

Geothermal Power Ormat

The 2020 edition of the 100 Best Stocks series picks the top stocks for you to buy based on authors Peter Sander and Scott Bobo’s value-investing philosophy, the same philosophy followed by Warren Buffett. Even though the economy is in constant flux, there are still plenty of opportunities for smart investors to make a profit. The 100 Best Stocks to Buy in 2020 demonstrates how to protect your money with stock picks that have consistently performed. In their easy-to-understand and highly practical language, authors Peter Sander and Scott Bobo clearly explain their value-investing philosophy, as well as offer low-volatility investing tips and advice to finding stocks that consistently perform and pay dividends. The 100 Best Stocks to Buy in 2020 is an essential guidebook for anyone looking to invest in today’s market providing a proven source of solid, dependable advice you can take to the bank.

Green stocks present unprecedented money-making opportunities. But in this emerging field you’ve got to know what you’re doing. In this revised and updated edition of his essential guide to environmental stocks, financial consultant and contributor to The Motley Fool Jack Uldrich provides a roadmap to socially responsible greens. Profiling 100 leading green companies, he also zeroes in on the newest investment options in renewables—from solar and wind power to green building and fuel cells. Green technology is more than just a passing fad—it’s the next big thing for the U.S. energy industry. Don’t be left behind as environmental stocks surge forward. With Jack Uldrich’s help, plant the seeds of your green portfolio today and watch your bottom line grow!

Incorporate economic moat analysis for profitable investing Why Moats Matter is a comprehensive guide to finding great companies with economic moats, or competitive advantages. This book explains the investment approach used by Morningstar, Inc., and includes a free trial to Morningstar’s Research. Economic moats—or sustainable competitive advantages—protect companies from competitors. Legendary investor Warren Buffett devised the economic moat concept. Morningstar has made it the foundation of a successful stock-investing philosophy. Morningstar views investing in the most fundamental sense: For Morningstar, investing is about holding shares in great businesses for long periods of time. How can investors tell a great business from a poor one? A great business can fend off competition and earn high returns on capital for many years to come. The key to finding these great companies is identifying economic moats that stem from at least one of five sources of competitive advantage—cost advantage, intangible assets, switching costs, efficient scale, and network effect. Each source is explored in depth throughout this book. Even better than finding a great business is finding one at a great price. The stock market affords virtually unlimited opportunities to track prices and buy or sell securities at any hour of the day or night. But looking past that noise and understanding the value of a business’s underlying cash flows is the key to successful long-term investing. When investors focus on a company’s fundamental value relative to its stock price, and not where the stock price sits today versus a month ago, a day ago, or five minutes ago, investors start to think like owners, not traders. And thinking like an owner will makes readers better investors. The book provides a fundamental framework for successful long-term investing. The book helps investors answer two key questions: How can investors identify a great business, and when should investors buy that business to maximize return? Using fundamental moat and valuation analysis has led to superior risk-adjusted returns and made Morningstar analysts some of the industry’s top stock-pickers. In this book, Morningstar shares the ins and outs of its moat-driven investment philosophy, which readers can use to identify great stock picks for their own portfolios.

Geologic Fundamentals of Geothermal Energy

Hearings Before the Energy and Natural Resources, One Hundred Ninth Congress, Second Session
Environmental Impact Statement

Electric Power Generation from Low to Intermediate Temperature Resources
Plunkett’s Renewable, Alternative & Hydrogen Energy Industry Almanac 2009

