

## Day One 23<sup>rd</sup> May 2023

### 7:30am: Registration Opens

Visit us at the registration desk to pick up your badge – this is your ticket to the full conference

### 8:30am- 8:35am: Welcome Speech & Safety Briefing

Dominic Steffen, *Project Manager, Offshore Network*

### 8:35am- 8:45am: Chairman's Introduction

Jay Egg, *CEO, Egg Geo, LLC*

## Section One: Commercial Maximization

### 8:45am – 9:15am: Commercializing Geothermal in Hard to Abate Sectors

- Discuss industrial applications for geothermal energy to unlock increased commercial avenues
- Explore the opportunities and weaknesses in current technology to address industrial decarbonization using energy from geothermal sources
- Introduce business case factors that diverge from the traditional LCOE approach

Jeff Toedter, *VP of Engineering and Operations, Criterion Energy Partners*

Bridget Silva, *VP of Commercial Strategy, Criterion Energy Partners*

### 9:15am – 9:45am: Geothermal: When, Where, Why, and How-Much?

- Apply learnings from other renewable energies' policy strategies to consider how to scale geothermal energy production
- Discuss valuation methods and integrated resource planning considerations with geothermal projects in power grids
- Analyze the competitive advantages of geothermal energy over solar and storage technologies

Dr. Randell Johnson, *CEO, Acelerex*

### 9:45am – 10:15am: Best Practices in Permitting and Leasing

- Receive an outline of the federal geothermal leasing and permitting process in order to best ensure successful outcomes when seeking leases and permits
- Recognize the impact of the Energy Act of 2020 as a driver for geothermal growth through the issuance of non-competitive geothermal leases to existing oil and gas lessees to allow for repurposing
- Consider what efforts can be made to improve leasing and permitting processes in order to reduce barriers to geothermal growth

Lorenzo Trimble, *National Geothermal Program Lead, Bureau of Land Management*

### 10:15am – 10:45am: Coffee Networking Break

Grab some refreshments in the technology showcase hall

### 10:45am – 11:15am: XGS Energy – Harvesting Earth’s Endless Supply of Heat and Energy Anywhere

- Examine how inexhaustible heat generated within the earth can provide an energy source applicable for heating, industrial processes, or electricity generation
- Address challenges in scaling, corrosion and induced seismicity in order to increase geothermal energy’s significance in the global energy mix
- Understand how XGS Energy delivers affordable and improved energy output whilst eliminating large water requirements by targeting hot rock using closed-loop wells

Axel-Pierre Bois, *Senior VP of Technology*, **XGS Energy**

Marek Kozikowski, *Director of System Integration*, **XGS Energy**

### 11:15am – 11:45am Energy Transition in the Heart of Alberta's Hottest Hydrocarbon Play

- Hear from the CEO of Alberta's first conventional geothermal facility on how co-producing thermal and electrical energy offers opportunities for commercial growth
- Review how oil and gas exploration techniques reduce risk and receive operator insights on production information
- Understand the significance of researching CCUS in conjunction with brine injection for encouraging economic improvement

Catherine Hickson, *CEO*, **Alberta No.1**

## Section Two: Oil and Gas Supply Chain Integration

### 11:45am – 12:30pm: Panel Discussion - Cross Industry Collaboration

- Learn how oil and gas technology has been successfully integrated into geothermal projects in order to translate these insights to new geothermal operations
- Consider how collaborating with oil and gas service companies can reduce operational expenditure and improve drilling capability through the implementation of their expertise
- Hear from oil and gas and geothermal operator representatives on how co-operation between the two respective industries can be enhanced to best understand how both industries can maximize learnings from the other

Moderator: Chris Ellis, *VP and General Manager*, **Coso Operating**

Kelly Blake, *Geothermal Program Lead + President*, **U.S Navy + Geothermal Rising**

April Rider, *Geoscientist*, **Repsol**

Sarah Jewett, *VP of Strategy + Policy Committee Representative*, **Fervo Energy + Geothermal Rising**

Patrick Hanson, *Senior Geothermal Development Manager*, **Expro**

### 12:30pm – 1:45pm: Lunch Break

Grab some lunch and refreshments in the technology showcase hall

### 12:45pm – 1:30pm: Lunch and Learn hosted by Baker Hughes

### 1:45pm – 2:15pm: Geothermal Well Construction: Proper Selection of Cementing Solutions

- Learn about well construction challenges and associated risks specific to geothermal operations that must be overcome to assure long-term barrier integrity
- Evaluate best practices and material selection criteria to retain integrity in high temperature, corrosive environments and withstand challenging production conditions
- Review global case studies where novel calcium aluminate phosphate cement systems have been employed in successful geothermal operations

Misty Rowe, *Cementing Chemicals Product Manager*, **Halliburton**

### 2:15pm – 3:00pm: Panel Discussion - Service Provider Led Collaboration

- Evaluate how service providers can encourage co-operation with both geothermal and oil and gas operators to bridge supply chain challenges and ultimately capitalize on geothermal potential
- Review the importance of tackling supply chain gaps in order to establish new geothermal operations whilst reducing project costs
- Hear case examples from geothermal market leaders on joint projects they have undertaken to discover how to encourage collaboration across the industry

Moderator: Kristy Egg, *Marketing Director*, **Egg Geo, LLC**.

