



## Company Overview

Ormat is a US based utilities company with a focus on geothermal energy. ORA operates within 3 main segments: Electricity, Products, and Energy Storage. 92% of their energy output comes from geothermal plants, with the rest from REG, and Solar plants. Their current global energy output is 1,215MW and is expected to increase by 230MW-260MW by 2025. In 2024, ORA acquired 3 geothermal plants and 2 solar plants in the US from ENEL Green Power for \$271M. 2 key plants in production are the US Arrowleaf Solar plant in early 2025 and the New Zealand Topp 2 Geothermal plant in Q4 2025. For their products segment, they sell equipment for renewable power plants and act as an OEC contractor for power plant construction. Ormat specializes in Binary-Cycle plants and specifically ORC (Organic Rankine Cycle) based plants with 77 patents globally covering ORC. Ormat owns 192 patents globally and 58 in the US with patent terms going out till 2040 with no patent cliff expected to dramatically affect profits. ORA has stated an intent to focus more on energy storage by focusing on developing and optimizing its battery energy storage system (BESS). Key customers include SCPPA (US), NV Energy (US), and KPLC (Kenya) with each accounting for 21.5%, 16.9%, and 14.4% of revenue for 2023 respectively.

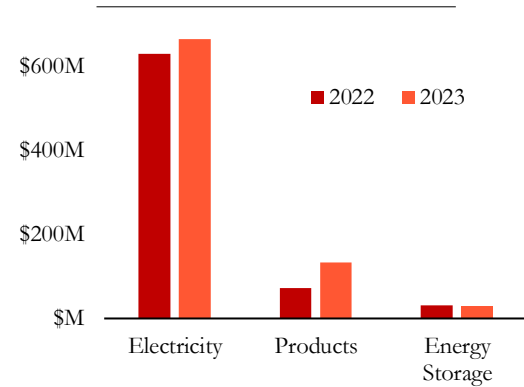
## Industry Overview

The industry is becoming more competitive as tax benefits and fluctuating commodity prices lead geothermal to become a more attractive alternative energy. Geothermal will never be an alternative to O&G globally, but it could be the main source of energy for smaller and developing countries along fault lines. Iceland currently gets around 66% of its energy from geothermal plants and countries like Kenya are rapidly expanding their geothermal production capacity. The project values on the right show an increased rate of wattage growth as opposed to previous years' linear growth trend. GeoVision sees U.S. geothermal net-summer capacity increasing from 2.5GW to 6GW by 2050 whereas the IRT projects 13GW. While traditionally it was thought that the "best" spots for geothermal drilling were already taken, Binary-Cycle plants and ESG lead to more suitable spots and potential plants off a fault line. Binary-cycle plants are set to overtake flash steam plants as the primary geothermal plant type in the future due to a lower required temperature and longer use life. The potential for geothermal energy to be used in the US to directly heat housing could cause increased demand.

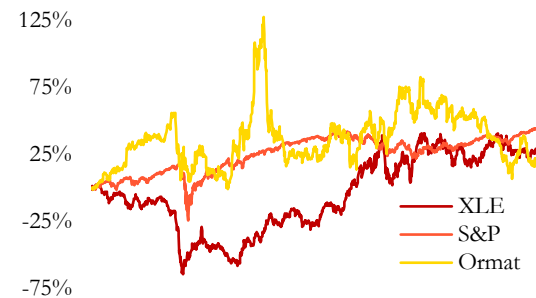
## Key Government Regulation

The Inflation Reduction Act of 2022 (IRA), signed into law in the United States, introduces various tax incentives aimed at promoting climate change mitigation, clean energy, and electric vehicles. These incentives include a new corporate alternative minimum tax, an excise tax on stock repurchases, and significant tax benefits for energy and climate initiatives such as Production Tax Credits (PTCs) and Investment Tax Credits (ITCs). Ormat Systems, under Israel's Investment Law, has received tax benefits including a reduced corporate tax rate for qualified income and an approval for reduced tax rates on certain technological income, resulting in a lower effective tax rate reflected in their net income. Recent tax regulations in Kenya have helped to boost revenues in the energy segment. The Kenyan government plans to reach 10 GW of energy by 2037 and passed the 2023 Finance Act in June lowering corporate taxes by 7.5%, leading to an income tax benefit of 9.4M for 2023.

