

- 1 **Q. [Data] – Please provide a copy of all site visit notes associated with any site visits**
2 **performed by the Company’s depreciation consultants, specifically identifying the**
3 **dates and times associated with the consultant’s visual inspection of each specific**
4 **type of property within the last five years.**
5
6 **A. Attachment A includes the site visit notes and Attachment B includes the site visit photos**
7 **from field trips conducted by the depreciation consultants for the 2010 Depreciation**
8 **Study.**

Site Visit Notes

Newfoundland Power - Field Trip

JFW
6/17/2010
①

Meet at Kenmount Road (HQ Bldg) at 8 AM

Escorted by: Jack Casey -
Peter Feehan - Supt, Elec. Engr.

Stamp's Lane Substation (9:15 AM) 3 circuits in; 6 out (12.5 kV)

66 kV to 12.5 kV (12.47 kV)

66 kV to 4 kV (4.160 kV)

2 Power XFMR (T1 + T2) - Inst 1990 + 1979 (66-12.5)
1 " " (66-4 kV) -

OCB + SF₆ breakers in yard (Various Vintages 1973, 1979, 2008, etc)
Pot. XFMR

Modernization of S/W gear + relays (2008)

Relays (Mfr stop supporting them after 15-20 yrs) → Spares hard to find

5 lines out (4 kV)

Battery Room → Bank of batteries for emer backup for equip in bldg.

Pepperrell Substation (10:15 AM) NEAR base in St. John's

66 kV to 12.5 kV 2-66 kV lines in / 4-12.5 kV lines out

1 25 MVA Federal Pioneer XFMR (1973)

OCB + SF₆ breakers

New relays and protective devices recently added

20'x15' Metal Pre Fab Control Bldg-
Metal clad S/W gear

16 L - Transmission Line into Pepperrell Sub

NEWFOUNDLAND Power - FIELD Trip

JFW
6/17/2010
(2)

Mobile Gas Turbine (11:15 AM) - 6 MW Unit

Escorted by JACK CASEY
JIM DAVIS

4800 RPM Power Turbine
1200 RPM Generator

Built in 1976; O/H in 2002 in N.S.

Fuel Tanker chassis repl 1999; tank repaired 1999

36V - Battery (DC) Power

2400 KV to 12.5 KV Step-Up XFMR

Unit Started each month and operated for 15-30 minutes

Lunch 12:00 PM

SEAL COVE Hydro Plant (12:00 PM) 3.2 MW Built 1923

Steel penstock - 55 M (head) - 180 ft 450 RPM

Located in Seal Cove (So part of Conception Bay)

Unit 1 - Allis Chalmers (T/G) - Damaged and repaired in 2009

Unit 2 - Voith Turbine and W-house generator

New control equip added (Alstom, Allan Bradley (PLC))

FP Dam rehab in 2005; SP Dam rehab in 2008
Spillway - Rehab in 2009; Roof repl 2009

TOPSAIL Hydro Plant (2:35 PM) 2.6 MW 1931 Built 85 M, 215 ft of head

Located near village of Topsail (So. Part of Conception Bay)

2893 RPM - T

3 Arth Pond Dam - Rehab 2006

720 RPM - G

Paddy's Pond - Upgraded dam and repl the gate

Black Bldg (45' x 50'); Woodstave penstock

→ Barber Hydraulic Turbine (Built in 1983; replaced original unit)
Hor. Francis Ideal Electric Generator (1983) " " "

NFP

DUFFY PLACE

10:30 AM

SERVICE CENTER, MOTOR SHOP, CAN CENTER
(REGIONAL OP, ENG.), BACKUP CONTROL CENTER

BUILT 1990

1) BUILDING YARD

2) GARDEN - COMM

3) RETAIL SODA EQUIP. (RTV)
(10 YRS)
RETAIL BY GARDEN

4) WATER SHOP

- GIVE TO HYDRO FOR TESTING

\$30/MONTH, SOLID STATE, \$16 FOR AMR

400 AMR OF 2000 PER YEAR (SUBDIVISIONS, DIFFERENTIAL RATES)

REB QUOTE -> 27 YEARS IS MAX LIFE OF MOTOR
(PROPOSAL)

↑ 15,000 TON
(1-30-97)

ELECTRIC -> SUNLIGHT CAN DYNAMIC
PRIMARY 1700V, EUTON

5) PAINT SHOP, BILL INSERTER

6) CAN CENTER

7) MACH

8) LINE TOWER REPAIR / WAREHOUSE

9) STORAGE ROOM

10)

11) BAKED DIESEL

12) MAINT BAKED

13) LINE TRANS

14) TRANS

15) CONTAINER LINES

TOPSAIL ROAD

1) ELEVATE MAINTENANCE - RECLOSURE

2) NEW RECLOSURE

3) SCAR RECLOSURE

4) TRANSFORMERS

5) ENDOGENOUS

6) TEST GEAR

6) OLD BRACKETS - OIL FILLED
> 2 km PLB

AN GUNTS BY 2009 -> EXTENDED TO 2018

LOCAL THOMPSON
JOHN POKER

BURTON

-> 1945, 1950s

CONTROL CENTER (TOPSAIL KING)

BUILT 1999

UPGRADE w/ FRASER

1) CONTROL

2) BUILDING

3) ELEC MAINT BUILDING

MOBILE HYDRO

2:00 PM

12 MW

< 1950s

SO WATER LEASE EXPIRED 2009

CITY OWNS WATER?

