

sCO₂ Power Cycles Symposium

Applications and End Users



The Process



The BATTERY main benefits



Efficient

Round-trip efficiency (75%+) AC-AC and MV-MV



Cost-effective

Highly competitive CAPEX and OPEX



Independent

CO2 Batteries can be constructed anywhere in the world



Proven

MW-scale plant already operational and grid-connected



Durable

No degradation of capacity or performance over 30+ years



Scalable

Off-the-shelf components from industrial power, oil and gas supply chains



ESG

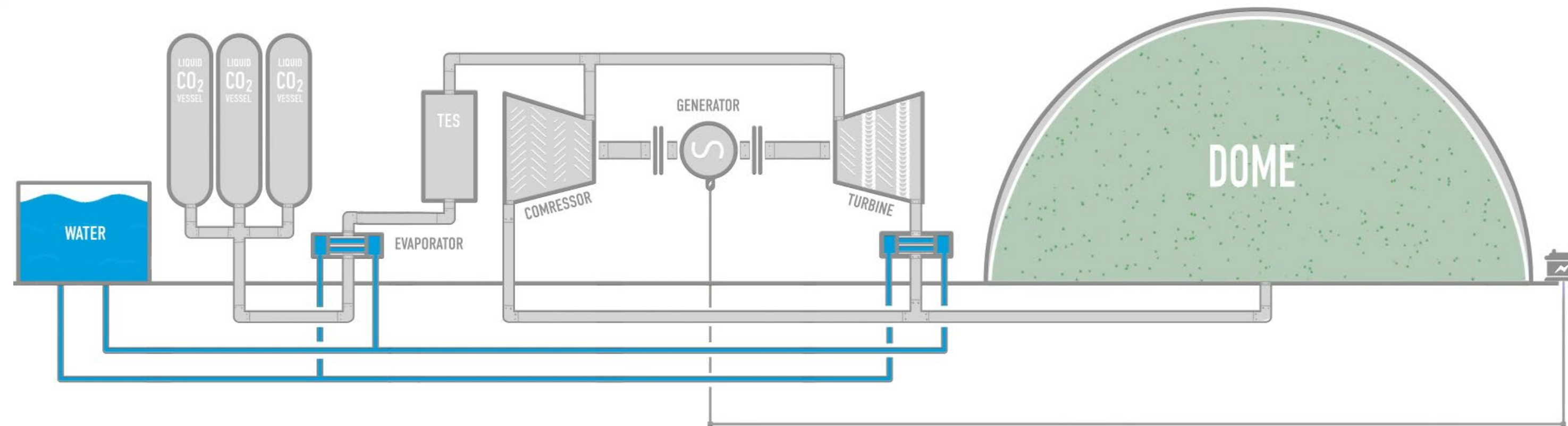
No dependence on rare metals such as lithium

Global and Resilient Supply-Chain

All Readily Available Off-the-shelf components



Geometrica®



Readily and widespread off-the-shelf components

Dome



of units worldwide

> 700,000

Motor/Generator



> 6,000

Heat exch.



