



Battery Energy Storage Systems

Energy Storage is a critical enabler for grid modernization and renewable integration. Battery Energy Storage Systems (BESS) provide a range of services including frequency and voltage regulation, operating reserve, solutions for excess generation, load following and peak shaving.

Our team provides services across a range of energy storage projects, including distributed ESS through to large-scale utility scale BESS.

Innovating in all that we do

- BESS are unique assets in both grid connected and off-grid operation. Well-defined use cases and a business case is needed to ensure the BESS is appropriately designed to meet the project's requirements over the entire project lifecycle.
- Our experience with a wide range of energy storage technologies and suppliers, in standalone, co-located, and off-grid applications, allows us to develop a robust and pragmatic technical framework for the assessment and integration of BESS.

Experience across all phases of BESS projects

- Our team has over a decade of experience with BESS, having been involved in many early deployments for remote microgrid installations.
- Our experience spans all phases of project development, with wide ranging experiences in concept and options assessments, all the way through implementation.
- We provide support to our clients in their efforts to make critical development or financial decisions for their projects in various roles.
- Our real-world experience delivering projects, and the lessons learned can be leveraged to ensure your projects are delivered effectively.

Integrated, Multidisciplinary Approach

- Our energy storage expertise is backed by Hatch's broad engineering capabilities across disciplines. This integrated approach ensures a streamlined project delivery from concept to commissioning, with technical rigor and practical insight at every stage.
- By leveraging Hatch's global network of experts, we deliver solutions that are not only technically sound but also aligned with broader sustainability, regulatory, and financial goals.

Services provided at all stages of projects, investments, operations, and transactions

- Strategic Advisory and Business Planning
- Concept and Technology Screening
- Feasibility and Detailed Engineering
- Permitting and Community Engagement
- Interconnection Assessments
- Supplier and Technology Evaluation
- Owner's Engineering
- Procurement Support
- Design Review and Construction Management
- Commissioning and Performance Testing
- Operation and Maintenance
- Technical Due Diligence

PROJECT EXPERIENCE

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Owner's Engineering for a 150 MW/600 MWh and 250 MW/1000 MWh BESS

Scout Clean Energy, Canada



Scout Clean Energy is currently developing two large-scale BESS in Ontario, Canada. Hatch is currently acting as Scout's owner's engineer for the two projects which include the following services:

- BESS technical specifications
- BESS supplier technical due diligence and bid review
- Attendance at community meetings
- Geotechnical assessment of the sites
- EPC contractor design package review
- Major equipment FAT review
- Construction monitoring at key project milestones.

Lucky Bluff and Black Springs

Brookfield, USA



Hatch was engaged by Brookfield as Independent Engineer for the Lucky Bluff (100MW/200MWh) and Black Springs (120MW/240MWh) utility-scale BESS projects in Texas. Over a two-year engagement from 30% design through commercial operation, Hatch provided technical due diligence, design and construction reviews, site inspections, lender support, commissioning oversight, and operational readiness assessments. Acting in Brookfield's best interests, Hatch helped mitigate technical and execution risks and supported multiple financings and the successful delivery of both projects to commercial operation.

Stations Upgrade for Renewable Energy Integration (SUREI)

BC Hydro, Canada



The SUREI program is the most advanced phase of Hatch's collaboration with BC Hydro, focused on upgrading microgrids in Non-Integrated Areas (NIAs) to integrate renewable energy. Hatch's work across six NIA sites includes three main areas:

- Renewable Power + BESS Sizing Studies
 - Power System Modelling
 - Owner's Engineering & Technical Advisory Services
- Hatch conducted baseline and energy forecasting and hybrid power modelling for solar, wind, and BESS. High-level decarbonization pathway and risk assessments were also completed to support optimal resource sizing and electrical stability with increased grid interconnection. An Integrated Resource Plan with BC Hydro is ongoing.

Owner's Engineering Services for Iron-Air Battery Pilot Project

Great River Energy & Form Energy, USA



Great River Energy and Form Energy

selected Hatch to provide Owner's Engineering services for a first-of-its kind iron-air battery technology project that will demonstrate their multi-day storage technology aiming to provide storage capability with much longer durations than current li-ion technology.

Summerside Sunbank Project: 21 MW Solar + 10 MW/20 MWh Battery Storage Microgrid, Detailed Engineering

Aspin, Kemp and Associates & The City of Summerside, Canada



Aspin, Kemp and Associates is installing a 21 MW solar and 10 MW/20 MWh battery storage microgrid. We were contracted by the client to be the engineer of record to complete the detailed design for the system. The microgrid is being used to support the City of Summerside's emission reduction initiatives. We completed the use case assessment, vendor review, design review and validation, and specifications development.

BESS Subject Matter Expert

Saskatchewan Power Corporation, Canada



SaskPower is planning to install a 20MW/20MWh BESS to support grid reliability and power quality. We were contracted by Saskatchewan Power Corporation as the BESS subject matter expert to support the client in the development of a 20MW/20MWh BESS. We completed a use case assessment, prepared a technical EPC bid package, and completed bid evaluation and validation of the supplier sizing against contract requirements.

Looking for more information?

Contact us!



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