

Eavor™

The Climate Center

August 28, 2025



Geothermal

Comes from Greek words:

“Geo” for Earth

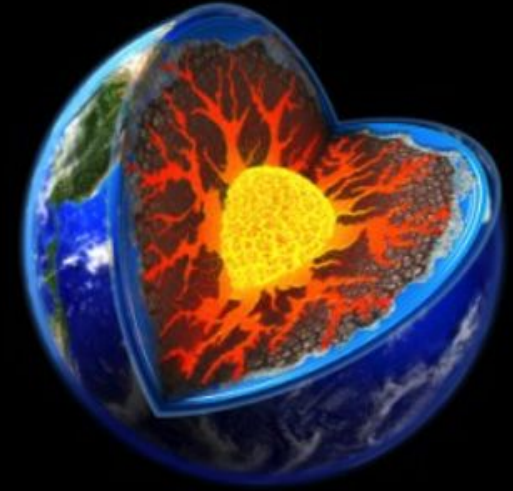
“Thermos” for Heat

Temperature at the Earth’s core is hotter than the surface of the sun $>6000^{\circ}\text{C}$

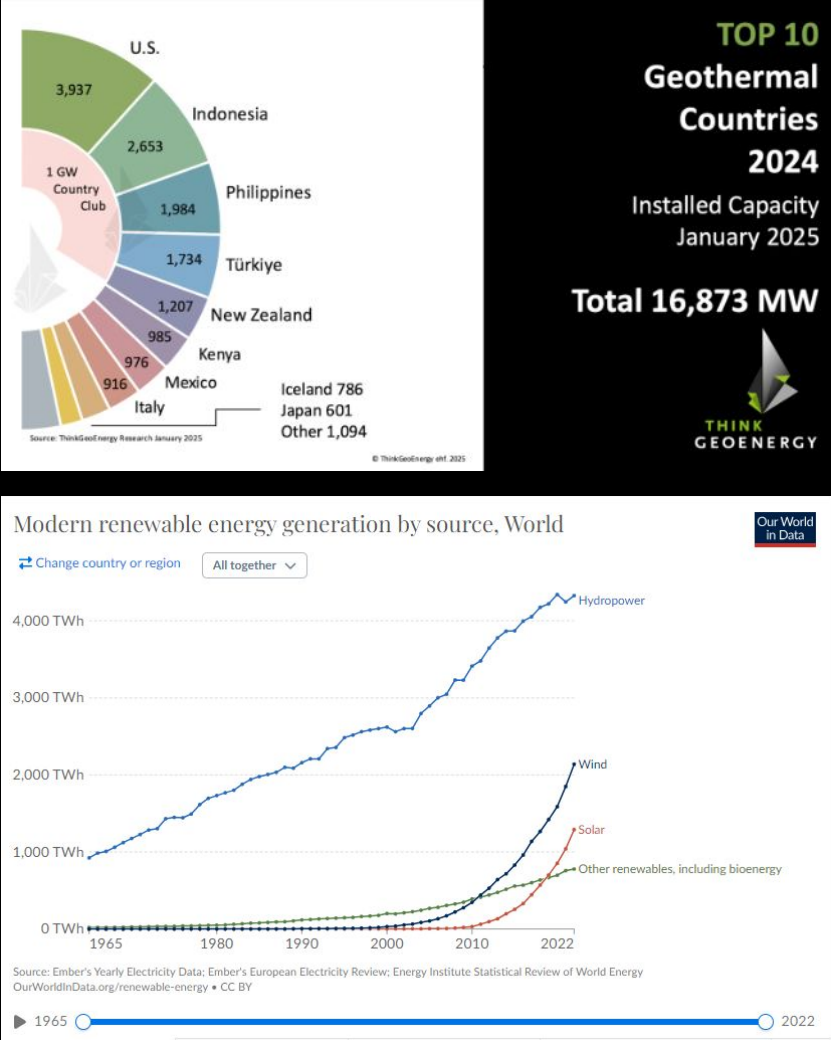
