

ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Speakers

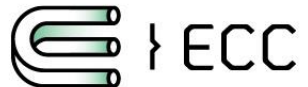
Tim Latimer: CEO of Fervo Energy

Nico Jansen van Rensburg: Head of BD – Oil and Gas - Siemens

Bari Bean: Deputy CEO – Natural Resources/Lithium –Ombudsman County of Imperial

Moderator

Jake Sonsel: Senior Director, Alvarez and Marsal



Presented: **August 28, 2025**

PATH TO POWER - Technologies That Will Shape Tomorrow

Moderator	Forum Organizer	Forum Organizer
 <p>Jacob Sonsel Senior Director Alvarez and Marsal</p>  <p>Adjunct Instructor University of Oklahoma</p>	 <p>Jeff Seiff Senior Manager PwC Consulting</p>  <p>3rd Year ECC Future Leader</p>	 <p>Lubna Alansari Lead Engineer SABIC</p>  <p>3rd Year ECC Future Leader</p>

57th Annual ECC Conference



Scan the QR code to access our live poll questions & submit questions for the Forum Panelists

Path to Power: Technologies That Will Shape Tomorrow

Exploring the key drivers and challenges facing breakthrough projects and next gen infrastructure:

- Geothermal
- Lithium
- LNG



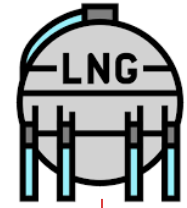
Emerging
Scaling
Mature



Enhanced Geothermal
High Potential
Early-Stage Scaling



Lithium Production Value Chain
Rapidly Scaling
Mid-Maturity



LNG
Highly Mature
Mobilized



TODAYS DISCUSSION

- Opportunities and momentum across key energy projects
- Key challenges shaping infrastructure investment
- Success factors across emerging and mature technologies

2025 ECC Conference: Path to Power

Technologies That Will Shape Tomorrow

Panelists

Focus: Geothermal



Tim Latimer
CEO
Fervo Energy



Focus: Lithium Value Chain (Imperial Valley)



Bari Bean
Deputy CEO
Natural Resources / Lithium
Ombudsman
County of Imperial



Focus: Global LNG



Nico Jansen van Rensberg
Head of LNG Solutions
Process Industries
Siemens Energy

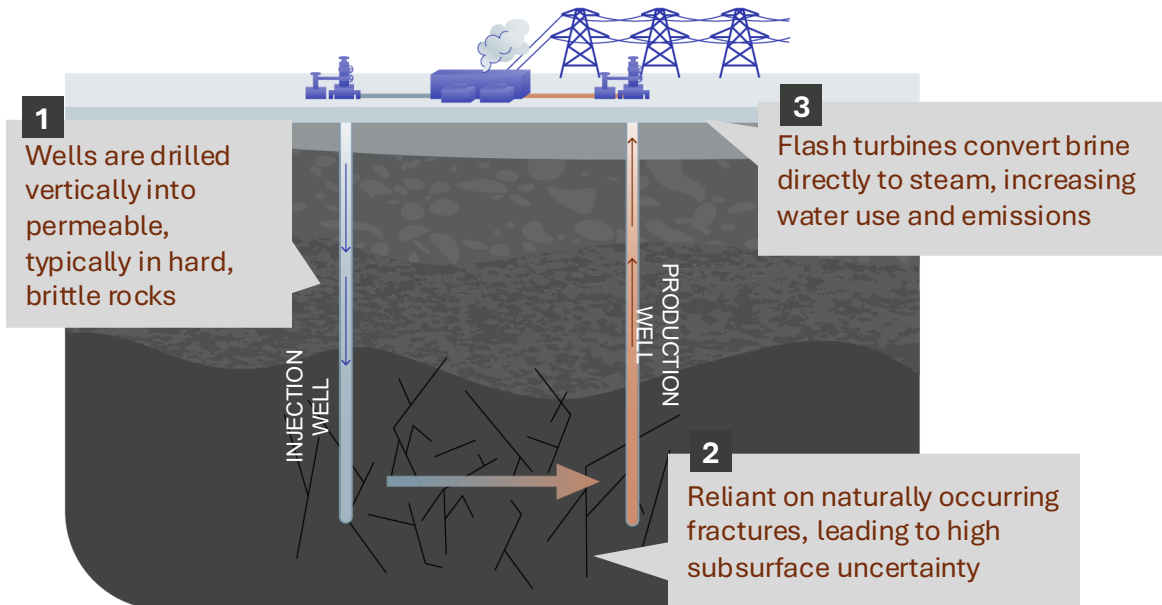


EGS is Distinct from Traditional Geothermal

Technological breakthroughs in shale from the O&G industry are directly transferable to EGS

