

**Undertaking 40****Minutes from the Joint Utility Meeting, 2005-2015**

Year	Host	Minutes
2005	Newfoundland & Labrador Hydro	Attached.
2006	Newfoundland Power	Unable to locate copy of minutes. A request has been made to the host to determine if the minutes are available.
2007	North Atlantic Refinery	Attached.
2008	Abitibi Consolidated – Grand Falls	Minutes were not issued by the host as they were inadvertently deleted prior to circulation.
2009	Corner Brook Pulp & Paper	Attached.
2010	Newfoundland & Labrador Hydro	Attached.
2011	Newfoundland Power	Attached.
2012	North Atlantic Refinery	Hydro does not have a copy of the minutes for this meeting. Records do not indicate that minutes were issued by host.
2013	VALE	Attached.
2014	Newfoundland & Labrador Hydro	Attached.
2015	Newfoundland Power	Minutes are currently being drafted by the host.

## MINUTES: JOINT UTILITIES MEETING

Holyrood Generating Station Training Centre  
May 17, 2005

### In Attendance:

██████████ (Star Lake)  
██████████ (Star Lake)  
██████████ (Abitibi Consolidated – Stephenville)  
██████████ (Newfoundland Power)  
██████████ (Newfoundland and Labrador Hydro)  
██████████ (Newfoundland and Labrador Hydro)  
██████████ (Abitibi Consolidated – Grand Falls)  
██████████ (Deer Lake Power)  
██████████ (Newfoundland Power)

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### Item 1 - Reservoir Status and Hydraulic Production Forecasts:

██████████ provided a chart of historic reservoir levels and indicated that Star Lake's reservoir is full and there is the potential for spill. The run off started late.

██████████ indicated that NP's reservoirs are 75% - 80% full, that the storages peaked last week, and that the reservoirs were 60% - 70% full all winter.

██████████ commented on NLH's minimum GWH storage requirements, then walked through the storage's at each reservoir. He indicated that Victoria was the most recent to fill, Hind's Lake is cycling to handle inflows, and that NLH expects Cat arm to fill. ██████████ asked for an explanation on the monthly change in MOL. ██████████ responded by indicating that it is tied to the probable size of a flood during different seasons.

██████████ indicated that Red Indian Lake was full and that the snow was gone. Forecast purchases not yet adjusted for the year.

██████████ indicated that they were working with an average snow pack for March and projected that Grand lake would be 90% full, however a dry April / May now leaves them at 69% full. DLP will review impact on Power on Order and interruptible.

## Item 2 - Thermal Production Forecasts and Holyrood Maintenance

█████ indicated that Holyrood is presently not producing and that unit #3 was configured as a sync condenser. He indicated that unit #1 was operating at 50MW. May run a unit in June / July.

█████ indicated that a significant amount of work was going to be undertaken on the Wesleyville GT. The unit will be out of service from mid June to late September. Green Hill GT is ok.

█████ indicated that some 60hz generation will be coming off in the last 2 weeks of Oct.

## Item 3 - Major Planned Generation Outages

█████ indicated that Star Lake will be taking a 1 week outage starting June 13<sup>th</sup>, and they will be installing partial discharge monitoring. ██████ indicated they will as well be installing partial discharge monitoring.

█████ said that Cape Broyle and Mobile will be having their main valves replaced beginning September 1st. The work is expected to take 10 weeks. 16 MW of Avalon capacity lost. 11L coming out in July and that will affect the Tor's Cove plant. At Rattling there is a plan to replace the penstock, the work will cost 16 M\$ over 2 years. The units will be out from mid June to mid Nov.

█████ indicated that units 5 and 6 at BDE will be out for 6 weeks in August to undertake work on the main spherical valve. Upper Salmon will be off for 3 weeks in September and unit 1 at Cat arm will have its governor replaced in October.

█████ indicated that units 5 – 8 will have their 50 year old governors modified with high pressure, low oil volume, actuators. Low oil volume systems were chosen to minimize the affects from a spill. The work will start after the run off.

█████ said that DLP plans 1 major outage. That outage will be to unit #1 and will last for about 6 weeks beginning Sept 5<sup>th</sup>. The existing penstock will be replaced with a new steel one.

## Item 4 - Major Planned Transmission Line/ Substation Outages and Co-ordination

█████ said that he had no major work planned.

█████ indicated that work will be undertaken on the tie lines between the frequency converter and the powerhouse; this will affect GRF #4.

█████ indicated that work will be performed on 124L between Thourbourn Lake and Porte Blanford, the line should be back by early June. Other work is planned for 24L, 11L, and 43L.

█████ listed work for Stoney Brook, Massey Drive, Oxen Pond, Hardwoods, and TL212, most of which primarily affects NP. Green Hill GT may be required for loop switching on TL212.

█████ indicated that the mill will be taking a reduced load for 3 days in September and will have one 12 hour outage.

█████ indicated that his transmission and station work will be completed during plant maintenance.

#### Item 5 - Load Forecasts for Hydro, Industry and Retailers

No one at NP could speak to forecast

█████ projected a 151 – 152 MW load on average, no change from before. Power on Order is 58 MW, may change after a review of interruptible. The mill will be shut down on June 15<sup>th</sup> for 36 hours, the Co Gen will be off. Mill will want a 60hz connection at that time.

█████ sees no change in the Power on Order. There is the possibility that #7 machine will come down the end of June, and that will remove 20MW of demand. Some of this demand will come back when the speed of #3 machine is increased to facilitate greater production.

█████ indicated that the power on order is 69 MW with an interruptible of 4.5 MW. This order may increase as the interruptible is decreased.

█████ indicated that the rural load is up by 0.2% – 0.7%. Demand is about 85 MW, 53% load factor

#### Item 6 - Rate Stabilization Plan

█████ indicated that the hydraulic component of the cost is expected to save customers about 2 M\$, the component reflecting the cost of #6 fuel oil is expected to increase by 3.3 M\$. With respect to customer load variation NP load is down about 10 GWh, industrial load is up about 0.8 GWh.. The legacy plan is about 122M\$ in arrears, and that will be paid off over 4 years. The average fuel cost in inventory is about \$39 / bbl.

#### Item 7 - Underfrequency Load Shedding

█████ indicated that last year was a good year, NP and industry saw 6 events, 12 is typical. Two events have occurred so far this year. █████ explained the frequency excursion of last week. Commented on correcting influence of the Cat Arm units. The cause is presently unclear, there may be a problem with BDE #6, and # 2 seemed to off load rapidly. █████ is heading a committee that will report.

█████ asked about DFDT relaying and indicated that NP had not had a trip on df/dt. Glendale tripped on absolute. █████ indicated reluctance by Abitibi Stephenville to install df/dt. █████ indicated that oscillations are common, particularly in the summer.

#### Item 8 - Control Centers, Additions/Modifications

█████ indicated that NLH's present back up is manual / voice. Holyrood may be the back up site and that and that it may be in service by next spring. Neither industry nor NP has plans for control centre changes.

#### Item 9 - Review Major Capital Projects

█████ indicated that the penstock replacement project for #1 would cost 5.9 M\$.

█████ Governors 5 – 8 and a project study on 4 – 8 for life extension.. Possibly pull a unit apart and possibly some efficiency testing.

█████ indicated that HLH's capital budget is expected to be 48 M\$ - 50 M\$. Some of the generation items are Upper Salmon slope stabilization (2.7M\$), HRD fuel tanks, spherical valve on BDE 5 & 6, distributed control system at HRD, anti fouling system in the cooling water at HRD, stack liner for HRD # 2 (2 M\$). For transmission NLH has the wood pole replacement project (2.6 M\$), TL221 upgrade (0.8 M\$), Duck Pond interconnection (5.7 M\$), and the Farewell Head RTU. Other projects include the EMS project (total 12 M\$, 5M\$ this year) VHF radio project (4M\$, 2 M\$ this year)

█████ indicated that NP will be spending 28 M\$ - 29 M\$ on T&D

█████ indicated no major maintenance was planned.

█████ indicated that they would be replacing the drainage pumps, performing modifications to a bearing and installing generator monitors (partial discharge)

#### Item 10 – Other

A short conversation about the structure of operator shift schedules took place.

█████ gave a presentation on the Holyrood generating plant and provided a tour.

# MINUTES: JOINT UTILITIES MEETING

Terra Nova Golf Resort  
June 8, 2007

## In Attendance:

██████████ (Newfoundland & Labrador Hydro)  
██████████ (Abitibi Consolidated Inc.)  
██████████ (Star Lake)  
██████████ (Deer Lake Power)  
██████████ (Newfoundland & Labrador Hydro)  
██████████ (North Atlantic Refining Ltd.)  
██████████ (Newfoundland Power)  
██████████ (North Atlantic Refining Ltd.)  
██████████ (North Atlantic Refining Ltd.)  
██████████ (North Atlantic Refining)  
██████████ (Neill & Gunter)

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## Item 1 - Terms Of Reference

██████████ provided the history of the group. The Joint Utilities Meeting has been held for over 25 year. Originally intended as a way of getting power generators together, the focus was subsequently shifted to include major consumers. The venue for the meeting has rotated in a counter clockwise fashion across the island. Accordingly, next years meeting will be held at Abitibi in Grand Falls.

A general discussion of the agenda followed. It was agreed that ██████████ would solicit ideas of common interest when he issues the minutes. Some suggestions were regulations, safety, electrical inspection, OH&S and Lock Out – Tag Out.

