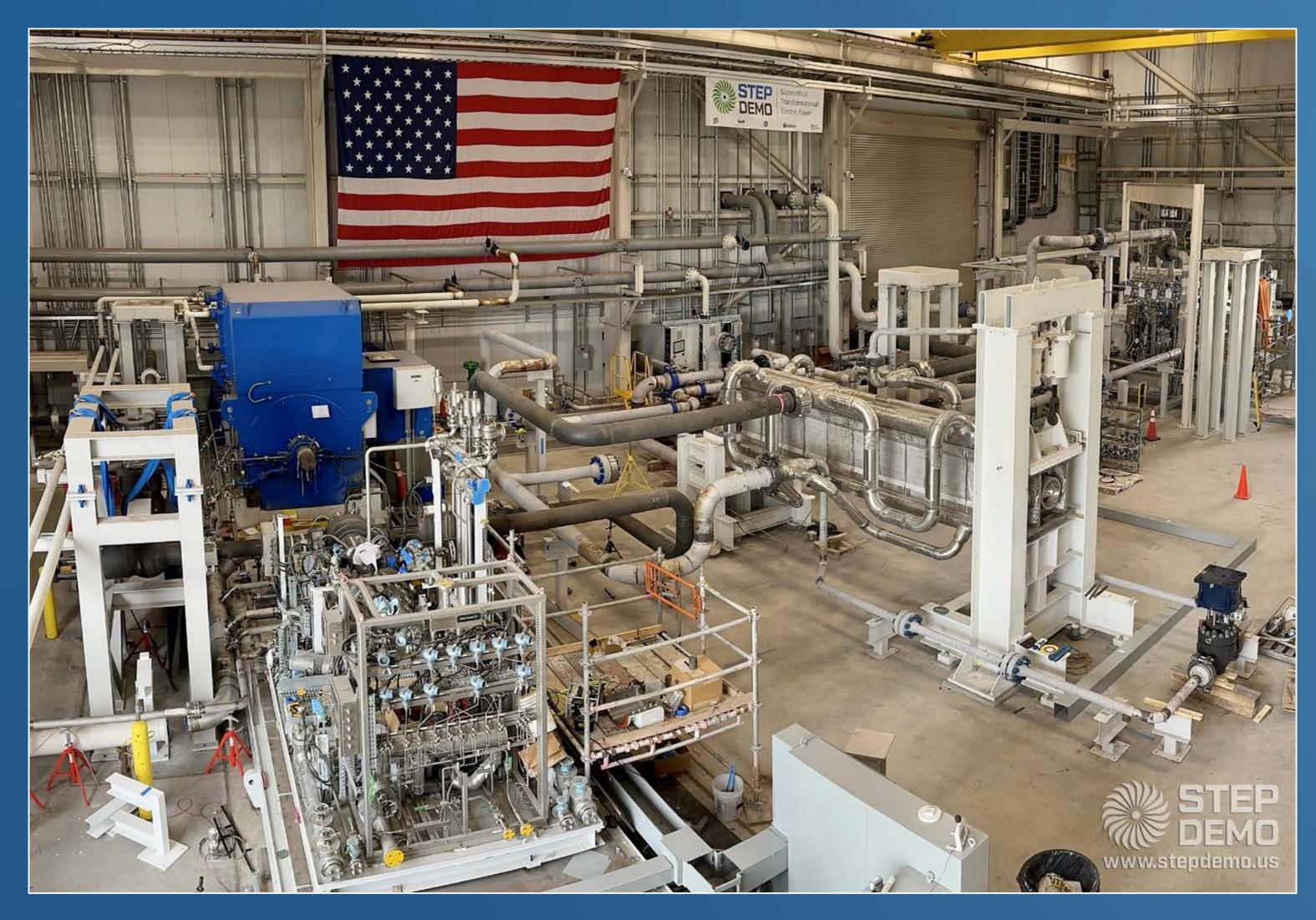
## PILOT PLANT ACCELERATES SUPERCRITICAL CARBON DIOXIDE TECHNOLOGY

The Supercritical Transformational Electric Power (STEP) pilot plant has achieved supercritical carbon dioxide (sCO<sub>2</sub>) conditions in the main compressor — a significant milestone for the NETL-sponsored project.



Supercritical Transformation Electric Power 10 MWe pilot plant.

Traditional power plants typically use steam in turbines to produce electricity, but sCO<sub>2</sub> can also be used. sCO<sub>2</sub> acts like a gas while having the density of a liquid, resulting in increased efficiency, lower cost of electricity, and reduced water consumption.

- A single desk-sized sCO<sub>2</sub> turbine can power 10,000 homes, creating a new generation of power plants that will use less fuel, produce fewer greenhouse gas emissions, and require less space.
- A sCO<sub>2</sub> power cycle is also very flexible, making it well suited for integrating with renewable energy sources.
- This pilot plant is the world's largest indirect-fired sCO<sub>2</sub> power cycle test facility.

RESEARCH PRIORITY



PERFORMERS







ACCOMPLISHMENTS

2023

