



Liquid Air Energy Storage (LAES) Project in St. Clair Township

200 MW, 10-hour Duration Long-Lead Time (LLT) Project

Open House - July 20, 2026



PUBLIC

Agenda

Land Acknowledgement

Background

- About NRStor and Sumitomo
- About Energy Storage
- IESO LLT RFP

Proposed Liquid Air Energy Storage Project

- Project at a Glance
- About LAES Technology
- Project Benefits
- Environmental and Safety
- Status and Next Steps

Question Period





Background



About NRStor

NRStor works closely with communities, utilities and energy consumers to identify opportunities and deliver world class projects

NRStor was founded in 2012 to develop low cost, reliable energy storage projects that provide value-add services to customers

Our success stems from our:

- **Founded by Annette Verschuren**
- **Proven Track Record Deploying First of Kind Projects.**
- **Partnership-First Business Model.**
- **Diversified Value Streams and Monetization Strategy.**
- **Trusted Relationships.**
- **Impact Investments.**



Utilities

Enabling clean, flexible and reliable electricity systems through large-scale energy storage projects



Microgrids

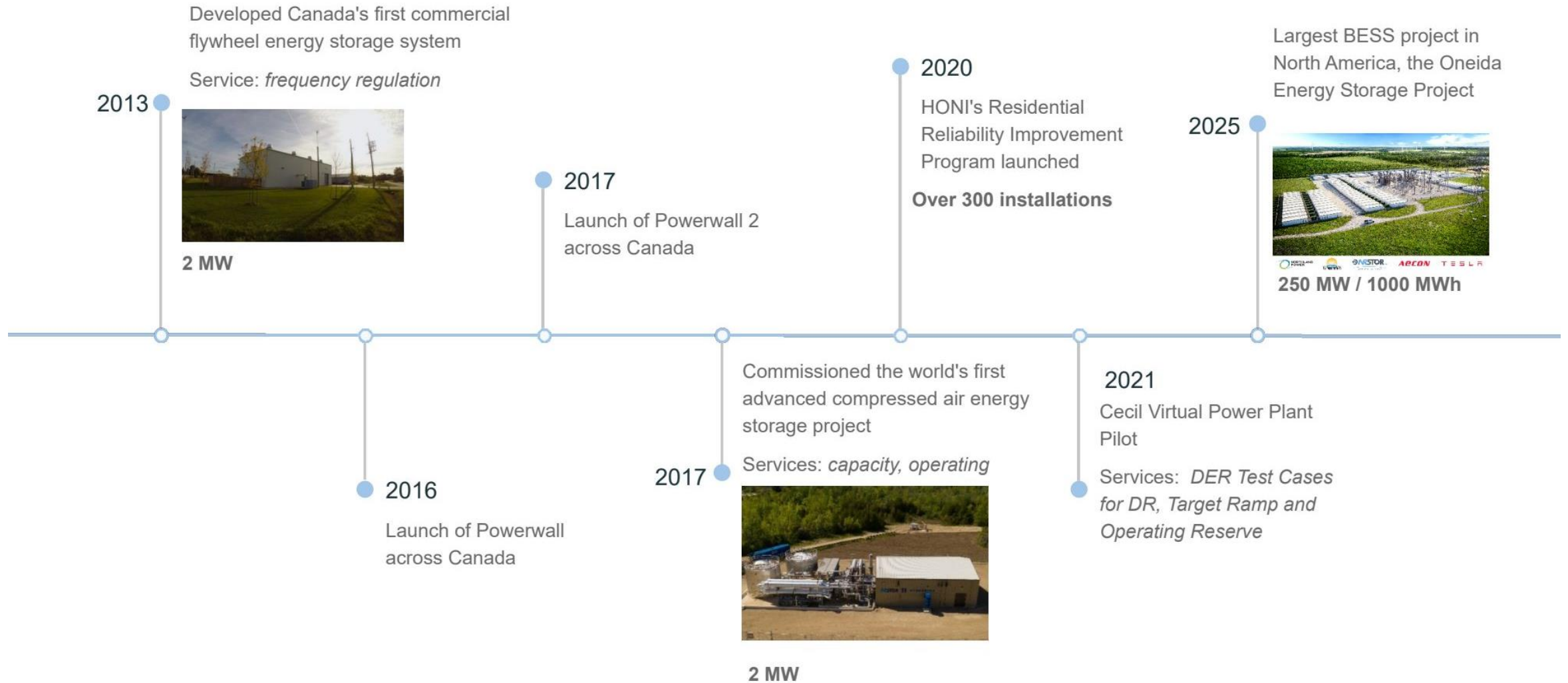
Partnering with remote communities and mines to reduce dependence on diesel fuel using clean energy microgrids



Distributed & Residential

Empowering residential customers to take control of their energy supply through NRStor wholly-owned subsidiary, MPower Energy Solutions

NRStor's Achievements



Utility Scale Project Highlight: Oneida Energy Storage Project

At 250 MW, 1000 MWh, Canada's largest battery energy storage project* was commissioned in 2025, developed in partnership with:

AECOM

CIB  BIC

 **NORTHLAND
POWER**

 **NRSTOR** INC

 **SIX NATIONS OF THE GRAND RIVER
DEVELOPMENT CORPORATION**



This 250MW/1000MWh major infrastructure project was completed on time and ahead of schedule with an award-winning safety record.

