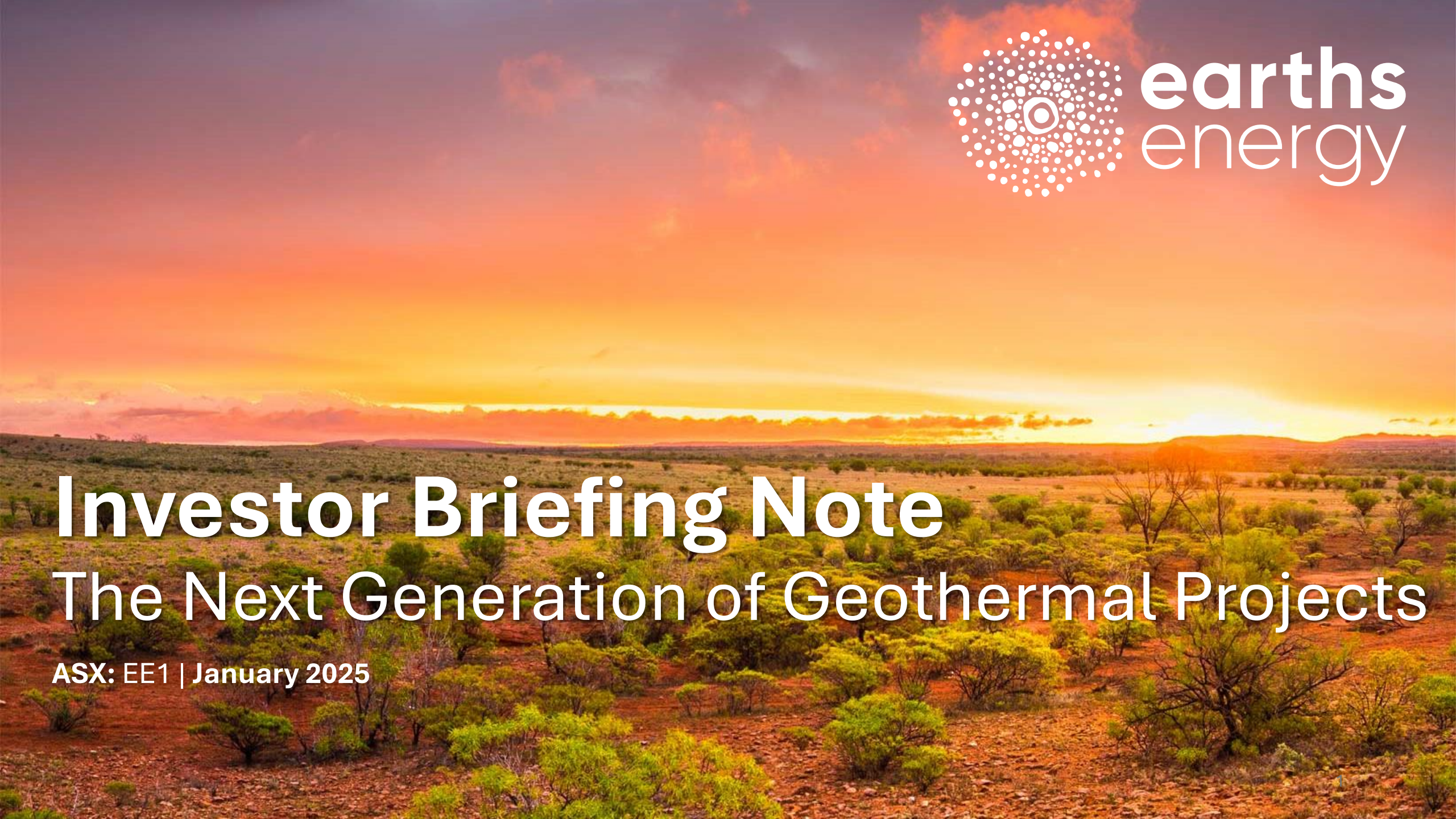


Investor Briefing Note

The Next Generation of Geothermal Projects

ASX: EE1 | **January 2025**

Investor Briefing Note: *Introduction to Next-Generation Geothermal*

What is Next-Generation Geothermal?