Saurabh Agarwal, *Senior Manager: Completions and Operations*, **Fervo Energy**

Will Pettitt, *Geothermal Discipline Lead*, **Baker Hughes**

Derek Adams, *CEO*, **Earthbridge Energy**

## Section Three: Drilling and Technological Hurdles

### 3:00pm – 3:30pm: How Blue Spark Energy is Driving Efficiency, Value, and Risk Reduction in the Geothermal Industry

- Learn how BLUESPARK® technology works to remove impediments, blockages and scale, increasing the efficacy of the wellbore.
- Access findings from over 12 years that show how BLUESPARK® technology sustainably and efficiently removes scale in the wellbore.
- Consider how BLUESPARK® technology offers alternative methods to those typically used in geothermal well remediation

Chris Graham, *VP of Sales and Marketing*, **Blue Spark Energy**

### 3:30pm – 4:00pm Coffee Networking Break

Grab some refreshments in the technology showcase hall

#### 4:00pm – 4:45pm: Panel Discussion - Oil and Gas Insights

- Gain actionable insights from expert panellists from Oil and Gas and Petroleum Engineering backgrounds to implement these learnings to geothermal projects
- Examine how limitations and challenges in Oil and Gas drilling are approached to consider how these methods could reduce risk during geothermal exploration
- Discuss industry-wide supply chain deficiencies and review how oil and gas experts have adapted to overcome these to understand how to develop geothermal portfolios during period of supply chain complications

Moderator: Lumay Vilorio, *Subsurface Team Lead*, **Endeavor Management**

Ingrid Huldal, *Director of Portfolio Advancement*, **Expro**

Denise Knight, *VP of Geology and New Ventures*, **Criterion Energy Partners**

Ghazal Izadi, *COO*, **XGS Energy**

#### 4:45pm – 5:15pm: Digital Twins for Geothermal and Advanced Geothermal Engineered System

- Discover how the intersection of digital, oil and gas technology and clean power generation is emerging in order to overcome challenges from the traditional geothermal industry
- Analyze how low to medium enthalpy subsurface applications that target asset repurposing are becoming the increasing focus of digital twin design and plant automation
- Examine how medium to high enthalpy thermodynamics are targeting decarbonization and the optimization of heat extraction in the latest digital twin designs

Camilo Mejía, *CEO + Chairman*, **Enovate + the SPE Geothermal Technical Section**

#### 5:15pm -5:20pm: Chairman's Closing Remarks

Jay Egg, *CEO*, **Egg Geo, LLC**

#### 5:20pm - Happy Hour Networking Drinks

## Day Two 24<sup>th</sup> May 2023

### 8:00am: Registration Opens

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### 8:35am- 8:45am: Chairman's Introduction

Jay Egg, *President, Egg Geo, LLC*

## Section Four: Repurposing Opportunities

### 8:45am – 9:15am Repurposing Oil and Gas to Geothermal: Clean Energy to Carbon Neutral

- Analyze how existing oil and gas technologies and industry expertise can be effectively implemented for geothermal energy extraction
- Review how existing hydrocarbon wells offer geothermal production possibilities but also opportunities as assets that can co-produce oil and gas alongside heat
- Consider the screening criteria to successfully convert hydrocarbon wells to geothermal assets in order to optimize repurposing projects

Sonia López Kovács, *Reservoir Engineer Advisor, Repsol*

### 9:15am – 9:45am: Stress Shadows During Hydraulic Fracturing and the Influence on Fluid Propagation on Future Stimulations.

- Consider how, similar to the oil and gas industry, the completion of geothermal systems has scaled into multi-well completions
- Address how focal mechanisms from microseismic events can be used to determine stress orientation and magnitude of the virgin stress and the dynamically changing stress state.
- Understand MicroSeismic Inc.'s role in the energy transition and how expertise from geophysics and well completions are brought into renewable energy solutions with services, such as MicroThermal Energy.