Since then, Oneida was dispatched every business day by the Ontario Independent Electricity System Operator in its first six months of operation, resulting in over 45,000 tCO₂e reduction; the equivalent of 20,000+ cars off the road over the same period.

Oneida delivered maximum capacity during the recent heat wave (June 2025) and cold snap (January 2026).

Project Highlights



Largest battery storage project in North America and amongst the largest in the world*



\$400M to \$760M net savings to Ontario ratepayers**



4.1 Million tonne reduction in CO₂**



Over 900,000 hours of local employment**



Significant Indigenous ownership in low carbon infrastructure assets

*At time of project closing
**over the 20-year life of the asset

 **NRSTOR** INC

 **Sumitomo**
SHI FW

PUBLIC

1 600
employees
across the globe

19+
locations
around the world

130+
years of
experience

928 +
successful references worldwide
121 | **354** | **453**
Americas | Europe | Asia

5

Integrated solutions

- Energy Generation
- Sustainable Fuels
- Energy Storage
- Carbon Capture
- Lifecycle Services

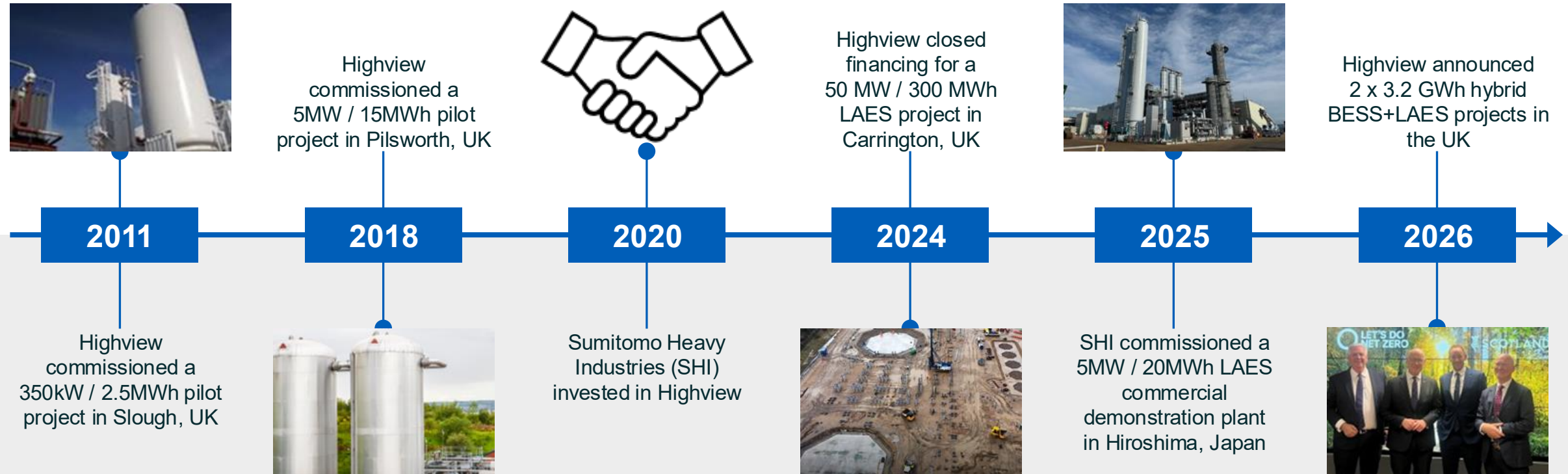
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values of SFW

-  Respect for people
-  Committed to customers
-  Passion to innovate and grow
-  Ownership of results
-  Safety, integrity and teamwork

