NB Power STATCOM Project

Salisbury Council Meeting

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What is STATCOM?

This stands for Static Synchronous Compensator.

This piece of technology will be installed at the Salisbury terminal.

The project will improve voltage stability in southern New Brunswick.

Project Overview

- Background
- Current situation
- Benefits
- Risks without it
- A glimpse at the numbers
- Other alternatives
- Timelines
- Why it matters

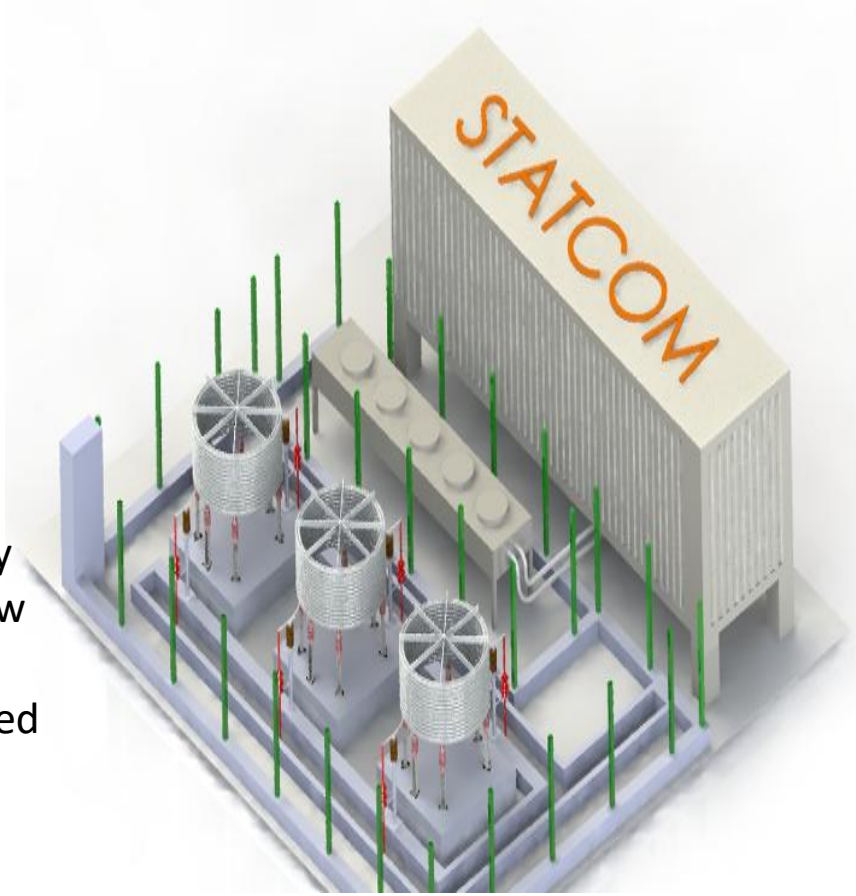
Overview of STATCOM Project

Background

NB Power is making necessary investments to ensure future reliability on our electrical system.

We need to build capacity to generate electricity to ensure New Brunswickers have the power they need, when they need it.

With growing electricity demand in southern New Brunswick, stronger voltage support is required to maintain system reliability.



Overview of STATCOM Project

Current Situation

Southern New Brunswick is growing. Right now, the grid does not have enough fast-acting voltage support to respond to certain system events without relying on automatic load shedding.

The grid is always changing. With more renewable generation, higher power transfers and shifting generation patterns the grid becomes more sensitive to voltage issues in unexpected outages or equipment failures.

Overview of STATCOM Project

Benefits

- This is proven technology that operates reliably.
- It strengthens the local grid and provides support to improve power quality and productivity.
- It can be easily integrated into both new and existing grid infrastructure.
- It helps reduce the cost of expanding the power network. It meets all required gride code standards.
- The modular design allows for flexibility and a small physical footprint.
- It produces low levels of audible and electrical noise, controlled through design.

Overview of STATCOM Project

Risks without STATCOM

NB Power could risk not meeting the required reliability and regulatory standards.

Voltage performance issues could lead to widespread service interruptions across parts of Atlantic Canada.

North American Reliability Standards(NERC) require utilities to address identified voltage performance issues to maintain a reliable power system.