Widely referenced

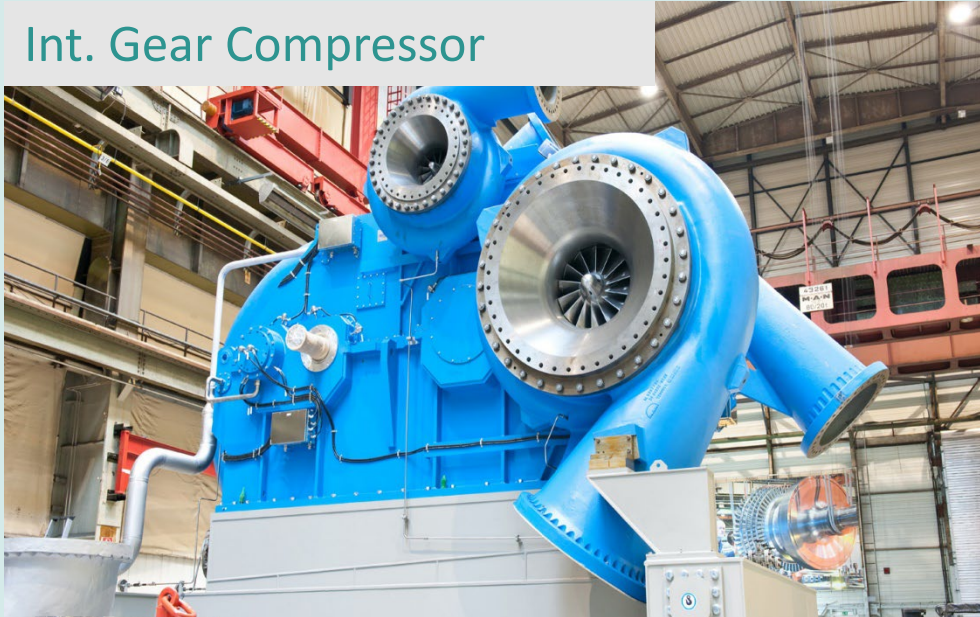
Carbon Steel Pressure vessel



of units worldwide

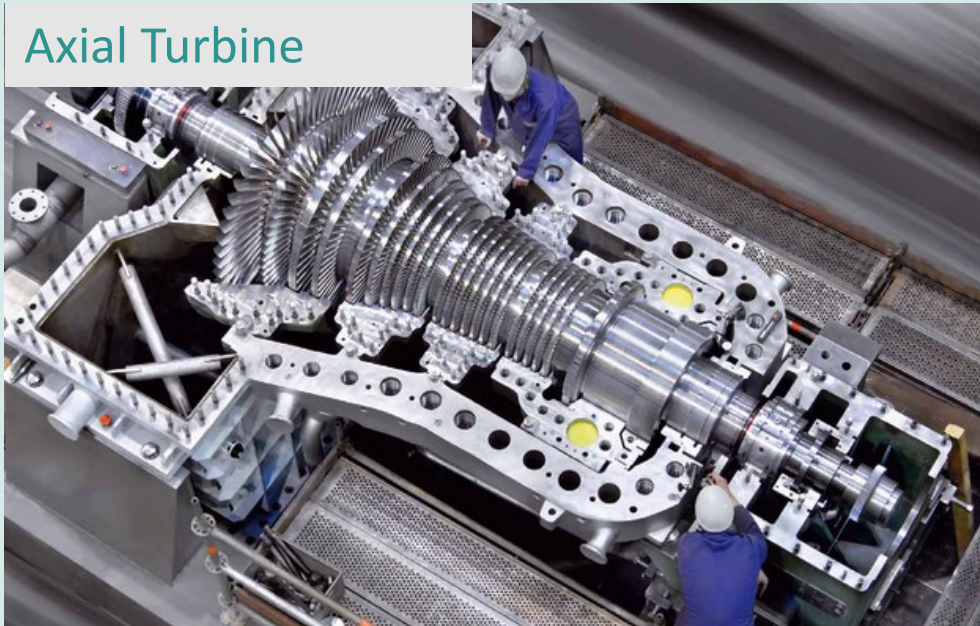
Widely referenced

Int. Gear Compressor



> 2,200

Axial Turbine

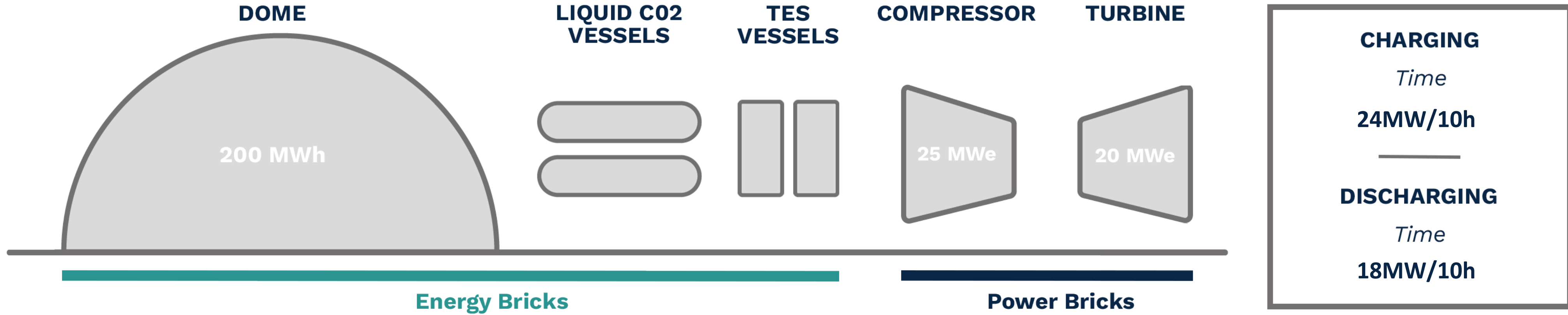


> 120,000



Standard frame available for the market

20MW/200MWh Frame



WE HAVE BEEN READY SINCE JUNE 2022

First 2.5MW Plant successfully operational and Grid
Connected for almost 2 years

Almost 2 years of plant operation have confirmed:

- Maturity of the technology
- Performance validated by

FICHTNER

EPRI



MAN Energy Solutions




