
MagmaPower
2024 | select preview

USING THE POWER OF MAGMA TO BUILD THE FUTURE OF ENERGY.

THE EXISTING ALTERNATIVE ENERGY SOLUTIONS ARE INSUFFICIENT TO MEET THE WORLD'S GROWING ENERGY NEEDS DUE TO THEIR INHERENT LIMITATIONS IN RELIABILITY, SCALABILITY, AND ENVIRONMENTAL IMPACT.

- **Intermittency and Reliability:** Solar and wind energy are unreliable due to weather dependence, requiring costly storage solutions.
- **Environmental Impact:** Hydropower and bioenergy often cause ecological damage, disrupting habitats and competing with food resources.
- **Scalability:** Existing solutions struggle with low energy density, making it hard to meet global energy demands efficiently.

IMAGINE TAPPING INTO THE EARTH'S MOST POWERFUL AND UNTAPPED ENERGY SOURCE—MAGMA.

This revolutionary technology harnesses the immense heat beneath the Earth's crust to generate reliable, sustainable, and scalable power.

Magma energy overcomes the critical limitations of current alternatives, offering a game-changing solution for the world’s growing energy needs.

WHY MAGMA?

High Energy Density: Delivers substantial base-load power, comparable to fossil fuels, without extensive land requirements.

Cost-Effective and Rapid Deployment: Offers a more affordable solution with quicker deployment and long-term energy savings.

Global Scalability: Deployable across diverse regions, overcoming the geographical limitations of other geothermal solutions.

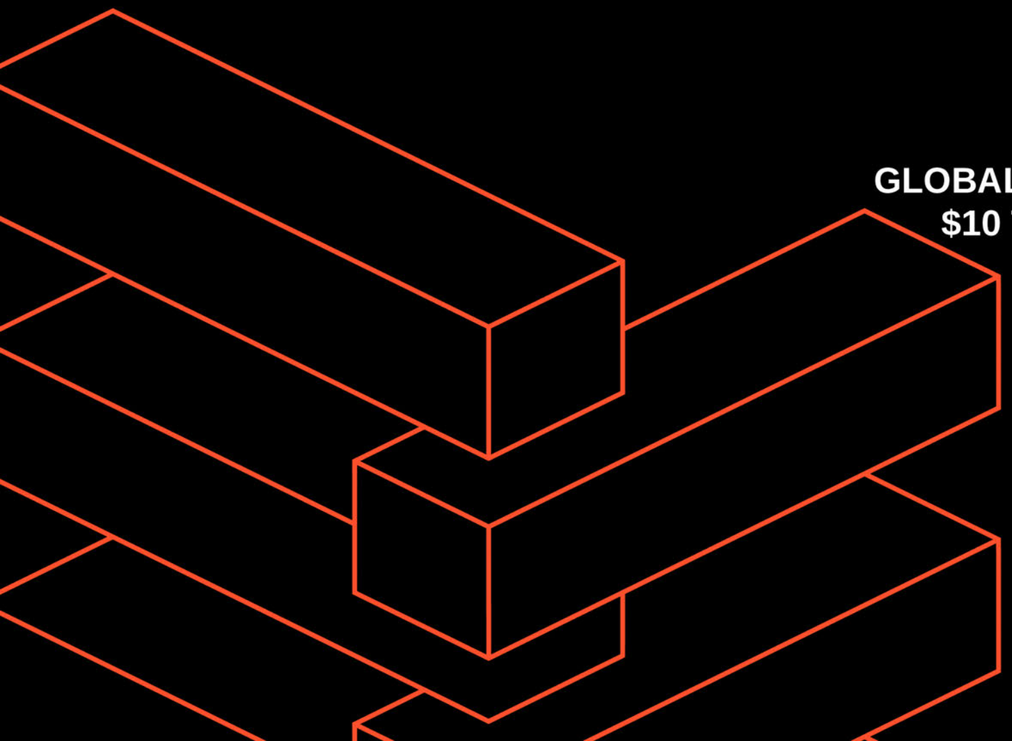
Unmatched Reliability: Provides 24/7 energy, unaffected by weather, ensuring consistent power supply.