Liquid Air Energy Storage (LAES) Timeline

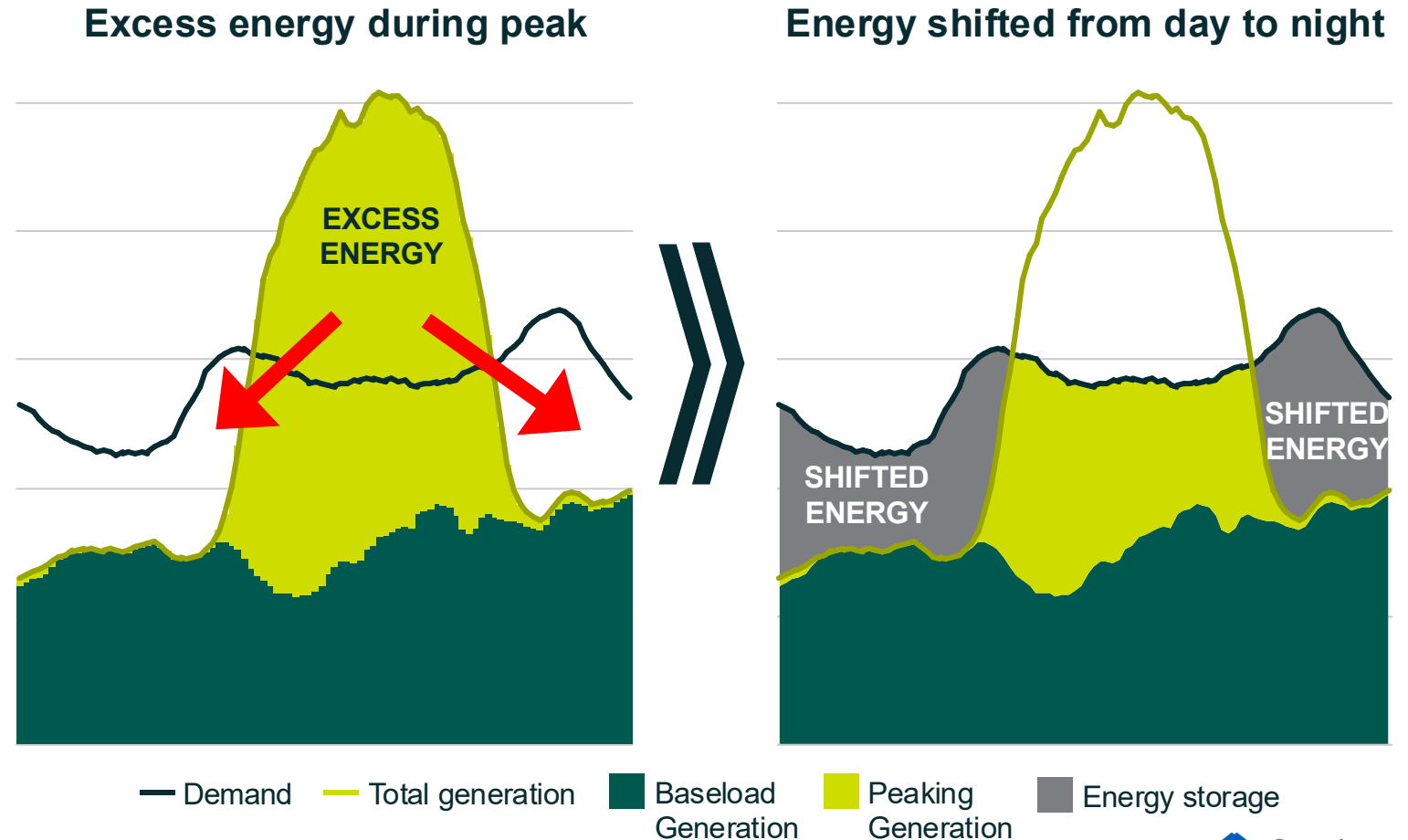
The first commercial demonstration plant is already operational in Hiroshima, Japan



With long duration storage, excess energy becomes dispatchable

Bulk shifting of energy enables balancing of supply and demand daily or even weekly

Excess electricity generation produced during the day can be stored for discharge during the evening and night hours



IESO LLT RFP to Meet Ontario's Energy Capacity Needs

- IESO is looking to meet the future needs of the grid, which is growing in demand, by providing affordable and emissions-free energy storage.
- The IESO is currently accepting proposals for long duration energy storage projects in a procurement called the Long Lead-Time Request for Proposals (LLTR RFP).
- Projects will require a Municipal Support Resolution.
- The new projects awarded in the RFP would be under a 40-year contract with the IESO.



The LLTR RFP is specifically designed to procure up to 800 MW non-lithium battery technologies to obtain longer duration energy storage projects (ie. 8 hours or greater).