Plunkett’s Almanac of Middle Market Companies 2009

There are few industry sectors in the world today with more potential than renewable and hydrogen energy. Clean, green and renewable energy technologies are receiving immense emphasis from investors, environmentalists, governments and major corporations. Today's high prices for crude oil, coal and natural gas will increase the demand for renewables of all types. A wide variety of technologies are being researched, developed and implemented on a global basis, from Stirling engines to wind power, from advanced nuclear plants to geothermal and fuel cells. Our analysis also includes tar sands (oil sands), oil shale, fuel cells, clean coal, distributed power, energy storage, biofuels and much more. You'll find a complete overview, industry analysis and market research report in our superb, value-priced package. It contains thousands of contacts for business and industry leaders, industry associations, Internet sites and other resources. This book also includes statistical tables, an industry glossary and thorough indexes. The corporate profiles section of the book includes our proprietary, in-depth profiles of the 250 leading companies in all facets of the alternative, renewable and hydrogen energy business. Here you'll find complete profiles of the hot companies that are making news today, the largest, most successful corporations in the business. Purchasers of either the book or PDF version can receive a free copy of the company profiles database on CD-ROM, enabling key word search and export of key information, addresses, phone numbers and executive names with titles for every company profile.

This project was designed to test the concept on the Eland-Lodgepole Field near Dickinson, North Dakota in the Williston Basin. The field is in secondary-recovery water-flood and consists of 12 producing oil wells, 5 water injection wells and one disposal well. Water production at the site averages approximately 320 gallons per minute (20.2 l s-1) and the temperature is 100 °C. Engineers at Ormat estimated power production potential with the existing resource to be approximately 350 kWh. Unfortunately, ownership of the field was transferred from Encore, Inc., to Denbury, Inc., within the first week of the project. After two years of discussion and planning, Denbury decided not to pursue this project due to complications with the site location and its proximity to Patterson Lake. Attempts to find other partners operating in the Williston Basin were unsuccessful. Consequently, we were unable to pursue the primary objective of the project. However, during negotiations with Denbury and subsequent time spent contacting other potential partners, we focused on objectives 2 and 3 and developed a clear understanding of the potential for co-produced production in the Williston Basin and the best practices for developing similar projects. At least nine water-bearing formations with temperatures greater than 90 °C extend over areas of several 10s of km2. The total energy contained in the rock volume of those geothermal aquifers is 283.6 EJ (1 EJ = 1018 J). The total energy contained in the water volume, determined from porosities which range from 2 percent to 8 percent, is 6.8 EJ. The aquifers grouped by 10 °C temperature bins (Table 1) include one or more formations due to the bowl-shape structure of the basin. Table 1. Summary of energy available in geothermal aquifers in the Williston Basin Analysis of overall fluid production from active wells, units, fields and formations in North Dakota showed that few sites co-produce sufficient fluid for significant power production with ORC technology. Average co-produced water for 10,480 wells is 3.2 gallons per minute (gpm). Even excluding the tight formations, Bakken and Three Forks, average co-produced water for the remaining 3,337 is only 5 gpm. The output of the highest producing well is 184 gpm and the average of the top 100 wells is 52 gpm. Due to the depth of the oil producing formations in the Williston Basin, typically 3 km or greater, pumps are operated slowly to prevent watering out thus total fluid production is purposefully maintained at low volumes. There remain potential possibilities for development of geothermal fluids in the Williston Basin. Unitized fields in which water production from several tens of wells is collected at a single site are good possibilities for development. Water production in the unitized fields is greater than 1000 gpm in several areas. A similar possibility occurs where infill-drilling between Bakken and Three Forks horizontal wells has created areas where large volumes of geothermal fluids are available on multi-well pads and in unitized fields. Although the Bakken produces small amounts of water, the water/oil ratio is typically less than 1, the oil and water mix produced at the well head can be sent through the heat exchanger on an ORC. It is estimated that several tens of MWh of power could be generated by a distributed system of ORC engines in the areas of high-density drilling in the Bakken Formation. Finally, horizontal drilling in water bearing formations is the other possibility. Several secondary recovery water-flood projects in the basin are producing water above 100 °C at rates of 300 gpm to 850 gpm. Those systems also could produce several tens of MWh of power with ORC technology. Objective 3 of the project was highly successful. The program has produced 5 PhDs, 7 MS, and 3 BS students with theses in geothermal energy. The team has involved 7 faculty in 4 different engineering and science disciplines, CHE, EE, GE, and Geol. The team has pr . . .

