



Newfoundland Power Inc.

2025 Capital Budget Application

Trina White, Director, Engineering
Derek Mercer, Director, Operations

August 1st, 2024

WHENEVER. WHEREVER.
We'll be there.

NEWFOUNDLAND
POWER
A FORTIS COMPANY

Outline

- Background
- 2025 Capital Budget
- Capital Project Overview
- Other Points of Interest



Background

WHENEVER. WHEREVER.
We'll be there.

NEWFOUNDLAND 
POWER
A FORTIS COMPANY

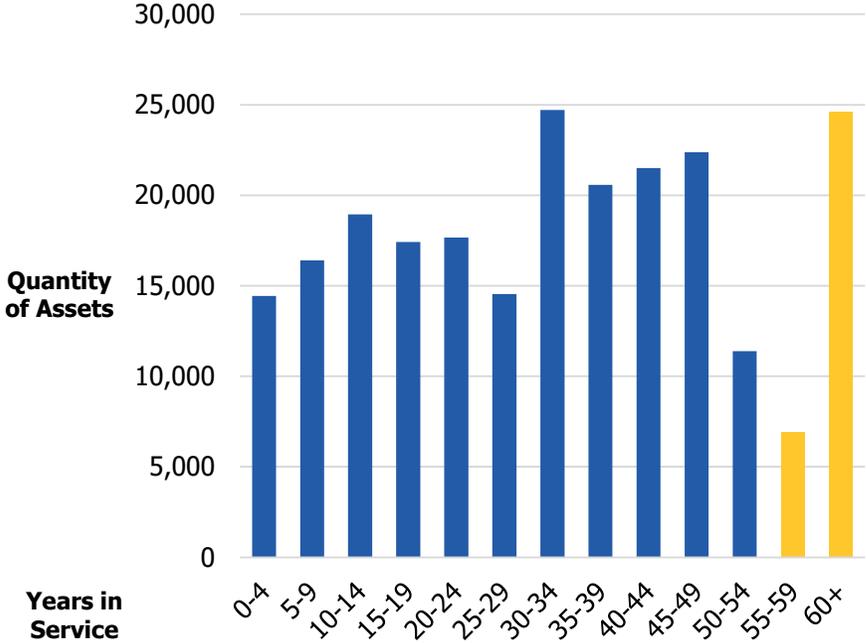
Capital Planning at Newfoundland Power

- Comprehensive process determines scope, necessity and timing of capital expenditures
- Based on sound engineering and objective data:
 - Customer Connections
 - System load growth
 - Asset condition
 - Economic factors
 - Industry standards
 - Operational requirements

Deferred/Modified/Advanced Expenditures	
Previously deferred/modified projects proposed for 2025	4
Projects advanced to 2025	0
Projects planned for 2025 but deferred to subsequent years	5