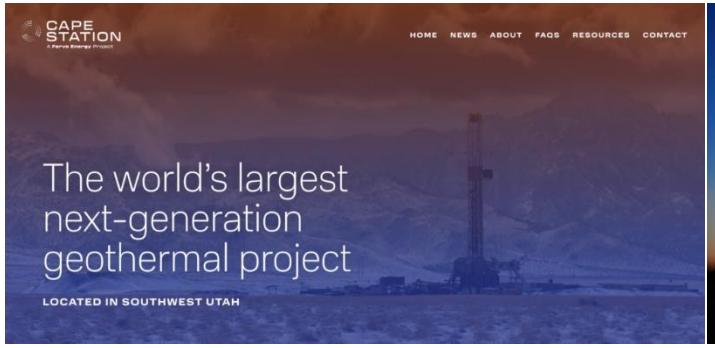
Next-Generation Geothermal technologies generally represent the advancements made in geothermal technologies since 2017, these advancements have driven new interest and investment while positioning geothermal as a scalable, sustainable solution for renewable commercial baseload energy systems for grids around the world.

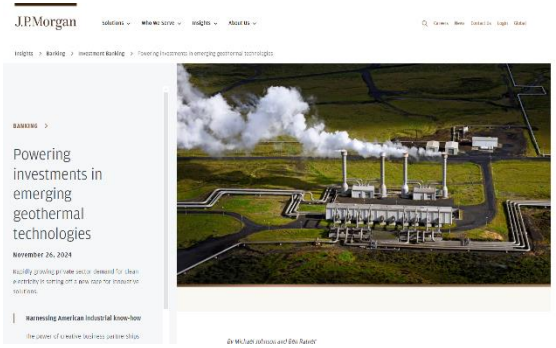
Where are the innovations and advances being made?

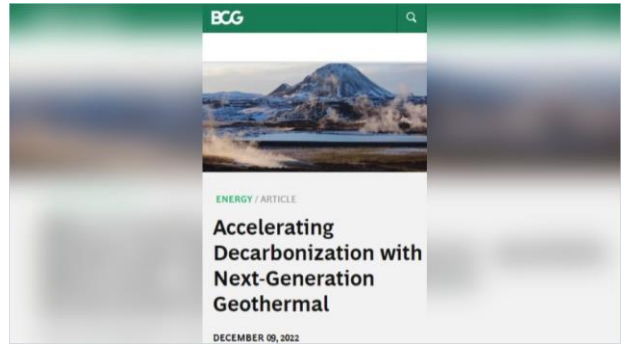
Advances in exploration, drilling, heat recovery and power utilization are enhancing efficiency, scalability, and geographical applicability making commercial geothermal power production significantly lower risk and higher return.

Key Goals of Next-Generation Geothermal Technologies:

- Expand geothermal to non-traditional regions – making geothermal power possible in more regions.
- Reducing costs and risk through technological innovation – making geothermal a lower risk investment.
- Modern integration potential – huge upside potential for Australian projects to integrate with solar projects.







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Investor Briefing Note: *Who is pioneering Next-Gen Geothermal?*

Institutions Covering Next-Gen Geothermal

J.P.Morgan
Goldman Sachs
BCG BOSTON CONSULTING GROUP
LAZARD

Energy Majors Invested in Next-Gen Geothermal

Chevron
Baker Hughes
HALLIBURTON
devon
ENGIE
BHE RENEWABLES
HP Inc.

Next-Gen Geothermal Companies

FERVO ENERGY
SAGE GEOSYSTEMS
ALTAROCK
CeraPhi energy
earth's energy
Eavor™
QUAISE
GreenFire Energy
UTAH FORGE U.S. Department of Energy