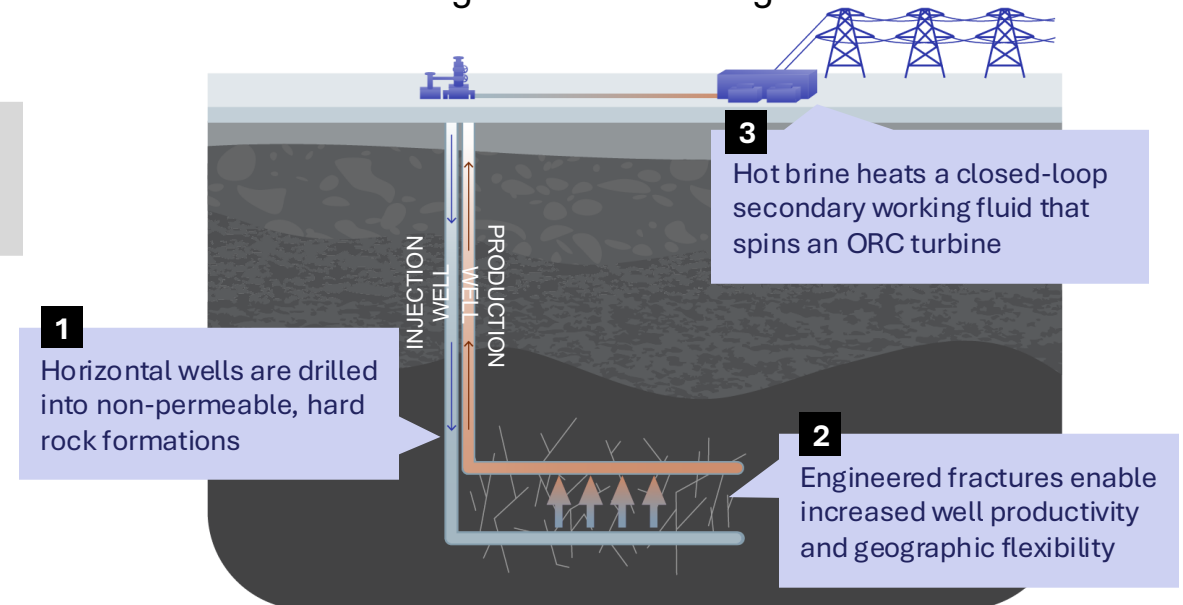
Traditional geothermal: Hydrothermal

- Geographically limited to natural fractures
- High subsurface uncertainty (**30% dry-hole rate**)
- **Cost-prohibitive** due to unique design at each site



Enhanced geothermal systems

- + **Flexible** across the U.S. (current focus on Western U.S.)
- + Engineered fractures **eliminate dry-hole risk**
- + Modular design unlocks learning curve and scale