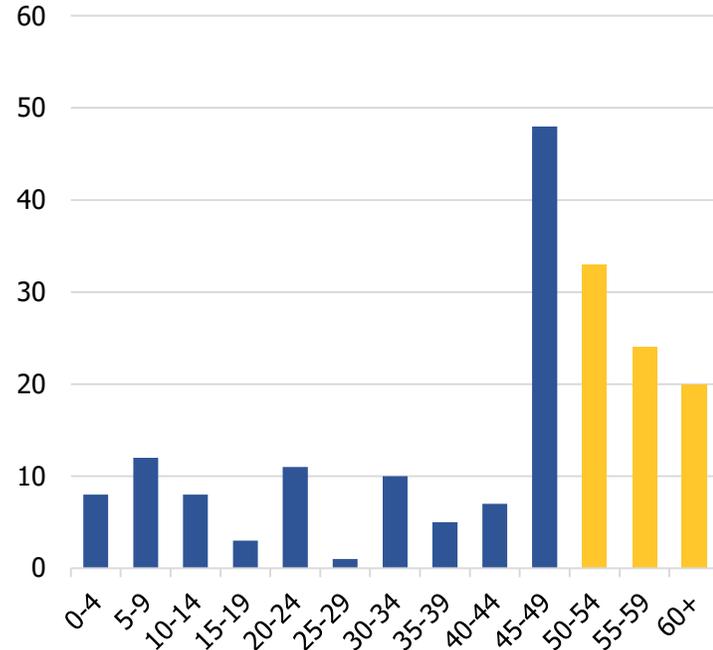
Aging Electrical System

Distribution Wooden Support Structures



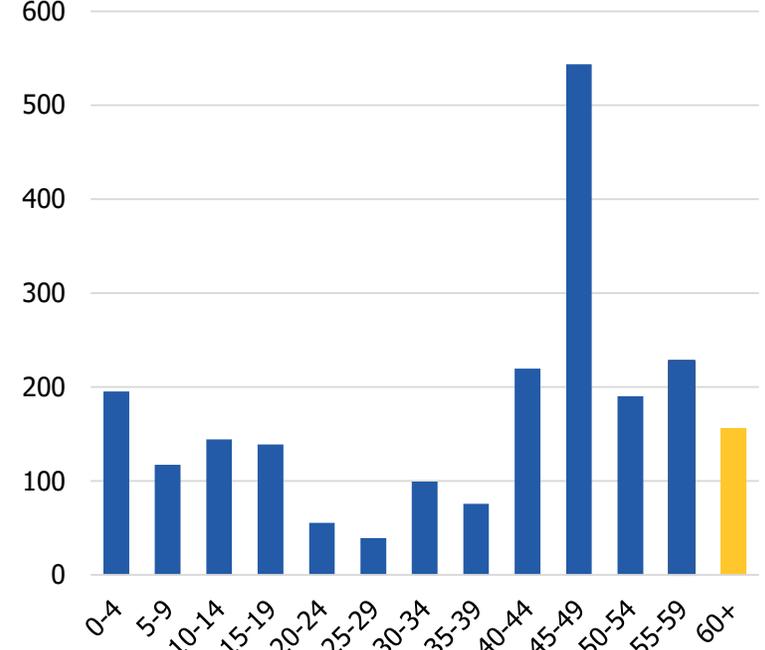
Expected Service Life: 54 Years

Substation Power Transformers