LITIGATION

OVER SALE

w/ CITY

(BOOK VS. MARKET VALUE)

2 DAMS

1) SWITCHYARD

2) TURBINE-GENERATOR

3) CONTROLS (ORIGINAL ELECTROMECHANICAL)

4) DRAIN

5) SCADA

356 MODIC BRAND

6) GOVERNOR

7) PENSTOCK → TURBINE

8) PENSTOCK, SURGE TANK

Rocky Pond - 1942

2:20 PM

3.3 MW

ARC TRAP FIRE 2006 or 2007

- LOSS OF VOLTAGE

Pontoon 2007 (REPLACED VOLTAGE)

SUBSTATION NEW EXIST TRANSFORMER
→ MOVING AWAY FROM PONTON SIDE

GENERATOR RAILING

MAIN VALVE

GATE/DVCS

- 1) PONTON, SWITCHYARD → SUBST. MOVED →
- 2) STRUCTURE
- 3) GENERATOR
- 4) SWITCHYARD SCHEM
- 5) GENERATOR (NEW EXIST FIRE VALVE)
- 6) TURBINE START
- 7) CONTROLS
- 8) NEW PLANT CONTROLS
- 9) COMM. EQUIP (GATEWAY AT THE)
- 10) PONTON
- 11) DAM (GATE/DVCS)
- 12) SPIWAY
- 13) 10L TRANSMISSION LINE

Transmission

20L REPAIRS REPAIR

21L 40 IDE REPAIRS → 1950S

1) 21L Tower

TRANSMISSION Naming
Contractors

ALLOCATE Sums
COST + REMOVE

HOESE CHOPS

- New EQUIP, New TRANSFORMER

1) POWERHOUSE, SUBSTATION - New TRANSFORMER

2) ~~8 tanks~~ SAGE TANK

3) PMSOON

5) TWIN (21L)

6) 21L & 20L INTERIE

STAMPS LANE SUBSTATION

9:30 AM

Peter Farnham

66 kV IN \rightarrow
12.5 kV OUT

4.16 kV (INSIDE BUILDING)

- 1) TRANSFORMERS \rightarrow VINTAGE 1970
- 2) TRANSFORMER \rightarrow 1979
- 3) BREAKER (OIL) 1979
- 4) BREAKER (AIR) \rightarrow INTER GAS (SF6) - 1982
- 5) 66 \rightarrow 12.5
- 6) POTENTIAL TRANSFORMER
- 7) TRANSFORMER 1969
- 8) TRANSFORMER - 1973
- 9) BREAKER (OIL) - 1975
- 10) BREAKER (GAS) 1993
- 11) BREAKER 2008
- 12) 12.5 kV BREAKER
- 13) 14) CONTROLS
- 15) FIBER OPT - NEW
- 16) ~~CABLE~~ ED CONDUIT ED OUT
- 17) SWITCHGEAR \rightarrow 4160, BIRMINGHAM, AL.

Pepperell

10:30 Am

(746) (16L)

66 → 12.5 KV

(1 LINE IN, 1 OUT)

1) STATION

2) TRANSFORMER - 1977

3) BREAKER OIL → 1979

4) CONTROL EQUIP

5) Line Equip; 12000 GROUNDING CABLEWAY

6) GAS BREAKER - 2004

7) TAP, FUSE, ~~SW~~

8) BREAKER

9) 12.5 K LINE OUT

16L TRANS LINES

66 KV

1) P.O.E (1965) 12.5 UNBUILT DIST.

2) LINES

3) DATE N.A.C. (INSPECTION)

4) P.O.E w/ STREET LIGHT

INSULATORS 10-15 YRS OLD

PORTABLE Jet 6 MW

SIM DAVIS

OVERHAULED in 2002

VINTAGE 1976?

- 1) BRONCON
 - 2) TRANSFORMER
 - 3) (D) → WINDMILL, TRANSFER
(R) JET, GENERATOR
 - 4) AIR INTAKE
 - 5) GHS GENERATOR
 - 6) GEAR BOX ; LUBE SYSTEM
 - 7) GENERATOR
 - 8) PLC CONTROL
 - 9) CO₂ SYSTEM ; (FIRE CONTROL)
 - 10) CONTROLS
 - 11) WINDING, BATTERIES
- AVRO AIRWAY
→ CANADIAN SPRAY ENGINE

SEAL Cove Memo

1:20 PM

3.10 MW

1923 ~~1923~~ Angus-Cummins

- 1) SUBSTATION
- 2) POWERHOUSE
- 3) PESTHOUSE
- 4) ENGINE - ALAN BOYD
- 5) ...
- 6) WATER INTAKE
- 7) GENERATOR
- 8) GENERATOR
- 9) PLC
- 10) PRESSURE RELIEF VALVE
- 11) FISH VALVE
- 12) PISTON
- 13) SUBSTATION

#2 → 1924

TOISAN HYDRO

2:10 PM

2.6 MW

1931

→ Turbine Generator REPAIR in 1980 → 1983

- 1) STRUCTURE
- 2) SUBSTATION
- 3) GENERATOR
- 4) ENGINE
- 5) GENERATOR
- 6) CONTROLS
- 7) WATER INTAKE
- 8) TRANSFORMERS