Project Information



Long-Lead Time (LLT) Project at a Glance

Project Name: TBD

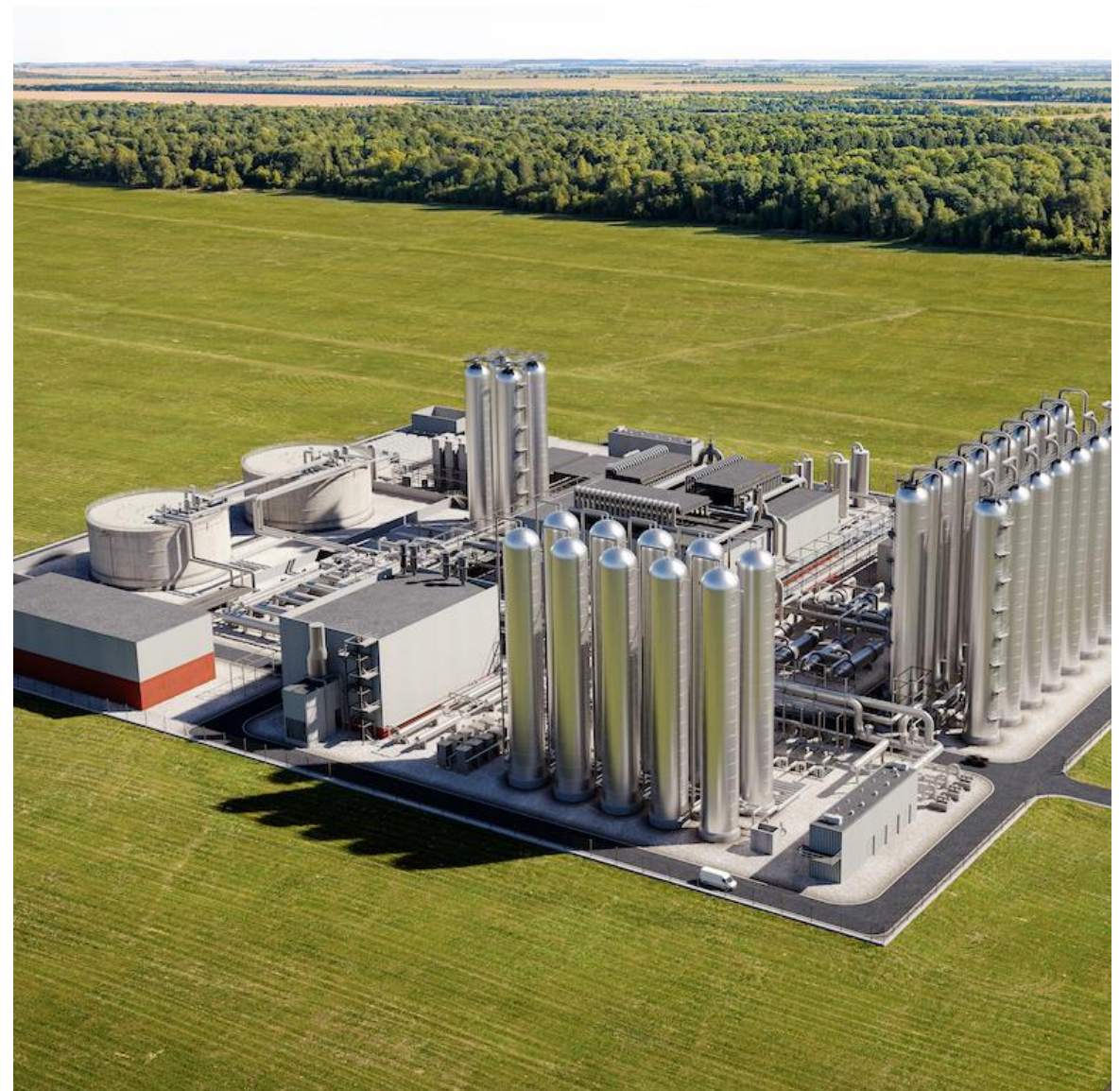
Nameplate Capacity: Up to 200 MW / 2,000 MWh

Storage Technology Used: Liquid Air Energy Storage (LAES)

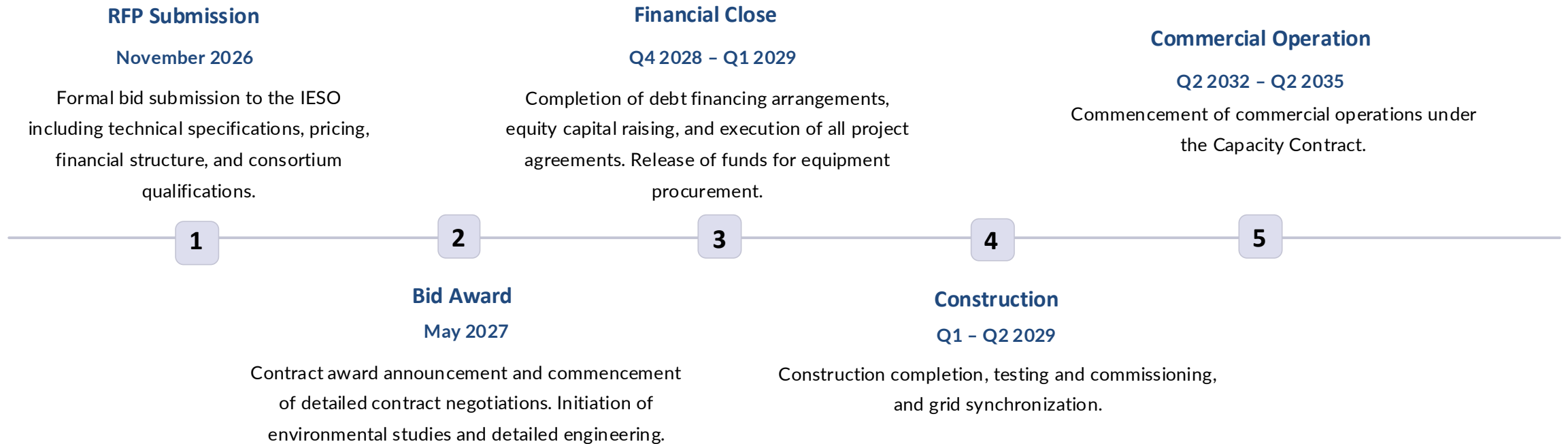
Legal Name of the Project Entity: TBD

Contact: Inês Ribeiro – lltr@nrstor.com

- The project will provide capacity services to the Ontario grid using emissions-free liquid air energy storage technology, helping enable affordable and reliable electricity province-wide.
- Siting support from Sarnia-Lambton Economic Partnership
- In discussions with neighbouring First Nations for potential development and operational partnership.
- A project of this size would require up to 15 acres of land, situated next to existing transmission infrastructure, and industrially zoned