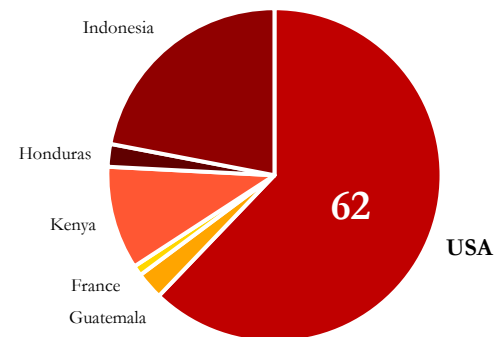
## Revenue by Segment



## ORA | XLE | S&P (5 year growth)



## Revenue by Geography



Ticker: ORA | Price: \$67.12  
Mkt Cap: \$4.05B | Rev: \$734M  
EV/EBITDA Q3: 53.23x | R&D: \$5.08M

## Current Plants

(70+ MWs)

### Olkaria III Complex

150 MW Capacity  
Kenya  
Geothermal Plant  
11 Yr PPA Tenor

### McGinness Hills

146 MW Capacity  
US (East Nevada)  
Geothermal Plant  
15 Yr PPA Tenor

### Heber Complex

91 MW Capacity  
US (California)  
Geothermal Plant  
10 Yr PPA Tenor

### Steamboat Complex

79 MW Capacity  
US (West Nevada)  
Hybrid Geothermal Solar Plant  
19 Yr PPA Tenor

## Plants In Construction

(40+ MWs)

### Topp 2

50 MW Capacity  
New Zealand  
Geothermal Plant  
PPA Confirmed

### Arrowleaf

42 MW Capacity  
US (California)  
Solar Plant  
PPA Confirmed





## BUY Theses

### Patent Barrier and R&D Focus

Geothermal energy holds significant promise as a renewable resource, offering a nearly constant energy supply. However, the construction of geothermal plants is costly and fraught with risks. Despite the current high costs, the geothermal industry is nearing a pivotal point where accessibility may increase dramatically. Ormat is well-positioned to capitalize on this shift due to its robust patent strategy across various sectors. The company excels in binary-cycle plants, which are superior to traditional flash and dry steam plants in terms of production rate, durability, and site adaptability. Ormat's Organic Rankine Cycle (ORC) is a key technology and is responsible for 27 GM patent rejections in attempts to capitalize on Ormat innovations. Ormat strategically manages its patents, assigning individual protections to components such as the Air-Cooled Condenser, which undergoes continuous enhancements, including recent additions like the Water-Gas Valve (WGV). Each innovation provides an opportunity to extend their patent coverage, maintaining a competitive edge. In 2023, the company increased its R&D investment from \$5 million to \$7.2 million, focusing particularly on energy storage. In the first quarter of 2024 alone, Ormat secured two new patents for its power plant technologies and filed for another patent related to well pumps. Ormat has initiated a pilot project for a small-scale Battery Energy Storage System (BESS) set for trial in late 2024. A notable area of innovation is Enhanced Geothermal Systems (EGS), which allow for significantly more heat extraction from the earth, potentially doubling a plant's capacity from 50MW to 100MW. Ormat is at the forefront of EGS technology, having completed one of the only two successful projects endorsed and financed by the Department of Energy (DOE). This advancement in EGS technology is likely to make geothermal energy a more appealing option for investors, positioning Ormat as a leader in this evolving market.

