Examples of Modular Geothermal in Oilfields

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Geothermal Energy from Oil & Gas Production & Infrastructure

Gradient Geothermal At A Glance

We deploy modular geothermal power units in oil and gas basins across the world to generate **clean electricity**, **cool produced fluids,** and **reduce greenhouse gas emissions** from oil and gas wells and infrastructure.

First Installation

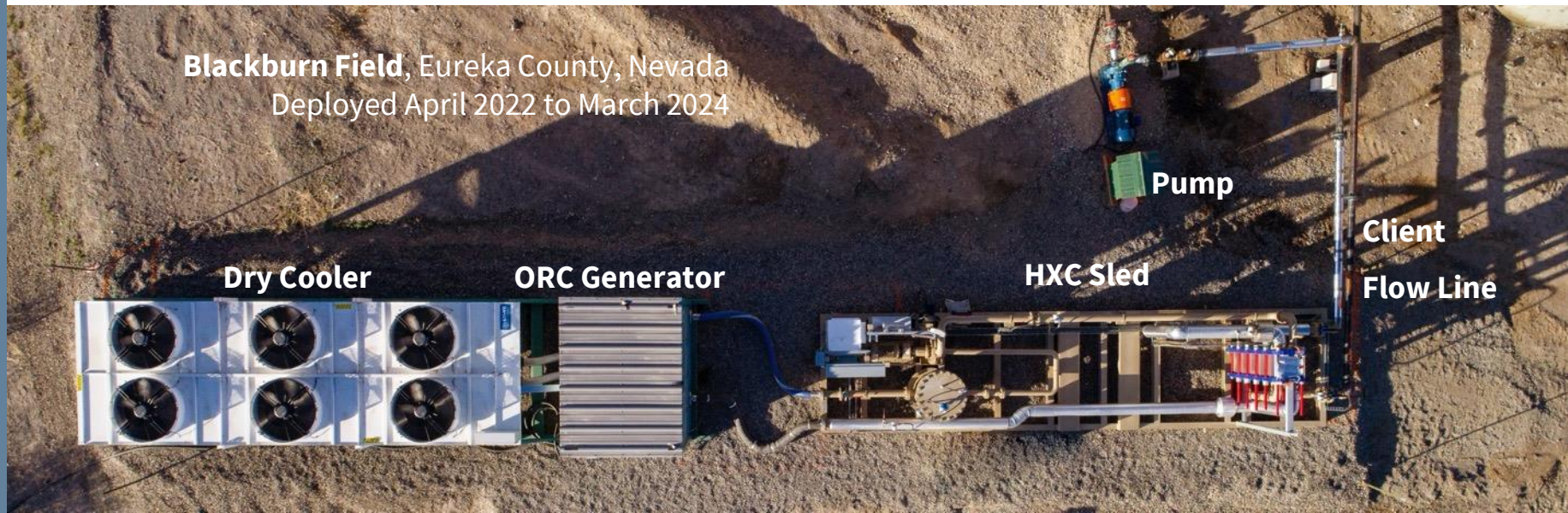
Blackburn Field, Eureka County, Nevada
Installed April 2022

Oilfield Deployments of ORCs

Power Generation & Fluid Cooling

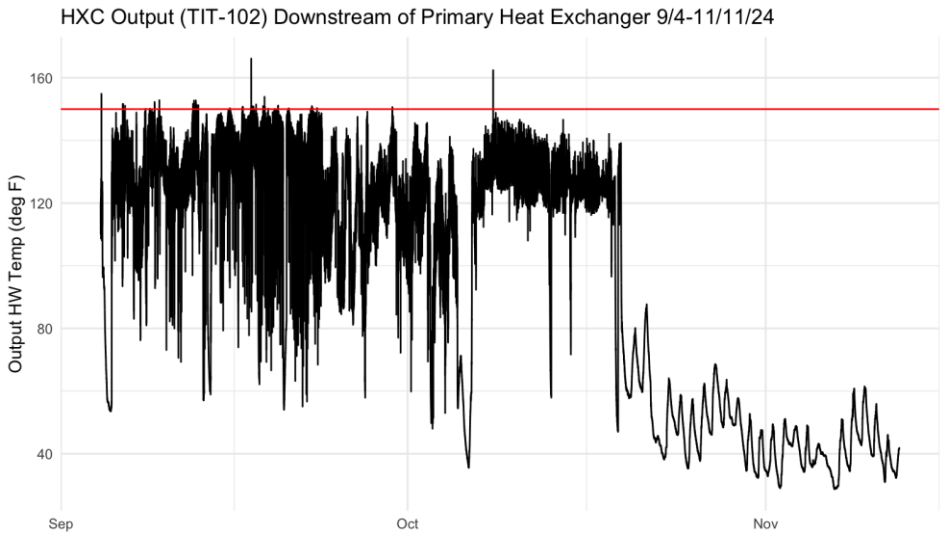
Organic Rankine Cycle Generator (ORC)
- 75 kW ORC + dry cooler ruggedized for severe environments (-40° C to +50° C)