3 transformers; 2 1989
1 2008

BAIRD Turbine & GENERATOR
→ Problems w/ EQUIPMENT

- 9) POND
- 10) GATEHOUSE, SPILLWAY
- 11) GATES, SPILLWAY
- 12) INTAKE GATES
- 13) PESTHOUSE GATE
- 14) COMM. GROUP

Perry Harbor

3:20 PM

CONSTRUCTED TO SAVE
STREET CARS IN ST. JOHN'S

1) 1st floor

2)

3)

4)

5)

6)

for Green
BUILDING

WOOD → STEEL

STAIRS

STAIRS

DEPRECIATION CONSULTANT SITE VISIT

	Location	Purpose	Staff
Wednesday June 16th			
9:00 am – 10:00 am	NP offices Kenmount Road	Introductions, Orientation	JC, Rodney L, Peter A, Gary S, Jocelyn P, Wade H, Lorne H
10:00 am – 10:45 am	Service Centre, Duffy Place	Visit (central stores, truck centre, operations office building	JC, G Humby
11:00 am – 12:00 pm	Topsail Road	Visit Electrical Maintenance Facility and SCC	JC, G Humby
12:00 pm – 1:00 pm	Lunch		
1:30 pm – 3:00 pm	Southern Shore	Visit Mobile plant (original) and Rocky Pond plant (renovated 2009)	JC, G Humby
3:00 pm – 3:30 pm	Southern Shore	Visit transmission line 20L (rebuilt 2007 – 2009) and 21L (rebuild scheduled for 2011)	JC
4:30 pm	Kenmount Road	End of Day 1	
Thursday June 17th			
8:30 am	Kenmount Road		
9:00 am – 9:30 am	Stamps Lane Substation	Site Visit	JC, Peter F
10:00 am – 10:30 pm	Virginia Waters Substation	Site Visit	JC, Peter F
10:45 am – 11:50 pm	Quidi Vidi Lake	Visit Transmission Line 16L (rebuild scheduled for 2011)	JC
11:30 am – 12:00pm	Donovan's Industrial Park	Visit Mobile Gas Turbine (repairs ongoing at a garage)	JC, J Davis
12:00 pm – 1:00 pm	Lunch		
1:00 pm – 2:00 p	Topsail and CBS	Visit Topsail Plant	JC, J Davis
2:00 pm – 3:00 pm	Topsail and CBS	Visit Seal Cove Plant	JC, J Davis
3:00 pm – 4:00 pm	Topsail and CBS	Visit Chamberlains Substation	JC, Peter F
4:30 pm	Kenmount Road	End of Day 2	
Friday June 18th			
8:30 am	Kenmount Road		
9:00 am – 10:30 am	Killam Room	Meet with asset managers for Transmission	JC, M Jardine, Mike C, Brian C, Trina T
10:45 am – 12:30 pm	Killam Room	Meet with asset managers for Distribution	JC, M Jardine, Ralph M, D Manning, Rodney L
12:30 pm – 1:00 pm	Lunch		
1:00 pm – 2:00 pm	Killam Room	Meet with asset managers for General Property	JC, G Murray, G Humby
2:00 pm – 3:00 pm	Killam Room	Meet with asset managers for Generation	JC, G Murray, G Humby, Jennifer W
3:00 pm – 4:00 pm	Killam Room	Meet with asset managers for Substations	JC, G Murray, Lorne T, Peter F
4:00 pm	Killam Room	Conclusion	JC, Rodney L, Peter A

Site Visit Photographs

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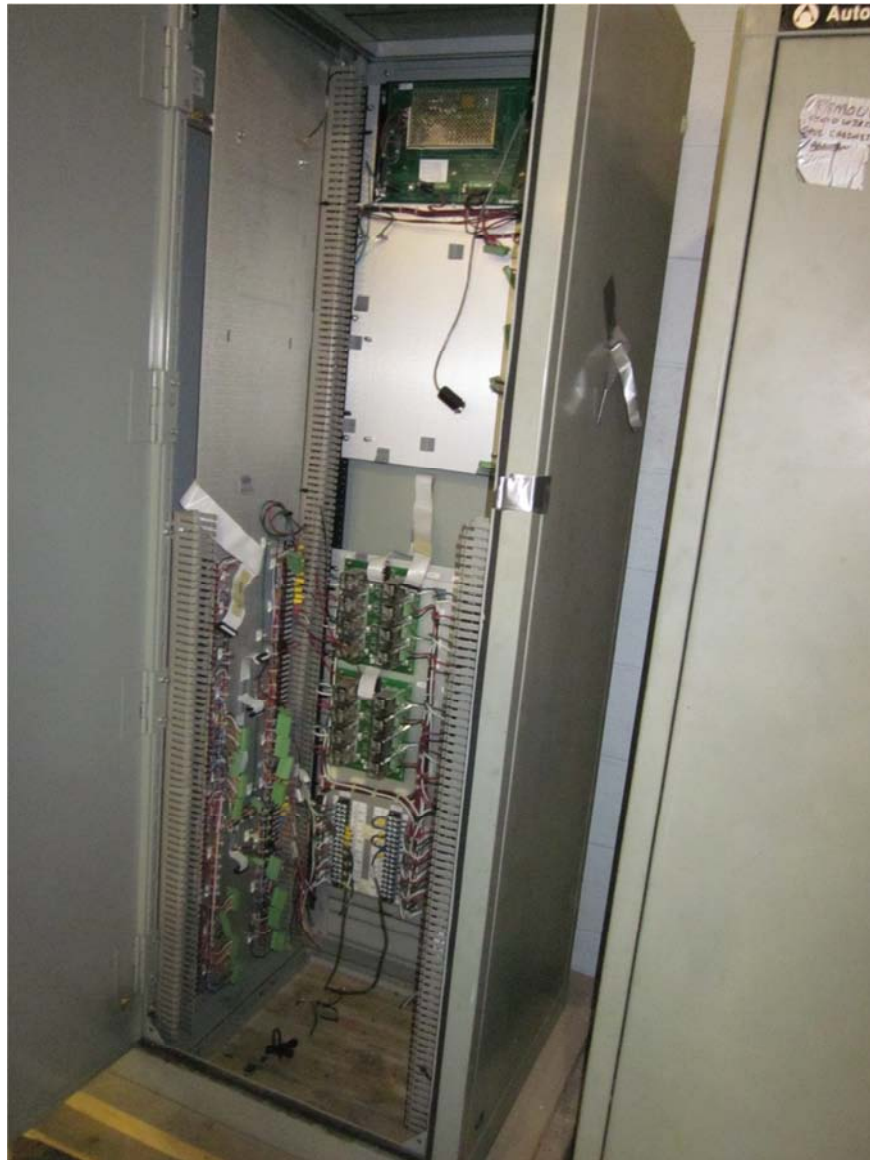
June 15-17, 2010