## Item 2 - Reservoir Status & Hydraulic Production Forecast.

Graphs were tabled for Grand, Star and Red Indian Lake levels. Grand Lake and Star Lake are at their lowest levels in seven and eight years respectively. ██████████ made N&LH's presentation using Powerpoint. ██████████ presented data forecasting NP's hydro production at 375 GWh, the lowest six years.

## Item 3 - Thermal Production Forecasts & Holyrood Maintenance

██████ tabled NP's thermal production forecast which showed a decrease of approximately 11% over last year.

Holyrood operated at maximum output until the maintenance period which started April 1. At least one unit will be down for the duration of the maintenance period which runs until mid-November.

#### Item 4 – Review Major Capital Projects

North Atlantic Refining is conducting no major capital works related to its electrical system. Relay upgrades are being made in Sub 1 in advance of T1 & T2 NGR installation expected to go ahead in 2008. Harvest Energy Trust is the new owner of North Atlantic.

NP is increasing the penstock from 7.5' to 9' in a major overhaul at Rattling Brook. The work includes modifications to the yard, switchgear and protection and control and will provide an additional 3 – 4 MW of power at a cost of 18-19 million. N&LP is also rebuilding 3 transmission lines on the Bonavista peninsula at a cost of 5 million. They are also installing 9 @ 3MW wind turbines at St. Lawrence.

ACI will spend 0.6 million installing a new runner on #9 and rewinding #6. They are also doing siding work at Buchans and other work on Millertown Dam.

N&LH is undertaking 39 generation, 21 distribution and 10 other projects. These include:  
upgrades to controls and station service at Bay D'Espoir;  
9.2 million on a superheater at Holyrood, fire protection, 2.2 million on Meltric plugs, 1.6 million overhaul of Unit 3 to reduce the shutdown frequency from 6 to 9 years;  
2.2 million on terminals including a spare transformer for the upper Salmon;  
2 million for wood pole replacement, 2.5 million on terminal station and transmission line insulators and 1.5 million on an 18 MW frequency converter at Corner Brook.

NARL is planning a partial plant shutdown for September/October that will reduce its consumption by 7 – 10 MW for approximately 25 days. A similar shutdown will take place in the spring of 2008.

Star Lake Hydro will be doing only minor maintenance work. This includes work on drainage sumps, satellite/SCADA system and spraying of transmission lines. They will incur an outage of 5 days beginning on June 18.

#### Item 5 - Major Planned Outages

Deer Lake Power will have none.

N&LH will incur outages on all of its Holyrood units, Units 1, 2, 5 & 6 at Bay D'Espoir and Unit 2 at Cat Arm. N&LP will incur an outage at Rattling Brook. Abitibi's Unit 6 will be down for rewind.

#### Item 6 - Rate Stabilization Plan

To the end of April, hydro production resulted in a credit of 22.7 million. Variance in the cost of #6 fuel ( \$47 vs. \$55) resulted in a refund to the customer of 7.7 million.

A 1.4 million credit was built up on the load side.

For Newfoundland Power, year to date, Hydro owes \$19.5 million up from \$13.5 million at the start of the year; for industry, the number has grown from \$11.7 million to \$14 million. For Newfoundland Power, this leaves \$25.6 million left owing, for industry \$4.2 million. The higher than expected thermal production this year will have an impact.

#### Item 7 - Reliability & U/F Load Shedding

█ gave an overhead presentation on reliability & under-frequency load shedding.

#### Item 8 - Future Generation

N&LH will have the capacity on the island to supply the power requirements forecast for the Voisey Bay Nickel processing facility at Long Harbour. Existing surplus generation will be augmented by 2 new wind farms currently in planning or under construction. The requirements of any new refinery could not be met without additional generation but a possible link between the island and Labrador would preclude the need for any new generation.

#### Item 9 - Control Room Modifications

█ provided an overview and update of modifications to N&LH's Control Centre in St. John's.

Contact Information

Name	Company	Tel	email
[REDACTED]	N&LH	[REDACTED]	[REDACTED]
	NARL		
	NARL		
	N&LP		
	NARL		
	N&LP		
	NARL		
	Star Lake Hydro		
	Abitibi Consolidated		
	Deer Lake Power		
	N&LH		
	Star Lake Hydro		



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## Deer Lake Hydro Power Plant

Deer Lake  
Hydro Power Plant  
A Division of Corner Brook  
Pulp and Paper Limited  
2 Trans Canada Highway  
Deer Lake, NL  
A8A 2E4

Tel : 709-636-2125

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**JOINT UTILITIES MEETING**  
**CORNER BROOK PULP AND PAPER LTD./DEER LAKE POWER**  
**MAY 12, 2009**

In Attendance:

- Nalcor (Formerly Abitibi-Bowater)
- Star Lake Hydro
- St. Lawrence Wind
- Newfoundland Power
- Newfoundland and Labrador Hydro
- Newfoundland and Labrador Hydro
- Deer Lake Power

The meeting started at approximately 9:00 am with a short introduction by each of the attendees.

### **1. Reservoir Status and Hydraulic Production Forecast**

#### **NLH**

- At 1950 GWH of hydraulic storage as of May 4<sup>th</sup> with a target of 2200 GWH.
- The minimum storage target considers the swing at the Nalcor assets in Grand Falls/Bishop's Falls.
- Projections 85% at BDE  
83% at HLK  
76% at CAT
- March snow survey was 88%-120% across the various watersheds.
- Expect to be at minimum thermal production for a good period up to the end of the year.

#### **Star Lake Hydro**

- (See attached storage chart)
- Presently operating above the top of the Spillway – the first time in 5-6 years.
- Spilling 200 cms (Plant full load flows – 390 cms at 17.8 MW).
- Expect to spill for another week or so.



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**1. Reservoir Status and Hydraulic Production Forecast (cont'd)**

**Nalcor**

- (See attached storage chart)
- January very cold and dry; February 180% of average precipitation; March very little precipitation.
- Red Indian Lake - as of May 11<sup>th</sup> elevation of 502.5' with FSL of 503'. Expect to fill and operate at FSL for 2-3 weeks.
- North/South Twin reservoir – 85-90% full.
- Long Lake reservoir – empty.
- Currently operating at full capacity – 91 MW.

**NP**

- A total of 88 GWH of storage capacity – currently at 52% or 46 GWH.
- Forecasting normal production – projecting to be at 50 GWH at year end.

**Deer Lake Power**

- (See attached storage chart)
- As of May 11, 2009

Grand Lake Level	114.22 m
Below Operating Curve	0.51 m
Below Full Storage	1.30 m
Percentage of Full Storage	64.5%
- Winter Snowpack            84.4 Percent of Average
- Inflows to May 11            113.3 Percent of Average
- Precipitation to May 11      127.3 Percent of Average



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## 2. Thermal Production Forecasts

### NLH

- Generation/Purchase schedule to year-end (GWH)

	<u>Hydro</u>	<u>Thermal</u>	<u>Purchases*</u>
June	291	35	79
July	322	0	75
Aug	318	0	77
Sept	319	0	78
Oct	340	52	82
Nov	367	102	87
Dec	432	157	90

(\* Includes Nalcor generation at Grand Falls/Bishop's Falls)

- NLH expects a challenging summer with light loads on the West Coast and heavy loads on the Avalon which are loading the transmission lines from Bay D'Espoir to Sunnyside to their limits.
- Looking at transmission line solutions.
- West coast voltages particularly an issue during night time operation. Remedial measures:-
  - TL233 taken out of service regularly
  - Unit 7 at BDE in sync. condenser mode
  - One unit at Cat Arm in sync. condenser mode
- Will discuss with NP and DLP to determine if their generation can be shut/reduced during the nighttime.
- NLH sees this as a short term concern as VALE Inco load is forecasted as 80 MW.
- Water management is starting to become challenging as well with the Industrial load reductions and the amount of non-dispatchable generation.
- Holyrood operating inefficiently these days as primary concerns are line loadings and voltages.



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**3. Wind Generation Forecast**

**St. Lawrence Wind**

- Forecasting 100 GWH
- Turbines running very stable
- Some concern over the agreement with Vestas stating that the turbines should only go down a maximum of twelve times/year under hard shut conditions or risk voiding warranties.

**4. Review Major Capital Expenditures**

**NLH**

- Total Capital Budget of \$47.9 Million
- Highlights:

Generation – \$7.7 Million

- BDE spare winding
- HRD Fuel Storage Refurbishment
- HRD Unit 2 Heater
- CAT Accommodations
- HRD PA System

Transmission and Rural Operations - \$29.2 Million

- Wood Pole Management
- TL212 Upgrade
- TL232 Insulator Replacement
- Corner Brook F/C (voltage regulator, synchronizer, stator rewind)
- Transformer Upgrades

General Properties - \$10.0 Million

**NP**

- (See attached sheet)
- Total Capital - \$61.5 Million



**4. Review Major Capital Expenditures (cont'd)**

**Nalcor**

- No planned major expenditures
- Will focus on 'finalizing divorce' with Abitibi-Bowater. Some of the generation is routed through the Mill complex. Presently soliciting engineering services and expect a 4-5 year capital plan to result.
- In general the operating equipment is in good shape. The infrastructure (e.g. buildings) requires some significant work.

**Star Lake Hydro**

- No planned major expenditures
- A recent inspection has revealed no issues.

**St. Lawrence Wind**

- No planned major expenditures except the change out of the gear boxes on all the machines (under warranty).

**Deer Lake Power**

- No planned major expenditures.

