage project for this client, that is deployed behind-the-meter. This involved Viridity in monitoring the municipality's 15-25 MW average load in real-time to guarantee no reverse power flow to electric distribution company feeders. To do so, Viridity introduced a dynamic dispatch modulator and developed a unique software solution to monitor and manage solar power generation through storage. The project was recognized at the 2016 PowerGen Conference as Project of the Year for its ground-breaking innovation.

<sup>\* &</sup>quot;A Guide to Geothermal Energy and the Environment" Geothermal Energy Association, April 2007

## WORKPLACE

Ormat is committed to creating and maintaining a workplace where our people can be their very best. That's why we place a high priority on employee involvement and engagement in the major initiatives that we advance. We believe clarity, transparency and clearly articulated values are fundamental. One such initiative, Ormat's new brand identity and values, is an excellent example of how Ormat relies on employee input, ideas and enthusiasm to create authentic, relevant programs.

Ormat also works to ensure our workplace is fair, open and free from discrimination or harassment. Progressive workplaces attract and retain the best employees, which we recognize as a key driver of our success as a company. Ormat offers equitable and competitive pay and benefits, health insurance and retirement savings plans. Lastly, we offer a wide variety of professional development opportunities design to help individuals excel at their current responsibilities, and to advance in their careers.































## **NEW BRAND AND OUR EMPLOYEES**

For a company operating in 30 countries worldwide, a unified, cohesive brand is critical. Ormat's successful brand launch in September 2017 started with employee involvement. Their collective ideas and shared experience helped shape and test the new branding platform, as well as the five core values that support them. According to Isaac Angel, Ormat's CEO, "Our employees know who we are and where we are headed and played a very valuable role in the rebranding process. We greatly appreciate their contributions." Ormat employee ideas and insights are considered valuable perspectives that enable our company to work more proactively, safely and in tune with the local communities in which we operate.

Ormat's worldwide brand launch event was staged simultaneously on September 18, 2017 so that every employee, regardless of the time zone or country, could celebrate together. Ormat's CEO, Isaac Angel, spoke to employees through a video broadcast, explaining the brand values and what they symbolize. He said, "Ormat's new brand was created by listening to our stakeholders – employees, clients, investors – to ensure it reflects who we are and where we are headed. You, our employees, are our most important brand ambassadors."

All Ormat employees received a special gift to commemorate the new brand, including a reusable tote bag, note pad and water bottle, all featuring Ormat's new logo. Ormat also launched a new website the same day. Response to date has been overwhelmingly positive and Ormat looks forward to continuing to embed the new brand identity throughout all marketing and communication initiatives.





# HEALTH AND SAFETY PERFORMANCE



#### **SAFETY IS OUR #1 PRIORITY**

The health and safety of our employees, contractors, the public and the environment is an overarching priority at Ormat. We manage risks by identifying, assessing and controlling risks in every facility, office and workspace that we own and/or operate. We promote safety awareness and values so we can achieve our goal of zero casualties. We also work to continuously improve our safety performance and instil a strong workplace safety culture.

The countries in which Ormat operates have local laws regulating these issues. These include safety and general requirements, including ventilation, fire protection, personal protection, railings, electric protection, and employee training on pertinent issues.

Ormat's Health & Safety Policy is focused on four components:

- Everyone, Everyday Ormat employees are integral to safe operations, each charged with the responsibility to work safely and helping to create and maintain a safe work environment.
- **Manage Hazards -** Ormat strives to systematically identify hazards, and then manage them by elimination, isolation or minimization.
- Safety as a Core Value Safety is a core value at Ormat. We are committed to safeguarding employees and assets, customers, the community and the environment at all times.
- Continual Vigilance Our goal of zero incidents requires that all employees maintain constant vigilance to ensure that unsafe acts or work conditions are identified, addressed, regulated and prevented, wherever possible.