Long-Lead Time (LLT) Project Timeline



Project Benefits

Environmental Benefits

- Emissions free dispatchable capacity

System Efficiencies

- Provide capacity and resilience needed today
- Solve today's system flexibility needs
- Create ratepayer savings

Employment Opportunities

Example from 50MW x 6hr plant in Carrington, UK*:

Construction

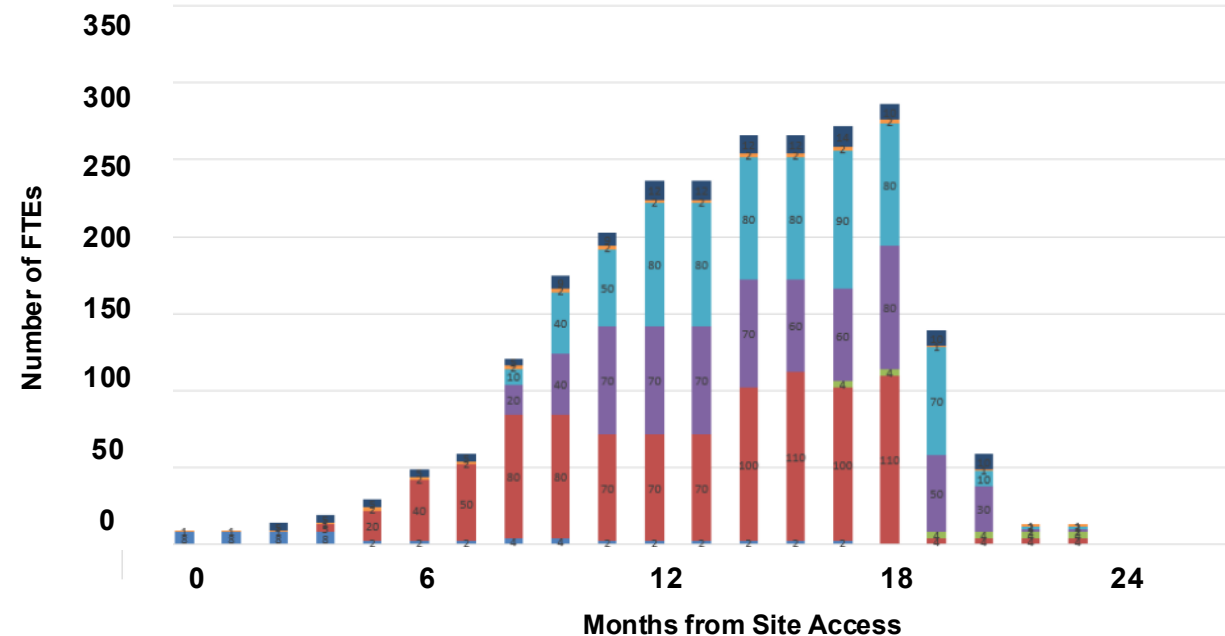
- ~350 jobs (~300 of these trades)