**5. Major Planned Generation Outages**

**NLH**

- Schedule of outages
  - HRD 1 – 12 weeks (May 6)
  - HRD 2 – 14 weeks (July 20)
  - HRD 3 – 10 weeks (April 4)
  - BDE 3 – 4 weeks (May 11)
  - BDE 5&6 – 4 weeks (Aug 31)
  - BDE 7 – 3 weeks (June 29)
  - HLK – 4 weeks (Sept 15)
  - All other units – 2 weeks or less



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5. Major Planned Generation Outages (cont'd)

NP

- Schedule of outages
  - Horsechops (8 MW) – Mid July to end of October
  - Rocky Pond (3.5 MW) – Mid June to end of September

Nalcor

- Scheduled to have four smaller units down for 2-3 weeks in September/October to run new feeds. Not expected to impact on generation as it is anticipated that flows will be reduced at this time.

Star Lake Hydro

- Shutdown scheduled for week of July 6<sup>th</sup> – 10<sup>th</sup>. Will take transmission line out of service at this time for P&C maintenance and checks.

St. Lawrence Wind

- Major outage planned for August 16-19<sup>th</sup> - includes substation.
- Outages to individual turbines required as well to replace gear boxes.
- [redacted] cited the issue of trying to keep the diesel fuel supply for its 230 KW standby generator 'fresh'. Currently stores approximately 4000 liters in a 5000 liter tank.

Deer Lake Power

- No major generation outages planned.

6. Major Planned Transmission Line/Substation Outages and Coordination

NLH

- DLP
  - Frequency converter (25 days) for voltage regulator, synchronizer and stator
- NP
  - BBK Insulators
  - HWD B7 PTs and B8/B9 disconnects
  - OPD B1L18 controls
  - TL214



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**6. Major Planned Transmission Line/Substation Outages and Coordination (cont'd)**

- NARL (work all complete)
  - T1 – Fall arrest, PM and Doble
  - T2 – Fall arrest, PM, Doble and replace surge arrestors
  - Bus 1 disconnects
  - TL207 PTs
  - L07G (repairs)
- Rattle Brook
  - TL251, TL252 – 2 days

**NP**

- Planned upgrades to the 138 KV loop through Gander/Gambo.

**Star Lake**

- No major planned transmission line outages.

**Deer Lake Power**

- No major planned transmission line outages. Daily outages to replace insulators on Line 2.

**7. Load Forecasts**

**NLH**

- Rural loads

2008	411.7 GWH
2009	414.5 GWH (+0.7%)
2010	414.7 GWH (+0.0%)
2011	418.2 GWH (+0.8%)
2012	422.7 GWH (+1.1%)

- Very flat load growth anticipated.



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## 7. Load Forecasts (cont'd)

### NLH (cont'd)

- NLH and NP have entered into a five year conservation plan to promote energy conservation. A media event upcoming in June. Rebates to be issued on items such as energy efficient windows, insulation and commercial lighting. Anticipated expenditure of \$20 Million over 5 years between the two Provincial utilities.
- The Industrial conservation program will be rolled out this Fall.
- NP has experimented with lowering voltage on feeders. Have seen improvements in the order of 1% in energy reduction.
- NLH has made a concerted effort to conserve energy use within Hydro. An employee has been dedicated to this initiative. Wants to be a leader/role model in this area.

### NP

- (See attached handout)
- Outside the Northeast Avalon very little load growth if any (2-3% on the NE Avalon).

### Deer Lake Power/Corner Brook Pulp and Paper

- No. 4 PM back on May 17<sup>th</sup>. Expect purchase power to average back at 28 MW after start-up.
- Power-on-order at 36 MW – should be reduced to 32 MW for 2010.
- Mill load average approximately 120-122 MW; peak at 140 MW.
- No. 7 boiler shut possibly during the first half of October – one week duration. Will advise of any thermal energy requirements.

## 8. Rate Stabilization Plan (RSP)

### NLH

- NP balance of \$28.96 Million. Current RSP adjustment is 7.52 \$/MWH. Proposed RSP adjustment of 0.44 \$/MWH.
- Industrial Customer balance of \$16.10 Million. Industrial loads very unsettled leading to uncertainty and there is a reluctance to adjust RSP rates in a manner which can cause industrial rate instability.
- Hydraulic balance of \$43.31 Million.
- Fuel price projection of \$75/bbl vs. cost of service of \$56/bbl.



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## 8. Rate Stabilization Plan (RSP) (cont'd)

### NLH (cont'd)

- Implemented use of No. 6 - 0.7% sulfur content fuel on March 21<sup>st</sup>. Currently have an application before the PUB to have the additional cost included in the RSP.

## 9. Reliability and Underfrequency Load Shedding

### NLH

- Summary of events since 2004:

2004	7
2005	5
2006	6
2007	6
2008	6

Since 2001 (17 events) there has been a remarkable improvement. The improvement can be mainly attributed to performance at Holyrood (controls replacement and more stringent conditions for on-line testing) and implementation of the lightning tracking system.

- Corner Brook Pulp and Paper participates 15 MW into the scheme (both ends of a mainline refiner).
- At peak system loads there is 500 MW scheduled for shedding.
- It was noted that critical damage can occur at the Holyrood units at frequencies just below 57 HZ.
- NLH average reliability performance (since 2004):

#### T-SAIFI

NLH = 1.89  
CEA less than 1

#### T-SAIDI

NLH = 162.5 minutes  
CEA ~ 110 minutes



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9. Reliability and Underfrequency Load Shedding (cont'd)

NLH (cont'd)

NLH's higher numbers can be largely attributed to issues on the GNP (salt/ice contamination of transmission line insulators).

Delivery point unreliability index:

- 2003 -> 55 system minutes
- 2008 -> 7 system minutes

10. Future Generation Requirements

NLH

- No short term requirements. Will focus on conservation – 'cheaper to conserve than to buy'.

Other

NLH

- Emphasis on safety training – Lock-Out/Tag-Out.
- Performing live work protection code audits.
- Transitioning to one work protection code for all of Nalcor.
- Fitness equipment added at the ECC mid last year.
- OTS – four training sessions per year.
- Back-up Control Centre Exercise – May 21<sup>st</sup>. Similar to last year.

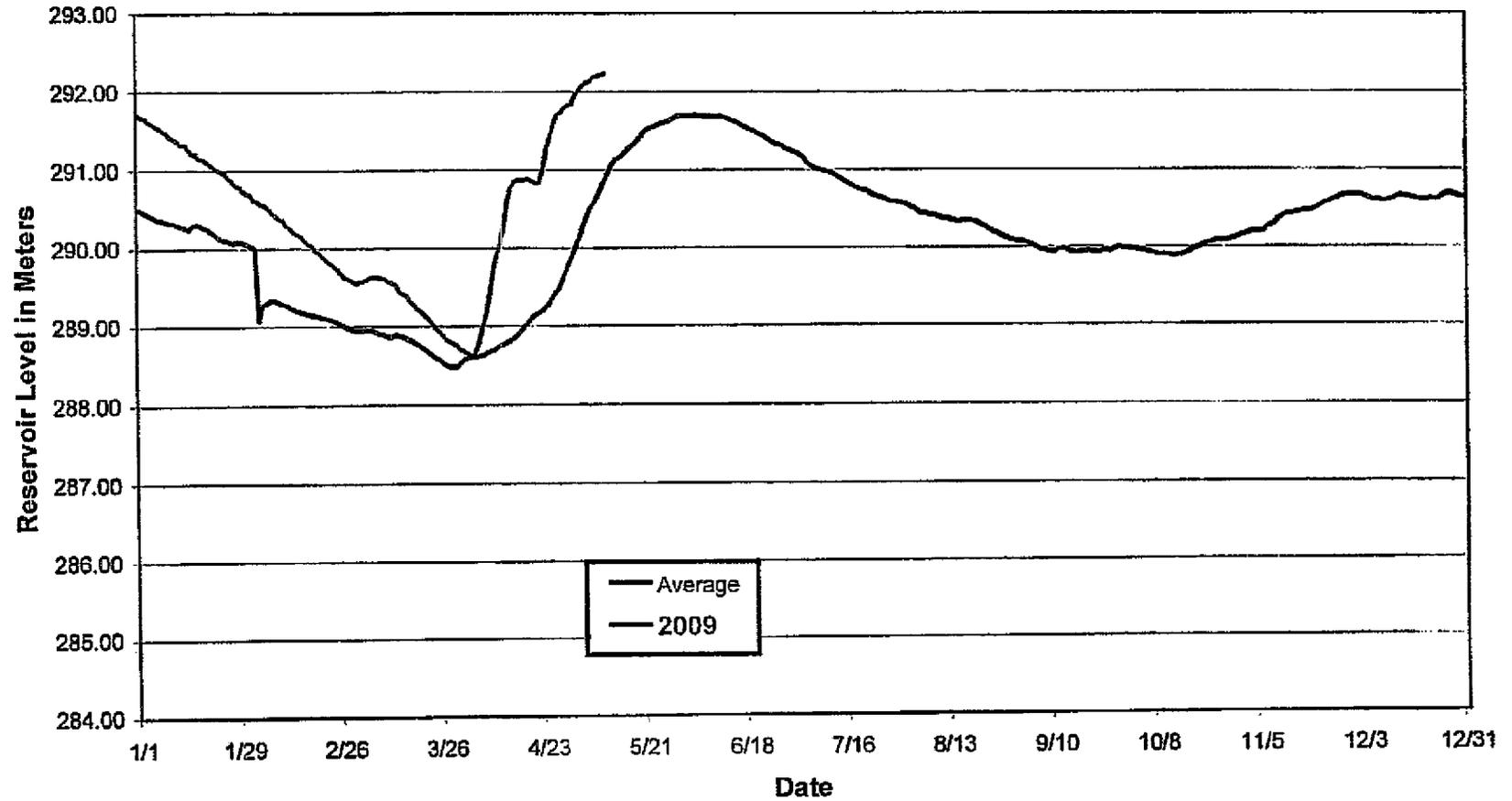
The meeting was adjourned at 12:00 noon followed by lunch and a tour of the Mill.