Geothermal energy refers to the heat contained within the Earth that generates geological phenomena on a planetary scale. Today, this term is often associated with man’s efforts to tap into this vast energy source. Geothermal Energy: utilization and technology is a detailed reference text, describing the various methods and technologies used to exploit the earth’s heat. Beginning with an overview of geothermal energy and the state of the art, leading international experts in the field cover the main applications of geothermal energy, including: electricity generation space and district heating space cooling greenhouse heating aquaculture industrial applications The final third of the book focuses upon environmental impact and economic, financial and legal considerations, providing a comprehensive review of these topics. Each chapter is written by a different author, but to a set style, beginning with aims and objectives and ending with references, self-assessment questions and answers. Case studies are included throughout. Whilst written primarily for professionals and students interested in learning more about geothermal energy, the book also offers those new to the field and the general geothermal community an opportunity to understand and review the potential of this exciting alternative energy source. Published with UNESCO

Hearings Before a Subcommittee of the Committee on Appropriations, United States Senate, Ninety-ninth Congress, First Session, on H.R. 2959 . . .

A concise guide to the technologies and companies for investors

Renewable Power Generation Costs in 2019

Geothermal Resources Council Bulletin

Energy and Water Development Appropriations for Fiscal Year 1986

Developments and Innovation

Investing In Geothermal PowerA concise guide to the technologies and companies for investorsHarriman House Limited

Humanity is facing a steadily diminishing supply of fossil fuels, causing researchers, policy makers, and the population as a whole to turn increasingly to alternative and especially renewable sources of energy to make up this deficit. Gathering over 80 peer-reviewed entries from the Encyclopedia of Sustainability Science and Technologies, Renewable Energy Systems provides an authoritative introduction to a wide variety of renewable energy sources. State-of-the-art coverage includes geothermal power stations, ocean energy, renewable energy from biomass, waste to energy, and wind power. This comprehensive, two-volume work provides an excellent introduction for those entering these fields, as well as new insights for advanced researchers, industry experts, and decision makers. Inadequate electricity services pose a major impediment to reducing extreme poverty and boosting shared prosperity in Sub-Saharan Africa. Simply put, Africa does not have enough power. Despite the abundant low-carbon and low-cost energy resources available to Sub-Saharan Africa, the region’s entire installed electricity capacity, at a little over 60 GW, is equivalent to that of the Republic of Korea. Looking ahead, Sub-Saharan Africa will need to ramp-up its power generation capacity substantially. The investment needed to meet this goal largely exceeds African countries already stretched public finances. Increasing private investment is critical to help expand and improve electricity supply. Historically, most private sector finance has been channeled through privately financed independent power projects (IPP), supported by nonrecourse or limited recourse loans, with long-term power purchase agreements with the state utility or another off-taker. Between 1990 and 2014, IPPs have spread across Sub-Saharan Africa and are now present in 17 countries. Currently, there are 125 IPPs, with an overall installed capacity of 10.7 GW and investments of \$24.6 billion. However, private investment could be much greater and less concentrated. South Africa alone accounts for 67 IPPs, 4.3 GW of capacity and \$14.4 billion of investments; the remaining projects are concentrated in a handful of countries. The objective of this study is to evaluate the experience of IPPs and identify lessons that can help African countries attract more and better private investment. At the core of this analysis is a reflection on whether IPPs have in fact benefited Sub-Saharan Africa, and how they might be improved. The analysis is based primarily on in depth case studies, carried out in five countries, including Kenya, Nigeria, South Africa, Tanzania and Uganda, which not only have the most numerous but also among the most extensive experience with IPPs.

Making Money on Green Chip Stocks

Review of Title II, Subtitle B, Geothermal Energy of EPACT, and Other Renewable Programs and Proposals for Public Resources : Oversight Hearing Before the Subcommittee on Energy and Mineral Resources of the Committee on Natural Resources, U.S. House of Representatives, One Hundred Tenth Congress, First Session, Thursday, April 19, 2007

A Complete Guide to Trading Green in Solar, Wind, Ethanol, Fuel Cell, Carbon Credit Industries, and More

The Palgrave Handbook of International Energy Economics

Renewable Energy Opportunities and Issues on Federal Lands

This reference guide provides a detailed perspective on the investing opportunities in geothermal power technologies and services, as well as an indication of the direction of trends in the sector. Significant attention is also given to the companies operating within the sector.