Duffy Place



Duffy Place Meter Shop



Duffy Place - Retired SCADA Equipment

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Duffy Place Meter Shop



Duffy Place Call Center



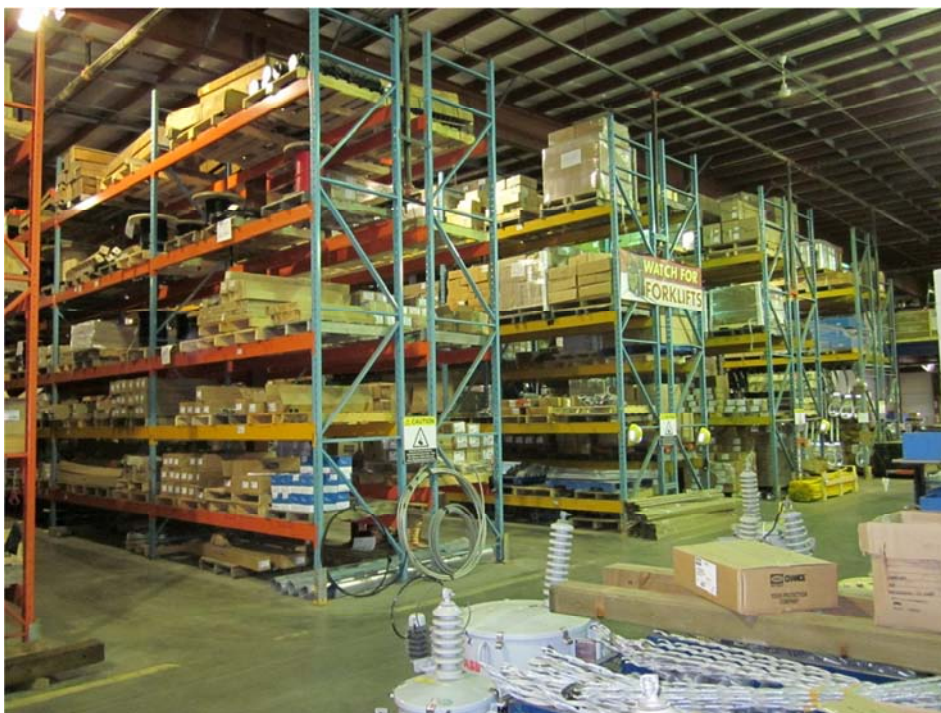
Duffy Place

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Duffy Place



Duffy Place Storeroom

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Duffy Place Storeroom



Duffy Place Backup Generator

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Duffy Place

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Topsail Road Yard Line Transformers



Topsail Road Yard Line Transformers

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Topsail Road Yard



Topsail Road Storeroom



Topsail Road Recloser

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Topsail Road Transformers



Topsail Road

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Topsail Road Testing Equipment



Topsail Road Transformers

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Topsail Road



Topsail Road

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Control Center at Topsail Road