Expected Service Life: 30-50 Years

Transmission Overhead Conductor



Expected Service Life: 63 Years

2025 Capital Budget

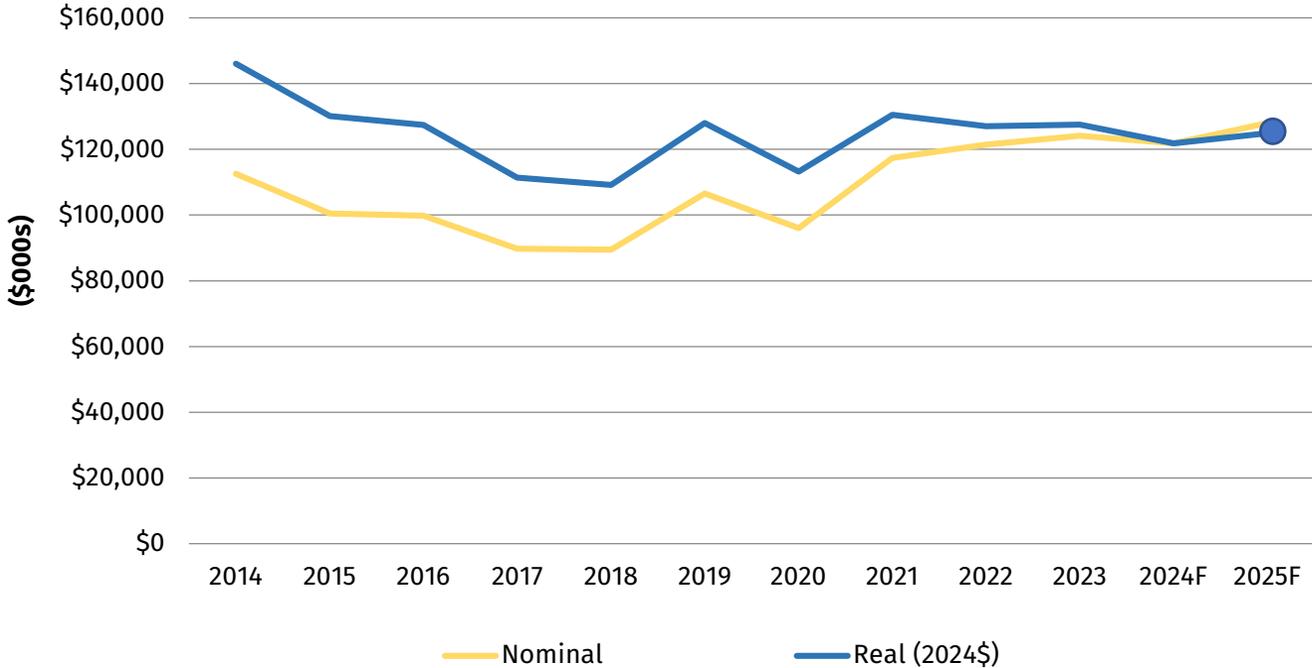
WHENEVER. WHEREVER.
We'll be there.