Geothermal energy represents one of the key options for Indonesia to achieve a comprehensive approach to national energy development. The rapid increase in fossil-fuel based energy consumption, which is subject to volatility in the world oil market, is the main challenge facing the country’s energy supply. This study documents key issues that have constrained the development of geothermal power in Indonesia, including tariffs, tendering processes, financial considerations, permitting, and interagency coordination. It also makes recommendations to unlock the potential of the sector, including a new tariff regime, improvements to the tendering process, renegotiation of power purchase agreements, and innovative modes of financing.

A business development tool for professionals, marketers, sales directors, consultants and strategists seeking to understand and reach middle market American companies. It covers important business sectors, from InfoTech to health care to telecommunications. Profiles of more than 500 leading US middle market companies. Includes business glossary, a listing of business contacts, indexes and database on CD-ROM.

The 100 Best Stocks to Buy in 2020

Form 10-K.

Profiting from Clean Energy

Final Report to State of Alaska Department of Commerce Division of Energy and Power Development on Research Project Titled a Field Evaluation of an Ormat Organic Rankine Cycle Turbine Generator Utilizing a Low-grade Geothermal/waste Heat Source

Investing In Geothermal Power

The Morningstar Approach to Stock Investing

IRENA’s latest global cost study shows solar and wind power reaching new price lows. The report highlights cost trends for all major renewable electricity sources.

Geothermal energy stands out because it can be used as a baseload resource. This book, unlike others, examines the geology related to geothermal applications. Geology dictates (a) how geothermal resources can be found, (b) the nature of the geothermal resource (such as liquid- or vapor-dominated) and (c) how the resource might be developed ultimately (such as flash or binary geothermal plants). The compilation and distillation of geological elements of geothermal systems into a single reference fills a notable gap.

Now in its 4th edition, this single resource covers all aspects of the utilization of geothermal energy for power generation using fundamental scientific and engineering principles. Its practical emphasis is enhanced by the use of global case studies from real plants and applications from around the world that increase your understanding of geothermal energy conversion and provide a unique compilation of hard-to-obtain data and experience. Technical, economic and business aspects presented in case studies provide current and up-and-coming geothermal developers and entrepreneurs with a solid understanding of opportunities and pitfalls. Geothermal Power Plants, 4th Edition, presents state-of-the-art geothermal developments and experience of real applications for professionals, and a comprehensive reference for theory and practice. Important new and revised content on double- and triple-flash steam power plants, plant and well pumps, and biomass-geothermal and solar-geothermal hybrid systems New chapters on global case studies with comprehensive and up-to-date statistics, including New Zealand, Indonesia, Central America and the Caribbean, and the state of Nevada, USA, plus updated chapters on Larderello (Italy), The Geysers (USA), Turkey and Enhanced Geothermal Systems (EGS) make this useable and relevant for a global audience Revised and additional practice problems with emphasis on system simulation using electronic equations of state for working fluid properties. SI units are now used exclusively