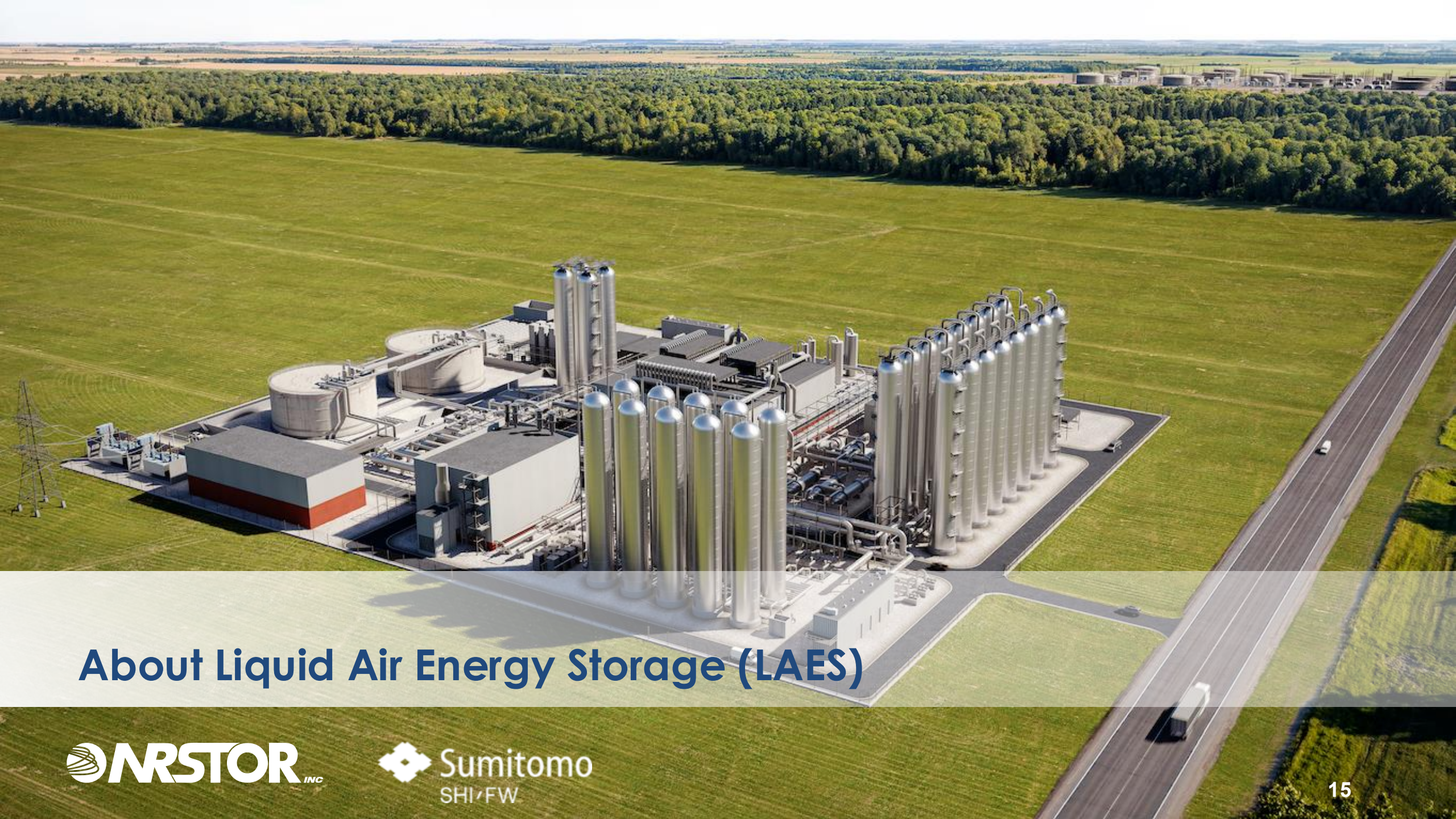
Operations

- 10-15 FTEs
- +15-20 subcontracting positions

*The St. Clair Township LAES would be larger. The numbers shown are an underestimate for a 100-200MW plant.

Preliminary FTE Plan, Blue Collar Workers



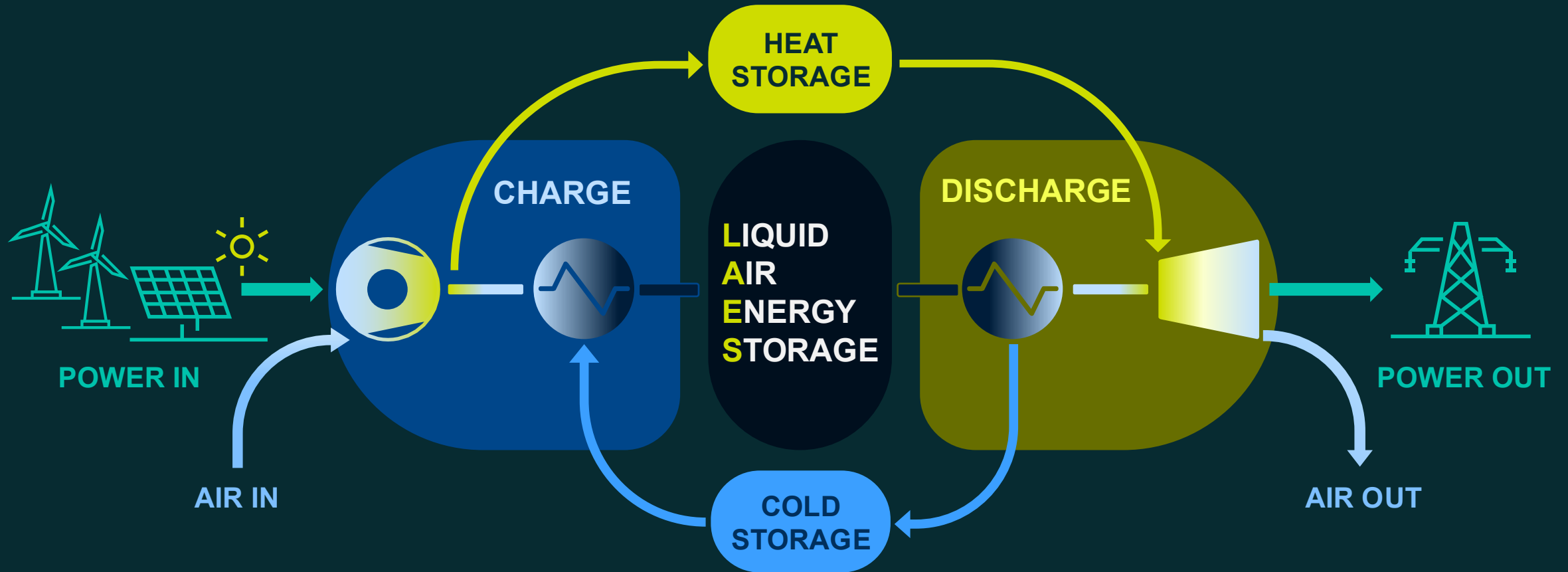
An aerial rendering of a Liquid Air Energy Storage (LAES) facility. The facility is situated in a vast green field, with a dense forest in the background and a highway on the right. The facility itself consists of several large, silver, cylindrical storage tanks arranged in rows, connected by a complex network of pipes and smaller structures. There are also some rectangular buildings and a large circular tank. The overall scene is bright and clear, suggesting a sunny day.