Major Engineering Groups Operating in Next-Gen Geothermal

TOSHIBA
Fuji Electric
ORMAT
slb
MITSUBISHI ELECTRIC
SIEMENS energy
Sproule

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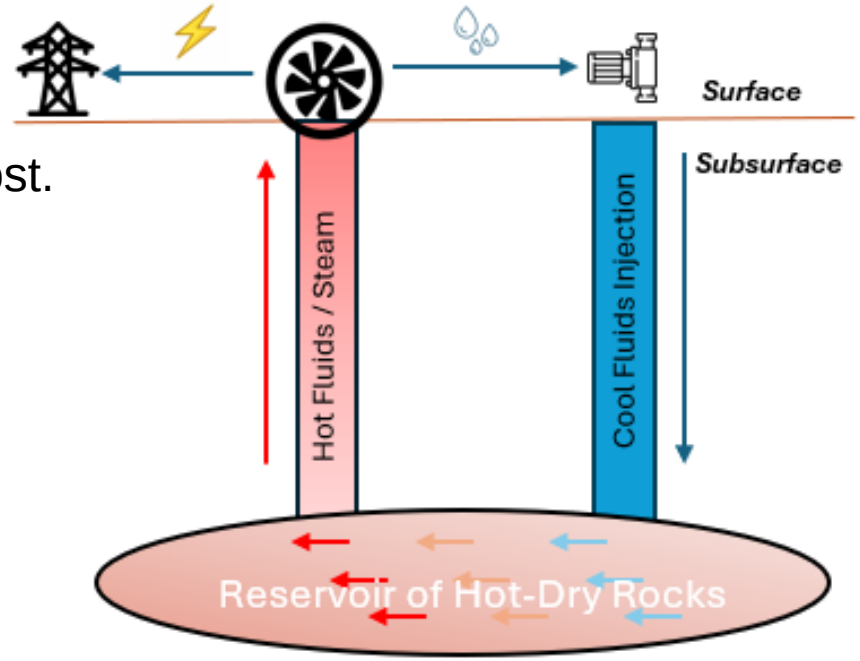
Investor Briefing Note: *Enhanced Geothermal Systems (EGS)*

What is EGS?

EGS unlocks geothermal potential in areas without naturally occurring reservoirs by creating artificial fractures to let geofluids access heat. Instead of looking for hot geofluids already in the subsurface, geofluids are pumped into otherwise hot-dry rock systems to excavate heat to the surface to generate electricity.

Key Innovations:

- Hydraulic fracturing for heat transfer – moves more heat faster.
- Advanced mapping and drilling techniques – lowers execution risk.
- Reduced drill times and costs – more wells and more power at a lower cost.



Benefits:

- Expands geothermal potential in countries like the USA and Australia.
- Higher energy yield from untapped areas – improves existing projects.

Who is doing it?

- Fervo Energy – www.fervoenergy.com
- Utah FORGE – www.utahforge.com
- Earth's Energy – www.ee1.com.au

FERVO ENERGY

UTAH FORGE U.S. Department of Energy

earth's energy

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Investor Briefing Note: *EGS and Horizontal Drilling*

What is Horizontal Drilling?

A technique that extends wells laterally to maximize interaction (and heat extraction) with geothermal reservoirs and increase the power output of a single production well by better interactions in the subsurface.

Benefits:

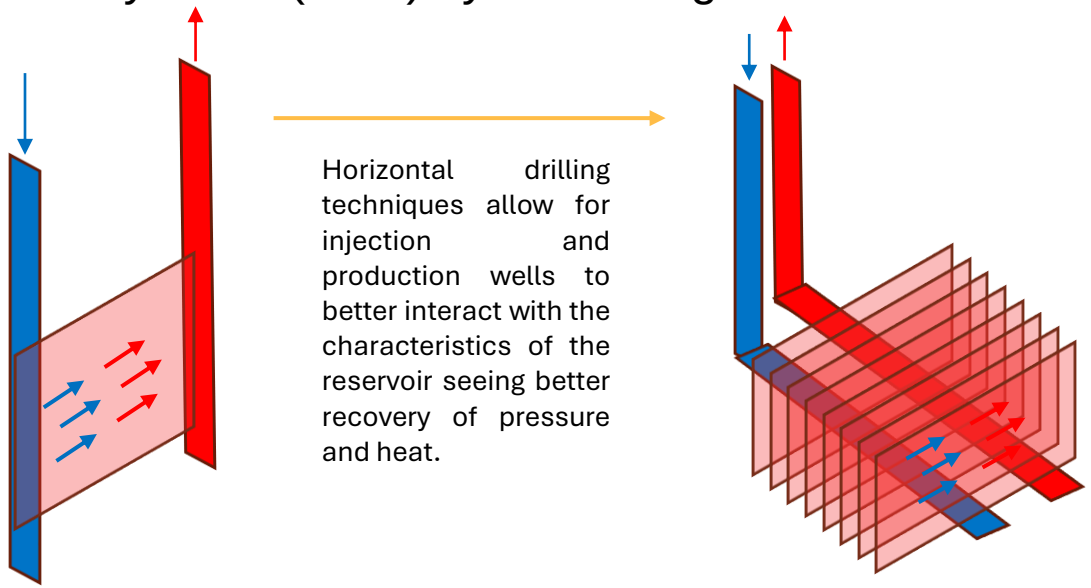
- **Enhanced Energy Recovery**: Greater surface area contact improves energy extraction.
- **Cost Efficiency**: Reduces the number of wells needed.
- **Geological Flexibility**: Accesses heat in challenging locations.