Technology Transfer Programs and Competitiveness in the Global Marketplace

Membership Roster and Registry of Geothermal Services and Equipment

Geothermal Power Plants

Why Moats Matter

Unlocking Indonesia’s Geothermal Potential

MI1989: The Nevada mineral industry 1989

*This open access handbook is distinguished by its emphasis on international energy, rather than domestic energy policies or international geopolitic aspects. Addressing key topics such as energy production and distribution, renewables and corporate energy structures, alongside global energy trends, regional case studies and emerging areas such as the digitalization of energy transition, this handbook provides a major new contribution to the field of international energy economics. Written by academics, practitioners and policy-makers, this handbook is a valuable and timely addition to the literature on international energy economics. This book was published open access with the support of En Ron DiPippo, Professor Emeritus at the University of Massachusetts Dartmouth, is a world-regarded geothermal expert. This single resource covers all aspects of the utilization of geothermal energy for power generation from fundamental scientific and engineering principles. The thermodynamic basis for the design of geothermal power plants is at the heart of the book and readers are clearly guided on the process of designing and analysing the key types of geothermal energy conversion systems. Its practical emphasis is enhanced by the use of case studies from real plants that increase the reader’s understanding of geothermal energy conversion and provide a unique compilation of hard-to-obtain data and experience. An important new chapter covers Environmental Impact and Abatement Technologies, including gaseous and solid emissions; water, noise and thermal pollutions; land usage; disturbance of natural hydrothermal manifestations, habitats and vegetation; minimisation of CO2 emissions and environmental impact assessment. The book is illustrated with over 240 photographs and drawings. Nine chapters include practice problems, with solutions, which enable the book to be used as a course text. Also includes a definitive worldwide compilation of every geothermal power plant that has operated, unit by unit, plus a concise primer on the applicable thermodynamics. * Engineering principles are at the heart of the book, with complete coverage of the thermodynamic basis for the design of geothermal power systems * Practical applications are backed up by an extensive selection of case studies that show how geothermal energy conversion systems have been designed, applied and exploited in practice * World renowned geothermal expert DiPippo has included a new chapter on Environmental Impact and Abatement Technology in this new edition*

Three nominal 24 hour tests under summer, winter and spring weather conditions, were run on an Ormat geothermal binary power generation machine. The machine, located at TAD’s Enterprises in Wabuska, Nevada is supplied with approximately 830 gpm of geothermal water at 221°F and has two spray cooling ponds. During the tests, temperature, pressure, and flows of geothermal water, freon, cooling water and instantaneous electrical production were recorded hourly. At least once during each test, energy consumption of the well pump, freon feed pump and cooling water pumps were made. Power output of the machine is limited by spray pond capacity. Net output ranged from 410.2 kW during summer conditions when cooling water was 63°F to 610.4 kW during winter conditions when cooling water was 53°F. Net resource utilization ranged from 1.005 Whr/lb during the summer test to 1.35 Whr/lb during the winter test. Spray pond performance averaged 63% for the fall and winter tests. Availability of the Ormat unit itself during the eight month test period was generally good, averaging 95.5%. Overall system availability, including well pumps, cooling system and electric grid was somewhat less - averaging 83%.

Green Investing

Plunkett’s Renewable, Alternative & Hydrogen Energy Industry Almanac 2008

Geothermal Energy

Independent Power Projects in Sub-Saharan Africa

Utilization and Technology

Developing Untapped Potential

Geothermal Power Generation: Developments and Innovation provides an update to the advanced energy technologies that are urgently required to meet the challenges of economic development, climate change mitigation, and energy security. As geothermal resources are considered renewable and can be used to generate baseload electricity while producing very low levels of greenhouse gas emissions, they can play a key role in future energy needs. This book, edited by a highly respected expert, provides a comprehensive overview of the major aspects of geothermal power production. The chapters, contributed by specialists in their respective areas, cover resource discovery, resource characterization, energy conversion systems, and design and economic considerations. The final section provides a range of fascinating case studies from across the world, ranging from Larderello to Indonesia. Users will find this to be an essential text for research and development professionals and engineers in the geothermal energy industry, as well as postgraduate researchers in academia who are working on geothermal energy. Provides readers with a comprehensive and systematic overview of geothermal power generation Presents an update to the advanced energy technologies that are urgently required to meet the challenges of economic development, climate change mitigation, and energy security Edited by a world authority in the field, with chapters contributed by experts in their particular areas Includes comprehensive case studies from across the world, ranging from Larderello to Indonesia

With Profiting from Clean Energy, respected investment analyst Richard Asplund provides an in-depth explanation of the technology and industry structure behind various sectors of this field and in the process identifies more than 150 stocks related to clean energy. Along the way, Asplund discusses exactly what it takes to effectively invest in clean energy—whether it be through buying individual stocks, investing in green exchange-traded funds or mutual funds, or trading the biotfuel and carbon credit markets.