Newfoundland and Labrador Hydro will host the meeting in 2010.



May 14, 2009

Star Lake Reservoir Levels, average 1998-2008



Projection From: **March 31, 2009**

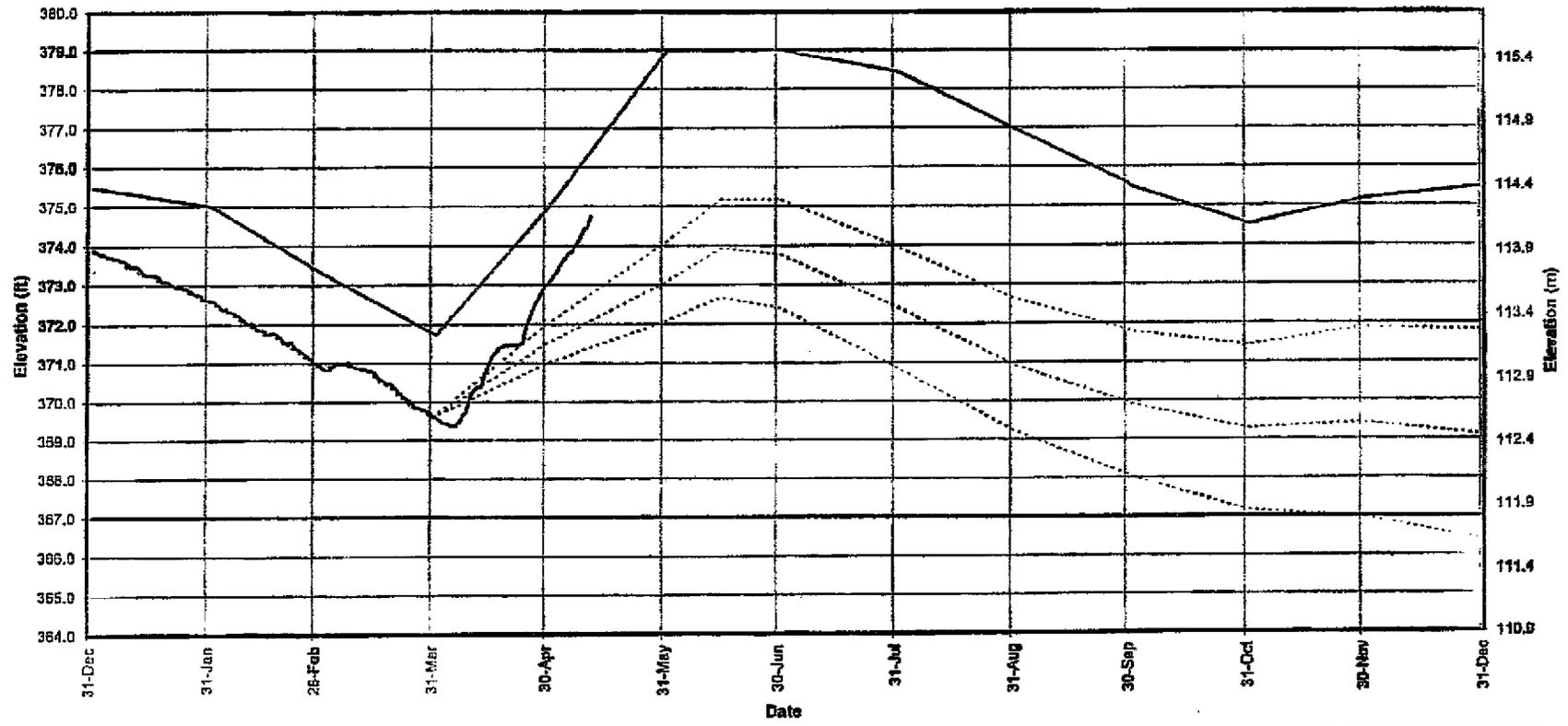
Basis:

Inflows: 2009 Annual March Snow Survey

Production: 2009 Power and Energy Budget (POO = 35MW)

### Grand Lake Elevations - 2009

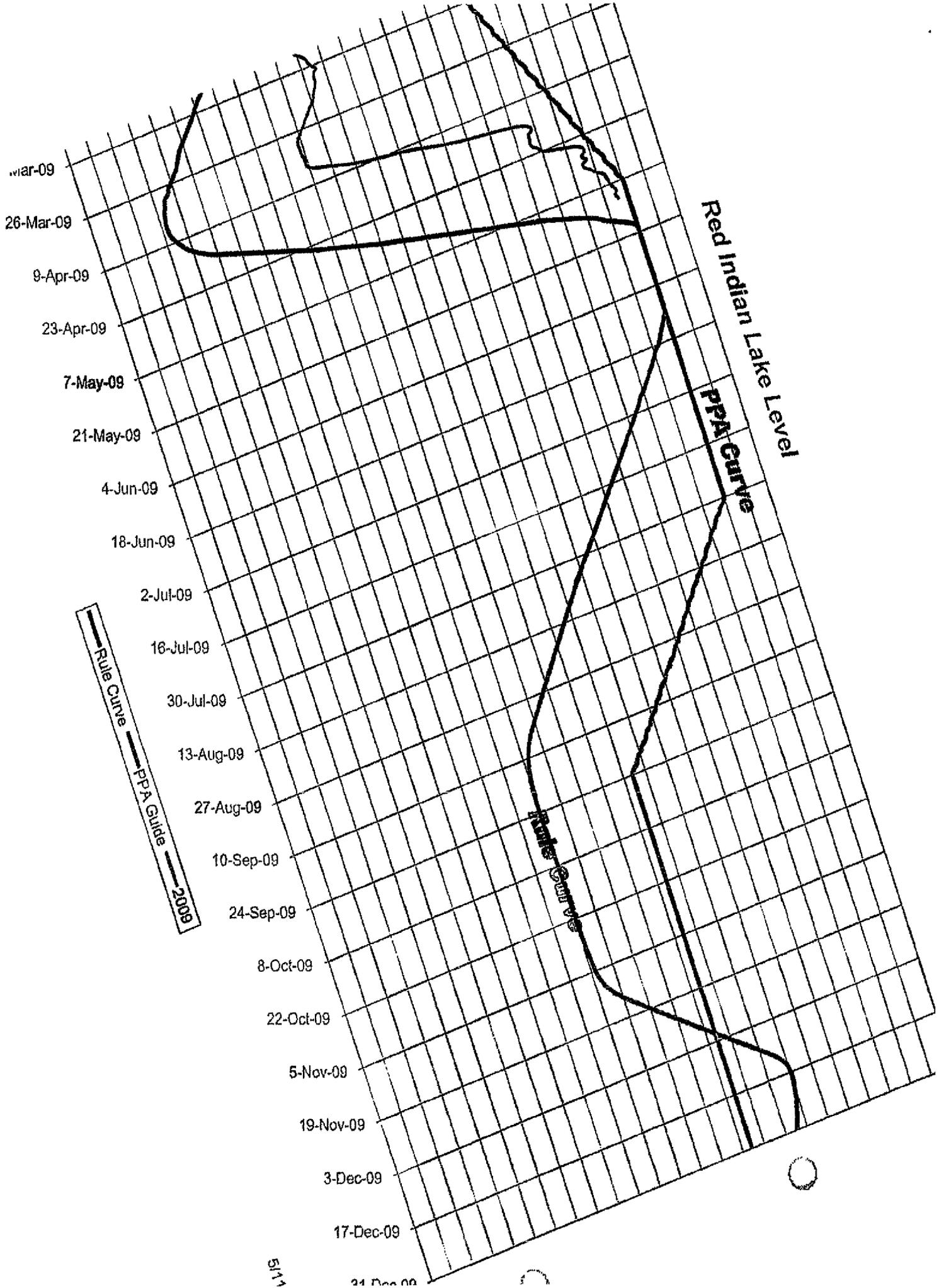
Actuals to May 11/09 - Projected to Dec 31/09



Elevation on:  
May 11, 2009

114.22 m      ≈      374.73 ft

—	FSL	—	LSL
—	Actual Elevations	—	100% Inflow Forecast
—	90% Inflow Forecast	—	80% Inflow Forecast
—	Rule Curve		



**NEWFOUNDLAND POWER INC.  
ENERGY & DEMAND FORECAST  
2009 - 2014**

YEAR	TOTAL PRODUCED & PURCHASED (NP NATIVE PEAK)			NP PRODUCED		TOTAL PURCHASED	
	GWH	MW	(4) Load Factor	(5) GWH	(6) Credit MW	GWH	MW
2009	5,618.5	1,262.69	50.36%	425.9	117.93	5,192.6	1,144.76
2010	5,716.1	1,284.82	50.36%	428.8	117.93	5,287.3	1,166.89
2011	5,824.3	1,309.34	50.36%	428.8	117.93	5,395.5	1,191.41
2012	5,976.6	1,340.16	50.36%	428.8	117.93	5,547.8	1,222.23
2013	6,085.0	1,368.44	50.36%	428.8	117.93	5,656.2	1,250.51
2014	6,187.0	1,391.56	50.36%	428.8	117.93	5,758.2	1,273.63

**NOTES:**

1. 5 Year forecast based on System Energy Forecast dated April 24, 2009.
2. Energy for 2012 is based upon a leap year (8,784 hours).
4. Load Factor is based on an average of 15 year historical (normalized) load factors.
5. Average water year for the forecast period is 427.9 GWh adjusted for plant availability and efficiency impr
6. Assumes a generation credit of 117.93 MW.