Proven Foundation: Builds on Sandia’s 1970s research, addressing past challenges and advancing the technology to a practical, scalable solution.

Minimal Environmental Impact: Accesses energy with minimal disruption, avoiding significant ecological damage.

MARKET SIZE

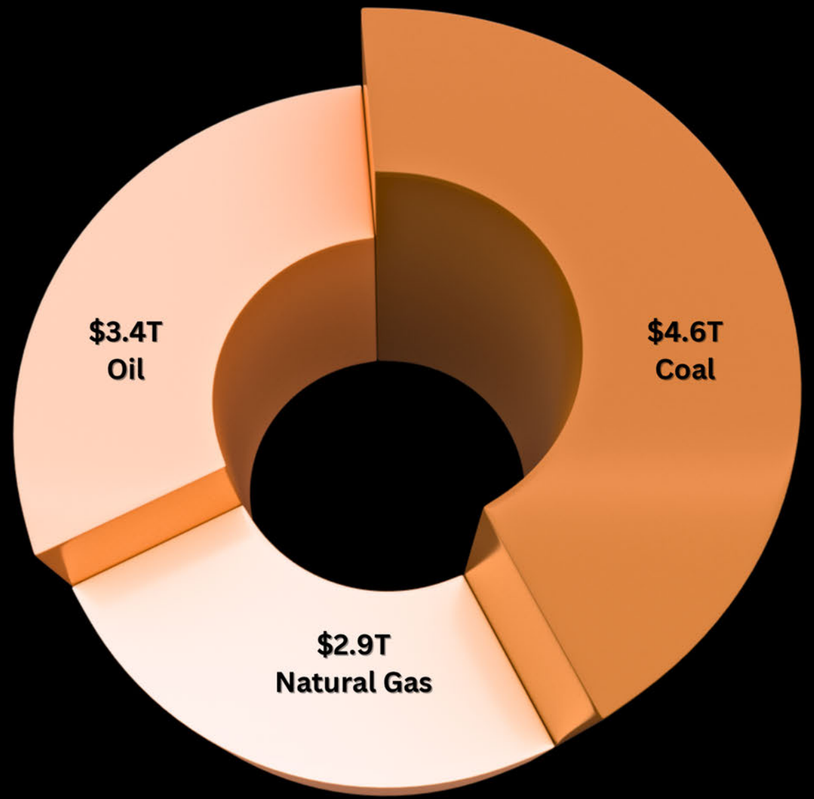
To achieve carbon neutrality, the entire output of the fossil fuels industry must be converted.



GLOBAL FOSSIL FUEL MARKET
$10 TRILLION ANNUALLY

This creates a total addressable market (TAM) of $10 Trillion.

MagmaPower provides the opportunity to lead the energy transition without replacing trillions of dollars in existing infrastructure.



MAGMA IS THE START, BUT WHAT YOU CAN DO WITH THAT ENERGY IS THE REST OF THE STORY...

Magma holds immense potential energy, with temperatures ranging between 900-1200°C. These extreme temperatures are maintained via convection currents from deep inside the earth. Magma's properties allow for greater energy output than other renewable energy systems.

Future versions of MagmaPower technologies will directly leverage the high thermal energy in magmatic systems, significantly reducing the cost of hydrogen and green fuel production.

The heat from MagmaPower wells can be:

- used directly for process heat or space heating,
- converted into electricity consumption by consumers,
- used to mine crypto-currency, or
- applied in developing green fuels, allowing this energy to be transported anywhere in the world.

PATENTS

We are protecting our innovations above and below the surface with a robust patent portfolio:

11
Issued U.S. patents

194
Total patent applications filed thus far

23
Global jurisdiction filed

WHAT HAVE WE DONE?

Magma Exploration Process

Using state-of-the-art exploration and data processing, our geothermal exploration team has developed a detailed screening process and a method for building an integrated model of a volcanic system. They have used these two processes to construct a database, identifying over 100 target locations worldwide to develop our MagmaPower technology.

Patented Drilling Process

Using published data and information from past magma drilling efforts and interviewing magma and drilling experts from recent accidental magma strikes, our team has developed a patented drilling process for accessing and maintaining an open borehole in magma. As evidenced by Sandia's efforts 40+ years ago, no special drill bits or new equipment design is required.