NEWFOUNDLAND
POWER
A FORTIS COMPANY

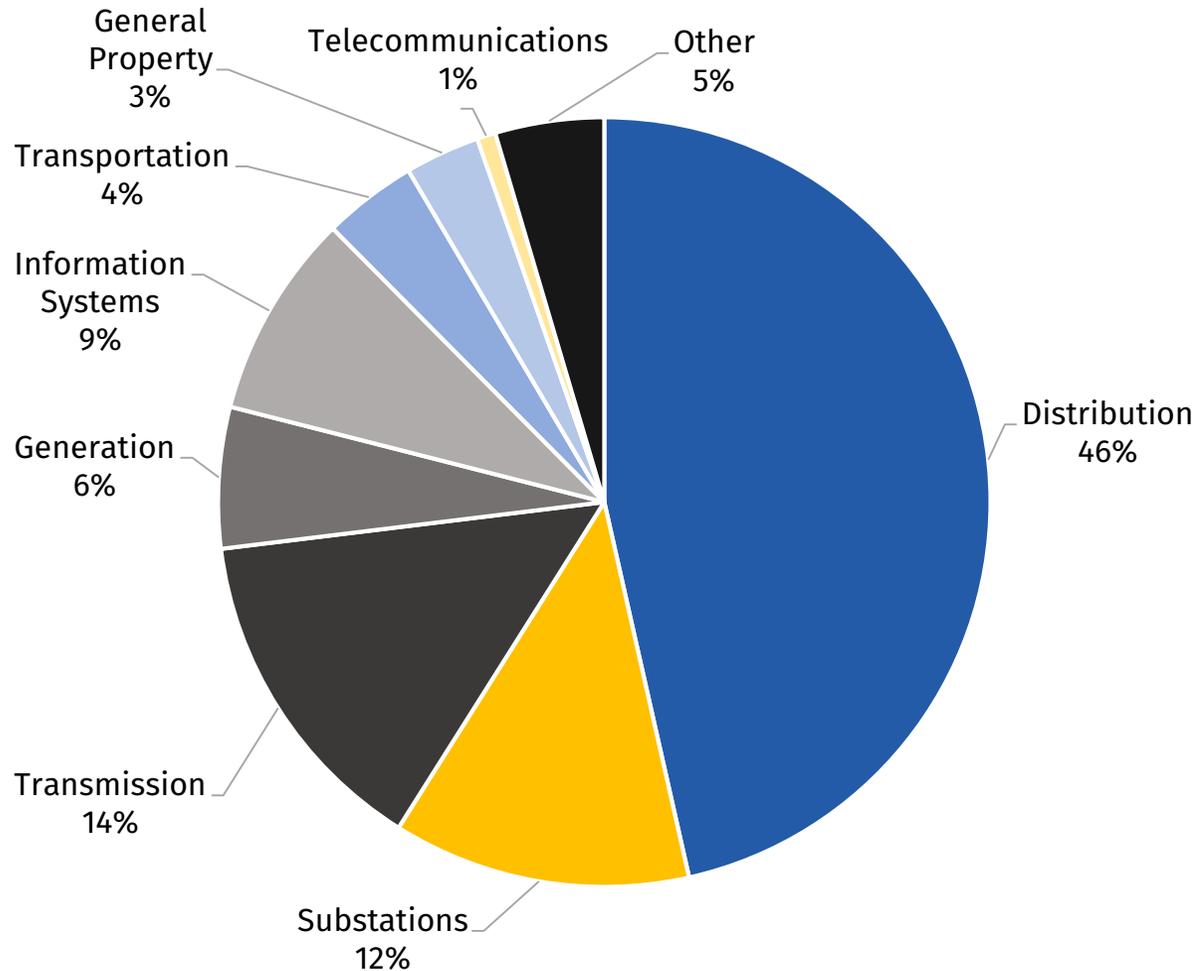
2025 Capital Budget

Expenditure Type	2025 Budget (\$000s)
Single-Year >\$750,000	79,468
Single-Year	10,850
New Multi-Year	18,219
Subtotal	\$108,537
Previously Approved Multi-Year	19,414
Total	\$127,951

Historical Capital Expenditures



2025 Capital Budget by Asset Class



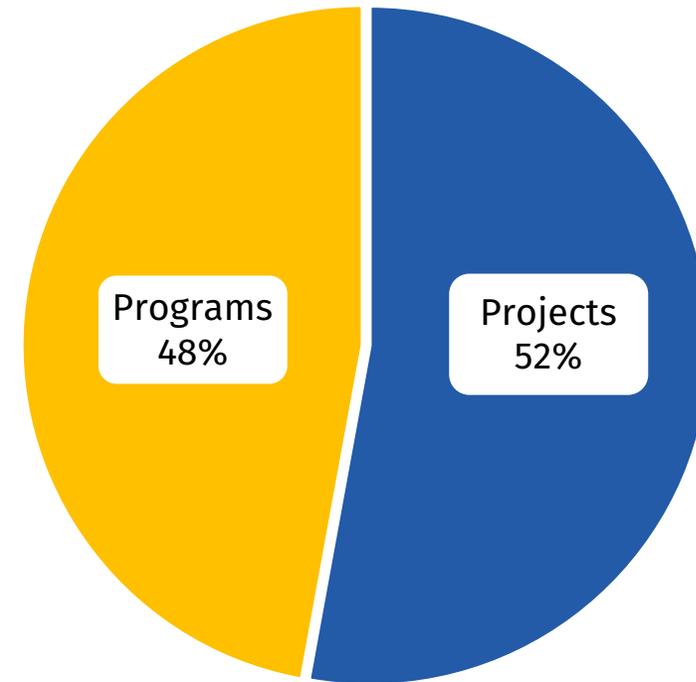
Distribution Investments

- 2,220 forecasted customer connections
- Maintain electrical system:
 - Two maintenance programs
 - Two feeder refurbishments
- Service enhancements:
 - LED street lights
 - Feeder automation
- Two feeder additions for load growth (St. John's area)

