

EavorTM

Energy Independence for Singapore! The Impossible Dream?

Eavor-LoopTM Introduction - SIEW

October 29th 2020

EavorTM



Renewables – A Footprint larger than Singapore itself!

	Land Use Capacity (ha/MWp)	Capacity Factor	Land Use Generated (ha/MW)
Wind	34.4	0.60	57.3
Solar –Singapore	0.77	0.15	5.1
Eavor-Loop™ 1.0, Germany	0.27	1.0	0.27
Eavor-Loop™ 2.0, Germany	0.13	1.0	0.13
Eavor-Loop™ 2.0, Singapore	0.04	1.0	0.04

Energy Independence Objective

- But 95% is from fossil fuels,
- And 100% of fossil fuels are imported.

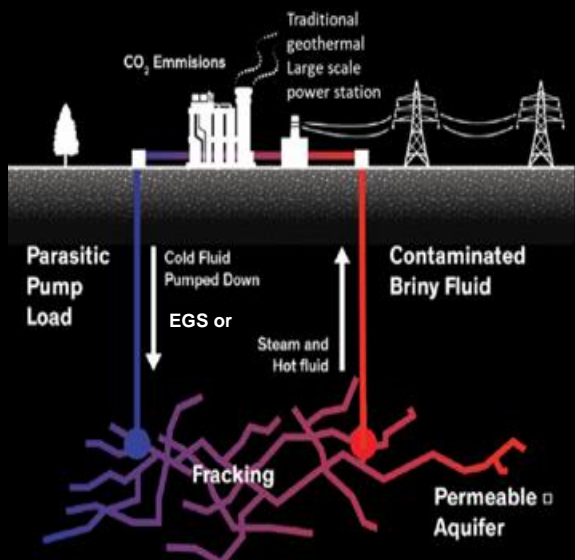
Wind & Solar are Domestic

- But need a higher density solution,
- As required footprint is larger than Singapore itself.

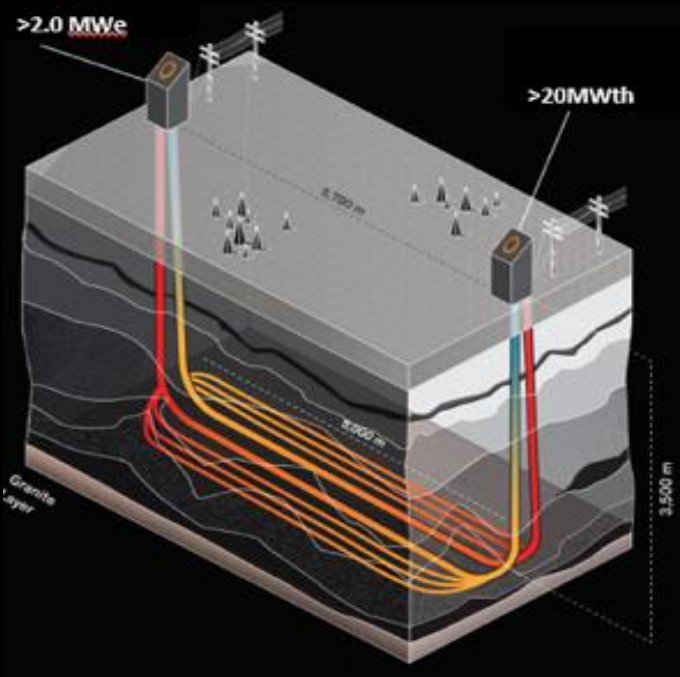
Eavor-Loop fills the Gap

- Is available domestically up to 10 GW
- Has at least ~**130x** smaller footprint than solar and **>1,000x** less than wind
- Key sites can be buried for zero net surface footprint