Control Center at Topsail Road

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Topsail Road

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Mobile Hydro Transformer



Mobile Hydro Switchyard



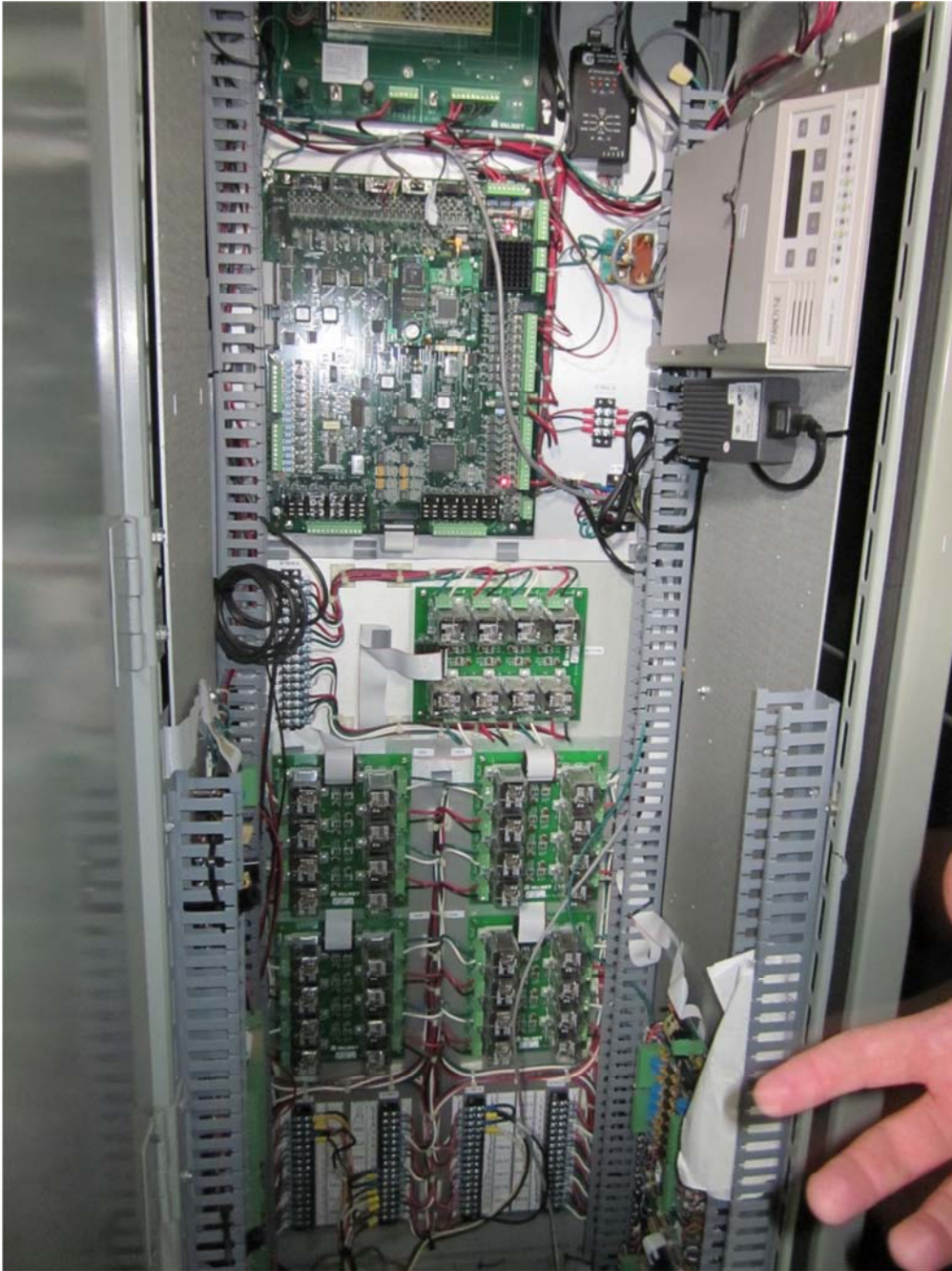
Mobile Hydro Generator



Mobile Hydro Control Equipment

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Mobile Hydro Control Equipment



Mobile Hydro Governor



Mobile Hydro Penstock and Surge Tank



Rocky Pond Penstock and Switchyard



Rocky Pond Hydro Generator and Switchgear

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Rocky Pond Hydro Structures and Improvements



Rocky Pond Hydro Generator



Rocky Pond Hydro Governor



Rocky Pond Hydro Turbine Shaft



Rocky Pond Hydro Controls

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Rocky Pond Hydro Controls

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Rocky Pond Hydro Communication Equipment