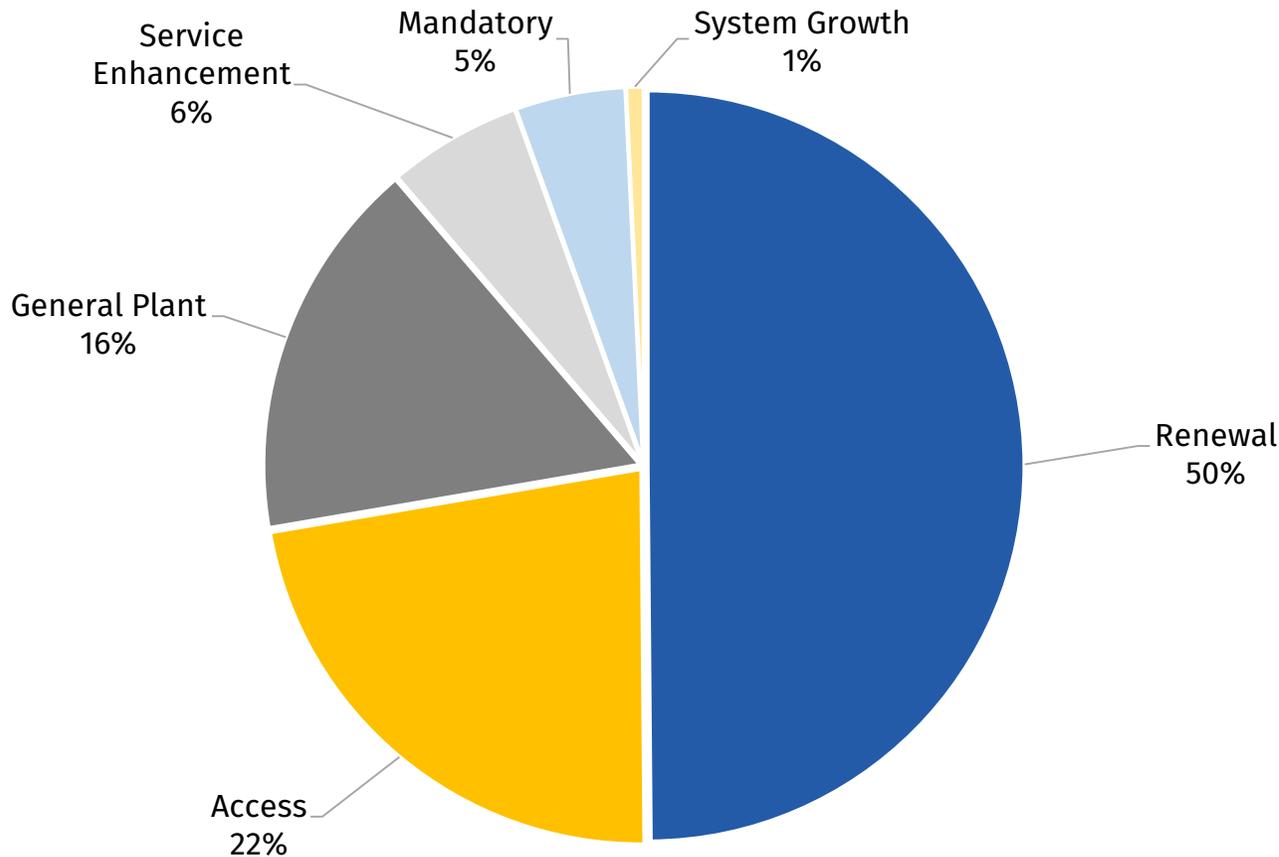
2025 Capital Budget by Category

- 39 Projects
 - Defined schedule, scope and budget based on detailed engineering estimates
- 22 Programs
 - High volume, repetitive and ongoing work. Budget based on historical averages.

Expenditure Percentage



2025 Capital Budget by Investment Classification



Renewal Investments

- Primarily condition based
- Corrective and preventive maintenance programs
- Refurbishment projects
 - Four substations for refurbishment and modernization
 - One hydro plant refurbishment
 - Three transmission line rebuilds

2025 Capital Budget by Materiality

Threshold	Quantity of Projects/Programs	Percentage of Total Expenditures
Less than \$1 million ¹	30	15%
\$1 million – \$5 million	18	29%
Greater than \$5 million	13	56%
Total	61	100%

¹ Includes 20 projects and programs \$750,000 and under.