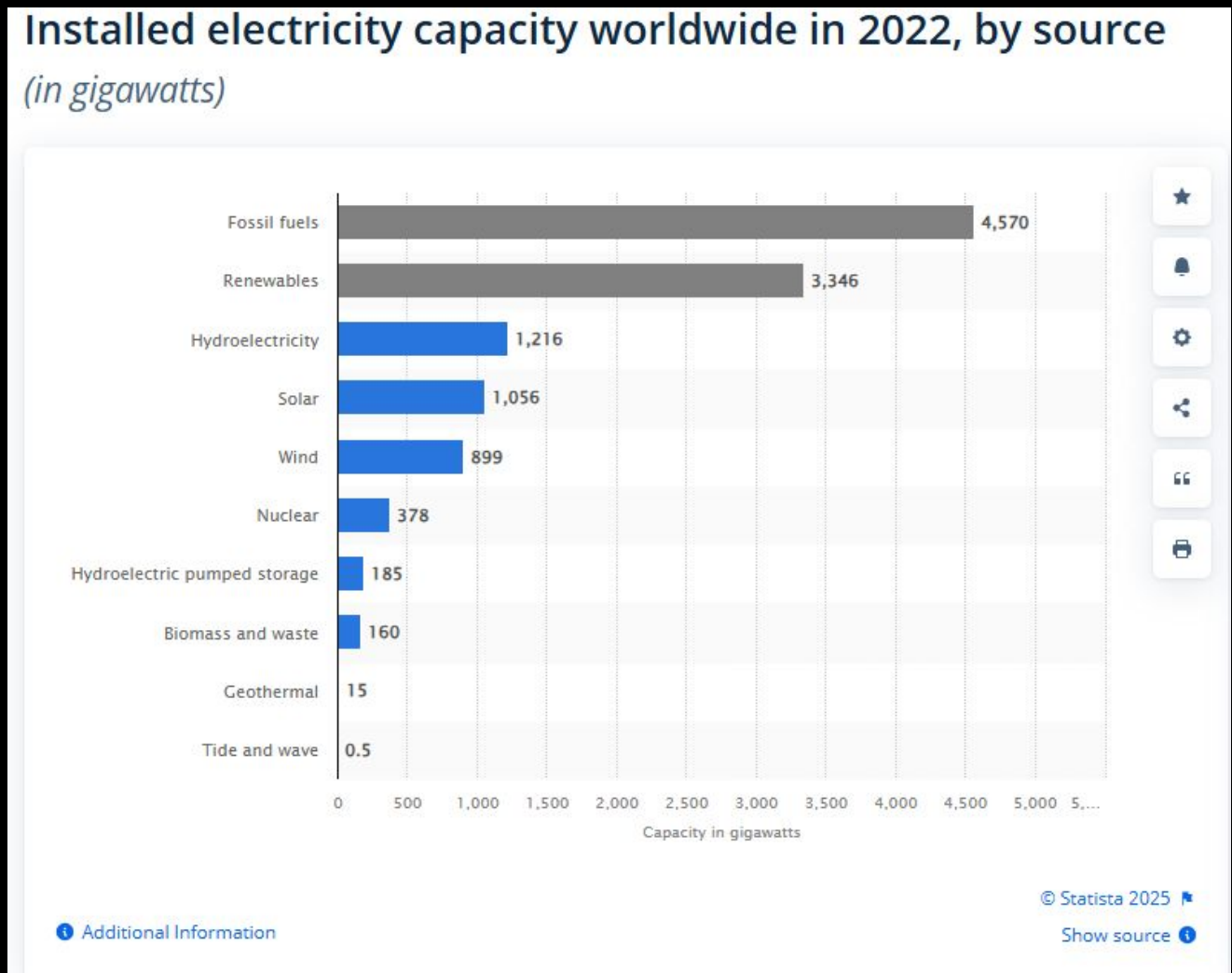
Radioactive decay accounts for about 1/2 of the of

“Heat beneath our feet”

People have used geothermal energy for thousands of years. Ancient Romans, Chinese, and Native American cultures used hot mineral springs for bathing, cooking, and medicinal purposes