Rocky Pond Hydro Penstock, Dam and Gatehouse



Rocky Pond Hydro Penstock



Rocky Pond Hydro Dam and Gatehouse



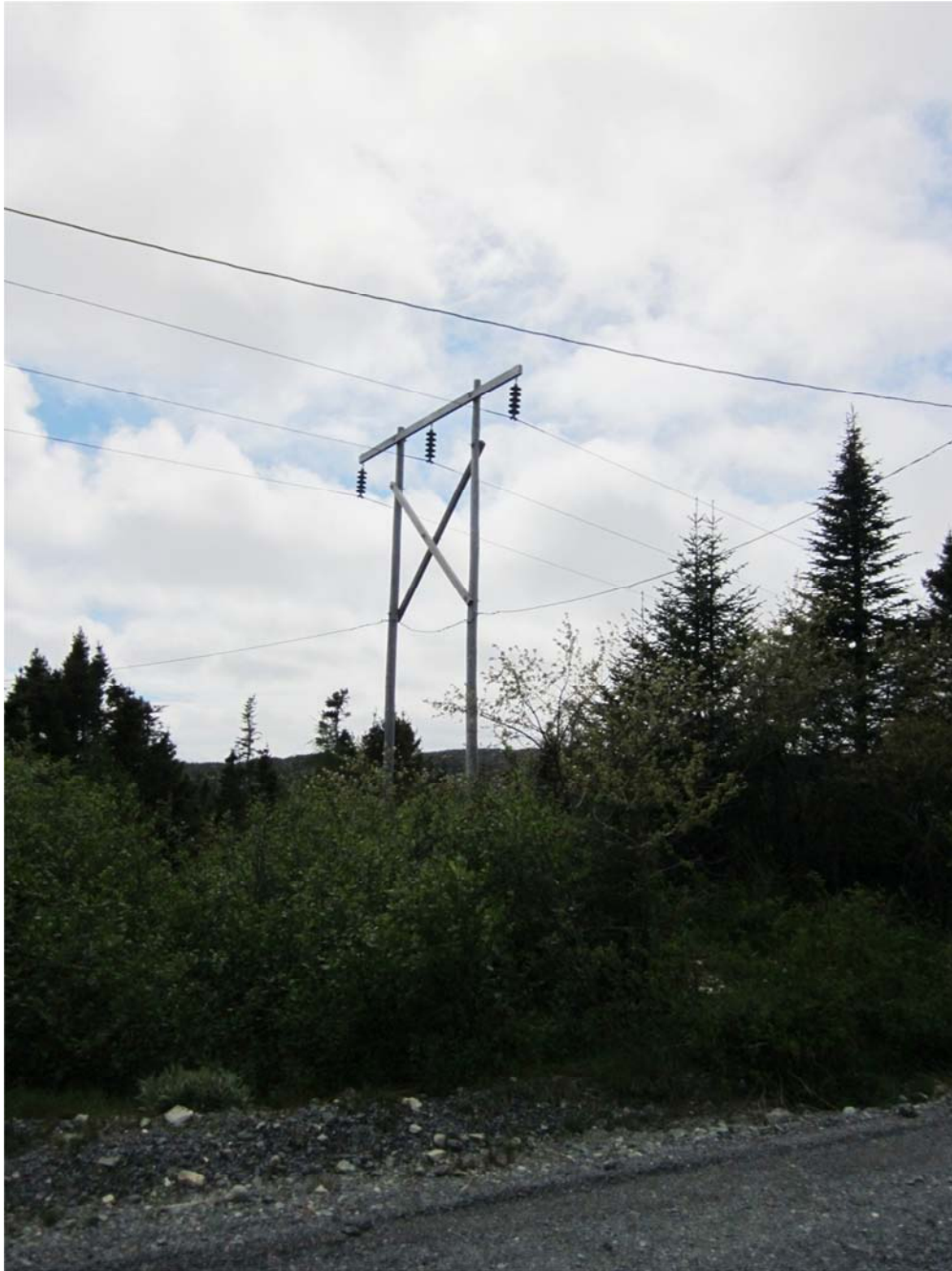
Rocky Pond Hydro Spillway



20L Transmission Line



Horse Chops Hydro Powerhouse and Switchyard



21L Transmission Line



Horse Chops Hydro Surge Tank



Horse Chops Hydro Penstock



Horse Chops Hydro 21L Transmission Line



21L and 20L Intertie



Stamps Lane Substation Transformer



Stamps Lane Substation Transformer



Stamps Lane Substation Oil Circuit Breaker



Stamps Lane Substation SF6 Gas Circuit Breaker



Stamps Lane Substation



Stamps Lane Substation Transformer



Stamps Lane Substation Transformer