By the numbers…

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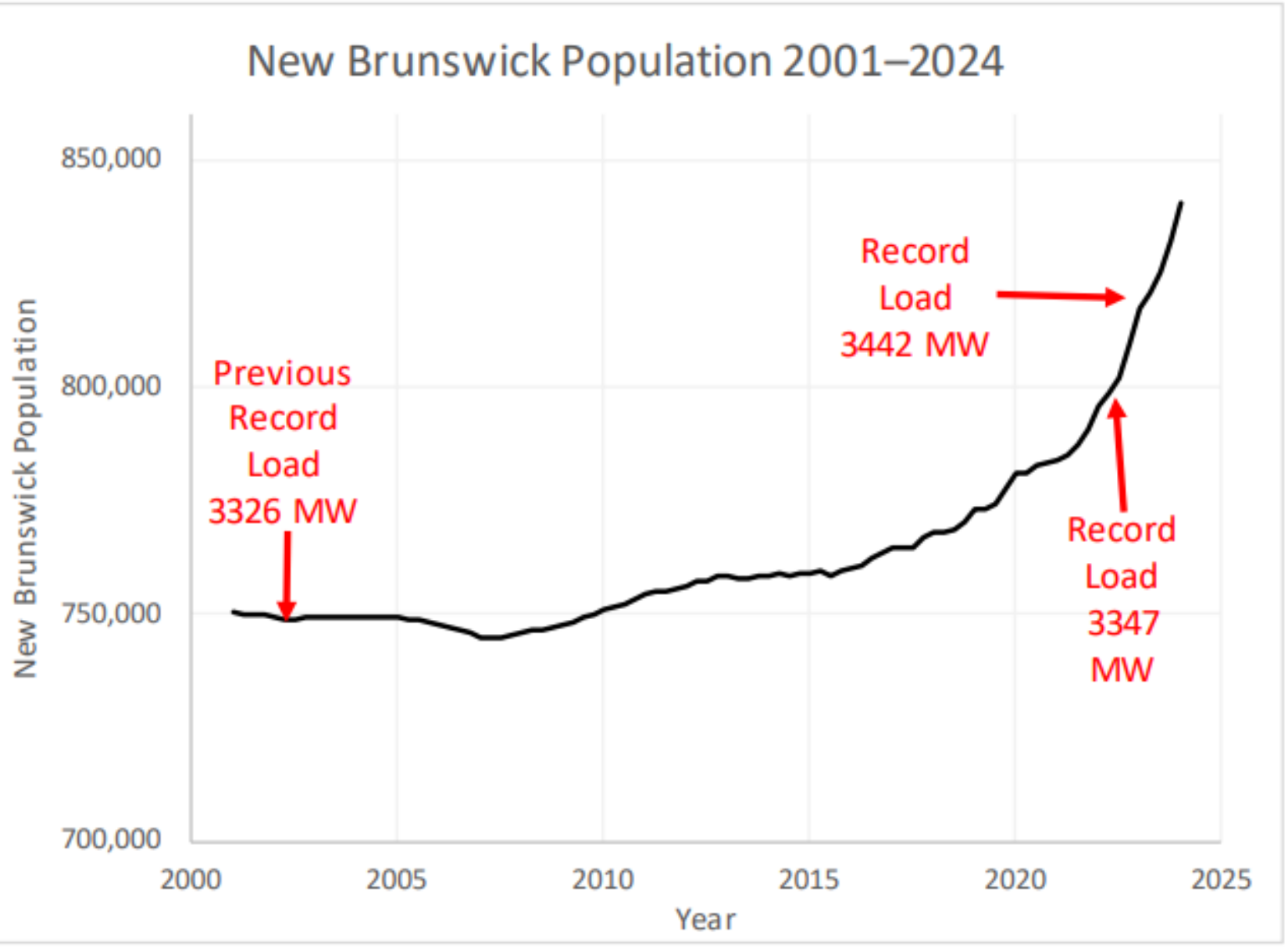