Eavor-Loop™ - Geothermal Energy Reimagined

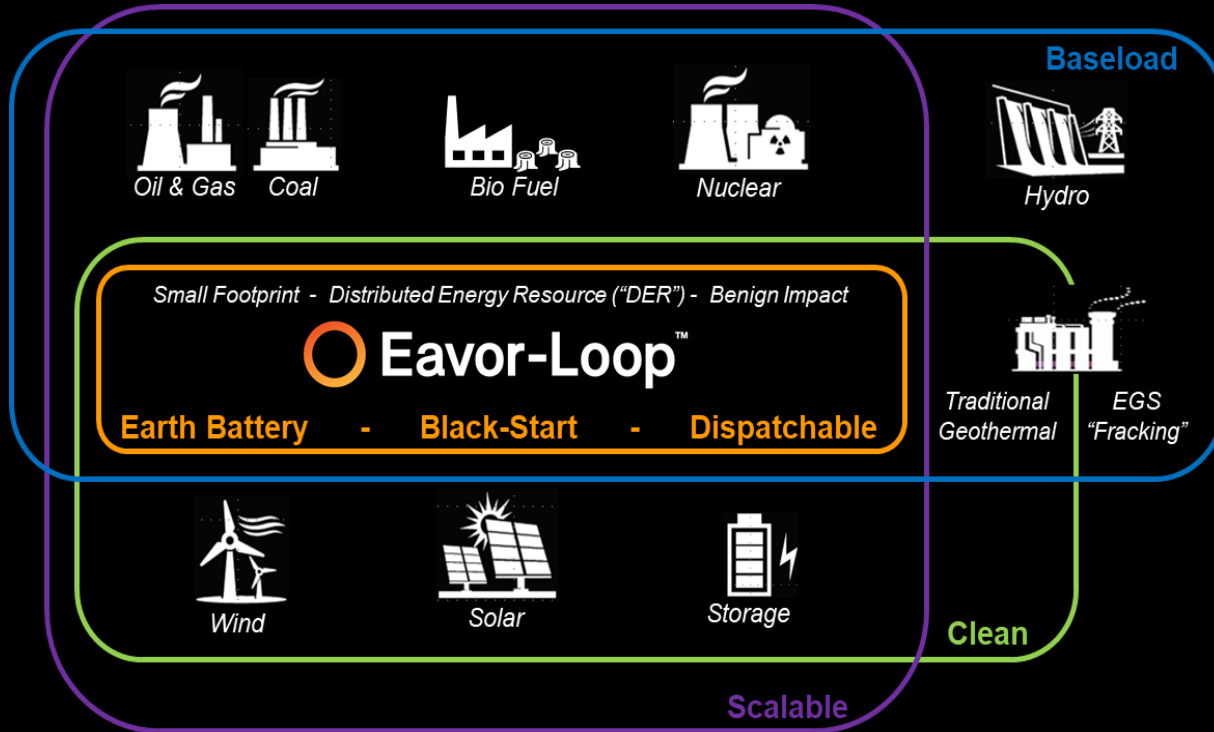


Traditional Geothermal	Eavor-Loop™
Open System: water flows through reservoir, fluid exchange between system & reservoir	Closed System: working fluid circulates in isolation from the reservoir, no fluid exchange
Requires a permeable aquifer & hot convective zone	No need for permeable aquifer
Requires an electrical pump to circulate brine: parasitic load	Driven by natural thermosiphon, no pumping required
Can require fracking to increase flow, potential for induced seismicity	No fracking required, no induced seismicity
Can produce GHG & CO2 with produced brine	No GHG or CO2
Continuous water use & ongoing treatment required	No water use, no production brine requiring treatment
Baseload, not Dispatchable	Baseload and Dispatchable



Eavor-Loop™ - A New Power Category

Providing a Scalable Domestic Source of Clean Dispatchable Power



The Eavor-Loop™ system requires no connection to the outside world and operates without fuel and completely emissions free. The fully independent system can be placed in a bunker or **buried below surface**; be made impervious to all types of natural disasters.

The highest amount of resilience, independence with the lowest environmental footprint in category.