Examples of Projects over \$5 Million

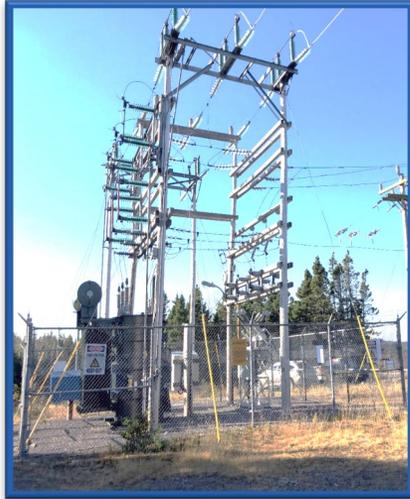
- Transmission Line 94L Rebuild
- Asset Management Technology Replacement
- Summerville Substation Refurbishment and Modernization

Capital Project Overview

WHENEVER. WHEREVER.
We'll be there.

NEWFOUNDLAND
POWER
A FORTIS COMPANY

Substation Refurbishment and Modernization



Summerville Substation (\$5.0M)

- Supplies 1,100 customers
- Condition:
 - Deteriorated 66 kV and 12.5 kV wood pole infrastructure
 - Deteriorated 66 kV and 25 kV switches



Northwest Brook Substation (\$4.2M)

- Supplies 1,800 customers
- Condition:
 - Deteriorated 138 kV and 25 kV switches
 - Removal of high-speed ground switch
 - Deteriorated cross arms
 - Metering tank replacement

Substation Refurbishment and Modernization



[Lockston Substation \(\\$4.8M\)](#)

- Supplies 1,100 customers in the Lockston area
- Condition:
 - Deteriorated 66 kV, 46 kV, and 6.9 kV wooden structures
 - Removal of high-speed ground switch
 - 66 kV and 12.5 kV switches at end of life
 - PCBs present in LOK-T1

Substation Power Transformer Replacements

- Most critical and expensive substation asset
- Engineering Assessment
 - Oil Analysis
 - Electrical Testing
 - EPRI PTX Analysis
 - Physical Inspection



Pulpit Rock T2 (\$2.9M)



Gander T2 (\$4.2M)

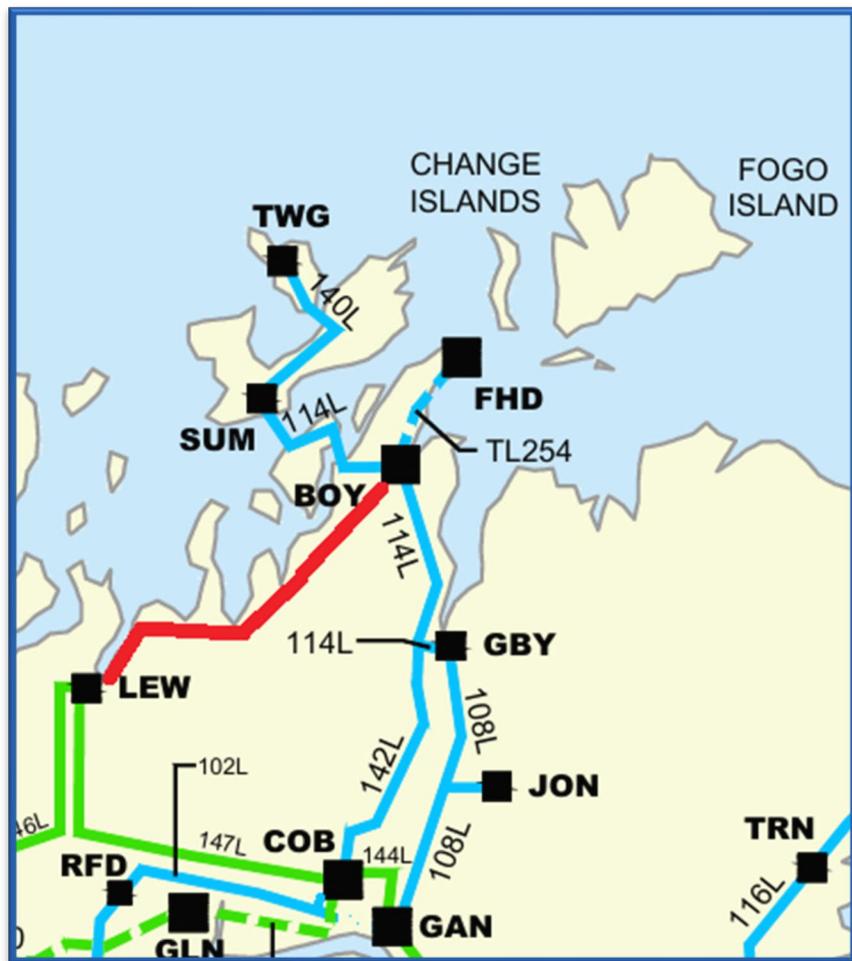
New Transmission Line LEW-BOY (\$20.8M)



