NEOEN

Tara BESS Project Update
The Municipality of Arran-Elderslie Council Meeting

December 9, 2024

Tara BESS is proposed for lands located within the Saugeen Ojibway Nation Territory and Treaty area of the Chippewas of Saugeen First Nation and Chippewas of Nawash Unceded First Nation. The lands also form part of the Historic Homeland of the Métis Nation of Ontario - Region 7 Communities.

Background

- Tara BESS, formerly Grey Owl Storage, is a **400-megawatt (MW), 1600-megawatt hour (MWh) battery energy storage system (BESS)** proposed for development on 39 Concession Road 4, in the Municipality of Arran-Elderslie.
- Awarded a 20-year energy storage contract by the Ontario's Independent Electricity System Operator (IESO) in May 2024, through the IESO's Long-term 1 (LT1) RFP procurement – one of ten BESS contracts awarded in the RFP.
- Tara BESS responds directly to Ontario's growing energy needs and 2050 energy procurement target, by adding grid capacity equivalent to the daily energy consumption of ~640,000 households in Ontario.
- Neoen Canada BESS 1 Inc. (Neoen) is now exclusively leading development of the Tara BESS project.

About Neoen

- Founded in 2008, Neoen is an independent producer of renewable energy.
- Neoen designs, implements, and operates renewable electricity technologies, including solar and wind power, and energy storage solutions.
- > 8 GW of power in operation or under construction across 15 countries.
- Neoen owns and operates its facilities for the long-term.

BESS Technology

What is Battery Energy Storage?

- Stores (or “charges”) electricity in batteries that is later discharged to an electrical grid.
- Typically, charges overnight when demand is low and discharges when demand rises.
- BESS can standalone or accompany a renewable technology, like wind or solar power.
- Supports the transition from fossil fuels by maximizing the use of energy produced from renewable sources.
- Provides ancillary services such as frequency and voltage support, and virtual inertia.

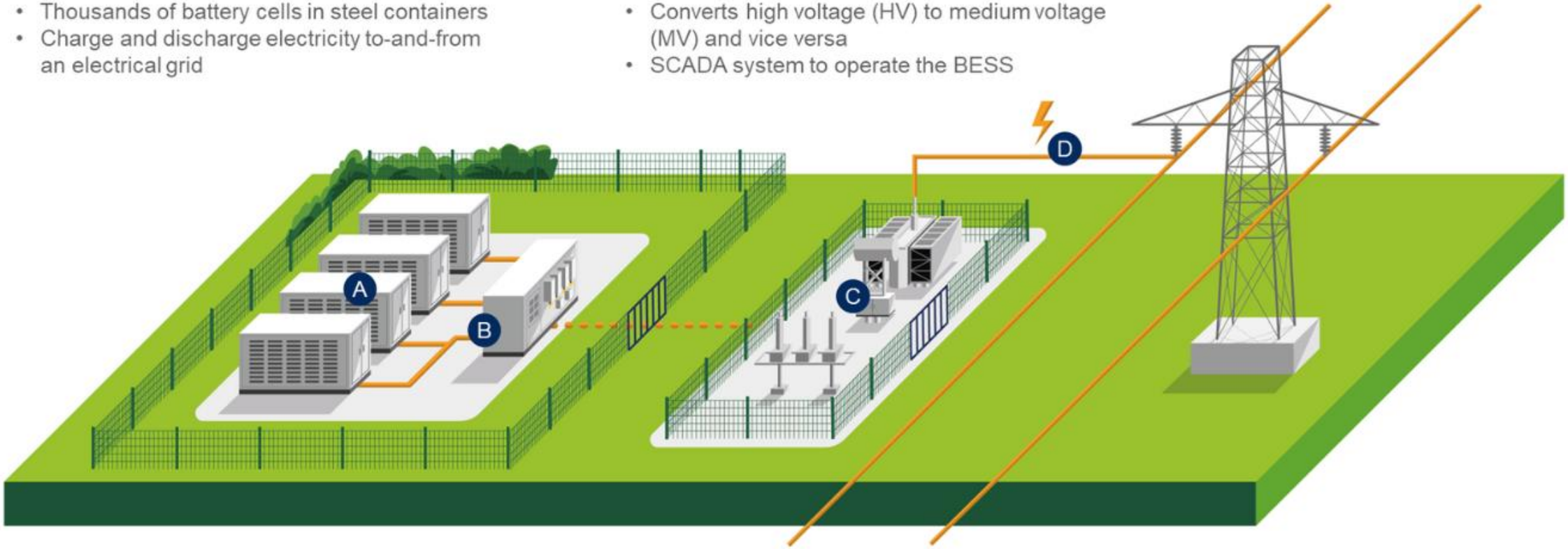
How does a Standalone BESS Work?