Stamps Lane Substation Circuit Beaker



Stamps Lane Substation Circuit Breaker



Stamps Lane Substation Circuit Breaker



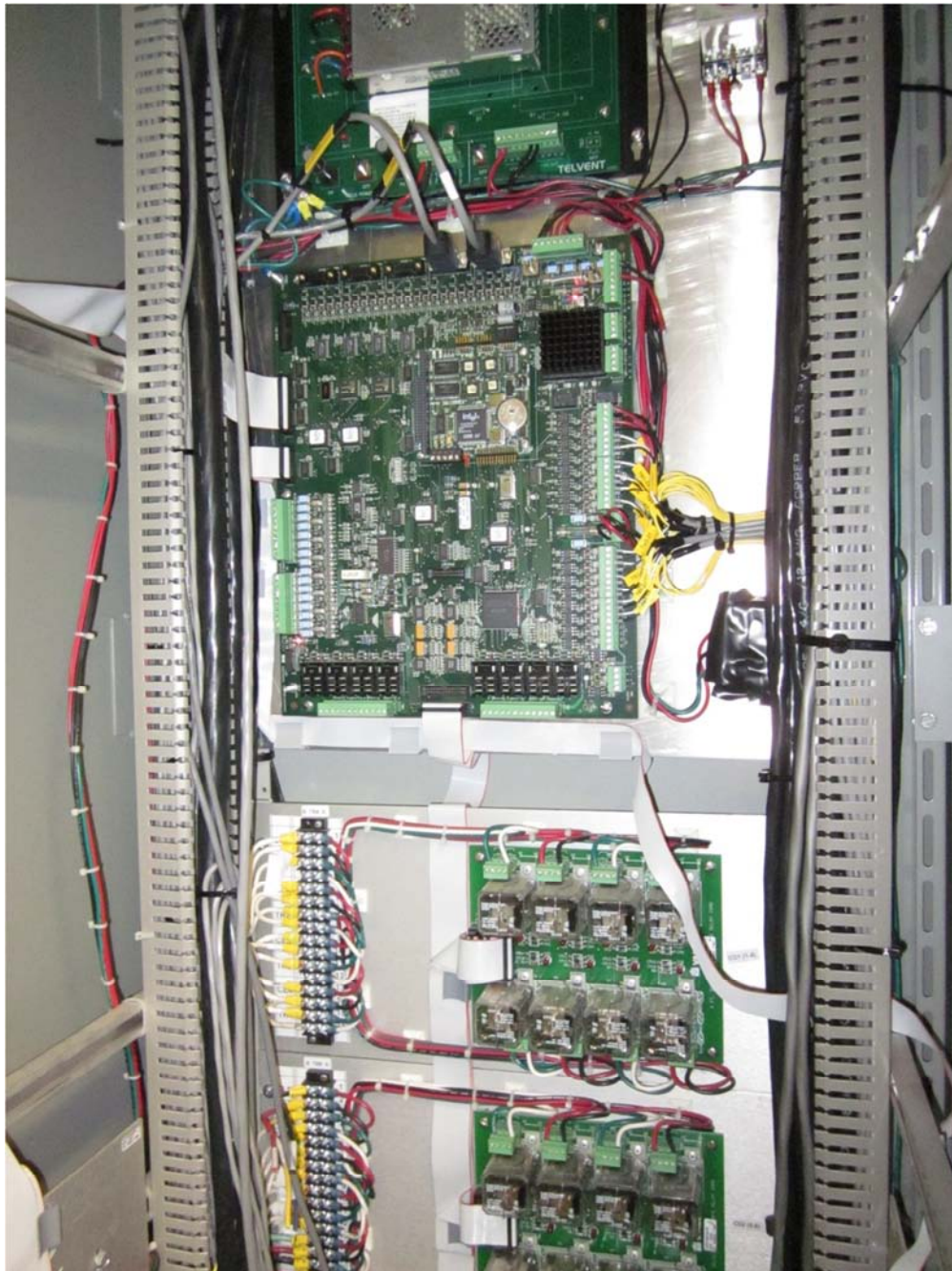
Stamps Lane Substation Circuit Breakers



Stamps Lane Substation Controls



Stamps Lane Substation Fiber Optic Equipment



Stamps Lane Substation Control Equipment

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Stamps Lane Substation Control Equipment



Pepperell Substation



Pepperell Substation Circuit Breaker



Pepperell Substation Circuit Breaker



Pepperell Substation Control Equipment

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Pepperell Substation Control Equipment