Investing in Renewable Energy puts the depletion of finite resources such as oil, natural gas, and coal in perspective, and discusses how renewable energy solutions—from solar and wind to geothermal and biofuels—will usher in a new generation of wealth for investors and a new way of life for everyone. With this book, you’ll discover various renewable energy technologies that are at the forefront of transitioning our energy economy, and learn how to profit from next-generation renewable energy projects and companies that are poised to take over where fossil fuels will leave off.

A Guide to Making Money through Environment Friendly Stocks

Renewable Energy Systems

Binary Power Generation from Waste Heat: a Feasible Improvement to Operating Geothermal Power Plants

The Only Comprehensive Guide to the Alternative Energy Industry

Hearing Before the Committee on Energy and Natural Resources, United States Senate, One Hundred Seventh Congress, Second Session, to Receive Testimony on the Effectiveness and Sustainability of U.S. Technology Transfer Programs for Energy Efficiency, Nuclear, Fossil and Renewable Energy; and to Identify Necessary Changes to Those Programs to Support U.S. Competitiveness in the Global Marketplace, September 18, 2002

Geothermal Power Generation

This report covers Phase I and Phase II of power generation using an Ormat organic Rankine cycle turbine generator at Manley Hot Springs. In Phase I, the Ormat unit was to use diesel engine jacket water waste heat as a source of energy. However, the electrical demand placed on the diesel generator was so variable that most of the time a sufficient amount of thermal energy was not available. In addition, because of the lack of a cold water source, the air cooled condenser that was used did not have enough capacity to cool the unit at outdoor temperatures above 10°F. At this point in the project it was decided to move the unit from the Manley Utility generator building to the geothermal hot springs owned by C. Dart. At this site the geothermal springs served as a source of energy and Kastner Creek served as a cooling water source. The Ormat unit operated at this site provided slightly over 1000 watts of power at 2.3% efficiency. However, the load switching circuit and the vapor valve controller on the Ormat unit required manual operation, so continual attention during operation was required. Additionally, the inlet filters on both the hot water and cold water supply required constant cleaning to prevent flow blockage. During this operational period, the synchronous inverter which converted DC power produced by the Ormat unit to AC power synchronized with the Manley Utility system failed. Confronted with the expense of freeze protecting the Ormat unit for cold weather operation, repairing the inverter, solving the vapor valve actuator and load switching circuit problems, and additionally confronted with the cost of designing and installing a system to eliminate the intake filter problem, the project has been discontinued. Electric power was generated by the Ormat unit from both diesel engine waste heat and low temperature geothermal water. However, the expense required to make the system economically attractive on this scale can not be presently justified.

Organic Rankine Cycle (ORC) Power Systems: Technologies and Applications provides a systematic and detailed description of organic Rankine cycle technologies and the way they are increasingly of interest for cost-effective sustainable energy generation. Popular applications include cogeneration from biomass and electricity generation from geothermal reservoirs and concentrating solar power installations, as well as waste heat recovery from gas turbines, internal combustion engines and medium- and low-temperature industrial processes. With hundreds of ORC power systems already in operation and the market growing at a fast pace, this is an active and engaging area of scientific research and technical development. The book is structured in three main parts: (i) Introduction to ORC Power Systems, Design and Optimization, (ii) ORC Plant Components, and (iii) Fields of Application. Provides a thorough introduction to ORC power systems Contains detailed chapters on ORC plant components Includes a section focusing on ORC design and optimization Reviews key applications of ORC technologies, including cogeneration from biomass, electricity generation from geothermal reservoirs and concentrating solar power installations, waste heat recovery from gas turbines, internal combustion engines and medium- and low-temperature industrial processes Various chapters are authored by well-known specialists from Academia and ORC manufacturers

Organic Rankine Cycle (ORC) Power Systems

Performance Evaluation of Ormat Unit at Wabuska, Nevada. Final Report

MI2006: The Nevada mineral industry 2006

Salt Wells Energy Projects

Energy and Water Development Appropriations for Fiscal Year 1986: Nondepartmental witnesses