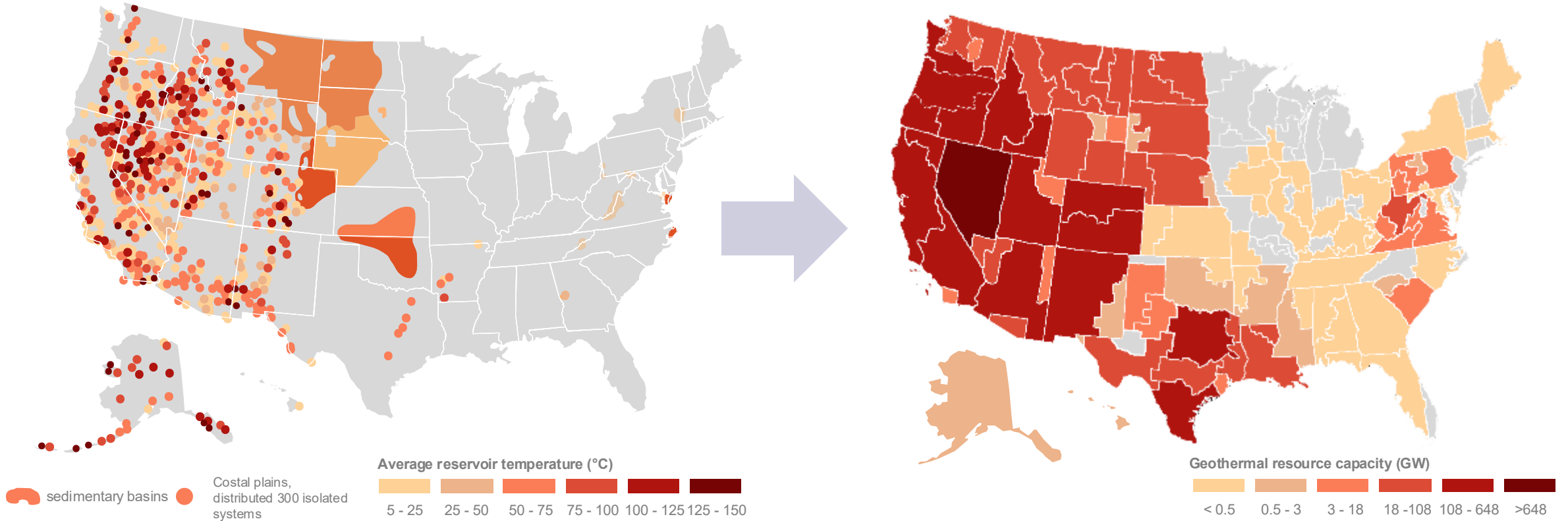


EGS Unlocks Geothermal's Full Potential

EGS expands the U.S. geothermal market potential by over 250x

Conventional geothermal: ~4 GW in operation

Enhanced geothermal: 1,000+ GW of potential



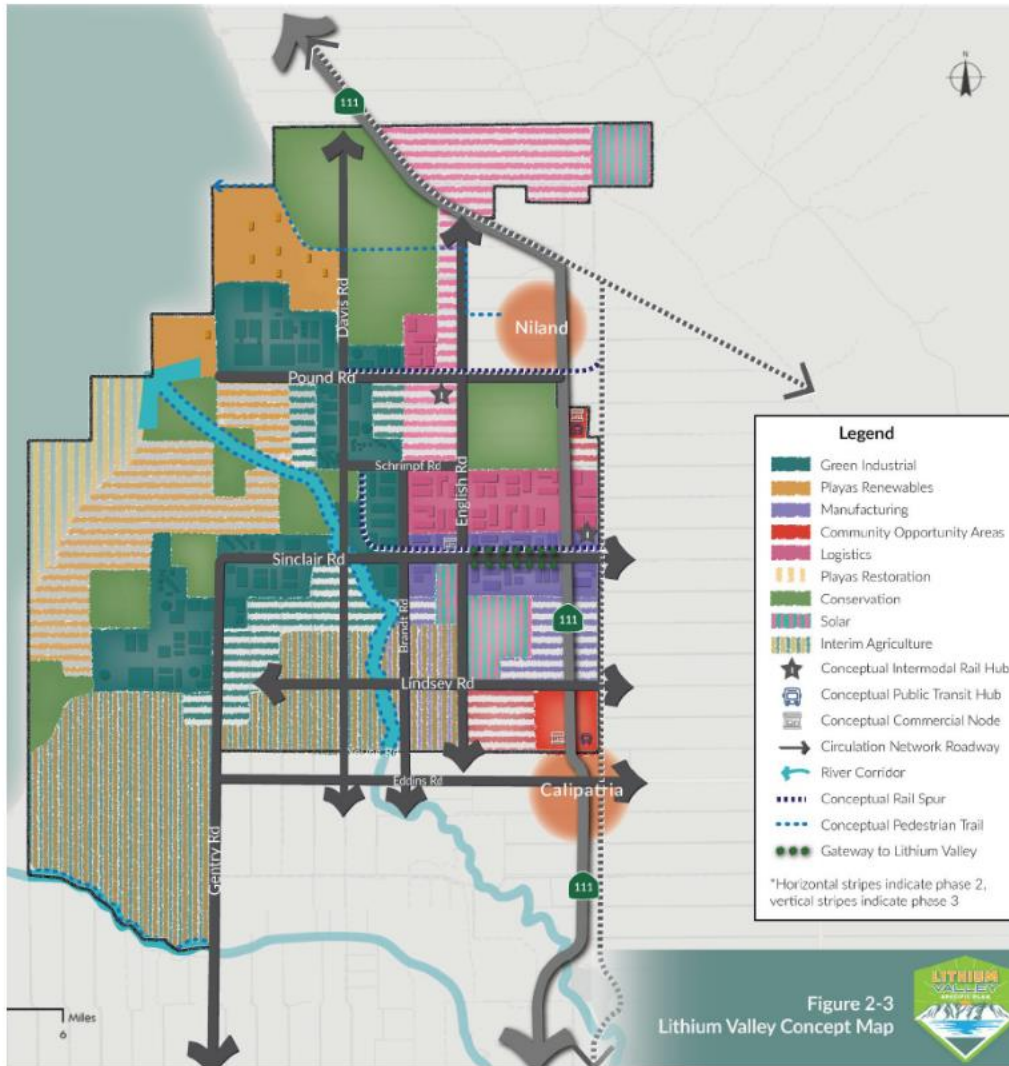
Source: Internal Fervo modeling based on NREL subsurface data and empiric results from Project Red and Project Cape; assumes 200°C temperature and drilling depths of 5km