HXC Sled
- Heat transfer sled from produced fluids to ORC



Fluid Cooling in the Williston Basin

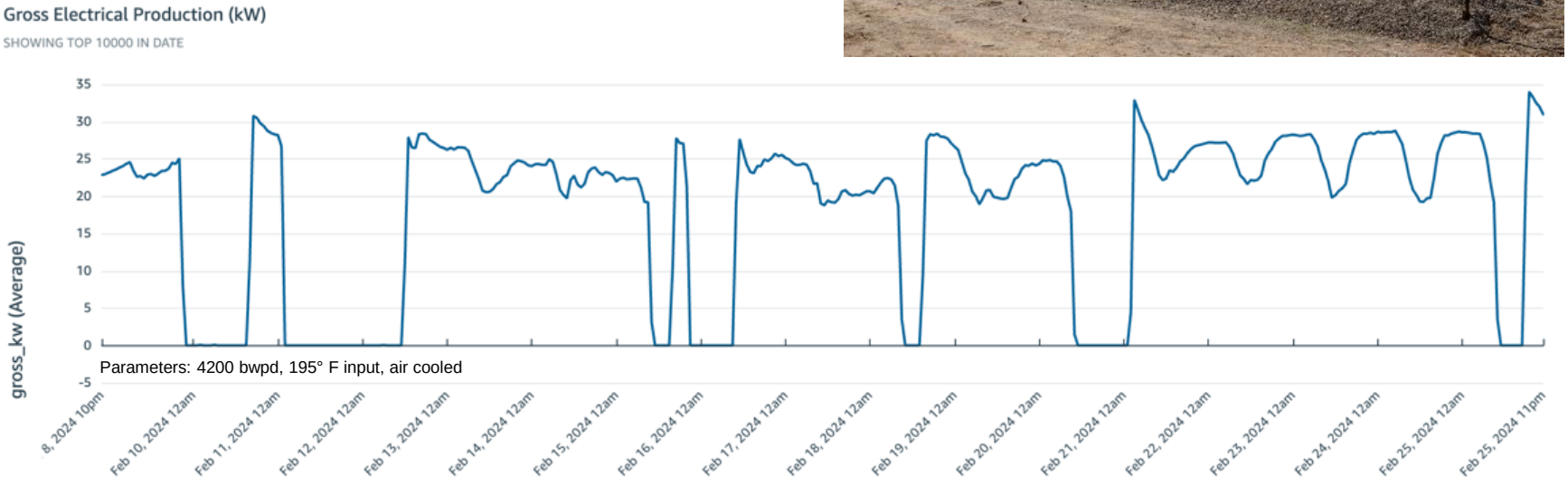
- Cooling produced fluids on liquids flowback from a new pad turn-on
- Met 150° F cooling spec 99.3% of time
- Variable priority for power generation or cooling
    - Power generation dependent on mixing valve between hot-side loop and cold-side loop



Blackburn DOE Wells of Opportunity

Phase 1 Feasibility Study

- DOE Wells of Opportunity-funded project
- Pathway to 1 MW at existing oilfield
- Four season operations
- 80.1 MWh, 3032 hours
- Plumbed at central facility to a central tank post-separation vs immediately post-separation



Gradient Geothermal

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