Applications:

- Boosts power generation per well by harnessing more energy in the subsurface.
- Supports Enhanced Geothermal Systems (EGS) by increasing reservoir interaction for injection and production.

Vertical Drilling

Conventional vertical drilling interacts with a single horizontal zone for cooler geofluids to be injected and then heated across that zone into its corresponding production well.



Horizontal drilling techniques allow for injection and production wells to better interact with the characteristics of the reservoir seeing better recovery of pressure and heat.

Horizontal Drilling

Horizontal drilling interacts with multiple horizontal zones greatly increasing the surface area interaction of the geofluids with the reservoir and increasing the power output of each production well.

Investor Briefing Note: *Closed-Loop Geothermal Systems*

What is a Closed-Loop System?

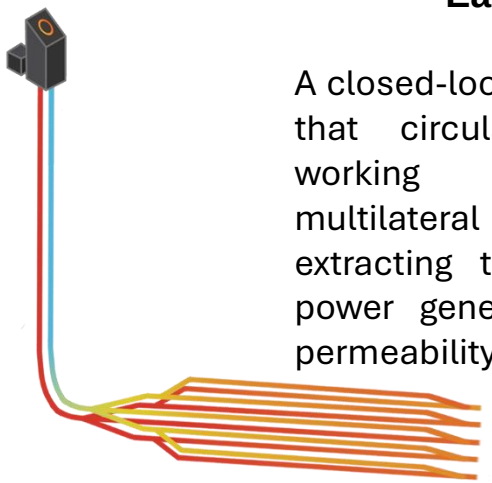
A closed looped system sees the injection wells and production wells connect in the subsurface. Some proprietary systems like the Eavor-Loop™ are a single cased well drilled into the reservoir that has minimal physical interaction with the surrounding hot rocks – the casing absorbs heat inductively in the subsurface and moves it to surface.

Eavor-Loop™ Technology:

- Uses multilateral wellbores and a thermosiphon effect for natural fluid circulation, maximizing heat recovery.
- Scalable and deployable in diverse regions, even without natural reservoirs.

Advantages:

- Heat extraction with no emissions and no fracking.
- Minimal Fluid Use: Self-contained system doesn't consume or contaminate water.

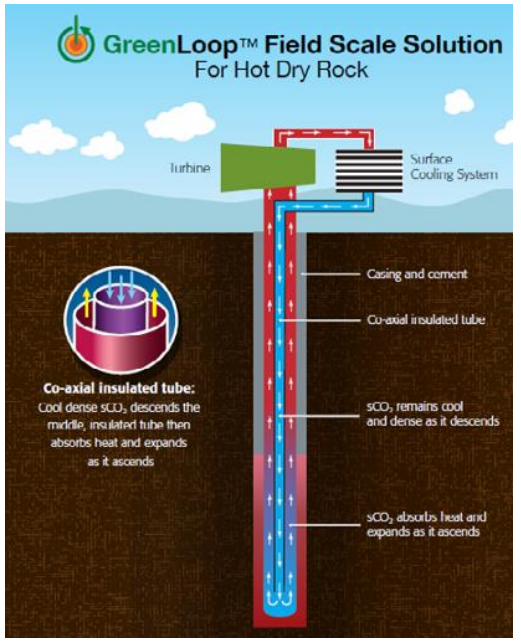


Eavor-Loop™

A closed-loop geothermal system that circulates a proprietary working geofluid through multilateral wellbores, efficiently extracting the earth's heat for power generation regardless of permeability.