LITHIUM VALLEY – A VERTICALLY INTEGRATED ECOSYSTEM

Lithium, Energy, & Manufacturing Supply Chain
UPSTREAM >> **MIDSTREAM** >> **DOWNSTREAM**

Lithium Valley is ideal for many businesses including:

- Battery Manufacturing
- Material Processing
- Recycling of Materials/Waste
- Auto Manufacturing
- Renewable Energy
- Community Spaces
- Data Centers
- Hydrogen Production
- Battery Storage
- Business Services
- Logistics, Rail
- + Future Innovation!



DE-RISKING ENERGY & CRITICAL MINERAL DEVELOPMENT



Photo Courtesy of BHE Renewables

POLICY & PERMITTING REFORM

COMMUNITY ENGAGEMENT

WORKFORCE DEVELOPMENT

BASELINE & INFRASTRUCTURE REPORT



FEB 2024

LITHIUM TAX FUNDING PLAN



OCT 2024

GOOD NEIGHBOR CBA



OCT 2024

LV DRAFT SPECIFIC PLAN




FEB 2025

EDUCATION PATHWAYS



AUG 2025

LV DRAFT PEIR



AUG 2025

REGIONAL WORKFORCE PLAN



SEPT 2025

REGIONAL ECONOMIC ANALYSIS



OCT 2025

Liquified Natural Gas (LNG)

Why do we need it?

- Natural Gas is considered as one of the cleanest fossil fuels
- Major economies rely on it for power generation and heating.
- Liquefaction makes gas easier and safer to transport.

What are some challenges?

- LNG is produced through energy intensive cryogenic compression
- Emissions from gas purification, GT exhaust, flaring, and fugitive CO₂.

Natural Gas in Numbers:

4 Trillion CM

Global Gas Consumption

2.4% YoY

Global gas demand growth

494 MTPA

Global LNG Liquefaction capacity

\$42 Billion

Global LNG Investment projected for next 3 years

411 MT

2024 Global LNG Traded

1/600th

Volume of LNG after liquefaction

CM – Cubic Meters of Gas / MTPA – Million Tons per Annum / HP – Mechanical Horsepower

Source: IGU World LNG Report 2025

How do we decarbonize Liquefied Natural Gas ?

Efficiency and Electrification (E-LNG)

- Efficiency hinges on compression string performance in cryogenic processes.
- GT-LNG upgrades cut emissions using carbon capture / SCR
- E-LNG up to 3× more efficient than GT-LNG when using grid power
- E-LNG CAPEX now rivals GT-LNG due to cost reductions.
- E-FLNG vessels are in early implementation stages.
- First 100% renewable energy LNG facility - 2026 Canada (Hydroelectric)

LNG Production statistics:

7 MMTCO₂e

Annual emissions from
10MTPA facility

+95% availability

Expected operational availability of a
typical LNG Liquefaction plant

2 – 3 MJ/kg

Energy required to
produce 1kg of LNG

+30 Years

Expected lifespan of LNG
Liquefaction facility

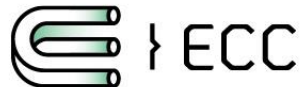
ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:



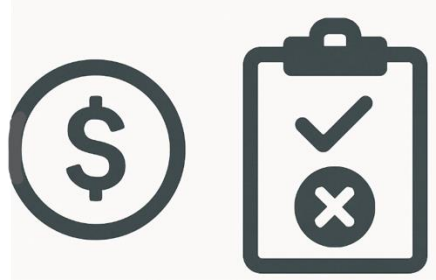
Permitting Challenges and Cost Delays



ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:



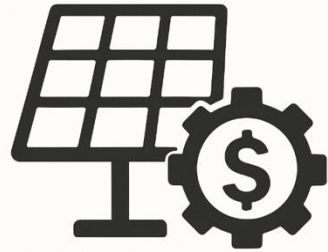
Gaps and Pain Points to Achieve FID



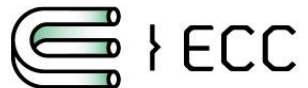
ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:

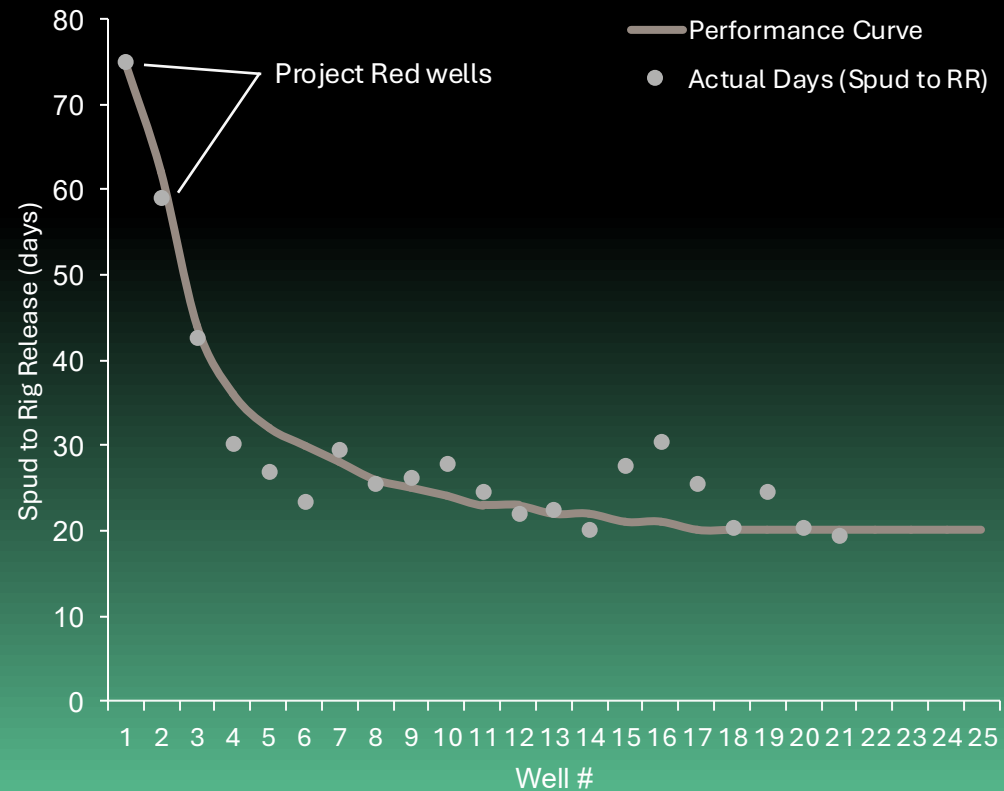


Driving Down LCOE (Levelized Cost of Energy)