108L Condition Assessment

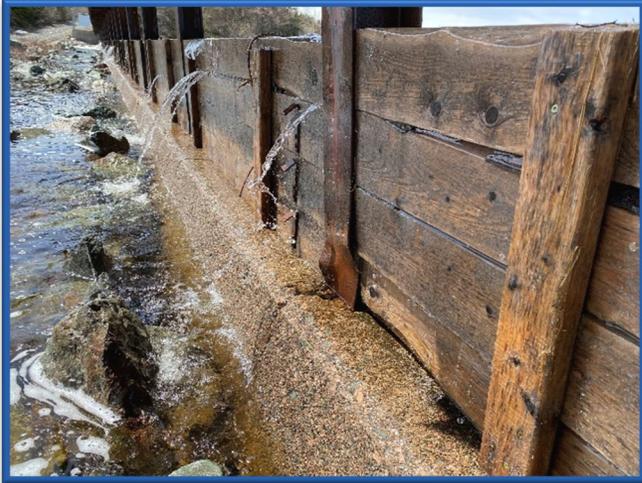
- Not seeking approval for replacement
- 60% of poles are deteriorated
- 27% of structures have deficiencies
- 2/0 ACSR conductor
- Non-Standard Construction

New Transmission Line LEW-BOY (\$20.8M)



- Planning study assessed alternatives for the:
 - Replacement of GAN-T2
 - Rebuild of Transmission Line 108L
 - 66kV undervoltage system condition
- Planning study results:
 - GAN-T2 installed at Boyd's Cove
 - New transmission line from Lewisporte to Boyd's Cove
 - Retirement of transmission line 108L and JON

Mount Carmel Pond Spillway Replacement (\$4.6M)



- Commissioned in 1954
- Serves Horse Chops and Cape Broyle plants
- 81.6 GWh combined annual production
- Condition
 - Broken stop logs
 - Bent steel supports
 - Cracked concrete
- Net benefit to customers of approximately \$0.07/kWh

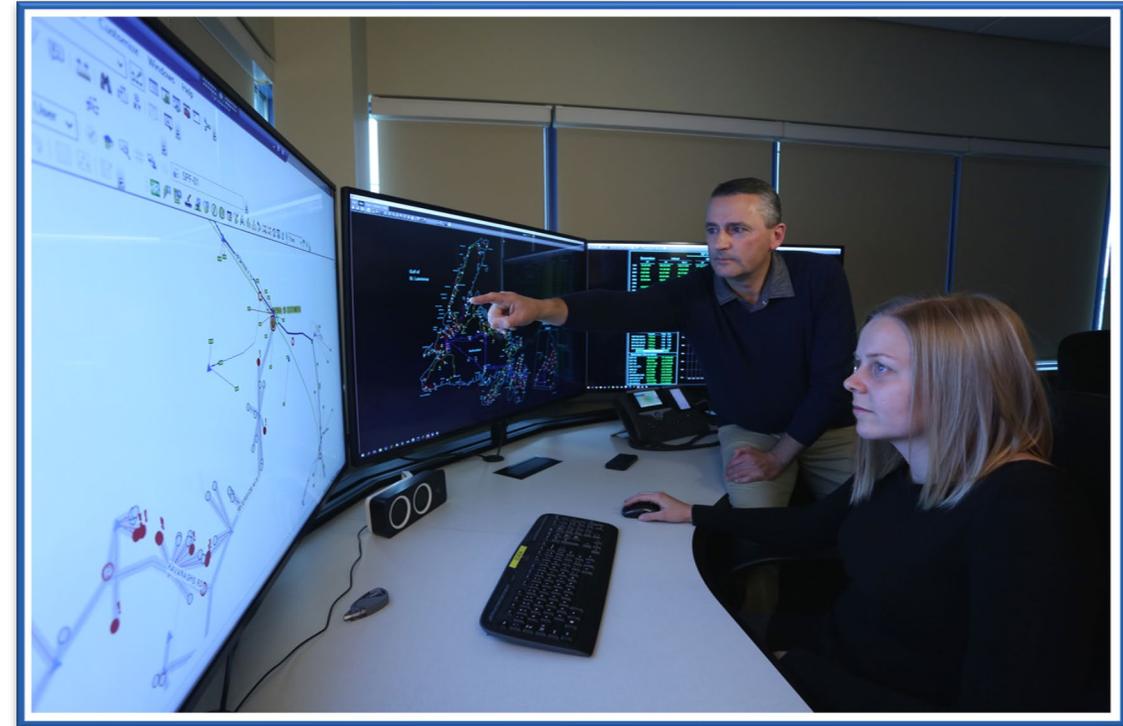
Port Union Building Replacement (\$1.3M)