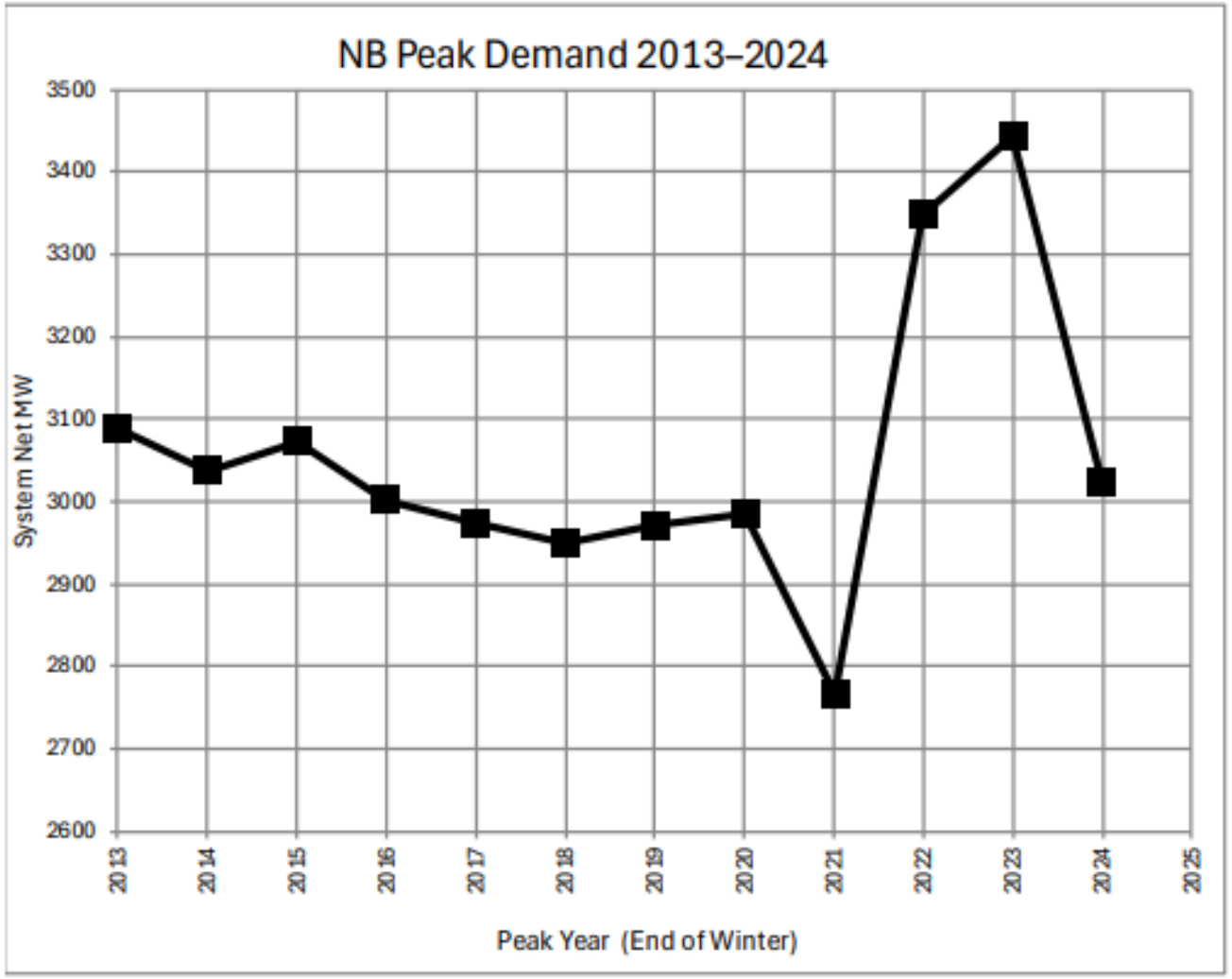
Figure 1: Provincial Population*