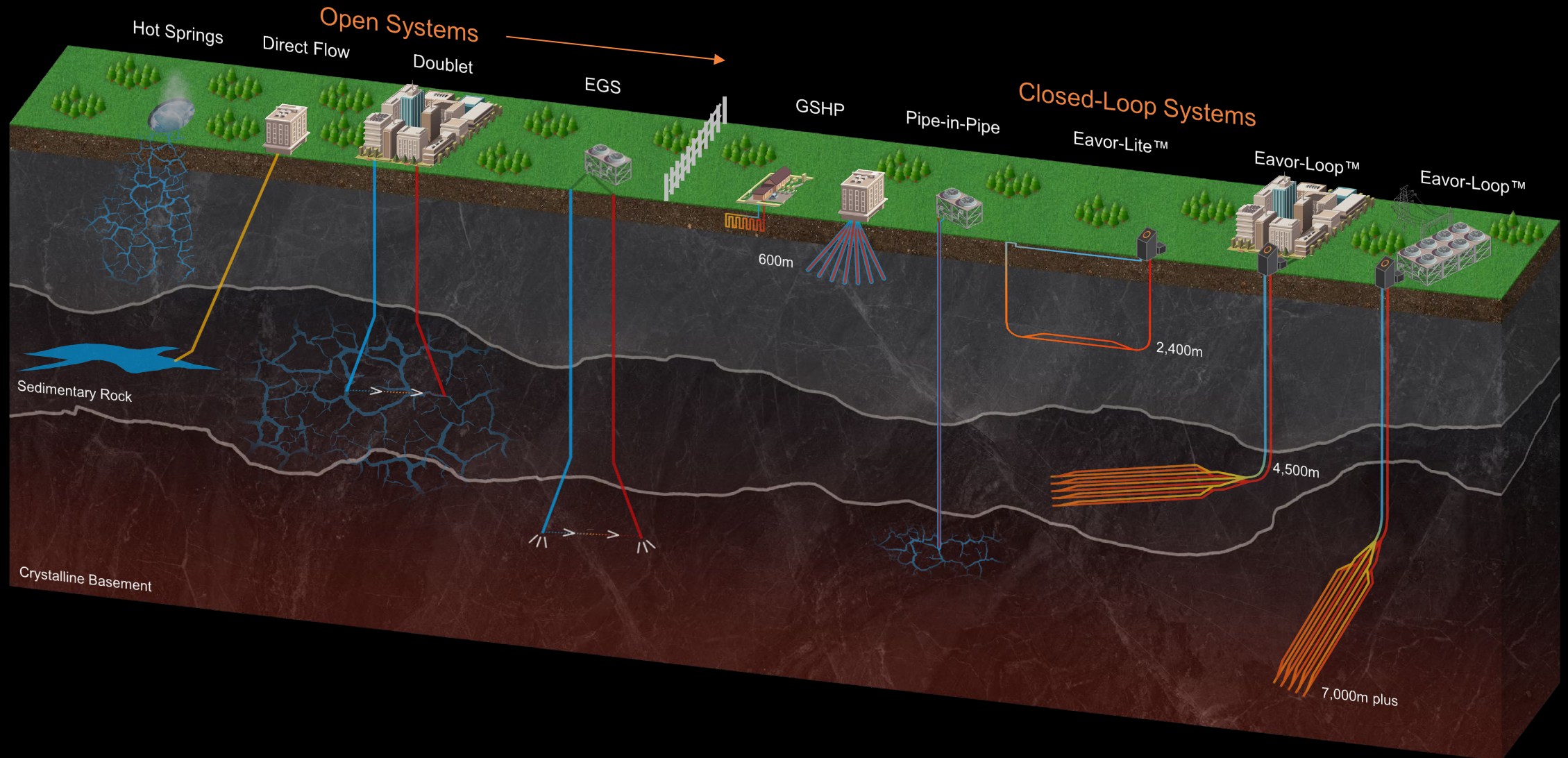


Geothermal Currently is a Very Small Percentage of Global Renewable Resources



Geothermal Systems

[Video Link](#)



Eavor-Loop™ Differentiation From Other Geothermal Systems

Eavor-Loop™ is the only truly scalable form of geothermal energy

	Traditional geothermal	Enhanced geothermal systems (EGS)	Eavor-Loop™
Produces firm power	●	●	●
Capable of producing direct-heat, power, or cooling	●	●	●
Low surface footprint	●	●	●
Clean energy source	●	●	●
Low materials intensity	●	●	●
No permeable aquifer required	●	●	●
No circulating pump	●	●	●
No fracking	●	●	●
No induced seismicity	●	●	●
Negligible continuous water use	●	●	●
Highly predictable	●	●	●
Capable of lossless load-following	●	●	●

Why Eavor?