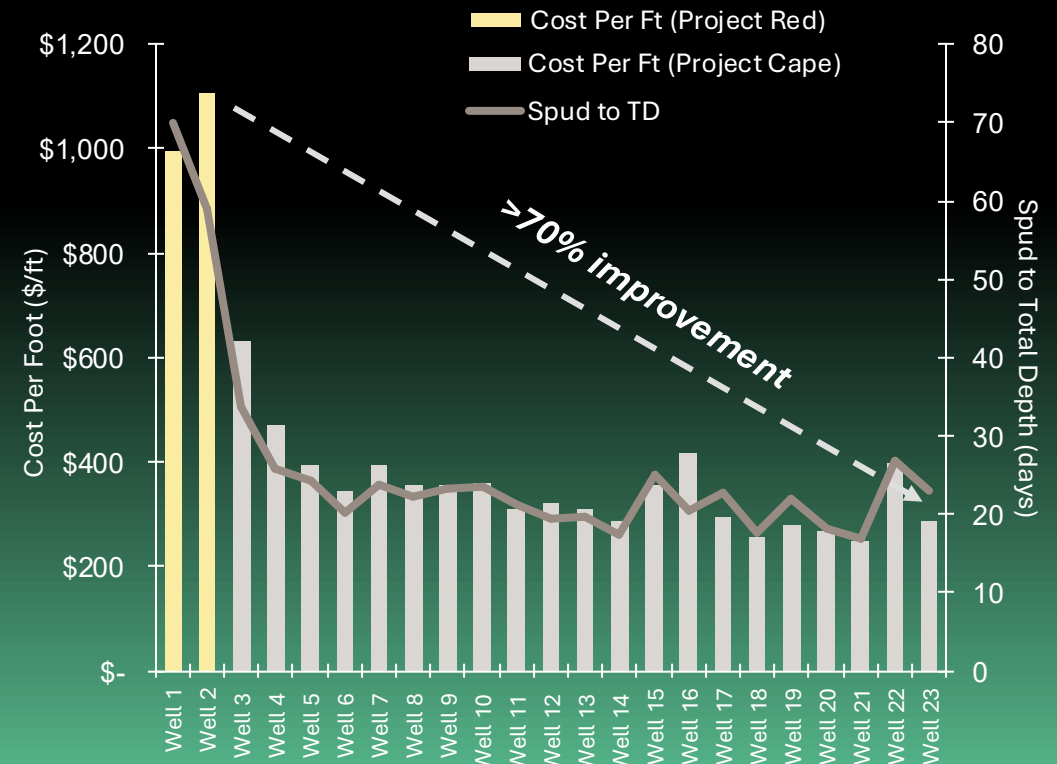


Fervo has rapidly come down the cost curve, setting records for EGS

An exponential learning curve has led to consistently reduced drilling times in horizontal, high-temperature, deep granite environments



Increased drilling efficiency has translated to significant cost reductions



ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:



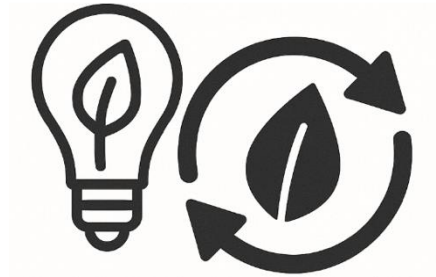
Opportunities for Executing at Scale



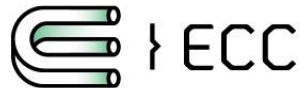
ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:



Strategies for Decarbonization



Is electrical driven Liquefaction realistic and what are the key advantages?

Advantages

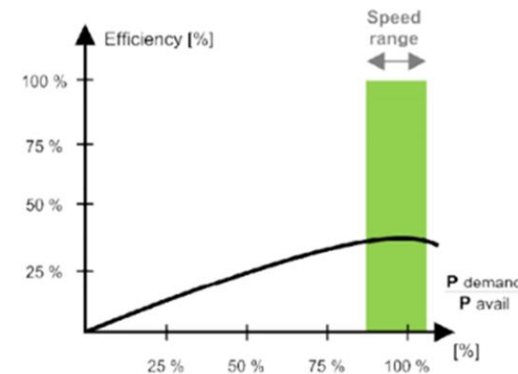
- Efficiency much higher than GT-LNG
- Emission reductions
- Improved availability
- Opex advantages

Challenges

- Utility infrastructure availability
- Added Technical complexity
- Longer lead-time for key components

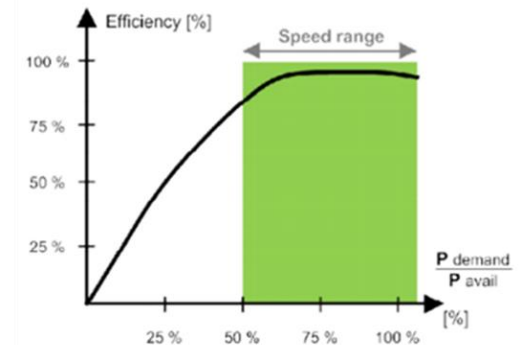
GT-LNG

Gas Turbine driven compression



E-LNG

Electric Motor driven compression



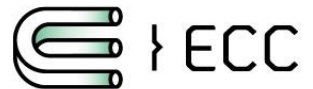
ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Discussion Topic:



Industry Outlooks



ECC 2025 Conference – PATH TO POWER

Technologies That Will Shape Tomorrow

Speakers

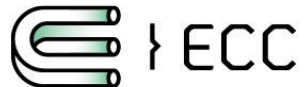
Tim Latimer: CEO of Fervo Energy

Nico Jansen van Rensburg: Head of BD – Oil and Gas - Siemens

Bari Bean: Deputy CEO – Natural Resources/Lithium –Ombudsman County of Imperial

Moderator

Jake Sonsel: Senior Director, Alvarez and Marsal



Presented: **August 28, 2025**