2009 CAPITAL BUDGET SUMMARY

<u>Asset Class</u>	<u>Budget (000s)</u>
1. Generation - Hydro	\$ 8,899
2. Generation - Thermal	100
3. Substations	7,172
4. Transmission	4,507
5. Distribution	30,178
6. General Property	835
7. Transportation	2,255
8. Telecommunications	350
9. Information Systems	3,725
10. Unforeseen Allowance	750
11. General Expenses Capitalized	2,800
<b>Total</b>	<b><u>\$ 61,571</u></b>

## 2009 CAPITAL PROJECTS (BY ASSET CLASS)

<u>Capital Projects</u>	<u>Budget (000s)</u>	<u>Description<sup>1</sup></u>
<b>1. Generation - Hydro</b>		
Rocky Pond Plant Refurbishment	\$ 6,517	2
Facility Rehabilitation	1,917	4
Raise Rose Blanche Spillway to Increase Production	465	6
<i>Total -- Generation - Hydro</i>	<b>\$ 8,899</b>	
<b>2. Generation - Thermal</b>		
Facility Rehabilitation Thermal	\$ 100	9
<i>Total -- Generation -- Thermal</i>	<b>\$ 100</b>	
<b>3. Substations</b>		
Substations Refurbishment and Modernization	\$ 4,102	12
Replacements Due to In-Service Failures	1,729	14
Horse Chops Transformer Replacement	1,341	16
<i>Total - Substations</i>	<b>\$ 7,172</b>	
<b>4. Transmission</b>		
Transmission Line Rebuild	\$ 4,507	19
<i>Total - Transmission</i>	<b>\$ 4,507</b>	

<sup>1</sup> Project descriptions can be found in Schedule B at the page indicated.



**JOINT UTILITIES MEETING**  
**Hosted by Newfoundland and Labrador Hydro**  
**Hydro Place, St. John's**  
**MAY 19, 2010**

In Attendance:

[REDACTED] – Deer Lake Power  
[REDACTED] – Exploits Nalcor  
[REDACTED] – Newfoundland Power  
[REDACTED] – Fermeuse – Elemental Energy  
[REDACTED] – Vale Inco.  
[REDACTED] – NLH – Nalcor  
[REDACTED] – NLH – Nalcor  
[REDACTED] – Newfoundland Power  
[REDACTED] – Star Lake Hydro  
[REDACTED] – NARL  
[REDACTED] – NARL

Regrets:

[REDACTED] – St. Lawrence - ENEL

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The meeting started at approximately 8:45 am.

1. Introductions

2. Safety Moment – [REDACTED]

[REDACTED] gave a general overview of the importance of Emergency Preparedness. This was followed by a discussion about Hydro's safety record and the increased level of safety awareness at Hydro.

3. Reservoir Status/Production Forecast

NLH

- Hydro reports that its aggregate reservoir storage level is forecast to be near 87% by June 30.
- Discussion about Holyrood unit scheduling the Avalon transmission limitations and the impact of adding capacitors to the Come by Chance station.

- Tools used to help with managing HRD scheduling – Nostradamus load forecasting and EMS Network analysis tools.

#### NP

- 75% of (full storage 90 GWh)
- Near normal
- 426 GWh for the year
- 90 MW hydro capacity

#### DLP

- 37% average snow peak
- Precipitation this spring helped
- Same elevation as last year
- 70% full; 3 feet below rule curve
- They are predicting with this storage they will produce a 99 MW average for 2010. Corner Brook Pulp and Paper are forecasting the co-generation unit to operate at around 7-8 MW based on current mill operating levels.

#### SLK

- Below average water levels
- 70% full; little snow
- Output 18 MW

#### Exploits

- Red Indian Lake 88.6% of full or 2.5 feet from full
- No snow survey conducted
- Normally full this time of year
- North/South twin essentially full
- "In good shape", precipitation has helped as little snow this year. Experienced 100% of average precipitation to day in May.
- Anticipate normal precipitation year; depending on precipitation.

#### 4. Wind Generation Update

##### Fermeuse

- 1<sup>st</sup> year operation
- 9 x 3 MW = 27 MW
- expected 5 GWh/month during summer -- 9 or 10 GWh/month during winter

- peak 10.1 GWh/month
- This year wind not occurring when expected.
- Feb. 40% of expected
- May 130% of expected
- 80-90 GWh/yr expected per year

NLH

- Looking into wind forecasting and gaining experience in wind forecasting.
- Helps with scheduling Holyrood

5. Major Capital Expenditures

NLH

Hydro presented a summary of its 2010 capital plan and highlighted the following:

Generation Assets – Total expenditure \$11.5 Million in 2010

- Bay d’Espoir stator windings replacement
  - Unit 2 to be completed in 2010. \$4.7 Million
  - Purchase for spare winding. \$2.8 Million
- Meteorological Stations \$0.4 Million is on hold
- Fibre optic cable from Blue Grass Hill to Plant \$0.5 Million

Thermal Assets – Total expenditure \$7.0 Million in 2010

- Fuel storage tanks \$2.5 Million
- Replace PLC – Burner Management \$1.2 Million
- Holyrood condition assessment \$0.7 Million
- Hardwoods GT life extension \$1.3 Million

Transmission & Terminals Assets – Total expenditure \$0.7 Million in 2010

- Labrador City new station \$2.7 Million
- Power transformer upgrades \$0.8 Million
- Wood pole line management \$2.3 Million
- Off-loading sites along highways \$1.0 Million
- TL-212 Upgrade \$0.9 Million
- TL-244 Upgrade \$0.1 Million

All of the transmission and terminals work noted are part of multi-year programs.

## NP

- Total - \$65M
  - Generation - \$5.4M
    - o Lookout Brook refurbishment \$2.3M
  - Transmission - \$5.9M
    - o 23L, 24L, 110L rebuild \$4.2M
  - Storm Damage repairs- \$3.1M
    - o 41L, 123L supplying Bonavista

## NARL

- \$30-50M generally
- New owner K-NOC Korean National Oil Company
- 30 MW from NLH up to fall 2011/Spring 2012. Increasing to 40 MW as a result of the increased production levels.
- Turn-around will be shifted from fall – to next spring as a result of downtime faced due to fire during early part of 2010

## Fermeuse

- Talked about 2-week downtime due to failed recloser.
- May test gearbox operation. Gear boxes have a history of failure. They are discussing with the manufacturer to have them replaced prior to next winter to avoid forced down time.

## Vale Inco.

- Steel work – July
- 2 – transformers construction 20 building with 3 windup. They are 2 secondary 13.8 kV windings
- 22 substations with 70 transformers
- 70 transformers
- Operating load 80-90 MW planned
- Energized by Oct. 2011; full load by 2013
- \$2.5 -3 Billion
- Peak 1600 people (3-4 months next year)
- 20 MW to be supplied by standby system.
- 1,000 person comp 17 generators for back-up with 20 MW capability distributed throughout the facility.

#### DLK/CBPP

- Working with NLH to reduce energy requirements
- L1 insulator replacement

#### SLK

- No major plans

#### Exploits

- Fish bypass – environmental (business continuance)
- Grand Falls Units 5,6,7,8 cables.

### 6. Planned Generation/Transmission Outages

#### NLH

##### *Generation*

- Holyrood 1-14 weeks (June 9- Sept. 10)
- Holyrood 2 – 8 weeks (Aug. 23 – Oct. 15)
- Holyrood 3 – 10 weeks (June 28 – Sept. 3)
- Bay d’Espoir – 2-9 weeks (May 17)
- Hinds Lake – 7 weeks (Aug. 9)
- Other units – 3 weeks or less.

##### *Transmission*

#### Kruger

- Massey Drive Bus 4 – disconnect maintenance – 1 day
- Converter – disconnect maintenance – 1 day
- TL225, TL248 – disconnects, double – 1 day

#### North Atlantic

- TL207 – disconnect maintenance – 1 day

#### Newfoundland Power

- Springdale Bus 1 – disconnects – 6 hours
- Western Avalon Bus 2 – disconnects – 6 hours
- Stony Brook 138 kV bus
- TL225 – Install Pt – 6 hours

#### NP

- Springfield – insulator replacement
- 24L Mobile/Big Pond – impacts on Fermeuse

#### NARL

- None planned

#### DLP

- June 7<sup>th</sup> and 10<sup>th</sup>, 8-12 hours full mill shut down.

#### SLK

- Generator inspection – 3 weeks, Sept. 27- Oct. 15
- TL280 out-of-service for P&C testing

#### Exploits

- If cable work proceeds, Units 4,5-8 out of service, 5 days in October plus another week for Unit 4.

### 7. Load Forecast

#### NLH

A table of load growth for Hydro's rural areas was presented. It shows annual peak growth of 0 to 1.3% and annual energy growth of 0 to 1.3% from base levels of 89.6 MW and 41.6 GWh respectively.

#### NP

- 1.6% energy growth this year. Customer growth is forecast to 1%

#### NARL

- +10 MW in fall 2010 or spring 2012.