#### TRAINING IMPROVES SAFETY

Every Ormat facility has a safety-training program. Ormat's company wide Safety Strategy Committee directs all safety training programs, working to ensure that Ormat's Health & Safety Policy and its underlying components are clearly communicated to and understood by employees and contractors.

To further reinforce safety across our operating facilities, Ormat has appointed in 2016 an Environment, Health and Safety Director, with responsibility for oversight of all safety policies, processes, training and work practices company-wide. Plant managers at each Ormat operating site are accountable for implementation of these safety initiatives at the local level.



# COMMUNITY INVESTMENT & STAKEHOLDER INVOLVEMENT

## THINKING GLOBALLY, ACTING LOCALLY

## THE POWER OF A POSITIVE APPROACH

Ormat values positive, long-term relationships and strives to create them wherever we operate. We do so by listening carefully to our stakeholders' concerns and ideas. We create policies and protocols to guide stakeholder interaction and make these efforts in a timely, transparent and respectful manner.

#### **PARTICIPATION AND BENEFITS**

At Ormat, we believe in being an active participant in the communities in which our plants operate. We want the communities we interact with to benefit from our presence. We also believe that communities have the right to know how we operate to ensure that our employees, the public and the environment are protected.

We recognize that every part of our connection with stakeholders – from pre-development and planning through to facility shutdown – is important.

We have a diverse array of stakeholders. They include our employees, customers, shareholders, utilities, regulatory and governing authorities, lenders, suppliers, scientists and local community members residing near our power plants.

#### WHO ARE ORMAT'S STAKEHOLDERS?



## Shareholders

who own Ormat stock



#### Customers

we sell equipment to and build power plants for



#### **Utilities**

who buy the power we generate



#### Lenders

who lend us financial resources



### Residents and Business Owners

who live or operate near our power plants



#### **Employees**

of Ormat worldwide



## Local Government Officials

at municipal, state and federal levels



## **Environmental Regulators**

who develop policy and enforce regulations



## **Scientific Researchers**

who supply products and services

#### STAKEHOLDER INTERACTION TOOLS



Website



**Community relations** 



Civic engagement



**Facility tours** 



**Buying locally** 



#### **OUR CONFLICT MINERALS POLICY AND SUPPLY CHAIN DUE DILIGENCE**

Ormat has adopted a Conflict Minerals Policy, in compliance with the U.S. Securities and Exchange Commission's Dodd-Frank Wall Street Reform and Consumer Protection Act (known as "the Conflict Minerals Rule"). Our Conflict Minerals Policy defines principles, commitments and expectations that extend to Ormat's partners, subcontractors and suppliers, with the intention of identifying, to the best of our ability and knowledge, sources of the relevant minerals under the Conflict

Minerals Rule, i.e. tin, tantalum, tungsten and gold, in the components and materials supplied to us and which are necessary to the production or functionality of our products. Our policy fully supports the intention of the Conflict Minerals Rule, which is not to economically disadvantage areas of conflict in the Democratic Republic of Congo and surrounding countries, but rather to significantly reduce or eliminate funding of armed groups that have a record of human rights abuses in the region. As such,

we have a broad commitment to human rights and our understanding of the impact of our activities is realized in our continued efforts to perform effective due diligence on the sourcing practices within our supply chain. Our due diligence processes are materially based on the internationally-recognized Conflict Minerals due diligence framework introduced by the Organization for Economic Cooperation and Development (OECD).



# ORMAT'S COMMUNITY CONNECTIONS AROUND THE WORLD

Ormat's commitment to community support typically begins well before we begin development in a new region, as we strive to understand the relevant regulatory frameworks, and the cultural and socioeconomic nuances of local community life.

#### IN THE UNITED STATES

A responsible citizenry, improved social conditions, economic self-sufficiency and the enrichment of individuals' lives are just a few of the benefits delivered by public education. As such, Ormat is a supporter and promoter of universal access to education. Our company's decision in late 2017 to commit substantial funds over three years to the Mammoth Lakes Foundation underscores this corporate commitment.