A - Battery Containers

- Thousands of battery cells in steel containers
- Charge and discharge electricity to-and-from an electrical grid

C - Transformer Station

- Converts high voltage (HV) to medium voltage (MV) and vice versa
- SCADA system to operate the BESS



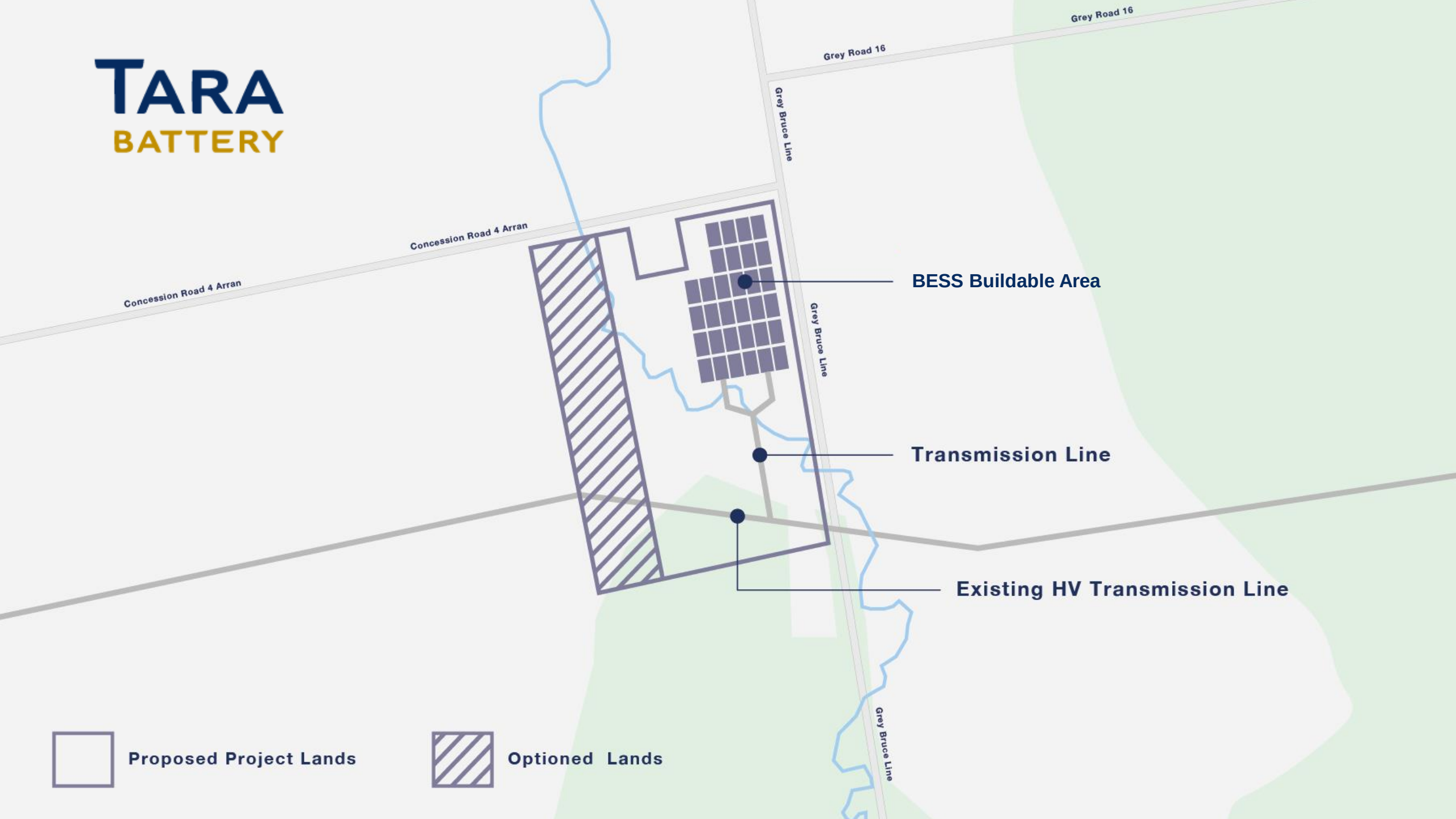
B - Inverter

- Converts direct current (DC) to alternating current (AC) and vice versa

D - Transmission Lines

- Transmission lines move electricity to-and-from the BESS
- Steel structures hold the lines overhead
- Electricity travels to-and-from the grid

Tara BESS


TARA
BATTERY
Grey Road 16
Grey Road 16
