

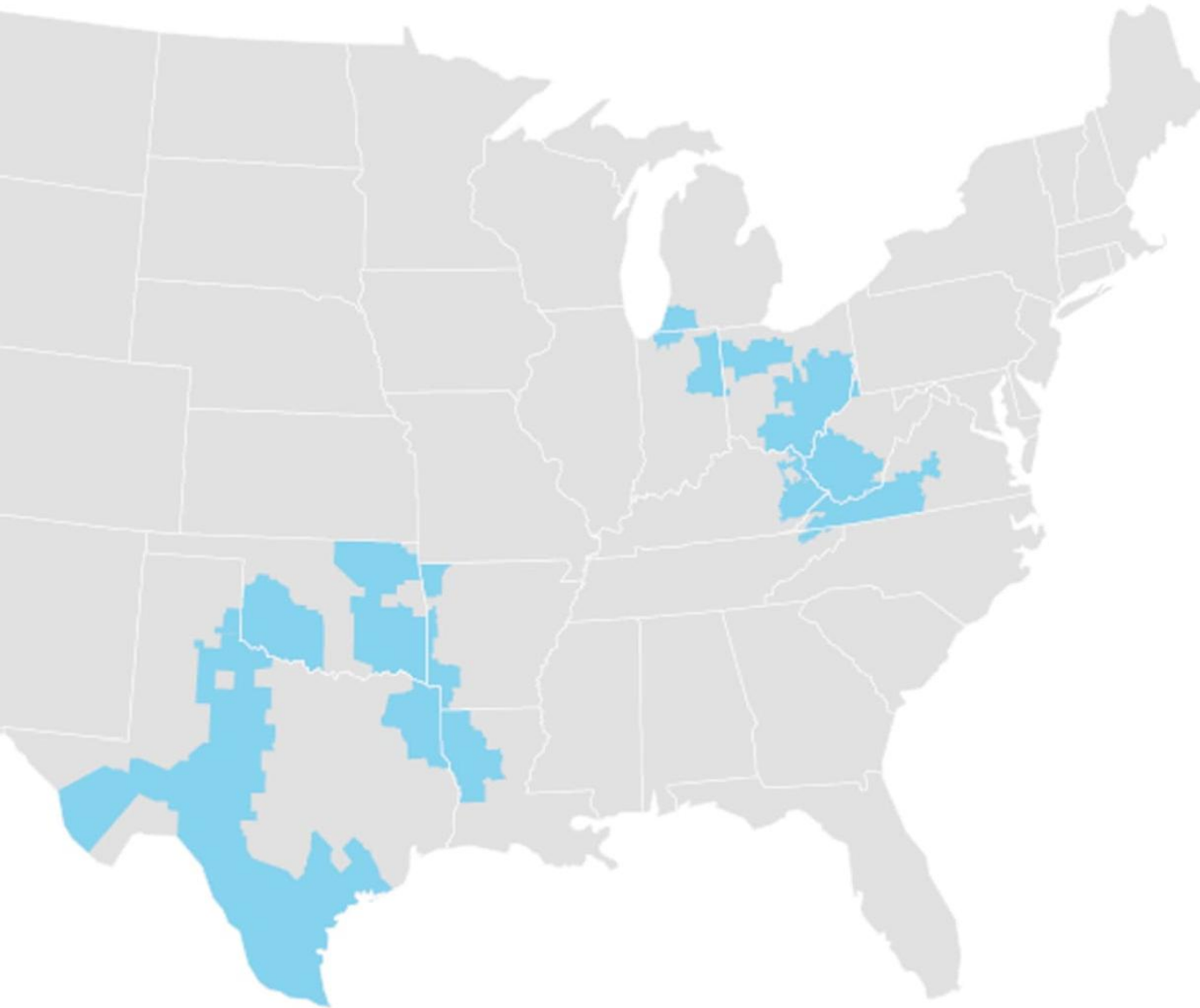


Bridging the Data Center Power Gap with Onsite Fuel Cell Solutions

October 28, 2025



About AEP



5.6M

CUSTOMERS

Throughout 11 states

16,000

EMPLOYEES

Across the system

As of September 30, 2024

29GW

TOTAL GENERATION

Diverse generation fleet
As of September 30, 2024

40K

TRANSMISSION MILES

Nation's largest electric
transmission system

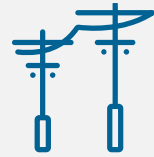
225K

DISTRIBUTION MILES

One of the largest distribution
systems in the U.S.

Enabling Customer Growth

GRID CONSTRAINTS



Exponential load growth has created capacity and timeline challenges for large customers seeking grid-connected power.

BRIDGING SOLUTION



Behind the meter solid oxide **fuel cell solution** can bridge power needs while grid enhancements are built out.

Fuel Cell Benefits for Data Centers



AEP secured 1GW of Bloom Energy fuel cells in November 2024 to support customer growth.