8. Rate Stabilization Plan (RSP)

NLH

The rate stabilization plan balances were reviewed with the following highlighted;

- Hydraulic plan accumulated - \$12 Million value in 2009
- Fuel price variance plan accumulated - \$4.5 Million in 2009
- NP plan accumulated - \$22 Million through the 2009 rate adjustment
- To date in 2010 the following has occurred:
  - Hydraulic plan accumulated - \$16 million owned to customer
  - Fuel price variance plan accumulated - \$4.5 million in 1009
  - NP plan accumulated - \$22 million through the 2009 rate adjustment
  - To date in 2010 the following has occurred;
    - Hydraulic plan accumulated - \$16 million owned to customer
    - Fuel price variance accumulated - \$15 million due from customers
    - Balance declined from \$53 million to \$42 million.

9. Reliability Performance

NLH

Hydro's reliability performance was reviewed through a series of slides. The following were highlighted;

- Unsupplied energy has been steadily improving.
- The number of under frequency events has been averaging at 6 per year with 7 in 2009 and non in 2010 to date.
- Transmission interruption frequency has been nil to industrial customers in recent years.
- Interruption to Newfoundland Power have been very low in frequency and duration, however there has been a decline to date in 2010.

NP

- Recorded 2.5 interruptions per customer in 2009.

10. Significant Events

Hydro reviewed the Avalon Peninsula low voltage event on October 14, 2009 through a series of slides showing voltages and load. The voltage fell to 213 kV (230 kV nominal) at Come by Chance and 63 kV (66 kV nominal) at Oxen Pond. Hydro recognized the level of cooperation from NARL. NP and Fermeuse stressed its importance during such events.

11. Control Room

NLH

- Performing monthly Work Protection Code process and paper audits.
- Using new Work Protection Code for Nalcor Energy – implemented on March 9<sup>th</sup>.
- Operator Training Simulator – 4 training sessions per annum.
- Backup Control Centre Exercise May or June.

NP

- Increased from 11 staff to 12; four 3-person teams.

NARL

- Investigating wireless technology to improve equipment monitoring in control room.
- Considering control room being remote from facility.
- 6-7 operators on shift.

12. Terms of Reference

- Review and forward any comments to NLH. The revised terms of reference are attached.

13. Next Meeting

- 2011 – Newfoundland Power
- 2012 – NARL
- 2013 – Vale Inco.

14. ECC Tour

Energy Control Centre Tour provided by NLH.

JOINT UTILITIES MEETING  
Hosted by Newfoundland Power  
55 Kenmount Rd. St. John's  
May 19, 2011

In Attendance:

[REDACTED] – Deer Lake Power  
[REDACTED] – Fermuse Wind Power Corp.  
[REDACTED] – ENEL- St. Lawrence  
[REDACTED] Newfoundland and Labrador Hydro – Nalcor  
[REDACTED] Newfoundland and Labrador Hydro – Nalcor  
[REDACTED] – Newfoundland Power  
[REDACTED] – Newfoundland Power  
[REDACTED] – Newfoundland Power  
[REDACTED] – Vale

Regrets:

[REDACTED] – NARL  
[REDACTED] – Nalcor  
[REDACTED] Expolits Energy

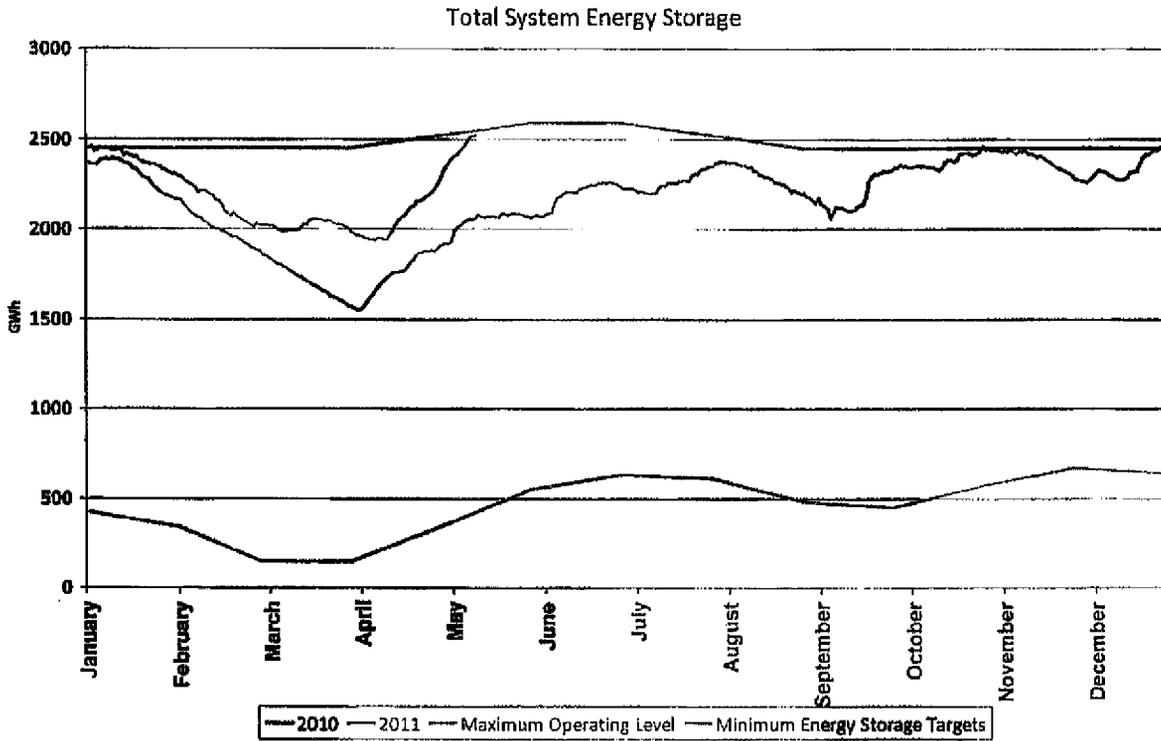
The meeting started at approximately 9:00 am.

1. **Introductions**
2. **Acknowledgement of Minutes of last year's meeting.**
3. **Reservoir Status/Production Forecast**

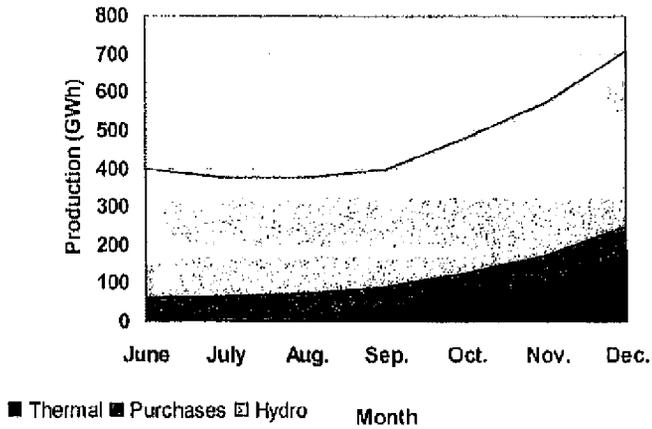
Newfoundland and Labrador Hydro

Hydro reports that its aggregate reservoir storage is forecast to be near 100% of the maximum operating level, or 2500 GWh, by June 30. Hydro reported that they have been spilling at Hind's Lake and Cat Arm. This is a result of the increased production on the island and the loss of load at the paper mills. Production at Holyrood has been minimized and is operated only for peak load and for voltage support.

This following graph shows Hydro's Total System Energy Storage.



Hydro's production forecast for the remainder of 2011 is shown in the graph below. Purchases are forecast to be steady for the remainder of the year and be between 50 and 90 GWh per month. It is expected that Holyrood will produce at its minimum power output when the units are placed in service, driven primarily by the need to reliably meet Avalon loading requirements.



### Star Lake

Star Lake is currently at 77 percent of full storage and rising. The generating unit has been producing steadily at 18 MW. NLH are now operating this plant on behalf of the Provincial Government.

### Exploits System

Red Indian Lake elevation is currently 89 percent of its full storage with 2.5 feet of room and there is no snow left to melt in this area. The Buchans plant is part of the Exploits system, the generator has been shut down to contain water. Grand Falls dam is spilling. NP will be shutting down Sandy Brook which will reduce the inflow into the Grand Falls reservoir. Exploits units 5 – 8 are down due to allow replacement of power cables. Bishops Falls units 1, 2 & 3, are down due to damages caused by fire. There are many environmental and social issues related to water level management that impact operation of generation downstream of Red Indian Lake. Ice is an issue for Badger, and flow in the river needs to be stable during winter months.

### Deer Lake Power

Grand Lake is 1.5 ft below full. Hind's lake is spilling into Grand Lake. Deer Lake Power have been storing water for NLH all winter and owe NLH about 40 GWh of Power. Deer lake Power have concerns about people building on the shores of the Humber River. Deer Lake plant is running at full capacity 101 MW to keep from spilling. There are two machines running at the mill for a load of 120 MW.

### Newfoundland Power

Newfoundland Power reports that its aggregate reservoir storage position is around 76 percent of full storage. Full storage is represented by 90 GWh of energy. The current storage position is near normal for this time of year. Newfoundland Power expects to produce 422 GWh this year, down slightly from last year's 424 GWh. This forecast takes into account scheduled generation outages for upgrades.

## **4. Wind Generation Update**

### Fermuse Wind Power Corp.

Last year the gear boxes were replaced in all 9 units over a 5 week period from August to early September. These are typically months with less wind. Fermuse wind would like to be notified of system disturbances so they can check to see if any units tripped. NP noted that the data points that indicate the number of units online, windspeed and mode of operation were suspect, and were never fully commissioned.

## ENEL- St. Lawrence

ENEL noted that the gearbox issues with their units were also corrected in 2010. ENEL hope to produce 100 gwh this year. They have produced 40 GWH YTD.