Mud Design

Working with industry experts and lab testing over 20 variations, our mud engineers have taken industry standards for HPHT environments and advanced these to meet our design specifications. Coupled with our patented drilling process, this mud is expected to accommodate the anticipated downhole magma environment.

Well Design

MagmaPower has worked with experts in well construction to identify existing materials for MagmaPower well design. Cement that can withstand 1000°C (e.g., Baker Hughes FireSet cement) is actively used today. Similarly, MagmaPower has worked with casing manufacturers to identify several available casing materials that meet our design needs. We have submitted patents for several well designs and plan to test them in the future.

Working Fluid Design

MagmaPower' MagmaPower wells are designed as closed-loop systems, circulating a working fluid to extract energy from magma and submitting patents for the different energy extraction processes and fluid designs.

MagmaPower TECHNOLOGY

THE BUSINESS MODEL LICENSING MAMGA POWER

REVENUE STREAMS FOR LICENSEES

Electricity Sales:
Generate and sell reliable baseload power at under 1 cent per kWh, offering highly competitive rates to utilities, industries, and consumers.

Hydrogen Production:
Leverage magma energy to produce green hydrogen for under $1 per kg, tapping into the growing demand for clean fuel in transportation, manufacturing, and energy storage.

Ammonia Production:
Produce green ammonia at approximately $220 per metric ton, significantly undercutting traditional methods, and supply to key sectors like agriculture, chemicals, and industry.

Licensing & Technology Rights:
Earn through sub-licensing and exclusive territorial rights, expanding market reach and generating royalties.

Scalable Operations:
Easily scale to meet increasing energy demands, ensuring long-term revenue growth.

Environmental Credits:
Generate additional income by selling carbon credits, capitalizing on incentives for reducing greenhouse gas emissions.

Conclusion:
Magma energy offers sustainable power and diverse revenue streams, including low-cost hydrogen and ammonia production, making it a compelling investment for licensees.

ENVIRONMENTAL SOCIAL GOVERNANCE PLAN (ESG)

Environmental Commitment:

Sustainable Energy Generation: Our magma energy facility harnesses the Earth's natural heat through a completely closed-loop system, ensuring zero carbon emissions from the power generation process.
Carbon Neutrality: By generating power at sub 1 cent per kWh, we aim to displace fossil fuel-based power generation, significantly reducing greenhouse gas emissions and contributing to global carbon neutrality goals.
Resource Efficiency: Our advanced technology ensures a minimal environmental footprint, with no water contamination and low land use, preserving natural ecosystems.
Green Hydrogen and Ammonia Production: Leveraging our super high-temperature magma technology, we will produce green hydrogen and ammonia, contributing to the decarbonization of transportation, agriculture, and industry.

Social Responsibility:

Community Engagement: We prioritize transparent communication with local communities, ensuring that all stakeholders are informed and involved in the decision-making process. We are committed to contributing to local economic development through job creation and infrastructure investment.
Education and Awareness: We will partner with educational institutions to promote environmental education and offer training programs focused on renewable energy technologies and sustainability.

Governance Standards:

Ethical Leadership: Our leadership is committed to ethical practices, transparency, and accountability. We adhere to stringent governance policies to ensure compliance with all regulatory requirements and international standards.
Risk Management: Comprehensive risk assessment and management strategies are in place to address environmental, operational, and financial risks, ensuring the long-term sustainability of our operations.

Long-Term Goals:

Net-Zero Operations: Achieve net-zero emissions by integrating cutting-edge carbon capture and storage (CCS) technologies with our already carbon-neutral, closed-loop magma power generation.
Global Impact: We plan to expand our sustainable energy model to other regions, driving global adoption of renewable energy and contributing to the worldwide energy transition.

MagmaPower Technology

LICENSING MODEL

Magma Licensing Rights:
starting at $50,000 per month
Locations Available: Globally

GET IN TOUCH.

MagmaPower

Using the power of magma to build the future of energy.

KC Conner
Founder & Inventor

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CEO

Kate Young
Director of Science
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Richard McDonald
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