GreenLoop™

Another closed-loop system that is a patented geothermal technology utilizing a downhole heat exchanger to economically produce energy from a single well. SCO_2 as a geofluid can be used to further increase the power yield of the well.



Investor Briefing Note: *Hybrid Geothermal Systems*

What is a Hybrid Geothermal System?
Combining geothermal energy with other renewable sources, such as solar or wind, to enhance efficiency, reliability and output.

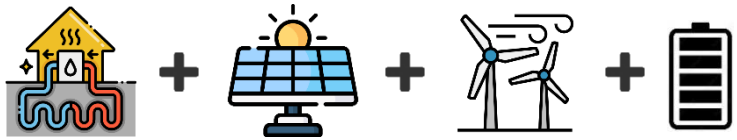
Benefits:

- **Increased Energy Output**: Harnesses multiple energy sources for higher overall production.
- **Enhanced Reliability**: Mitigates intermittency issues by providing consistent power generation.
- **Optimized Resource Use**: Maximizes the potential of available renewable resources.

Operating Example:

- **Stillwater Hybrid Plant (Nevada, USA)**: Developed by Enel Green Power, this facility integrates a 33 MW geothermal plant with a 26 MW solar photovoltaic (PV) array and a 2 MW solar thermal system, marking the world's first triple hybrid power plant operating since 2017. Power Magazine

www.enelgreenpower.com



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Investor Briefing Note: *Geothermal Energy Storage (Geothermal Battery)*

What is Geothermal Energy Storage (GES)?

Geothermal wells can serve as cost-effective energy storage systems, offering an alternative to commercial lithium batteries. By injecting heated geofluids into reservoirs, energy can be stored and retrieved on demand. The natural heat of geothermal reservoirs allows for greater energy recovery than initially stored, ensuring high efficiency. GES can be significantly cheaper than commercial lithium batteries at as little as $10 LCOE per MW.

Sage Geosystems' EarthStore and Battery+:

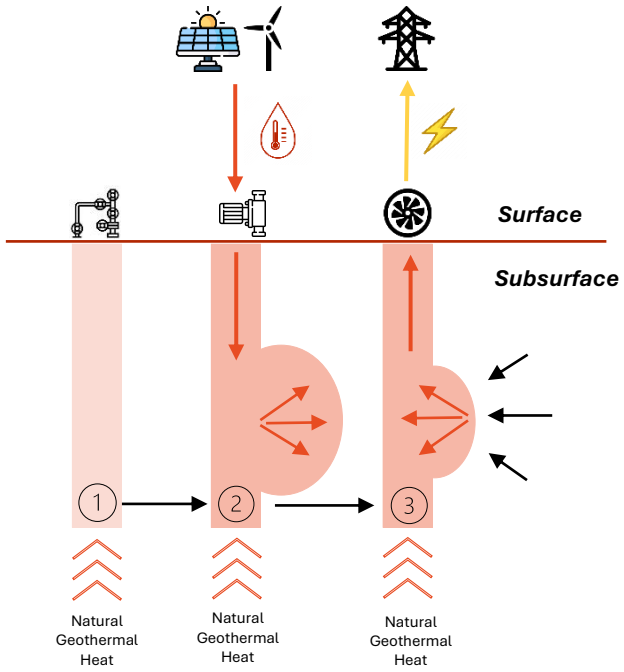
- Injects water underground during low-demand, releasing it under pressure to generate electricity during peak times.
- 70-75% power efficiency ("round trip"), scalable from hours to weeks of storage.