### **5.0 Major Capital Expenditures**

#### Newfoundland and Labrador Hydro

Hydro presented a summary of its 2011 capital plan and highlighted the following:

Generation Assets – Total expenditure \$15.1 Million

The Upper Salmon Exciter replacement has been deferred for 2011 due to water levels being high. NLH will be doing upgrades at Holyrood instead. Other projects include.

- Upgrade Burnt Dam Access Road \$1.0 M
- Upgrade Hydrogen System HRD \$1.2 M
- Condition Assessment HRD \$1.7 M
- Overhaul HRD GT \$1.3 M
- Hardwoods GT Life extension \$1.3 M

Transmission and Rural 34.4 Million

Transmission Lines \$3.4 M

- Wood Pole Line Management \$2.0 M
- Upgrade TL244 \$1.1 M
- TL215 Guy Wire Replacement \$0.3 M

Terminal Stations (\$17.4 Million)

- Upgrade Stations to 25kV Lab City \$3.3 M
- Upgrade Power Transformers \$0.9 M
- Upgrade Trailer Mobile Substation \$0.5 M

#### Exploits Energy

Exploits Energy are in the process of installing new power cables from units 5,6,7&8 to provide a connection to the main grid. These units were originally tied into the mill and the frequency converter.

## Newfoundland Power

Newfoundland Power provided a summary of its capital budget.

The total NP capital budget for 2011 is \$73 Million.

### Generation

\$8.0 M which includes the following major projects.

Sandy Brook – Plant Refurbishment, Upgrade Governor, Upgrade Protection and Controls, Change Grounding, Replace Switchgear and Power Cables.

Port Union – Rebuild due to Igor Damage.

Horse Chops – Rebuild Generator.

### Transmission

\$5.0 M which includes the following;

17L GOU- BIG Rebuild

24L BIG – MOB Rebuild

16L KBR- PEP Relocation

21L Tap to HCP Plant - Rebuild

23L MOB to PBK Plant - Rebuild

25L GOU- SJM - Rebuild

### Substation

\$12.0 M which includes the following;

Portable P3 - Refurbishment

GFS – Rebuild Substation

KEL - Replace Power Transformer

PUL - Additional 25 MVA Power Transformer

PAB – Rebuild Substation

SLA – Transmission Line Relay Replacements

GOU – Transmission Line Relay Replacements

### PCB Removal Strategy

\$6.5M between 2011 and 2015. Testing will be done in 2011 for all bushings and transformers that do not require outages. All other testing will be completed in 2012. Replacements will begin in 2012.



## Newfoundland Power

### Transmission Outages

Completion of 24L & 17L rebuild is in Progress, scheduled to be completed mid summer.

There will be one more outage required during the summer months to tie in the new section of 24L, which will require the Ferruse Wind Farm to be shut down.

### 363L Baie Verte Junction to Seal Cove Road

Large scale rebuild project deferred to 2012 due to load requirements and availability of mobile generation.

Meeting scheduled for May 31 to discuss a short 4 hr outage sometime in Sept. or Oct. to make repairs to certain structures.

## 7.0 Load Forecast

### Newfoundland and Labrador Hydro

The following table of load growth for Hydro's rural areas was presented.

Year	Demand		Energy	
	(MW)	% Change	(GWh)	% Change
2010 A	81.7		406.5	
2011	91.7	12.3%	431.2	6.1%
2012	93.2	1.6%	441.1	2.3%
2013	93.9	0.8%	444.2	0.7%
2014	94.3	0.4%	446.3	0.5%
2015	94.4	0.1%	446.4	0.0%
2016	93.5	-1.0%	442.5	-0.9%
2017	92.3	-1.3%	436.6	-1.3%

Note: Forecast reflects historical normal weather conditions.

### Newfoundland Power

NP is projecting 1.4 % increase in the total number of customers, 1.8% increase in energy sales.

## 8.0 Rate Stabilization Plan (RSP)

### Newfoundland and Labrador Hydro

The rate stabilization plan balances were reviewed with the following highlighted:

.. At the end of Q1 2011 the following has occurred:

- Hydraulic Production
  - 212 GWh more than cost of service (\$18.5 M credit)
  - \$59.7 M credit balance at the end of quarter
- Fuel Price Impact
  - 0.7 million barrels consumed
  - Cost \$28.43/bbl more than cost of service
  - \$21.2 million cost to customers

#### 2011 Q1 Balances

Nfld. Power	\$42.3 M credit
Industrial Customers	\$57.9 M credit
Hydraulic	\$59.7 M credit
TOTAL	\$159.9 M credit

## 9.0 Reliability

### Newfoundland and Labrador Hydro

Hydro's reliability performance was reviewed through a series of slides. The following were highlighted:

- The number of under-frequency events has been averaging around 6 per year with 2 YTD for 2011.
- Under-frequency events correspond to loss of generation > 50 MW.
- NLH maintains 10% - 15% spinning reserve.
- Transmission interruption frequency has been nil to industrial customers in recent years.
- The increase in SADI for Newfoundland Power in 2010 was mainly due to the Stephenville outage.

### Newfoundland Power

Newfoundland Power provided a summary of their reliability statistics for 2010.

SAFI was 1.52 with storms excluded, 2.69 with storms included.  
SADI was 2.59 with storms excluded, 13.82 with storms included.

## Vale

Vale will have a total of 30 MW of backup generation. This will be provided by 18 units that will not be able to synchronize with the grid.

### **10. Control Room**

#### Newfoundland and Labrador Hydro

NLH plan to do the following in 2011:

Migrate toward application based administration of work protection  
Build business case for an electronic diary application  
Refresher training in Work Protection Code using customized online training  
Upgraded Energy Management software suite  
Operator Training Simulator – 3 training sessions per annum  
Backup Control Centre Exercise In June

#### Newfoundland Power

Newfoundland Power completed an upgrade/replacement of their SCC UPS units in 2010. The backup generator is planned to be replaced in 2012.

All staff will receive Worker Protection Code and Grounding and Bonding Code training in 2011.

### **11. Terms of Reference**

The revised terms of reference are attached.

### **12. Next Meetings' Hosts**

.. 2012 – North Atlantic Refining Limited  
.. 2013 – Vale Inco

The meeting concluded around 12:00 Noon

# JOINT UTILITY MEETING TERMS OF REFERENCE

## Overview

The Joint Utility Meeting is an annual meeting which is a forum for exchanging information on an operating level between the major power producers and users on the Newfoundland Island Interconnected Power System. Both consumers and producers share information which has an impact on the operation of the power system. It is also an opportunity to identify areas of co-operation for enhanced power system operation.

### 1. Members

Newfoundland and Labrador Hydro

*Hydro representatives at the Joint Utility Meeting will be:*

- Manager, System Operations & Customer Services
- ECC Superintendent

Newfoundland Power

Corner Brook Pulp and Paper

North Atlantic Refining Limited

Vale Inco

Star Lake Hydro Partnership

Algonquin Power

Nalcor Energy - Exploits Generation

ENEL – St. Lawrence Wind

Elemental Energy – Fermeuse Wind

### 2. Location and Time

The location of the meeting is rotated through each members headquarters in the spring of each year.

### 3. Chair and Minutes

The host of the meeting shall chair and record the minutes of the meeting. The minutes will be distributed to all members.

### 4. Members will exchange information on the following:

#### ■ Hydraulic Production Scheduling

Review and discuss status of reservoirs, production plans for the next six months to a year. Determine any opportunities for co-operation.

- Thermal Production Scheduling  
Review and discuss status of plants and production plans for the next six months to a year. Determine any opportunities for co-operation.
- Short Term Load Forecast  
Review and discuss current load projections and any significant changes which may impact production and outage scheduling.
- Major Generation Outages  
Review and discuss plans for generation shutdowns in the next year. Determine potential impacts and areas requiring co-operation.
- Major Transmission Outages  
Review and discuss plans for significant planned transmission and terminal station outages for the next year. Determine potential impacts and areas requiring co-operation.
- Control Centre Activities  
Discuss and review activities occurring in the control centre, plant operating rooms which are of mutual interest. Exchange information for improving co-operation between the various operating centres.
- Power System Security  
Discuss and review the operation of the underfrequency load shedding schemes. Review major disturbances and any concerns arising from these. Discuss and review other items which may impact on the secure operation of the power system.
- Major Capital Changes  
Review and discuss plans for capital additions impacting power system scheduling and security.