Speed to Power

- Rapid deployment typically 18-24 months
- Gas availability is critical path



Clean

- Zero combustion



High Reliability

- 24x7 baseload power
- Modular design enables 3-9's type availability
- Can operate in grid parallel or microgrid architectures



Cost Effective

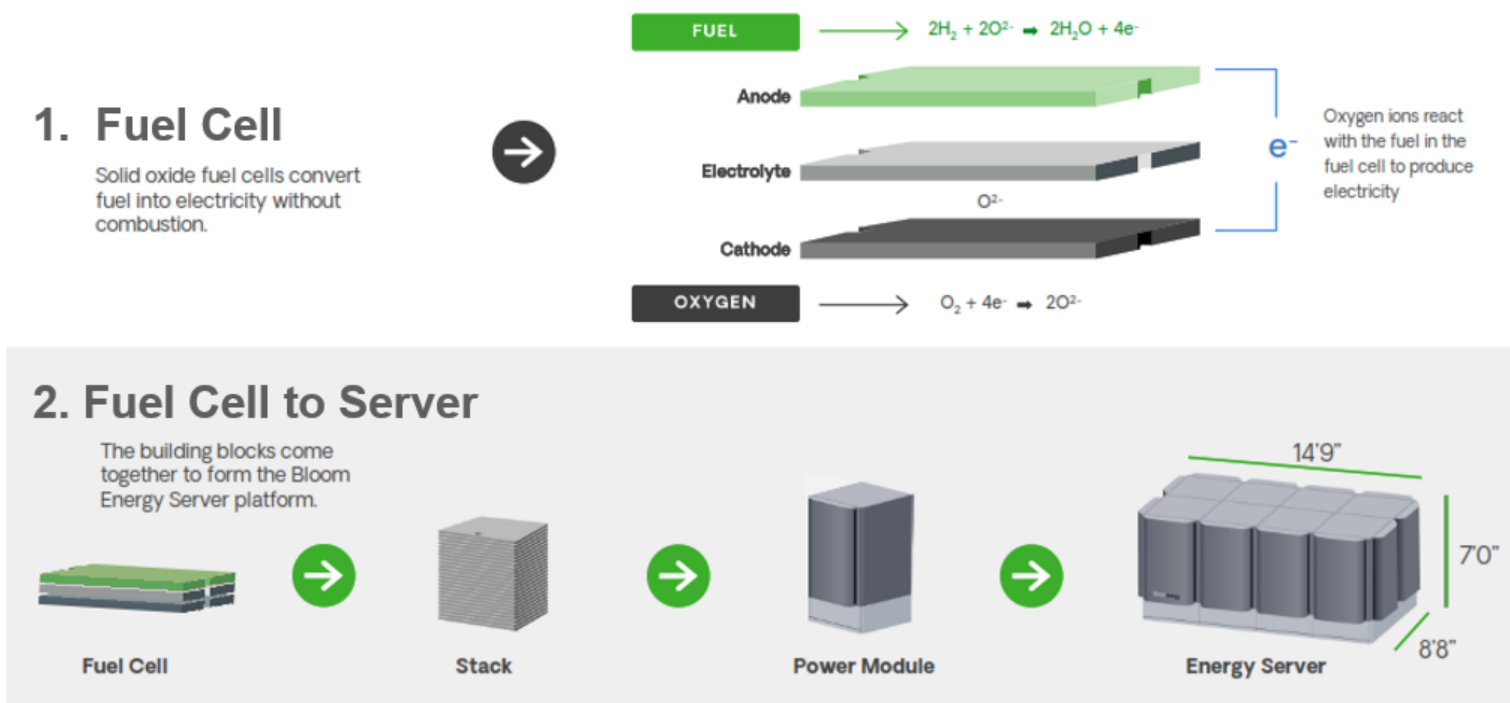
- Economies of scale as Bloom's largest buyer
- Predictable power cost over a flexible term
- ITC benefits

Solution Overview

Solid oxide fuel cells operate at very high temperatures to efficiently convert fuel into electricity without combustion.

- Efficient heat rate (~7,000 Btu/kWh)
- Run on natural gas (15 PSI), also compatible with biogas, hydrogen, CNG
- Modular build out, each unit 65 kW
- 25 MW/acre for single level, option to stack to reduce footprint

The Bloom Energy Server



An aerial view of a large, multi-tiered battery storage system installed in a tropical environment. The system consists of numerous grey battery modules arranged in two rows, elevated on a white metal frame. The surrounding area is sandy with many palm trees and lush greenery. In the background, a blue body of water is visible with a ship on the horizon. A yellow and black golf cart is parked on the right side of the battery array. Three people are standing near the bottom left of the battery structure, looking at it. A semi-transparent blue rectangle is overlaid on the bottom right of the image, containing white text.

Thank you!

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