Publicly announced early in 2018, these funds will support student scholarships for Mono County students attending Cerro Coso Community College in the Eastern Sierra region of Southern California.

Ormat's Executive Director Paul Thomsen, says, "Ormat has been a part of the Mammoth community for more than 30 years and this partnership aligns with our ongoing efforts to support community development through funding scholarships and institutions that promote higher education."

The scholarship funding provided by the Mammoth Lakes Foundation cover student's full tuition.

In addition, throughout 2016 and 2017, Ormat continued to make our presence felt through other corporate and community partnerships designed to promote health, well-being, dignity and self-sufficiency. Ormat in the US is a proud supporter of the Food Bank of Northern Nevada.

Ormat also contributed to the building of an adaptive children's park in Mammoth Lakes, California. Later in 2017, Ormat was pleased to be one of the co-hosts supporting UtahCleanEnergy's Embracing Clean Energy party and fundraising initiative.





#### **AN "OPEN DOOR" POLICY**

Opening doors is an integral facet of Ormat's approach to community relations, which is why our company hosts hundreds of plant tours annually for visitors, including governmental and environmental regulatory officials, researchers and students who wish to learn more about renewable, and specifically geothermal, energy.

Through 2016 and 2017, Ormat's geothermal facilities have been visited by a diverse array of groups amounting to hundreds of visitors- from Indonesian Members of Parliament to members of the Sierra Club to fourth graders from St. Albert Catholic School.

Our goal for every tour is to inform and engage our stakeholders, giving them a first-hand look at how geothermal and other renewable energy sources are playing an increasingly vital role in a cleaner energy future and contributing to the stability and affordability of the electricity grid.



#### **IN GUATEMALA**

Ormat operates two geothermal power plants in the Guatemalan communities of Zunil and Amatitlan and has been a partner in these communities since 1999 and 2007, respectively. Trust plays a significant part in these long-standing community relationships - both as a quality that characterizes interactions between Ormat and our stakeholders, and through two actual trusts - the Orpacaya Trust and the Tigo Foundations. All community involvement initiatives are funneled through these trusts, which are designed to facilitate community input and decision-making, with local community leaders.

The Orpacaya Trust achieved great success with a reforestation event in July 2016, an annual effort to promote the natural forest habitat. AGRECA, a manufacturer of aggregate materials for the cement industry, donated 3,000 trees for replanting and the Orpacaya Trust Fund provided 600 backpacks filled with a healthy lunch to help fuel the volunteers, as well as donated an additional 3,500 trees. Other promotional items, including t-shirts, basketballs and an opening celebration helped instill enthusiasm and pride in this important greening effort.



#### **IN HONDURAS**

Since 2012, Ormat has actively participated in the development of Hondura's geothermal energy capabilities, through involvement in the Geotermica Platanares geothermal project, in cooperation with ELCOSA, a privately owned Honduran energy company.

Ormat's consultation and relationship-building with local Honduran communities is designed to enhance quality of life, education and healthcare opportunities.

Roadway improvements in Yarusin and Maicupa were major infrastructure improvements that Ormat underwrote during the past two years. The effort acknowledged roadway impacts made by heavy machinery during construction of the Geotermica Platanares and Ormat, together with project partners, worked to ensure that the roadways were restored to their pre-construction conditions.

Ormat gifted schools in the area of direct influence close to transmission lines from the Geotermica Platanares geothermal facility with 100 school desks, to improve the educational learning environment. The beautifully carved wooden desks are durable, functional and more comfortable for the students and are intended to improve students' overall learning experience. A donation of bicycles was also made these schools to enhance recreational opportunities for local school children.

Family-oriented celebrations play a significant role and are an important aspect of local Honduran culture. In 2016 and 2017 Ormat contributed to a series of events honouring Children's Day, Student's Day, Mother's Day and Christmas. Ormat underwrites the costs of basic food baskets, cakes and piñatas for these occasions.