Grey Bruce Line
Concession Road 4 Arran
Concession Road 4 Arran
Grey Bruce Line
Grey Bruce Line
BESS Buildable Area
Transmission Line
Existing HV Transmission Line
Proposed Project Lands
Optioned Lands

Tara BESS Preliminary Design

Standalone BESS facility

Capable of providing 400 MW of power for four hours

~420 lithium-ion battery cell containers

3 Transformers (1 back-up)

~20 acres of at-grade equipment

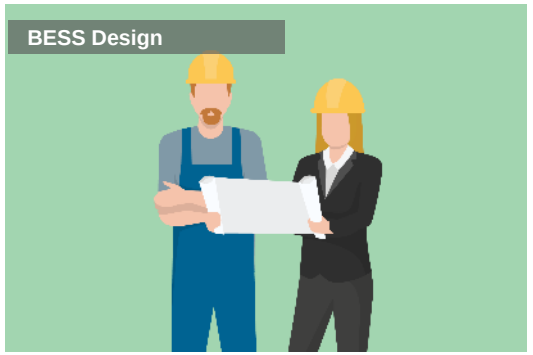
~400 m of overhead transmission line and ~5 transmission structures

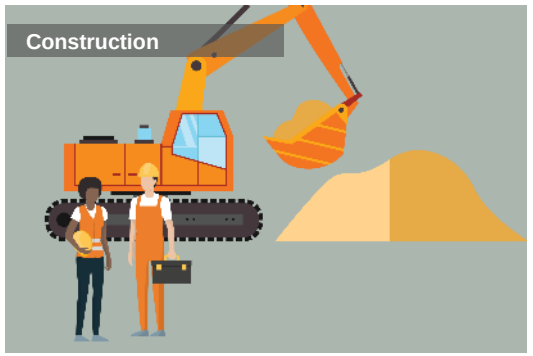
This information is preliminary and subject to change.