SAGE GEOSYSTEMS

www.sagegeosystems.com

Stages of Geothermal Energy Storage

1. Geothermal well and reservoir in a resting state (sealed by a well head).
2. Hot geofluids are pumped and injected into the well and reservoir. The excess fluids are stored via the plastic (or ductile) deformation of the rocks (i.e. the rocks expand to accommodate the extra pressure).
3. Excess pressure can be relieved from the well and reservoir via a turbine (at any time, on demand) to generate electricity.



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Next-Gen Geothermal: *Unlocking Geothermal Power for a New Generation of Projects*

Expanding Possibilities: Next-Generation Geothermal is making clean, baseload energy accessible in more regions through innovations in Enhanced Geothermal Systems (EGS), Horizontal Drilling, and Closed-Loop Systems.

Cutting Costs & Risks: Advanced drilling techniques and hybrid systems improve production efficiency, reduce execution risks, and lower overall costs.

Innovative Solutions: Technologies like Eavor-Loop™ and geothermal energy storage (GES) offer sustainable, scalable, and emissions-free energy alternatives.

Future-Ready Integration: Hybrid systems combining geothermal with solar and wind maximize renewable potential, driving a more reliable and resilient energy future.

Our Role: Earth's Energy (ASX: EE1) is at the forefront of these Next-Gen advancements and is applying these new technologies and approaches to its already known and proven vast geothermal resources.

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Australian Next-Gen Geothermal

Green, Commercial, Baseload Electricity

For more information contact:

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Chief Executive Officer

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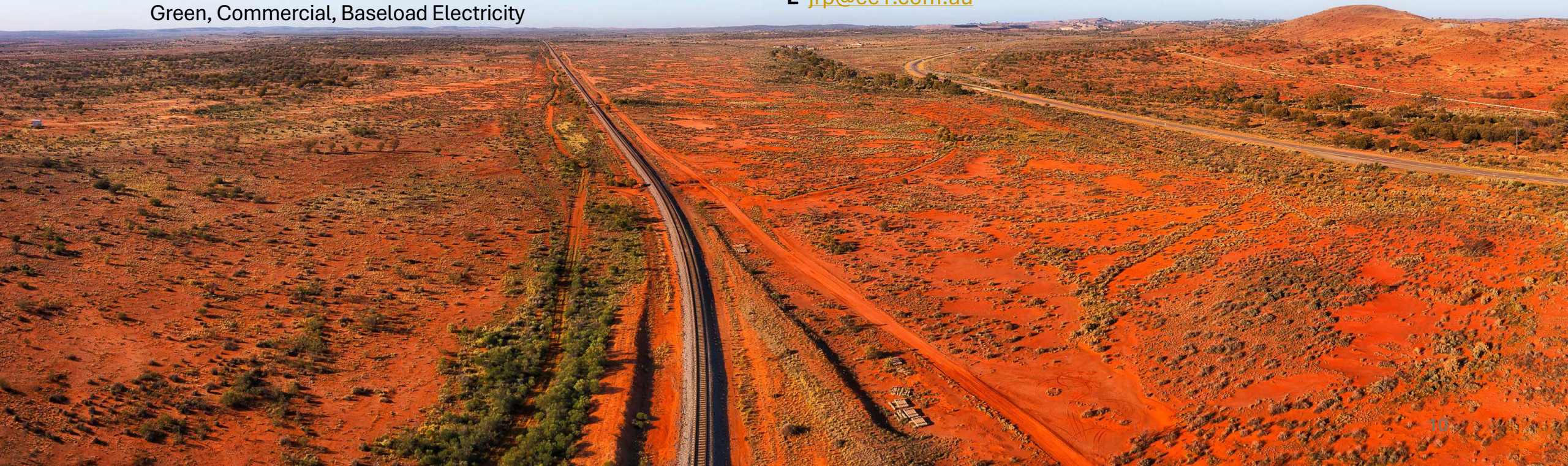

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Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management of the Company made in light of their experience and their perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. The Company believes that the assumptions and expectations reflected in such forward-looking information are reasonable.

Assumptions have been made regarding, among other things: the energy market, the Company's peers, the Company's ability to carry on its future development works, construction and production activities, the timely receipt of required approvals, the price of electricity, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used.

Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause the Company's results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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