Eavor Earth Battery™

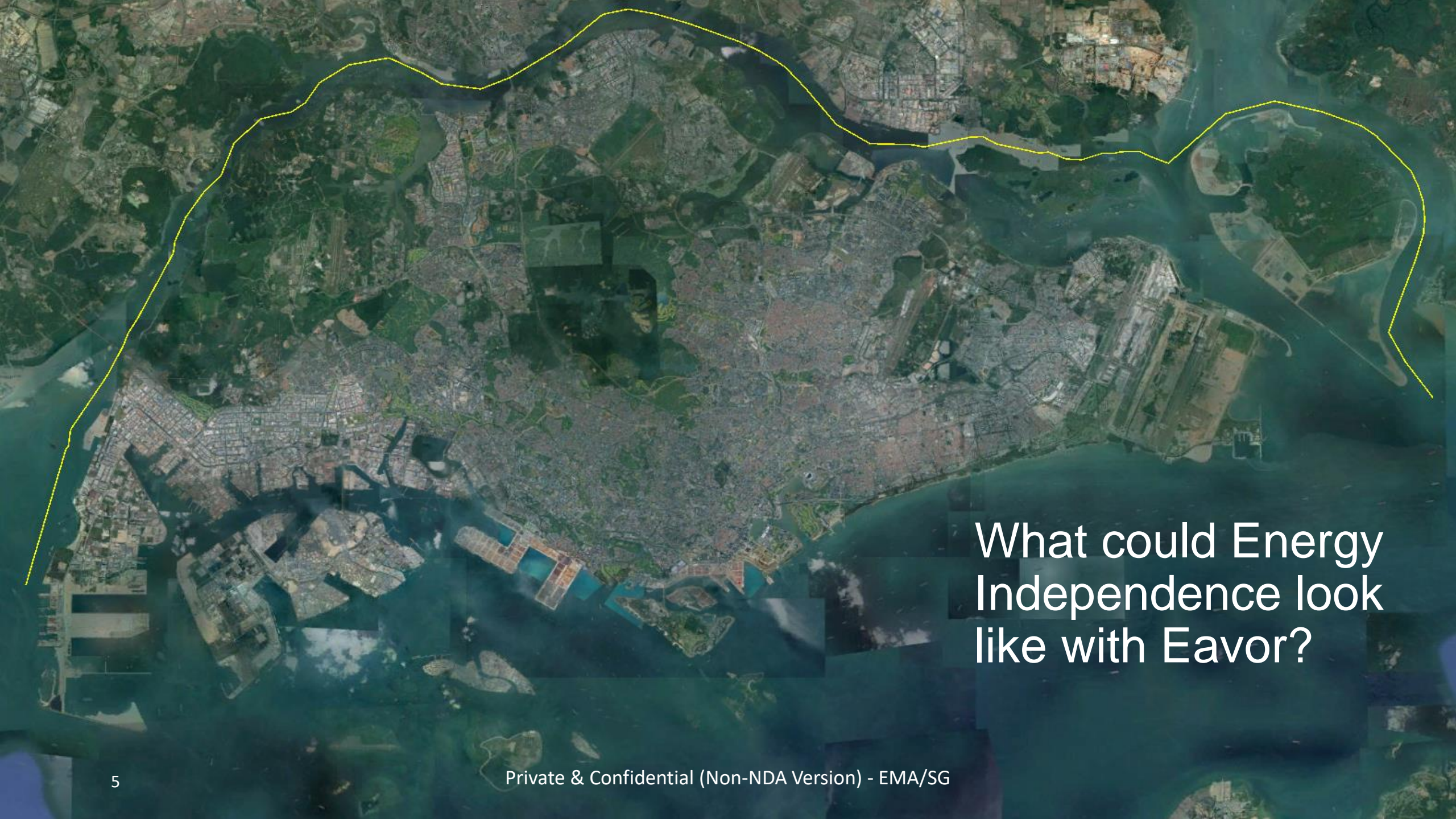
Transient operation allows system to charge during low-demand, and discharge at high-demand periods with no material impact to net energy output over life of the project.

Product competes with energy storage.



The world's most **benign environmental impact & surface footprint**. Eavor can fit in a backyard, repurpose inactive well sites or decommissioned industrial/commercial facilities. The facility has no emissions of any kind during operations.

Eavor is the solution the world has been waiting for.



What could Energy
Independence look
like with Eavor?



10 GW Dispatchable / Baseload
- Start with one 80 MW Site
- Grow to 125 Strategic Sites
- 3 Hectares or less per Site
- Key Sites buried or dual use so
no net surface footprint



Energy For **Eavor**[™]