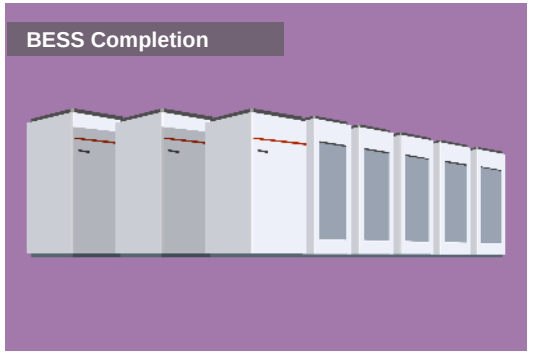
Development Process

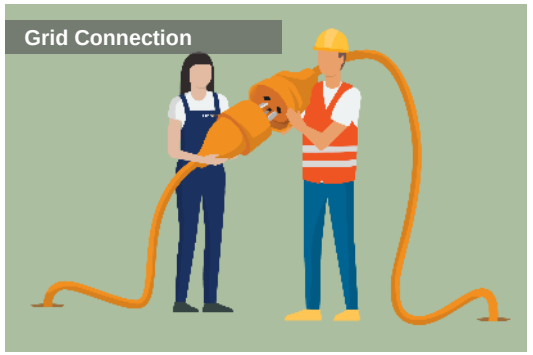
Project Lifecycle

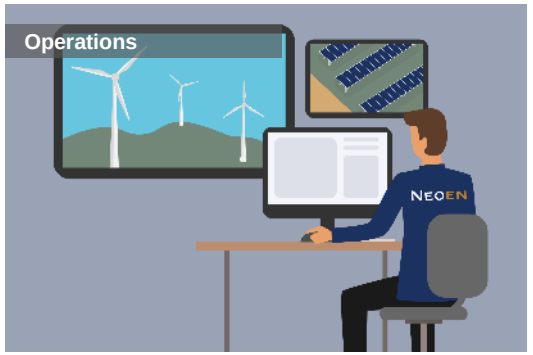
WE ARE HERE

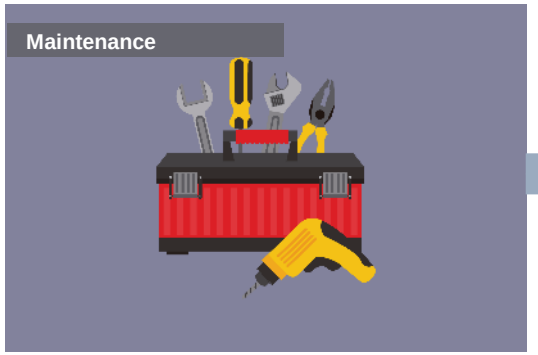








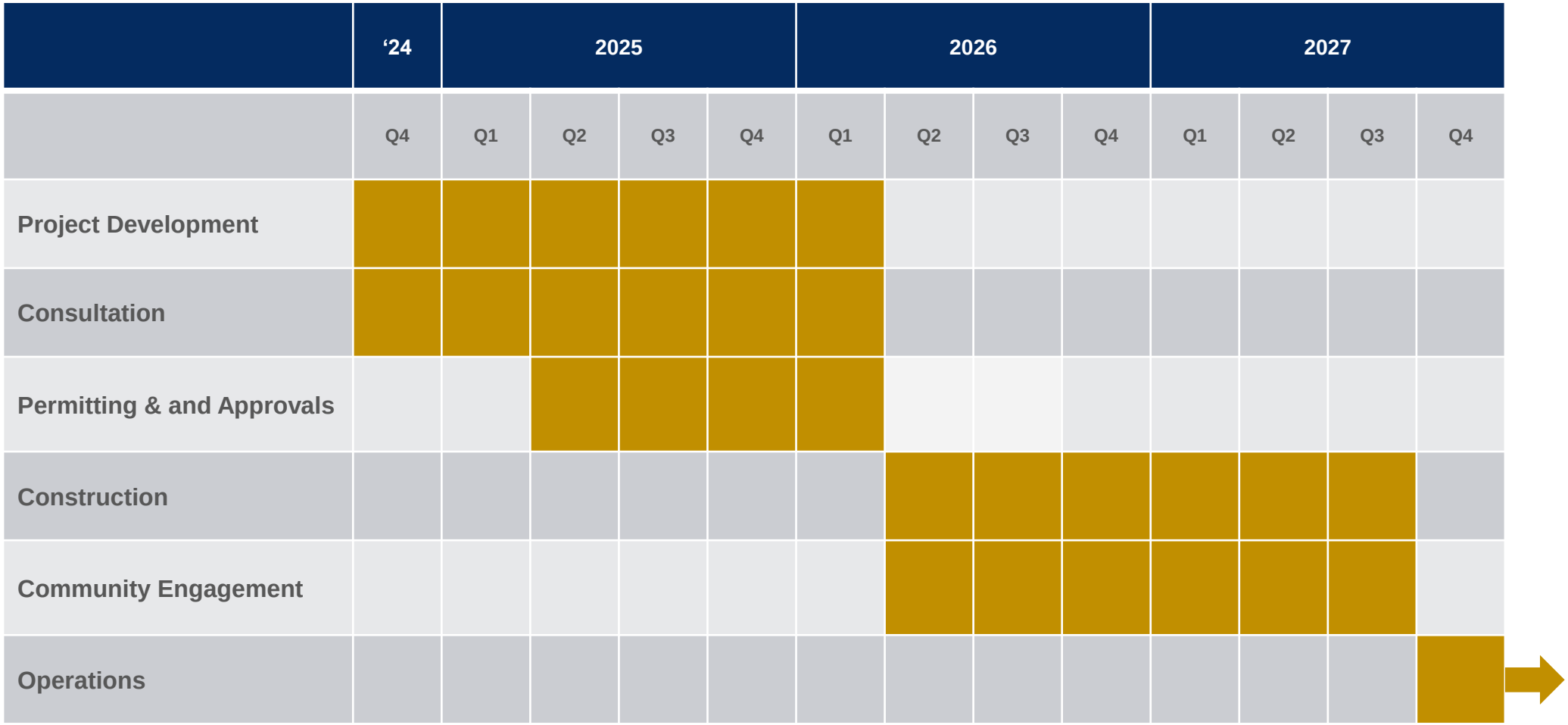




DECOMMISSION AND RESTORE TO PREVIOUS USE

EXTEND CONTRACT AND CONTINUE OPERATIONS

Target Project Timeline



Project Permits and Approvals

- Class Environmental Assessment (EA) for Transmission Facilities
  - Aquatic Habitat Assessment
  - Ecological Land Classification and Vegetation Surveys
  - Breeding Bird Surveys
  - Breeding Amphibian Surveys
  - Bat Habitat Assessment (Maternity Roost Surveys)
  - Noise Impact Assessment
  - Archaeological Assessment
  - Agricultural Impact Assessment
- Environmental Compliance Approval for Stormwater
- Species-at-Risk*
- Environmental Activity Sector Registration (noise)
- Archaeology Clearance Letter
- Approved Soil and Excess Materials Management Plan*
- Ontario Endangered Species Act Sec.17 approval*
- Regulation 41/24 Approval from Grey Sauble Conservation Authority

* TO BE CONFIRMED

Consultation

- Consultation for Tara BESS is underway.
- Neoen will consult Rightsholders, stakeholders, landowners and occupants in the immediate vicinity, and the broader community.
- We invite feedback via the following channels:
  - Phone: (416) 312-0057
  - Email: info@tarabattery.ca
  - Web: www.tarabattery.ca (via feedback form)
  - Mail: 319-150 King Street West, Toronto, ON M5H 1J9
  - Request a 1-on-1 meeting
  - Public open house – January 21, 2025
  - Public open house – Spring 2025 (date TBC)