About Liquid Air Energy Storage (LAES)

Sumitomo SHI FW Liquid Air Energy Storage (LAES) - How It Works



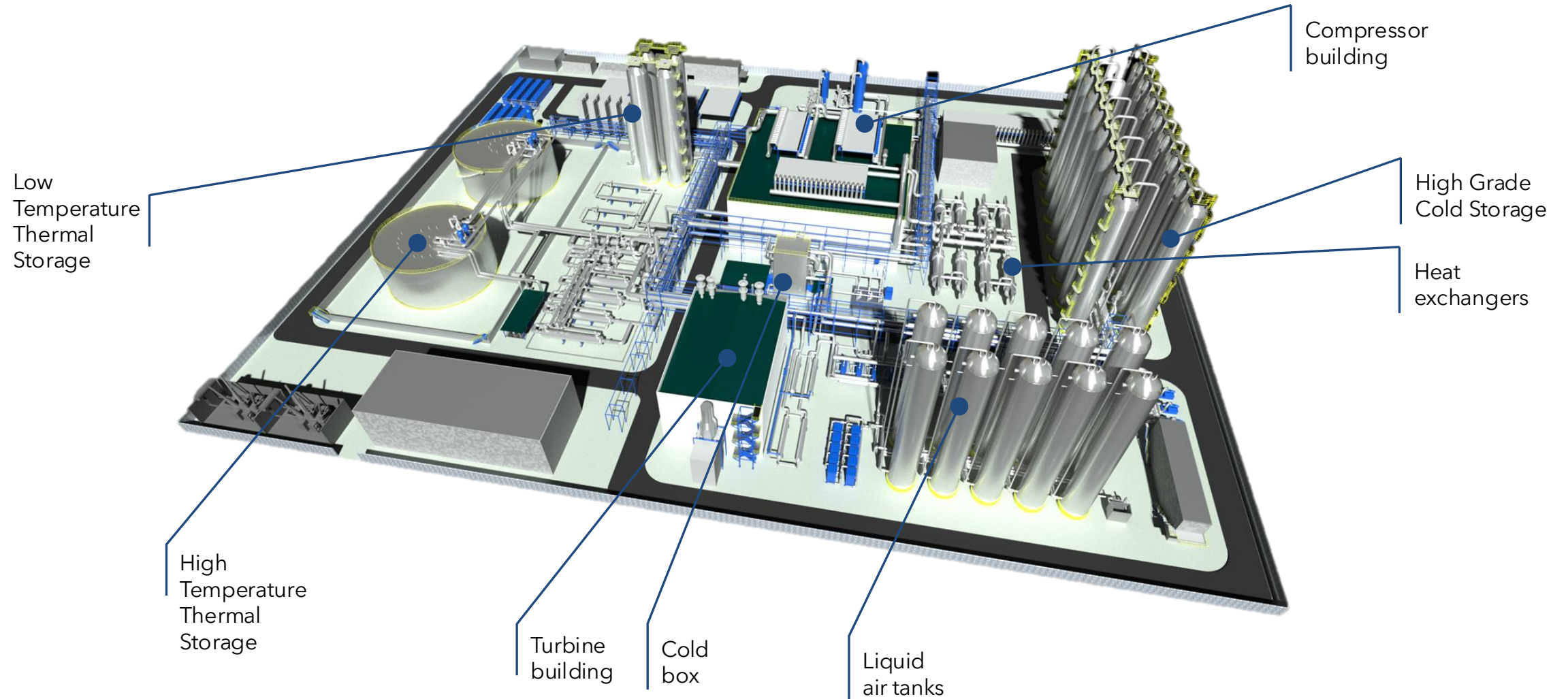
The Liquid Air Energy Storage Process



For more information visit: [LINK](https://www.shi-fw.com/our-solutions/energy-storage/)

<https://www.shi-fw.com/our-solutions/energy-storage/>

What is Liquid Air Energy Storage?