- Converted diesel plant (1945)
- Inadequate framing system
- No HVAC
- Lack of thermal barriers
- Windows in poor condition



Outage Management System Upgrade (\$3.3M)

- Critical to outage management and day-to-day operations
- End of vendor support in November 2026
- Necessary for updates, patches and Bug fixes
- Integrated with corporate Geographic Information Systems



Asset Management Technology Replacement (\$8M)

- Avantis implemented in 2003, 2005 and 2006
- End of life December 31st, 2026
- Preventative & corrective maintenance
- Work Planning, scheduling & tracking



Site 1002364
001935 Kenmount Substation

General Information
OLE Canvas
Parts
Activities
Activity History
Hierarchy
Open Work
Work History
PM Program
PM Triggering History
Procedures and Safety
Cost Summary
Cost Transactions
Serialized Items
Purchases
Statistic Summary
Statistic Readings
Warranties
Status

Hierarchy to view: Physical

- Site 1002364 001935 Kenmount Substation
 - Designation 1003690 KEN-CHG
 - Designation 1003694 KEN-02-B
 - Designation 1003695 KEN-02-BP
 - Designation 1003696 KEN-02-DB
 - Designation 1003697 KEN-02-DL
 - Designation 1003698 KEN-03-B
 - Designation 1003699 KEN-03-BP
 - Designation 1003700 KEN-03-DB
 - Designation 1003701 KEN-03-DL
 - Designation 1003702 KEN-04-B
 - Designation 1003703 KEN-04-BP
 - Designation 1003704 KEN-04-DB
 - Designation 1003705 KEN-04-DL
 - Designation 1003706 KEN-35L-B
 - Designation 1003707 KEN-35L-DB
 - Designation 1003708 KEN-35L-DL
 - Designation 1003709 KEN-35L-GS
 - Designation 1003710 KEN-54L-B
 - Designation 1003711 KEN-54L-DB
 - Designation 1003712 KEN-54L-DL
 - Designation 1003713 KEN-54L-GS
 - Designation 1003714 KEN-69L-B
 - Designation 1003715 KEN-69L-DB
 - Designation 1003716 KEN-69L-DL
 - Designation 1003717 KEN-69L-GS
 - Designation 1003718 KEN-BAT-S

Other Points of Interest

WHENEVER. WHEREVER.
We'll be there.

NEWFOUNDLAND
POWER
A FORTIS COMPANY

Other Points of Interest

- **Transmission Line 94L Rebuild**
 - Change in scope and price since approval in 2022 CBA
- **Historical Averages for Budget Estimation**
 - Consistent with accepted practice
 - Report provided in this application
- **Asset Management Update Report**
 - Included in Capital Plan
 - Implementation plan expected by end of 2024





WHENEVER. WHEREVER.
We'll be there.