First standard frame 20MW – 200MWh CO2 Battery to startup in Sardinia Q3-2024

PLANT TO BE UP AND RUNNING BY Q3-2024


Commercial Pilot Plant 2.5 MW – 4 MWh
June 2022

Standard Frame 20 MW – 200 MWh
CO2 Battery
COD Q3 2024

 Breakthrough Energy

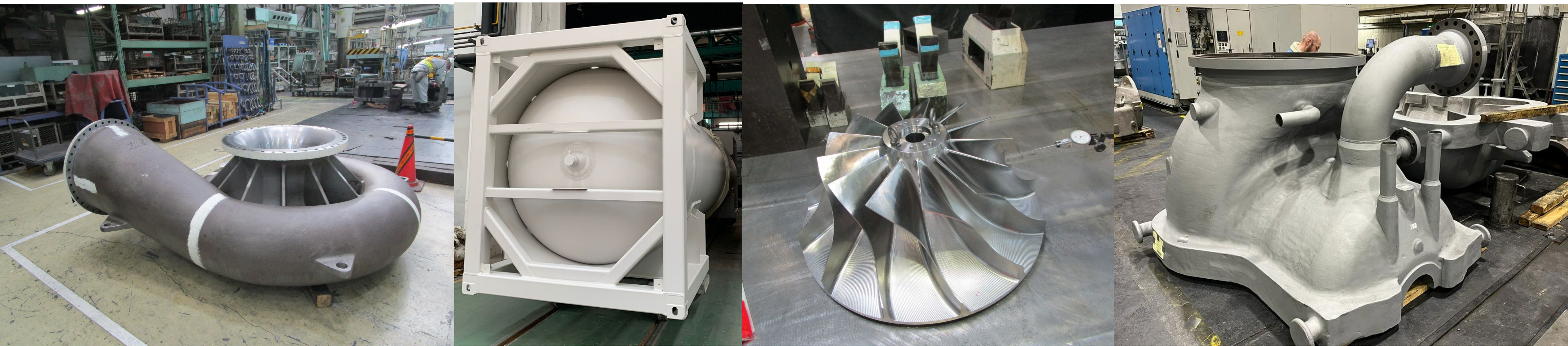
\$35M+ GRANT

+


European Investment Bank

\$25M+ VENTURE DEBT

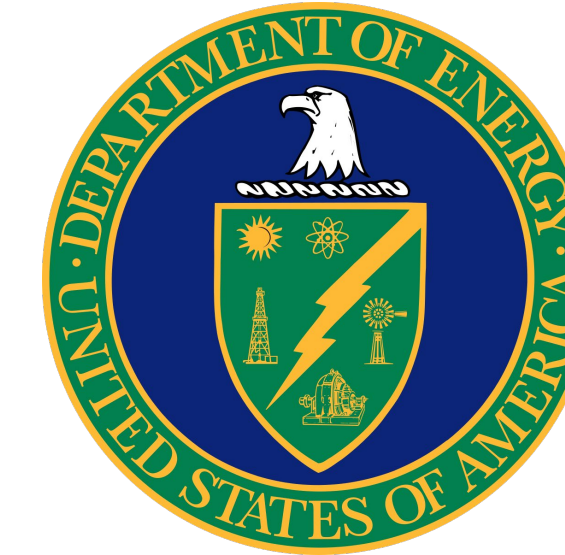
First standard frame 20MW – 200MWh CO2 Battery to startup in Sardinia Q3-2024



The pictures depict Liquid CO2 Vessel, Compressor and Turbine Chasing and compressor impeller manufactured from selected suppliers.