#### IN GUADELOUPE

In 2016, Ormat purchased an ownership stake in Geothermie Bouillante SA, which operates a geothermal power plant on the French island of Guadeloupe, in the southern Caribbean. In Bouillante we applied our technology and expertise to optimize the facility, and after only six months we increased the plant generating capacity by 50% to its current design capacity of 15 MW. Currently, we plan to expand the plant generating capacity by additional 10 MW by the end of 2020.





#### **IN KENYA**

Orpower 4, Inc. is the Ormat subsidiary operating in Kenya, where the Olkaria III geothermal complex continues to grow. Olkaria III has a unique location, inside Hellsgate national park, a wildlife sanctuary. Since 2001, Ormat has made annual contributions to the Kenya Wildlife Service, which helps facilitate the environmental and ecosystem management of the park.

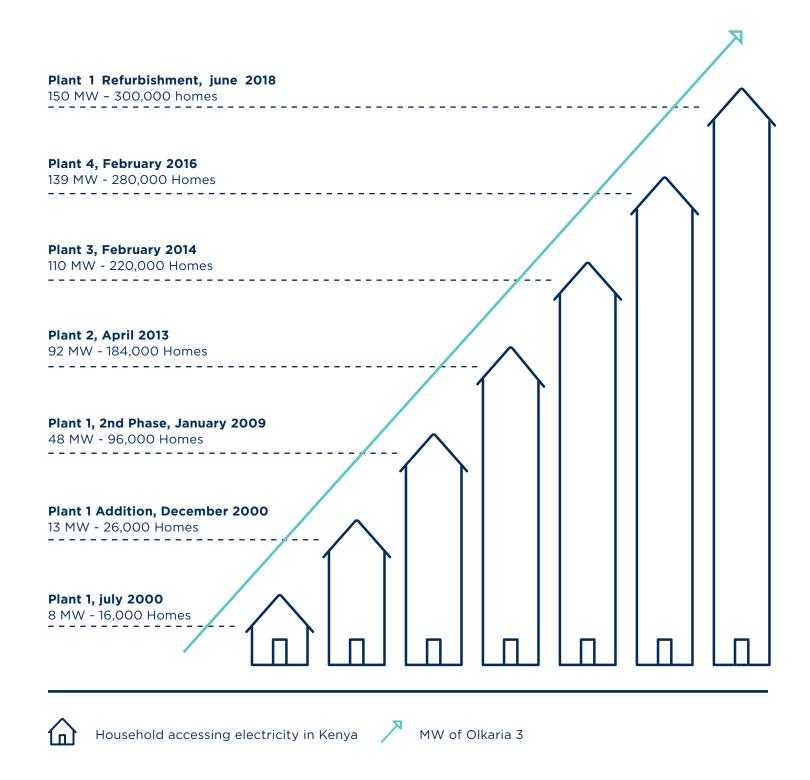
Ormat has a well-established program of funding education programs in the Kenyan communities near our operation, with a special emphasis on providing scholarship opportunities for bright young girls. Providing higher education opportunities presents new pathways for female students and opens doors to careers as an alternative to early marriage.

In 2016 and 2017, Ormat contributed funds to help strengthen local educational infrastructure, funding the building of separate sanitary convenience stations for girls and boys, and providing new classroom desks, tables and chairs.

In addition, Ormat has kept education a priority by continuing to provide funds that supplement salaries for additional teachers and extra-curricular learning opportunities, such as field trips for students.

Ormat continues to respond to specific needs that arise in Kenyan communities, contributing to efforts such as feeding programs that provide porridge and lunch for students, furnishing water tanks for community groups and providing funding for a local orphanage.

## ORMAT'S OLKARIA 3 FACILITY CONTRIBUTION TO KENYE - TODAY 150 MW\* LIGHT 300,000 KENYAN HOMES\*\*



<sup>\*</sup> As of june 2018

## **ORMAT'S SAFE HARBOR STATEMENT**

Information provided during this update may contain statements relating to current expectations, estimates, forecasts and projections about future events that are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995.