Environmental Considerations

The project adheres to strict safety standards and protocols in accordance with industry best practices

Noise Impacts

- Noise is mainly generated by the compressors when the plant charges and by the turbine exhaust when the plant discharges
- The equipment in a LAES plant has been widely used in various industries for decades - established methods exist to mitigate noise levels if required
- The project will meet all applicable noise regulations through appropriate design and operational measures.

Wildlife Impacts

- Minimize potential disruption through siting choice
- Site is located on lands designated as Heavy Industrial in the Official Plan
- Species at risk studies to be conducted to meet or surpass all environmental regulations

Water Usage

- The project's water use is expected to be approximately 1,000 litres per day, roughly equivalent to the daily water use of four to five people.
- No flue gas emissions or solid waste discharges are expected from the plant

Long-Lead Time (LLT) Project Status and Next Steps

- On track to submit proposal by November 2026
 - Includes siting, permitting, and engagement with community
- If bid is won, move forward with:
 - Permitting process
 - Further Indigenous and Community Consultation
 - 5-year construction window
- Project will operate for 40 years

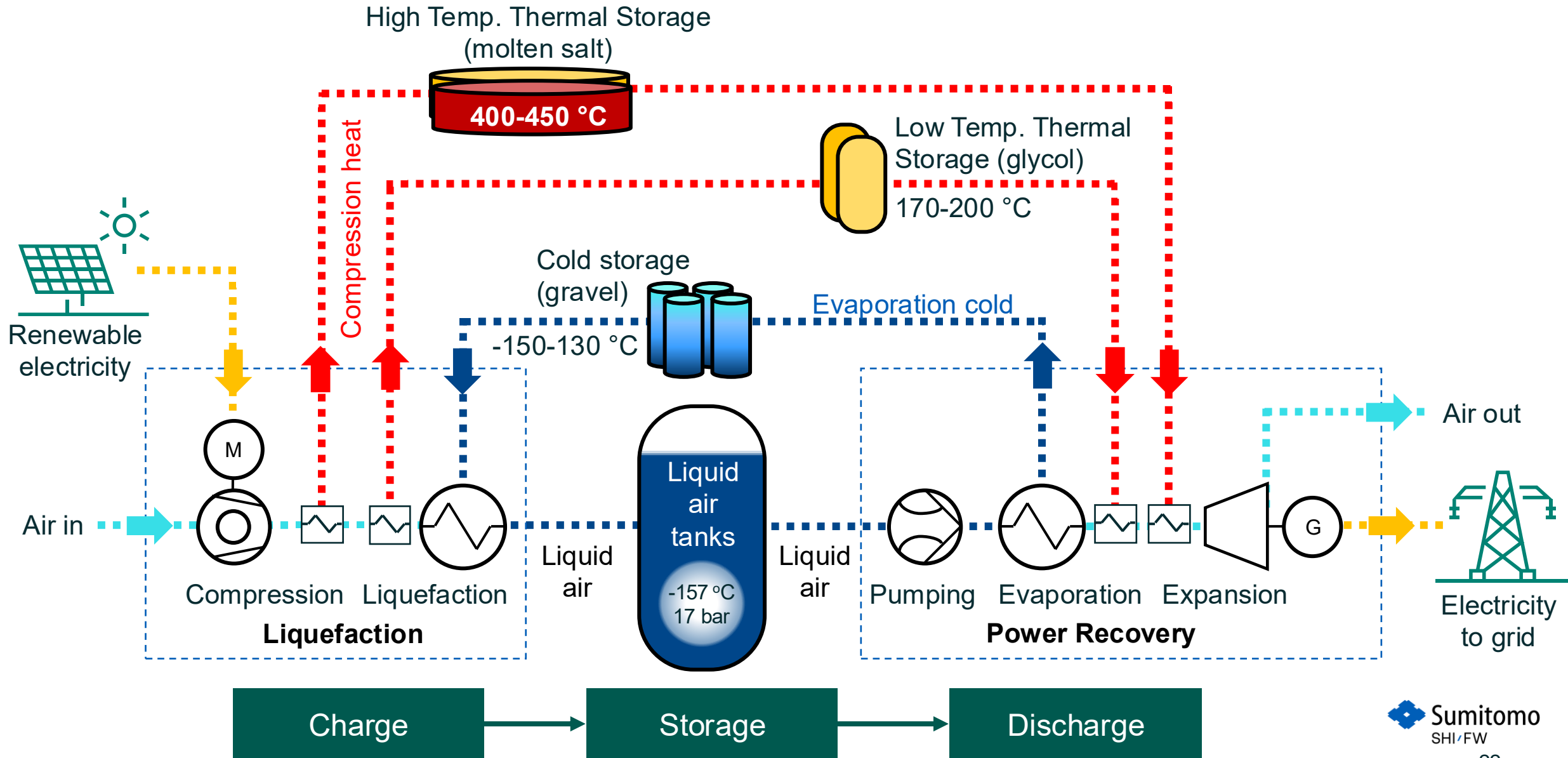


Contact us with any further questions:

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Thank you!

Liquid Air Energy Storage Schematic



Click [here](#) for an animated video of the process