



Workshop: The role of EGS in the energy transition at Cornell

Wednesday October 23 & Thursday October 24, 2024

Ithaca campus, Maple 120 132 Multipurpose Room

*This workshop is supported by Cornell Atkinson Center for Sustainability
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AGENDA

Wednesday October 23

9am-9.30am Welcome, purpose of the workshop ([Chloé Arson](#))

9.30am-10.30am Cornell's climate goals ([Sarah Carson](#), [Stacey Edwards](#), [Cole Tucker](#))

- Overview of Cornell's energy consumption, production and resources
- Review of University climate goals

10.30am-11am Coffee break

11am-12pm Ethics, justice and EGS

- Public Trust and Renewable Energy ([Trystan Goetze](#))
- EGS regulatory framework vs. environmental justice ([Sheila Olmstead](#))

12pm-1pm Lunch break

1pm-2pm EGS public acceptance ([Sarah Carson](#), [Katherine McComas](#), [Marguerite Wells](#))

- State of the art on communication strategies to increase public acceptance
- Case study: EGS in NY State and the East of the United States

2pm-2.30pm Lessons learnt from the Cornell University Borehole Observatory (CUBO)

- Geology of the site, mechanical, thermal and hydraulic properties of the formation ([Terry Jordan](#))

2.30pm-3pm: Coffee break

3pm-4pm Lessons learnt from DOE funded Frontier Observatory for Research in Geothermal Energy (FORGE) in Utah ([Koenraad Beckers](#))

- Technological advances
- Feasibility of Enhanced Geothermal Systems (EGS) in Utah
- Fervo energy

Thursday October 24

9am-10.30am Current EGS research landscape (1h presentations followed by 30 min Q&A)

- The Cornell University Seismic Network (CorNet) ([Patrick Fulton](#))
- Comparisons and contrasts with other academic geothermal drilling projects (FORGE, UrbEnLab, St1) ([Patrick Fulton](#))
- Advanced geophysical monitoring: lessons learned from meso-scale EGS experiments ([Seth Saltiel](#))
- 'Geothermal Everywhere' into the future: SuperHot Rock energy ([Seth Saltiel](#))
- Novel computational geomechanics methods for EGS ([Chloé Arson](#))

10.30am-11am Coffee break

11am-12pm Review of the EGS life cycle ([Wayne Bezner Kerr](#), [Bert Bland](#), [Burak Erdinc](#), [Olaf Gustafson](#))

- Site characterization and preparation including permitting
- Design
- Drilling, installation and monitoring
- Operation: Distribution and storage
- Facilities maintenance and waste management
- Closure, reclamation and conversion
- Site characterization and preparation including permitting

12pm-1pm Lunch break

1pm-2.30pm Panel: EGS impact metrics ([Michael Gillenwater](#), [Jeff Tester](#), [Tony Ingraffea](#))

The moderator ([Chloé Arson](#)) will ask questions about environmental accounting at the energy systems level.

2.30pm-3pm Coffee break

3pm-4pm White paper preparation and wrap-up ([Chloé Arson](#))

- White paper write-up:
 - Anticipated technological challenges and opportunities for EGS at Cornell
 - EGS impact metrics and LCA methodology
 - EGS impact and LCA at Cornell (various scenarios explored by the groups)
 - EGS ethics and public acceptance
 - Collaborative research ideas
- Wrap up:
 - Repository with group presentations and white paper draft
 - Dissemination plan for the white paper: arXiv, conference, journal?
 - Plans to follow up and collaborate for interested participants

Expected deliverable:

White paper and potential group publications on the topics discussed during the workshop.