Jon Mckenna, *Geological Engineer, MicroSeismic Inc.*

### 9:45am – 10:15am: Well Repurposing Case Studies: CeraPhi Energy

- Access case developments of CeraPhi Energy's existing wells and future projects to learn of the power generation possibilities in repurposed wells
- Learn how the CeraPhi well utilizes closed-loop geothermal technology to enhance success rates in repurposed operations
- Consider how the lower running costs associated with closed loop wells will help drive forward repurposing as the technology makes projects more commercially viable

Higinia Torregrosa, *U.S Projects Co-ordinator, CeraPhi Energy*

### 10:15am – 10:45am: Coffee Networking Break

Grab some refreshments in the technology showcase hall

## 10:45am – 11:15am: Repurposing Idle, Abandoned, or Orphaned Wells into Geothermal: Best Practices

- Explore the characteristics which make a well a good candidate for conversion into geothermal wells or energy storage assets in order to maximize oil and gas well repurposing potential
- Discern the risks and dangers involved in repurposing, in addition to geological factors which are frequently overlooked, to avoid unfavourable outcomes when converting oil and gas wells
- Review the unexpected benefits of repurposing wells to understand the opportunity converting oil and gas wells into geothermal assets holds

Susan Nash, *Director of Innovation and Emerging Science*, **American Association of Petroleum Geologists**

## Section Five: Forecasting Geothermal Growth

### 11:15am – 11:45am: The Future of Geothermal in Texas

- Review how Geothermal Core utilizes expertise and data from the oil patch to identify exploitable geothermal resources in Texas and Louisiana for risk mitigation in project identification
- Explore how Geothermal Core's industrial scale, green electricity generation can help offset the grid stress caused by intermittent renewables
- Discuss how green, dispatchable power can benefit the production of green Hydrogen and ammonia and attract projects to areas seeking to expand their tax bases

Jeremy Goodwin, *Project Development Manager*, **Geothermal Core**

### 11:45am – 12:30pm: Panel Discussion – Marketing and Impact: How wide is Geothermal's Influence?

- Access exclusive discourse from members of Geothermal Rising's Board of Directors on marketing within geothermal to review how to stimulate public awareness of the energy
- Consider the wide scope of applications for geothermal energy to review how to expand your portfolio
- Explore the wide impact of geothermal energy and how it touches every facet of life

Moderator Kristy Egg, *Marketing Director*, **Egg Geo, LLC**.

Kelly Blake, *President*, **Geothermal Rising**

Jay Egg, *At Large Board Seat*, **Geothermal Rising**

Sarah Jewett, *Policy Committee Representative*, **Geothermal Rising**

### 12:30pm – 1:30pm: Lunch Break

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## Section Six: Emerging Innovations

### 1:30pm – 2:00pm Closed-loop Technology Case Studies

- Explore the current state of closed loop systems to discern how it can unlock major geothermal potential at a global scale to harvest energy decreased location restrictions
- Receive insights on how Greenfire's 'GreenLoop' technology offers a wide range of geothermal possibilities through its adaptability across varying temperatures and permeability
- Access learnings from Baker Hughes on how closed-loop technology can be used to transform non-productive geothermal and oil and gas wells

Rob Klenner, *Advanced Geothermal Technology Leader*, **Baker Hughes**

Joseph Scherer, *CEO*, **Greenfire Energy**

### 2:00pm – 2:30pm: Superhot Rock Geothermal: Capturing the Energy Beneath Us

- Understand why superhot rock will become a pillar of renewable power generation to determine its importance in your future business model
- Hear the technical and economic advantages of tapping into superhot rock resources to recognize how the method of geothermal production could transform the industry
- Access current operator project updates and potential development pathways to understand how to best utilise superhot resources going forward

Trenton Cladouhos, *Geologist*, **Alta Rock Energy**

### 2:30pm – 3:00pm: Geothermal Markets and Technologies – A Global Assessment

- Identify the key trends and major changes taking place in the geothermal sector that are likely to accelerate the deployment of geothermal energy and realization of its full potential to achieve clean energy transition.
- Receive the findings of the International Renewable Energy Agency's report on geothermal markets and technologies to understand how maximizing the potential of current trends can drive geothermal forward
- Consider how both the geothermal and oil and gas industries can contribute to continued geothermal development, building on existing and emerging market and technology trends

Jack Kiruja, *Associate Programme Officer*, **International Renewable Energy Agency**

### 3:00pm – 3:30pm: Enhanced Geothermal Systems Overview

- Learn how Enhanced Geothermal Systems (EGS) best utilize natural fractures in hot rock to potentially provide breakthrough power generation

- Hear from the Department of Energy's 'Utah FORGE' laboratory to understand the latest developments at the key centre of research into EGS
- Recognize how the acceleration of EGS technological development will allow for geothermal power to be generated at a global scale

Dr. Clay Jones, *Geologist*, **Utah FORGE**

**3:30pm: - 3:35pm Chairman's Closing Remarks**

Jay Egg, *CEO*, **Egg Geo, LLC**