

Energy Storage Services



Tetra Tech serves independent power producers, utilities, merchant transmission companies, banks, and government agencies on a wide range of energy projects across North America.

Resilience and cost savings for today's evolving energy market

Energy storage systems have been regarded as a game-changer in modernizing electric grids with significant potential to address many operational and systematic challenges, including peak demand reduction, fast ramping requirements, voltage and frequency support, power quality issues, renewable energy integration, and electric vehicle charging infrastructure. To help our clients meet technical requirements and respond to rising energy and demand charges, volatile fuel prices, and mounting climate change concerns, Tetra Tech provides full lifecycle support for energy storage projects. Our services include:

Project development: feasibility study, permitting, environmental assessment, business case, and commercial assessment

Engineering services: electrical, civil, structural, and power system study and design

Procurement: equipment procurement, bid and tender recommendations, and vendor and contractor negotiations

Field services: field testing, construction supervision, and commissioning

Project construction and management: schedule and budget monitoring, environmental, and health and safety management



The Tetra Tech Advantage

- Publicly owned (NASDAQ: TTEK)
- \$2.8 billion USD Revenue FY 2017
- 17,000 employees in 400 offices worldwide
- Ranked #4 in *Engineering News-Record* Top 500 Design Firms
- Qualified team of professionals with diverse experience
- Successful long-term relationship with utilities, vendors, government, and private entities

Engineering News-Record ranks Tetra Tech #1 in Wind Power, #3 in Solar Power, and #1 in Hydro Plants.

Highlighted Projects



Hydrostor Compressed Air Energy Storage System

Tetra Tech was engaged to assess the conceptual and detailed design of the Hydrostor Compressed Air Energy Storage System demonstration project.

- Conceptual design: Reviewed the proposed energy storage system process and characteristics, equipment efficiencies, reliabilities and performance data, accumulator pilot results, and initial demonstration facility design
- Detailed design: Developed and optimized the conceptual design; completed heat and mass balances on the system; prepared Process Flow Diagrams (PFDs) and Piping /Instrumentation Diagrams (P&IDs); interfaced with equipment vendors to develop equipment specifications; and integrated the process and equipment design



EV Charging Station Pilot Project, Durham Strategic Energy Alliance (DSEA)

Tetra Tech provided project management services for the EV Charging Station Pilot Project that installed 7 EV charging stations in Durham Region. The project aimed to understand the impact of EV charging on the grid and collect and analyze relevant performance data.

Battery Energy Storage System Connection Impact Assessment

Guelph Hydro engaged Tetra Tech to assess the impact of a 1.8-megawatt battery energy storage system on the utility feeder.



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