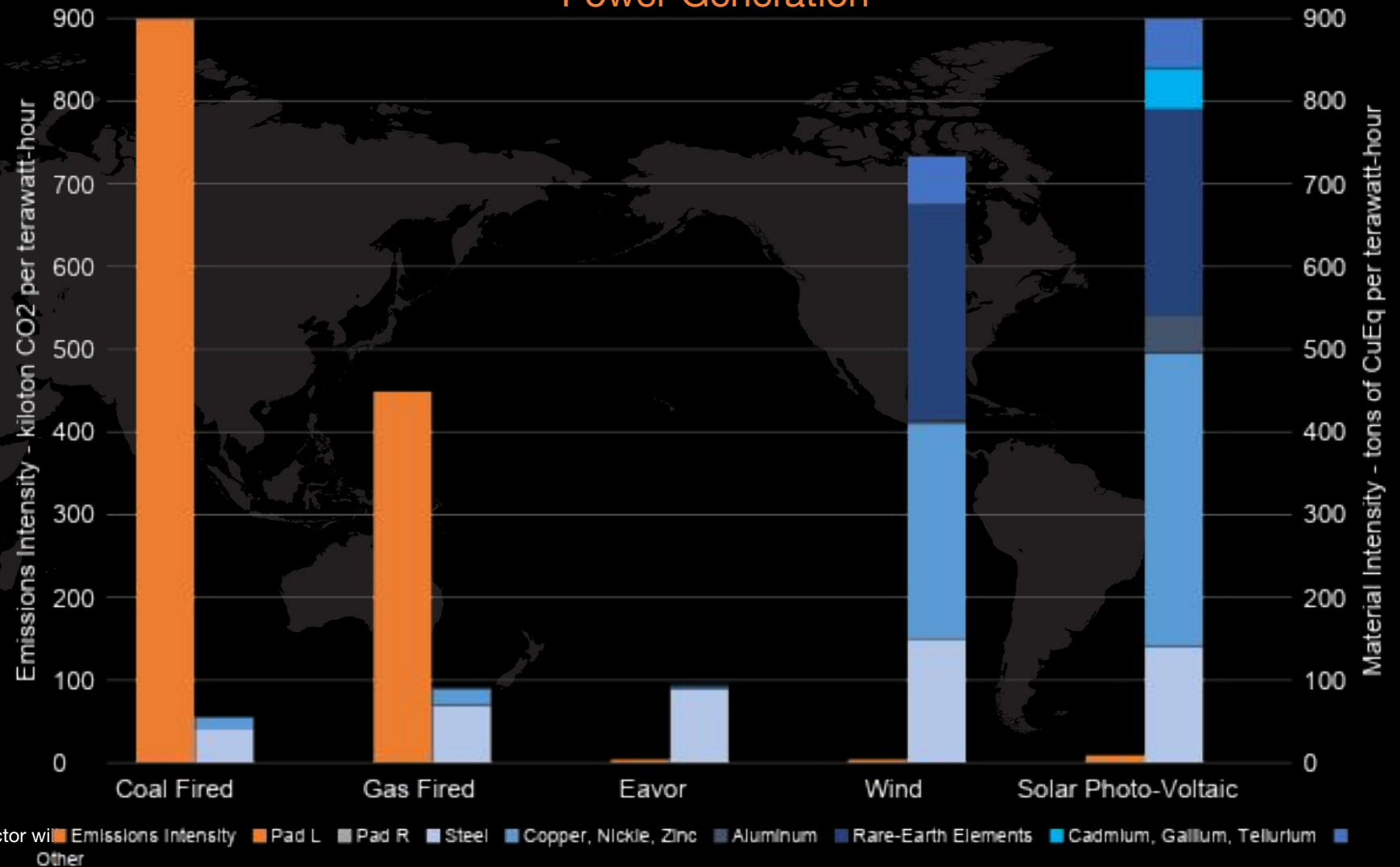
Emissions Intensity:

- Full Scope 3 emissions
- Third party, Boundless prepared
- Assumptions based on Eavor-Europe™ project

Materials Intensity:

- No mining tail
- Local energy resilience, independence, security & autonomy

Only Eavor Delivers Low Emissions & Materials Intensity for Power Generation



Source: McKinsey

The raw materials challenge: how the metals and mining sector will be at the core of enabling the energy transition, 2022

Eavor-Loop™ Footprint vs Wind & Solar



	Land Use Capacity (MW _{peak} / ha)	Capacity Factor	Land Use Generated (MW / ha)
Wind – USA	0.03 ¹	0.35 ²	0.01
Solar – USA	0.32 ³	0.29 ³	0.09
Eavor-Loop™ 1.0, average gradient	3.23	0.98	3.17

1. Land-Use Requirements of Modern Wind Power Plants in the United States; NREL, 2009 <https://www.nrel.gov/docs/fy09osti/45834.pdf>

2. EIA, 2021:

3. 2018 generation of top 35 largest US solar plants, <https://www.freeenergy.com/math/solar-pv-land-acres-hectares-miles-m118/>

Reliable Baseload Power

- The Eavor-Loop™ capacity factor is essentially 100% when operating to produce baseload power

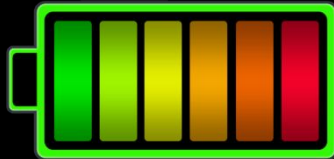
Therefore...

- For the same surface land use, Eavor-Loop™ is expected to generate at least 35x more power than solar and 300x more than wind

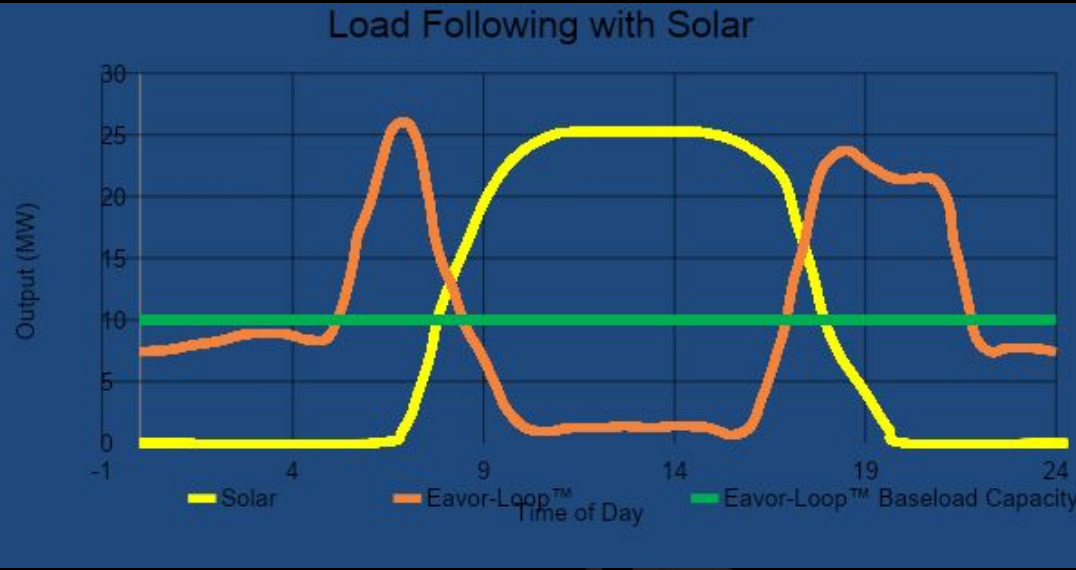
Eavor-Loop™ Dispatchability

Eavor can provide load following output:

- Transient operation allows system to charge during low-demand periods and discharge during high-demand periods
 - Transient ability demonstrated at Eavor-Lite™
 - No material impact to net energy output over life of the project
- Can provide different shaped outputs to meet end-user requirements:
 - Especially complementary to jurisdictions with heavy solar penetration (e.g., California, Nevada, Chile, etc.)
 - Can improve grid stability, solve ramping issues
- Eavor-Loop™ competes with energy storage and night-time gas alternatives



Eavor Earth Battery™

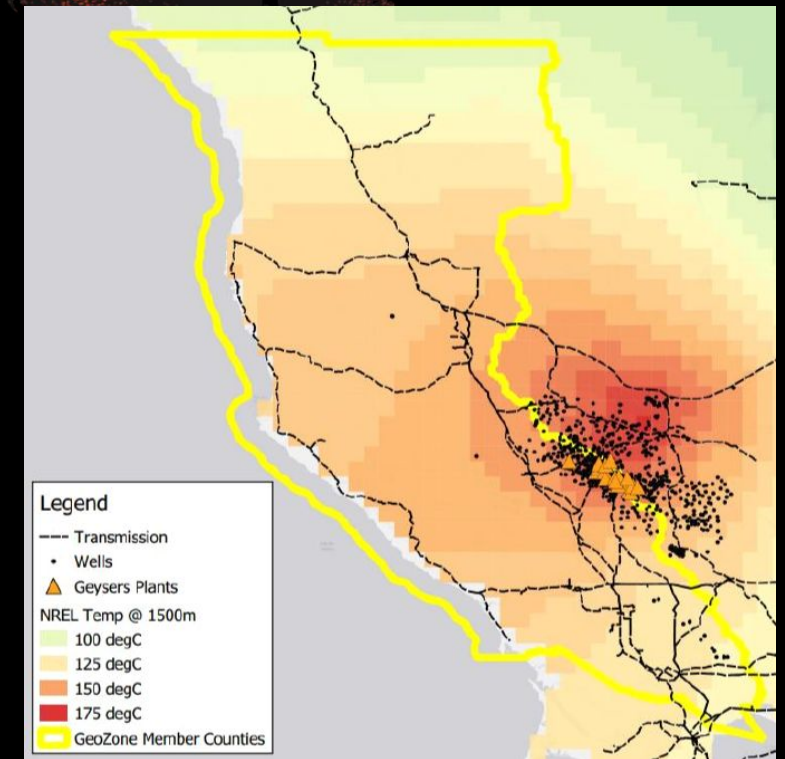


	Li-ion Battery [1, 2, 3]	Eavor
Storage Hours	8	8 – 20
Operational Life (Years)	10	30
Capacity Degradation	25%	0%
Depth-of-Discharge Limit	90%	90%
Battery Energy Cost (\$/MWh)	>125	<75

[1] Smith, K., Ziwei, C., et al. *Life Prediction Model for Grid Connected Li-ion Battery Energy Storage System*, 2017
[2] NV Energy, 2019
[3] Tesla, 2020

Community Engagement, Jobs and Benefits to Local Counties

- Built with American Personnel – high paying, domestic jobs
- Construction of an Eavor-Loop™ creates up to 100 direct jobs and 300 indirect jobs
- Hardening grid and resiliency by placing supply near demand
- Lowest GHG emitting power source
- Minimal to no continual water use for operations
- Taxes coming into local jurisdictions
- Opportunity to move to energy autonomy



Prospects and Challenges



- California's economy ranks as the 4th largest in the world
 - Senate Bill (SB) 100 goals of achieving 100% clean and zero-carbon electricity by 2045
 - Renewable Portfolio Standards – California Public Utilities Commission administers
 - Procurement mandates for clean, firm resources – 1GW
 - California already has ~5% of it's electricity generation from Geothermal
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- Lengthy and fragmented permitting process – Assembly Bills looking to streamline this
 - Capital Outlay – First of a Kind Projects are expensive – coming down the learning curve – doing that now with our first commercial project in Bavaria, Germany



Energy For Eavor™