

Operational Scenario: Utilities and Energy Providers

Scalable and Sustainable Energy Solutions

AFB presents a Vanadium Redox Flow Battery (VRFB) system with a capacity of 1 MW and 5 MWh, designed for utility companies seeking to enhance grid stability, manage peak loads and integrate renewable energy sources.

AFB Solutions



Fossil Fuel Independence

Reduces reliance on fossil fuel plants for peak load management.



Renewable Storage

Stores excess solar and wind energy for peak demand periods.



Long Cycle Life

Durable system with no capacity degradation over 20+ years.



Scalable Integration

Modular design fits seamlessly into existing grid infrastructure.



Eco-Friendly Design

Supports decarbonization with zero emissions during operation.

Utilities face growing challenges from renewable energy variability and peak load demands, making reliable energy storage crucial for grid stability. AFB's VRFB system provides a scalable solution by storing excess renewable energy, such as solar or wind, for dispatch during peak periods. It enables peak shaving, reducing dependence on fossil-fuel plants, lowering operational costs and cutting emissions. With long-term, reliable storage, the system seamlessly integrates with utility grids to enhance renewable energy adoption and optimise energy distribution.



Benefits:

- Grid Stability: Smooths variability in renewable energy generation.
- Sustainability: Supports long-term environmental goals with green energy storage.
- Cost Savings: Minimises diesel and peak energy costs.
- Decreases reliance on fossil fuel plants for peak load management.
- Provides a scalable solution that integrates seamlessly into existing grids.
- Long-term operational lifespan with up to 20+ years.