- New Brunswick
- 2025 Population
- ~870,000

Figure 2: NB Peak Demand*



** NB annual peak net load from 2013 to 2024. The 2024 winter peak was relatively low due to very mild winter weather conditions.*

- Moncton Metro Area
- 2024 Population
- ~ 188,000

Figure 3: Metro Area Populations

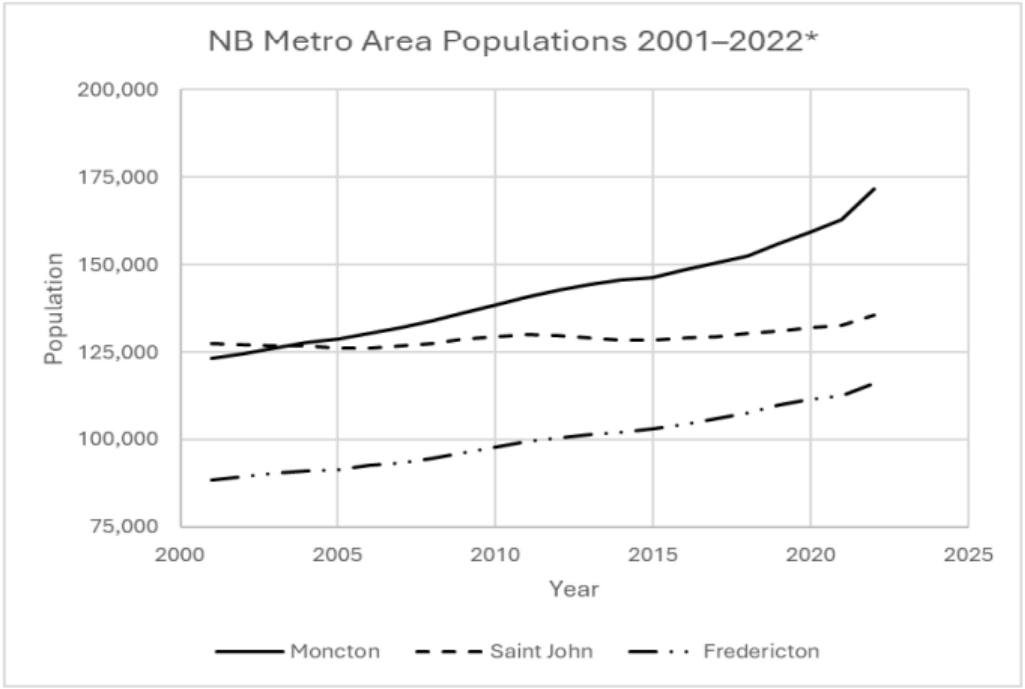
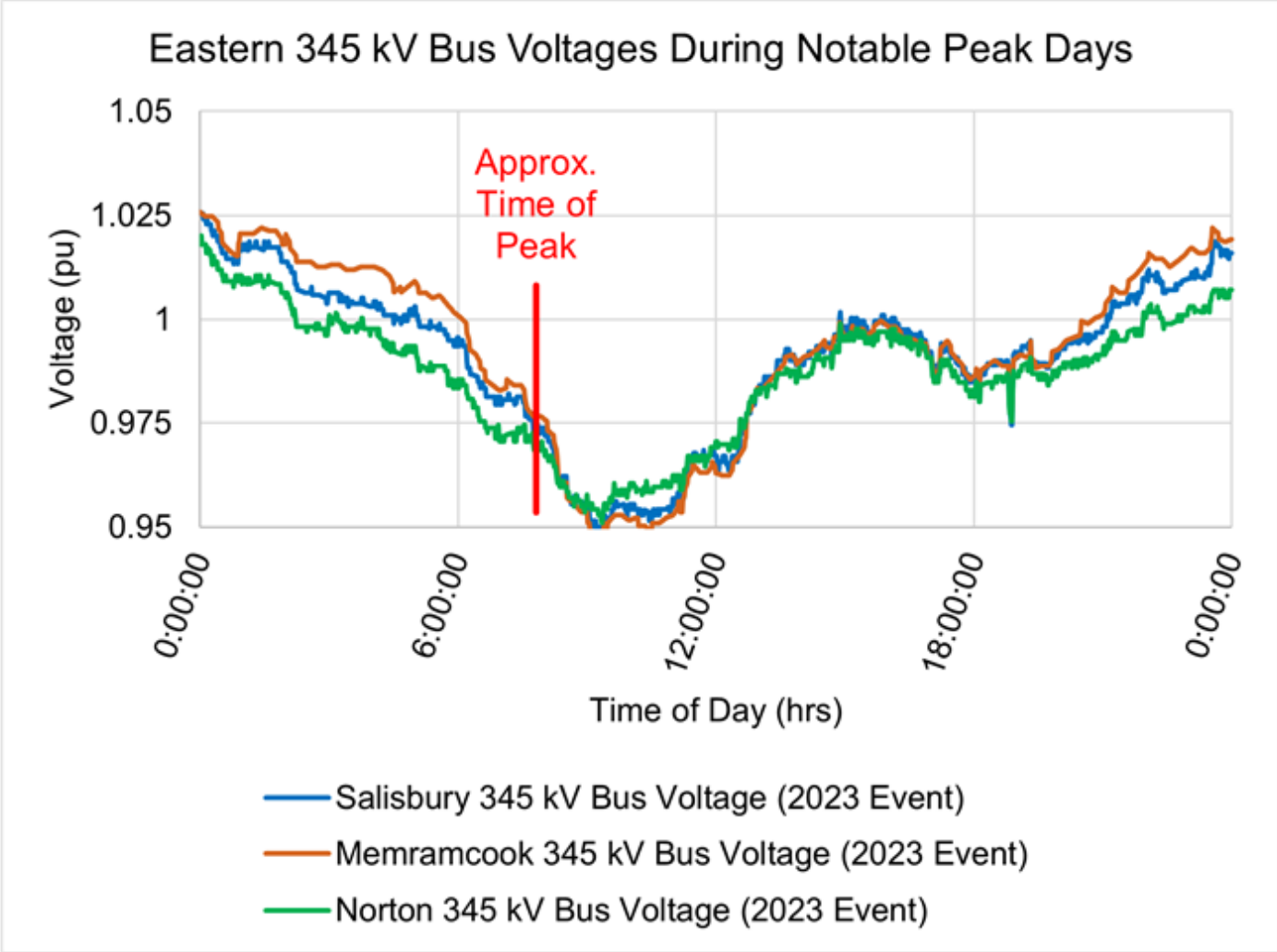