More than 95% of the equipment for the Standard Full-scale plant in Sardinia has been bought.

First CO2 Battery Project in the USA



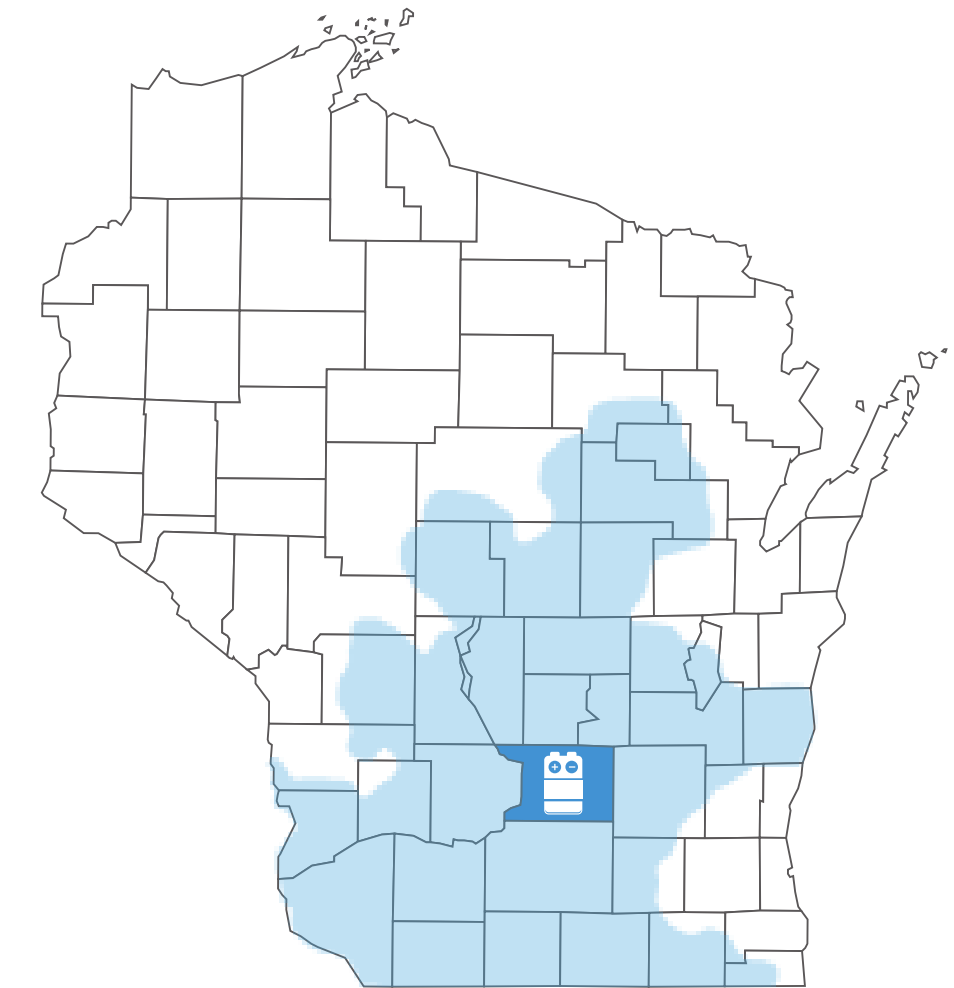
Alliant Energy and its project partners, including WEC Energy Group, Madison Gas and Electric, UW-Madison, Madison College, Shell Global Solutions US and the Electric Power Research Institute, are teaming up to construct one of the first carbon dioxide-based energy storage systems in the United States, in Wisconsin.

Project Type:

Standard Frame 20MW-200MWh CO2 Battery

Business Case:

Repurposing of the existing 1,112 MW coal plant, planned for retirement in 2026. The CO2 Battery allows for standalone arbitrage and grid support services.





ENERGYDOME

Our WORLD can't wait.

Thank you