### Vertical Integration and Global Positioning

Ormat has established control over its supply chain, including equipment manufacturing, research, drilling, and energy storage. This vertical integration, paired with their diverse portfolio, positions them for substantial returns during their global expansion. Since they have such active role in the development of Binary-Cycle plants, they are able to optimize the technology and offset its high parasitic load with solar energy to effectively sell solar for the price of geothermal. Their battery storage segment further complements the recent solar plants and can be used to offset the lack of sunlight light during the night. These efficiencies and coverage across different verticals will aid Ormat in its recent emphasis on global expansion. Historically, Ormat has limited its operations outside the US, however their backlog consists of 77% international projects, which shows how the company has already begun this change. The upcoming New Zealand plant, projected to produce 50 MW, represents their largest single construction venture to date. While foreign government regulation acts as a barrier that limits expansion, Ormat's different verticals can capitalize off growth in these areas. KenGen in Kenya and PLN in Indonesia are both state-owned and dominate their respective markets leaving little room for foreign competitors. As these organizations seek more modern equipment, they will turn to Binary-Cycle technology where Ormat has dominance. Their wide value proposition positions them well for the upcoming wave of global regulations involving geothermal and renewable energy. Although government-owned geothermal companies pose competition, Ormat's significant international product backlog and increasing OEC sales indicates their capacity to capitalize on market trends. With legislation increasingly favoring geothermal energy, Ormat is strategically positioned to reap benefits on a global scale.

DCF Overview		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
Sum of FCF	(\$1,477,401)	Revenue	\$879,408	\$944,680	\$1,019,084	\$1,115,769	\$1,211,811	\$1,282,455	\$1,345,252	\$1,398,304	\$1,439,920	\$1,468,719
10Y EBITDA	\$1,089,194	Growth %	6.03%	7.42%	7.88%	9.49%	8.61%	5.83%	4.90%	3.94%	2.98%	2.00%
EV/EBITDA	14.28x	EBIT	\$186,292	\$192,549	\$198,095	\$205,812	\$214,625	\$222,315	\$275,397	\$330,104	\$385,276	\$439,658
Terminal Value	\$15,557,037	% Revenue	21.18%	20.38%	19.44%	18.45%	17.71%	17.34%	20.47%	23.61%	26.76%	29.93%
Discounted TV	\$7,617,412	EBT	\$130,049	\$132,132	\$132,919	\$134,452	\$137,123	\$140,295	\$189,361	\$240,675	\$293,185	\$345,726
Present EV	\$6,140,012	% EBIT	69.81%	68.62%	67.10%	65.33%	63.89%	63.11%	68.76%	72.91%	76.10%	78.64%
Implied EV	\$6,140,012	Capex	\$713,650	\$784,526	\$859,873	\$935,275	\$923,485	\$790,950	\$775,068	\$748,007	\$710,618	\$649,535
Debt	\$1,917,407	% Revenue	81.15%	83.05%	84.38%	83.82%	76.21%	61.67%	57.62%	53.49%	49.35%	44.22%
Prefered Stock & Other	\$136,300	D&A	\$231,255	\$262,218	\$294,488	\$328,894	\$367,659	\$425,212	\$483,655	\$541,800	\$598,394	\$649,535
Cash	\$195,800	% Revenue	26.30%	27.76%	28.90%	29.48%	30.34%	33.16%	35.95%	38.75%	41.56%	44.22%
Implied Equity Value	\$4,282,105	NWC	\$154,915	\$156,999	\$169,144	\$184,300	\$199,431	\$211,345	\$219,014	\$224,997	\$229,085	\$231,116
Shares (In Thousands)	\$60,380	% Revenue	17.62%	16.62%	16.60%	16.52%	16.46%	16.48%	16.28%	16.09%	15.91%	15.74%
Current Share Price	\$63	Unlevered FCF	(\$325,131)	(\$388,092)	(\$420,321)	(\$456,772)	(\$403,573)	(\$213,530)	(\$94,384)	\$40,452	\$185,048	\$347,757
Implied Share Price	\$71	FCF (WACC: 8.26%)	(\$300,331)	(\$331,146)	(\$331,290)	(\$332,559)	(\$271,415)	(\$143,605)	(\$58,635)	\$23,213	\$98,090	\$170,277