Figure 8: Eastern Voltages*



** Actual measured voltage on three 345 kV eastern region buses during the 2023 record peak.*

Overview of STATCOM Project

Other alternatives

Alternative 1 - Install a 300 Mvar STATCOM (Static Synchronous Compensator) at Salisbury. STATCOM is a fast-acting power electronics-based device that rapidly provides and absorbs reactive power thereby regulating voltage.

Alternative 2 - Install a 300 Mvar Static VAR Compensator (SVC) at Salisbury.

Alternative 3 - Install 300 Mvar of Synchronous Condensers located at Salisbury.

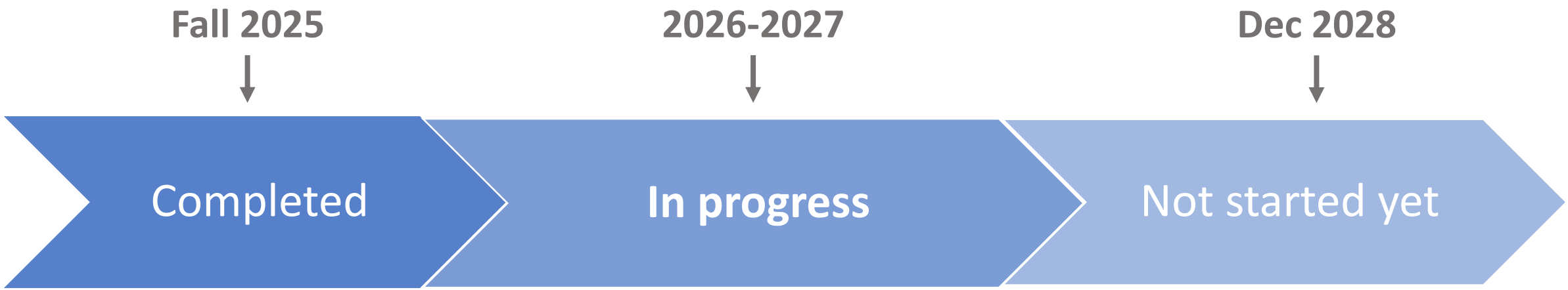
Overview of STATCOM Project

New Brunswick Energy and Utilities Board Hearing (NB EUB)

ON JULY 25, 2025, THE PROJECT FOR THE NEW TECHNOLOGY WAS APPROVED BY THE NB EUB.

THE ELECTRICITY ACT REQUIRES NB EUB APPROVAL OF NB POWER CAPITAL PROJECTS AT MORE THAN $50 MILLION.

Our priorities for next years



- EUB Approval
- STATCOM PO Awarded (Hitachi Energy)
- Engineering PO Awarded (Stantec) for Yard Extension
- Started Site Activities: Vegetation clearing at Salisbury Terminal was completed in Nov-2025

- Complete the detailed Engineering for the Terminal Extension (STANTEC)
- Complete the detail Engineering for STATCOM (Hitachi Energy)
- PO Awarded for Construction Contractor for the Terminal Extension

- Hitachi Energy on site to complete STATCOM construction
- FAT for Transformers
- FAT for STATCOM
- Commissioning
- Training to our Operation and Maintenance teams

Construction Activities at Salisbury Terminal

PROJECT ACTIVITIES	TIMELINES
Vegetation clearing	Completed in Nov. 2025
Grading, foundations, roads	Fall 2026
Construction activities commence	Between Spring 2027 to Fall 2028
Project commissioning and startup	End of 2028

- **Why does this matter?**

- The STATCOM project will be located at NB Power’s existing Salisbury Terminal, in the Town of Salisbury.
- The project strengthens the electrical system that serves Salisbury and the surrounding area.
- The project will improve reliability for residents, businesses and essential services.
- The project will also improve voltage stability, support future growth and development in the community.
- Construction will mostly take place at the existing substation, minimizing any impacts to the town and nearby residents.

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Thank you.

Questions?