These forward-looking statements generally relate to the company's plans, objectives and expectations for future operations, and are based on management's current estimates and projections offuture results or trends. Actual future results may differ materially from those projected as a result of certain risks and uncertainties.

For a discussion of such risks and uncertainties, please see risk factors as described in Ormat Technologies, Inc.'s Form 10-K/A filed with the SEC on June 19, 2018 and Form 10-Q for the period ended June 30, 2018 filed with the SEC on August 8, 2018 and the other documents Ormat files with the SEC from time to time.

In addition, during this report, statements may be made that include a financial measure defined as non-GAAP financial measures by the Securities and Exchange Commission, such as EBITDA and adjusted EBITDA. These measures may be different from non-GAAP financial measures used by other companies. The report of this financial information is not intended to be considered in isolation or as a substitute for the financial information prepared and presented in accordance with GAAP. Management of Ormat Technologies believes

that EBITDA and adjusted EBITDA may provide meaningful supplemental information regarding liquidity measurement that both management and investors benefit from referring to this non-GAAP financial measures in assessing Ormat Technologies' liquidity, and when planning and forecasting future periods. This non-GAAP financial measures may also facilitate management's internal comparison to the company's historical liquidity. EBITDA and Adjusted EBITDA are not a measurement of financial performance or liquidity under accounting principles generally accepted in the United States of America and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net earnings as indicators of our operating performance or any other measures of performance derived in accordance with accounting principles generally accepted in the United States of America. EBITDA and Adjusted EBITDA are presented because we b elieve they are frequently used by securities analysts, investors and other interested parties in the evaluation of a company's ability to service and/or incur debt. However, other companies in our industry may calculate EBITDA and Adjusted EBITDA differently than we do.

## RECONCILIATION TO US GAAP FINANCIAL INFORMATION

We calculate EBITDA as net income before interest, taxes, depreciation and amortization. We calculate Adjusted EBITDA as net income before interest, taxes, depreciation and amortization,

adjusted for (i) termination fees, (ii) impairment of long-lived assets, (iii) write-off of unsuccessful exploration activities, (iv) any mark-to-market gains or losses from accounting for derivatives, (v) merger and acquisition transaction costs, (vi) stock-based compensation, (vii) gain from extinguishment of liability, and (viii) gain on sale of subsidiary and property, plant and equipment. EBITDA and Adjusted EBITDA are not a measurement of financial performance or liquidity under accounting principles generally accepted in the United States of America and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net earnings as indicators of our operating performance or any other measures of performance derived in accordance with accounting principles generally accepted in the United States of America. EBITDA and Adjusted EBITDA are presented because we believe they are frequently used by securities analysts, investors and other interested parties in the evaluation of a Company's ability to service and/or incur debt. However, other companies in our industry may calculate EBITDA and Adjusted EBITDA differently than we do.

The following table reconciles net income to EBITDA and Adjusted EBITDA for the twelvemonth periods ended December 31, 2017 and 2016.

	Year Ended December 31,	
	2017	2016
	(in thousands)	
Net Income	147,109	96,294
Adjusted for:		
Interest expense, net (including amortization of deferred financing costs)	53,154	66,418
Income tax provision	21,664	37,059
Adjustment to investment in an unconsolidated company: our porportionate share in interest expense, tax and depreciation and amortization in Sarulla	(265)	-
Depreciation and amortization	108,693	99,141
EBITDA	\$ 330,355	\$ 298,912
Mark-to-market on derivative instruments	(1500)	319
Stock-based compensation	8,760	5,157
Gain on sale of subsidiary and property, plant and equipment	-	(686)
Termination fee	-	-
mpairment of long-lived assets	-	-
oss from extinguishment of liability	1,950	5,780
Merger and acquisition transaction costs	2,460	335
Settlement expenses	-	11,000
Write-off of unsuccessful exploration activities	1,796	3,017
Adjusted EBITDA	\$ 343,821	\$ 323,834

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<sup>\*\*\*</sup> USAID's Power Africa project 2013 annual report, see www.usaid.gov/powerafrica



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