Pepperell Substation Control Equipment



Pepperell Substation Control Equipment

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Pepperell Substation



16L Transmission Line



16L Transmission Line



16L Transmission Line Pole with Street Light



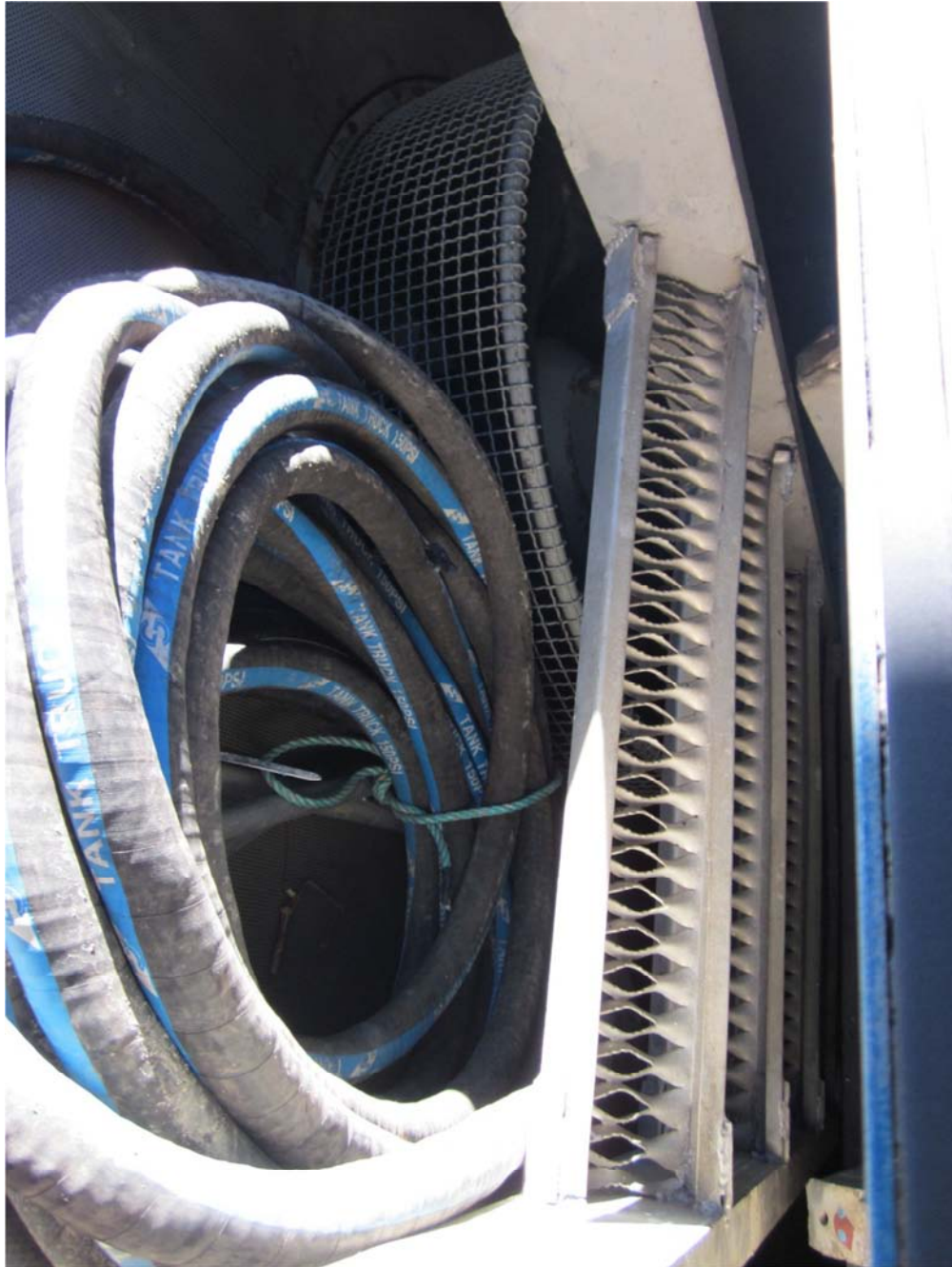
Portable Jet Transformer



Portable Jet Circuit Breaker



Portable Jet



Portable Jet Air Intake



Portable Jet Generator



Portable Jet Generator



Portable Jet Gear Box and Lube System



Portable Jet PLC Controls



Portable Jet Fire Control Equipment



Portable Jet Control Equipment



Portable Jet Wiring and Batteries



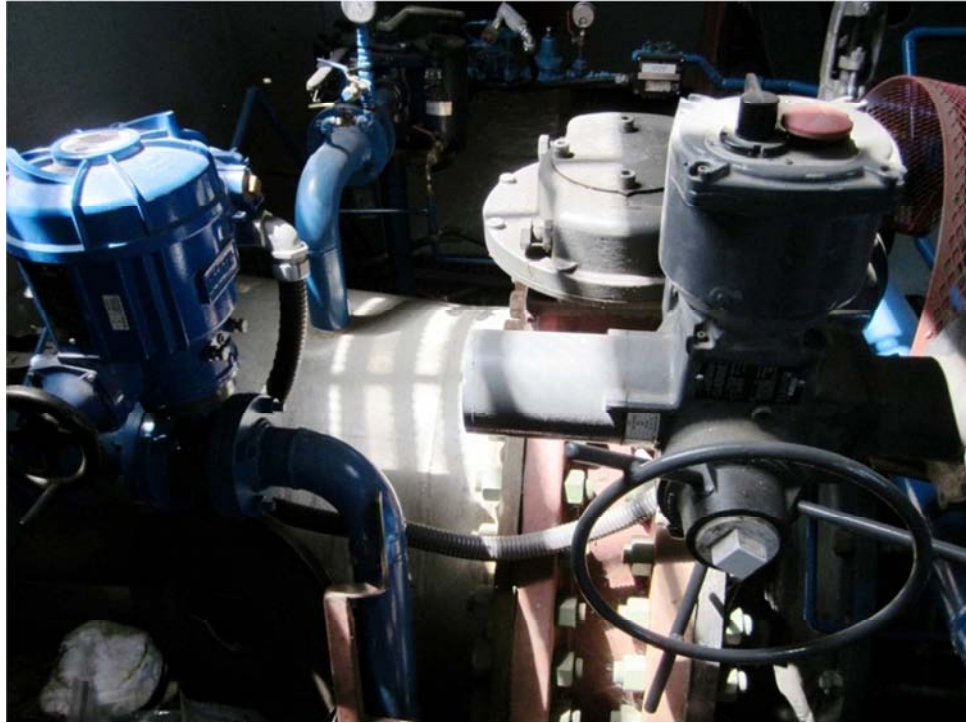
Seal Cove Hydro Plant Switchyard



Seal Cove Hydro Plant Powerhouse



Seal Cove Hydro Plant Penstock



Seal Cove Hydro Plant Water Intake



Seal Cove Hydro Plant
Governor



Seal Cove Hydro Plant Generator



Seal Cove Hydro Plant Control Equipment



Seal Cove Hydro Plant Pressure Relief Valve



Seal Cove Hydro Plant Penstock



Seal Cove Hydro Plant Valve



Seal Cove Hydro Plant Switchyard



Topsail Hydro Powerhouse



Topsail Hydro Switchyard



Topsail Hydro Generator

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Topsail Hydro Turbine



Topsail Hydro Governor



Topsail Hydro Control Equipment



Topsail Hydro Water Intake



Topsail Hydro Transformers

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Topsail Hydro Pond



Topsail Hydro Gatehouse and Spillway



Topsail Hydro Gates and Spillway



Topsail Hydro Intake Gates

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Topsail Hydro Penstock Gate



Topsail Hydro Communication Equipment



Petty Harbour Hydro Plant Intake and Penstock



Petty Harbour Hydro Plant Penstock



Petty Harbour Hydro Plant Penstock



Petty Harbour Hydro Plant Penstock

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Petty Harbour Hydro Plant Powerhouse



Petty Harbour Hydro Plant Switchyard



Petty Harbour Hydro Plant Surge Tank