BESS Safety

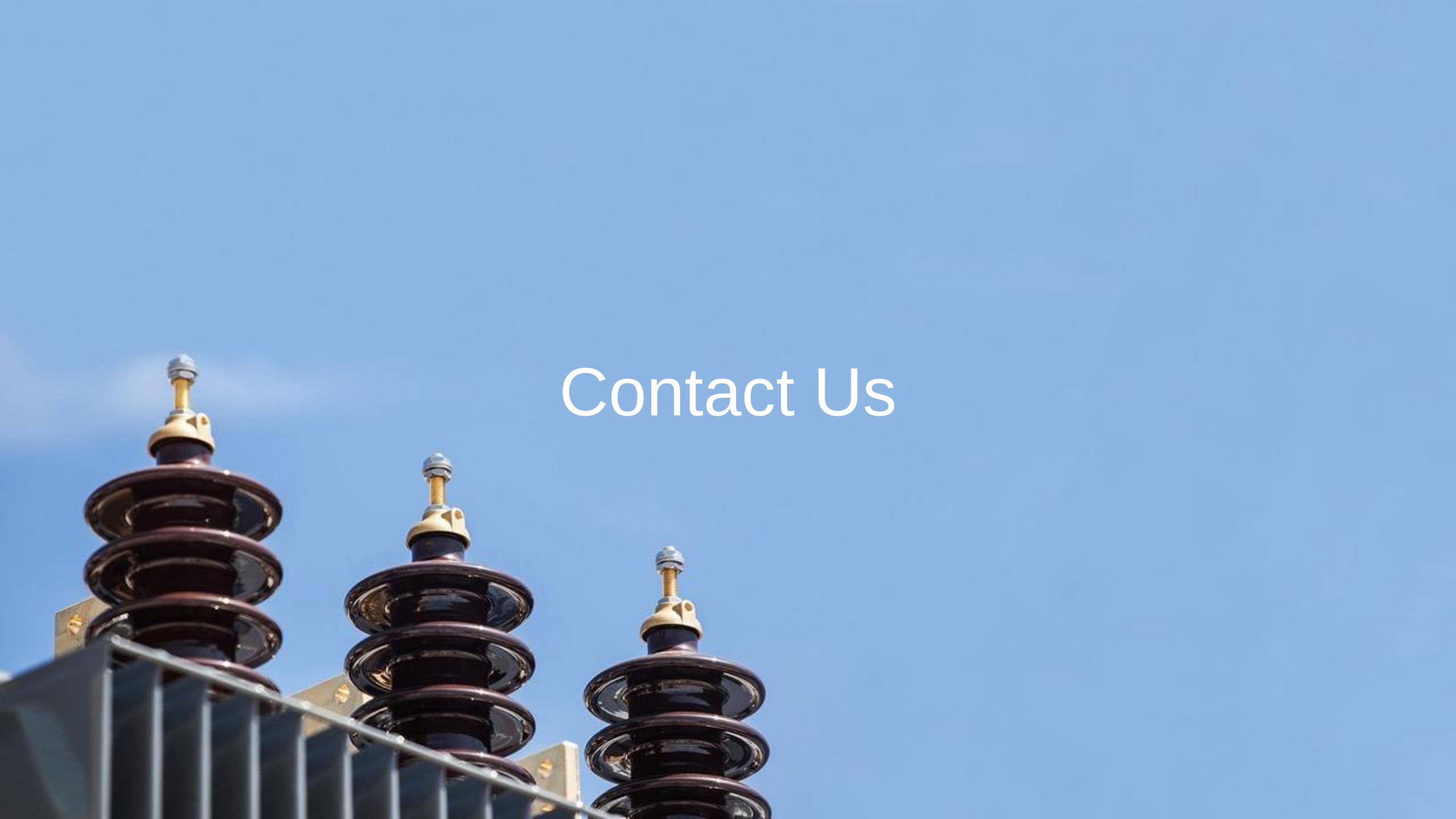
BESS Safety

- BESS are designed to prevent the following potential hazards:
  - **Thermal runaway** is an exothermic reaction whereby damaged battery cells release energy in the form of abnormal heat, which can propagate and result in smoke, fire, or combustion. Thermal runaway can occur from an internal short circuit, external short circuit, external fire, and BESS degradation.
  - **Spill events**, including refrigerant, coolant, and oil spills, can result from equipment malfunctions or blunt force to BESS components.
- BESS hazard events are infrequent and prevented by rigorous design mitigation, thorough maintenance and monitoring, and stringent safety protocols, including:
  - Active protection, such as on-site water sprinkler and hydrant systems
  - Passive protection, such as use of fire barriers and non-combustible oils
  - Facility systems and security
- Hazards events are managed by preparedness and rapid response.
- Neoen has engaged Arran-Elderslie's Fire Department on the Tara BESS project.

Community Benefits

Community Benefits

- Neoen believes that the communities it works in should share in the benefits of its projects.
- Consultation for Tara BESS will inform a community benefits plan that may include vendor opportunities, employment and skills training, Indigenous-specific benefits or opportunities, environmental initiatives, sponsorship, donations, or art installations.



Contact Us

We want to hear from you!

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