**JOINT UTILITIES MEETING**  
**Hosted by Vale**  
**Long Harbour Processing Plant, NL**  
**MAY 15, 2013**

In Attendance:

- Vale
- Vale
- Newfoundland and Labrador Hydro – Nalcor
- Newfoundland and Labrador Hydro – Nalcor
- Newfoundland Power
- NARL
- NARL

Regrets:

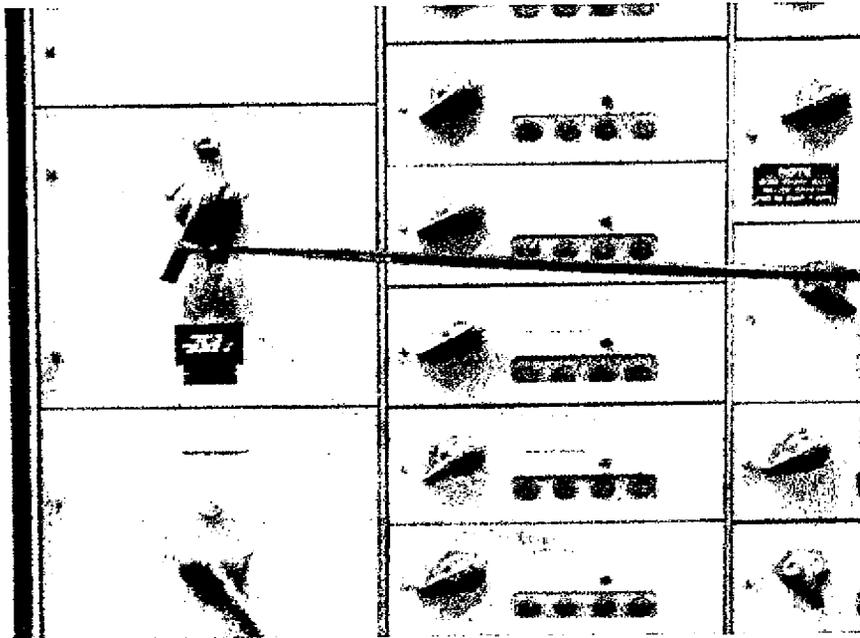
- Nalcor
- ENEL
- Star Lake Hydro
- CBPP
- Fermeuse Wind

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The meeting started at 9:00 am.

1. Introductions
2. Safety Moment

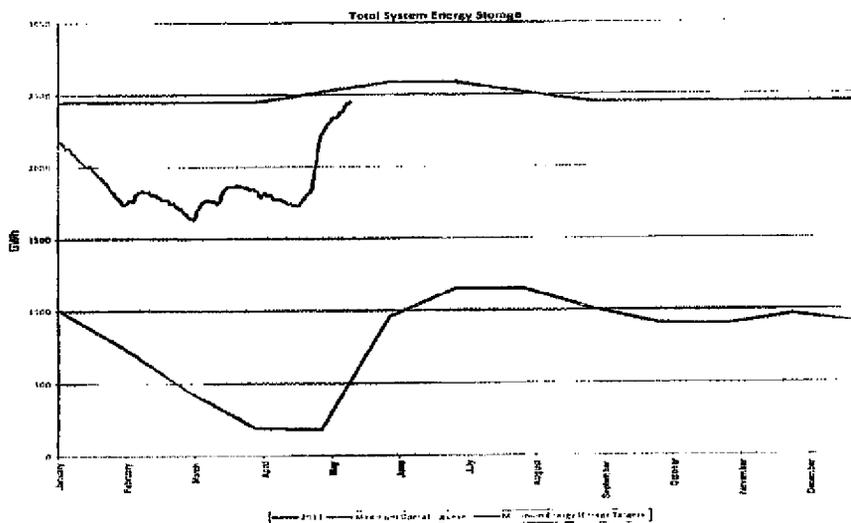
The group had a general overview of the importance of safety awareness. A picture was demonstrated as an example. (How to attach "Danger Tape")



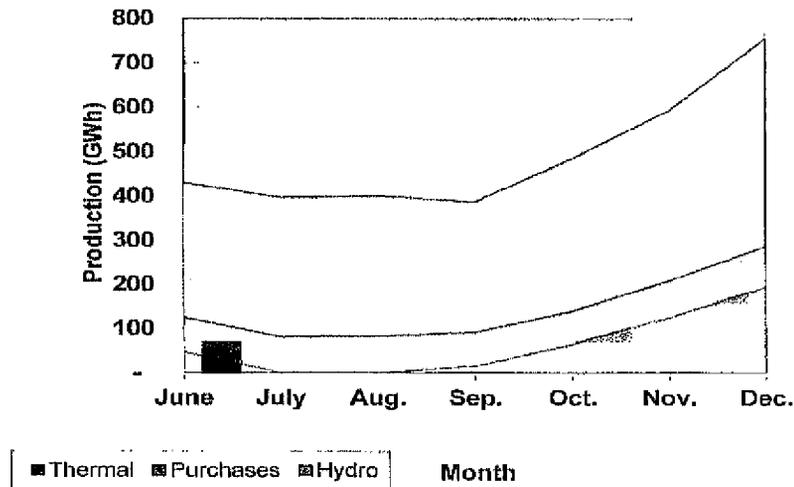
### 3. Reservoir Status/Production Forecast

#### Newfoundland and Labrador Hydro

Hydro reports that its approximate storage is 2400 GWh, by June. This is depicted in the following graph.



Hydro's production forecast for 2013 is shown in the graph below. Purchases are forecast to be steady for the remainder of the year and be between 75 and 95 GWh per month.



#### Newfoundland Power

Newfoundland Power reports that its storage level as of May 6 is at 65% of full which is normal for this time of year. Newfoundland Power expects to produce near the annual energy average of 429 GWh during this year.

#### 4. Planned Generation/Transmission Outages

##### Newfoundland Power

Newfoundland Power has listed the planned generation outage schedule and Transmission outage schedule, which are shown below.

##### Planned Generation Outages:

- Holyrood 1 – 21 weeks (Jan 11 – Jun 15)
- Holyrood 1 – 6 weeks (Jul 14 – Aug 24)
- Holyrood 2 – 15 weeks (Jul 14 – Oct 26)
- Holyrood 3 – 16 weeks (May 12 – Sep 1)
- Bay d'Espoir 1 – 13 weeks (May 12 – Aug 10)
- Bay d'Espoir 3&4 – 4 weeks (Aug 18 – Sep 14)
- Hinds Lake – 4 weeks (Nov 3 – Dec 1)
- Upper Salmon – 4 weeks (Jul 21 – Aug 17)
- Other units – 3 weeks or less.

Planned Transmission Outages:

BBK T2	10 days	Aug	Complete bushing replacement,
		PM,	Doble testing
BBK L400T2	30 days	July	Replace Breaker
BBK B1T1	3 days	July	Replace Disconnect
BBK L400T2-1	?	July	Disconnect PM
BLA L12-1	4 hours	May	Repair disconnect
DLK B2L25-2	4 hours	2014	PM, Doble testing
DLK New disconnect	4 hours	2014	Install new disconnect
DLS B1L15	4 hours	July	Commission breaker
HRD Bus 7	5 days	?	PM, Doble testing, replace PTs
HRD Bus 15 & 39L Disc.	5 days	June	Disconnect PM
HRD Bus 8 & 39L PT	5 days	June	Doble Testing
HWD B8B9 & Disc.	5 days	?	Disconnect PM, Doble testing, replace CTs
HWD B1L36	30 days	May	Breaker replacement
MKS L12-G1	4 hours	?	Repair disconnect
OPD Bus 5 PT	5 days	Aug	Replace Bus 5 PT's
SPL Bus 1	4 hours	July	PM, Doble testing
STB Bus 3	5 days	June	Replace insulators
STB B3L130-2	1 days	June	Insulator replacement on Disconnect
STB B3L110 CT's	3 days	July	Replace CTs
STB B3L133	5 days	Sep	Breaker overhaul and PM
SVL T3	5 days	July	Surge arresters
TL215	3 days	July	Replace insulators & guy wires
WAV Bus 3 Disc	1 day	July	PM

Newfoundland and Labrador Hydro

The following planned transmission outages were given by Hydro

Duck Pond – AUR	2 days	July	T1 PM, & PCB Sample and B2T PM
Kruger/DLP	?	?	Frequency Converter Annual, and B4L1-1 ( Line 1 ) Replace 469kv Post insulators

## 5. Load Forecast

### Newfoundland and Labrador Hydro

A table of load growth for Hydro's rural area was demonstrated. It indicates a growth in the annual peak and annual energy of between 0 and 0.4 percent from base level of 93.9 MW and 447.3.

### Newfoundland Power

Newfoundland Power is projecting a 1.5% increase in the total number of customers, and a 1.7% increase in energy sales.

In 2012, there is an increase of 1.6% in the total number of customers, and a 1.8% increase in sales, after normalization.

## 6. Major Capital Expenditures

### Newfoundland and Labrador Hydro

A summary of 2013 capital plan and highlighted the following:

#### Generation Assets – Capital Budget \$82.3 Million in 2013

▪	Generation	\$32.3 Million
▪	Transmission/Rural	\$25.9 Million
▪	General Properties	\$3.8 Million
▪	Multi-year starting in 2013	\$9.8 Million
▪	Multi-year starting <2013	\$10.5 Million

#### Generation Assets – Total expenditure \$20.6 Million in 2013

▪	Bay d'Espoir stator rewind	\$5.7 Million
▪	Holyrood Marine Terminal Refurbishment	\$5.2 Million is on hold
▪	Holyrood Unit 1 Refurbishment	\$12.8 Million
▪	Holyrood condition assessment phase 2	\$1.2 Million

#### Transmission & Rural – Total expenditure \$21.6 Million in 2013

▪	Upgrade breakers and power transformers	\$4.4 Million
▪	Wood pole line management program	\$2.5 Million
▪	Install additional Oxen Pond transformer capacity	\$3.8 Million
▪	Distribution upgrades, additions and extensions	\$10.9 Million

## Newfoundland Power

The total capital budget reported by Newfoundland Power is \$81 Million.

### **Generation - \$4.6 Million**

The majority of this is for Runner replacements at NCH and PIT, rewind at NCH, and P&C upgrades at PIT.

### **Transmission - \$5.4 Million**

This includes the following projects; Rebuild section of 110L LET – SMV, Rebuild 12L (Aerial portion) MUN - KBR

### **Substation - \$17.6 Million**

This includes the following projects;

- |   |               |
|---|---------------|
| • New Portable Substation                                   | \$3.1 Million |
| • GDL rebuild including 3 <sup>rd</sup> transformer         | \$3.0 Million |
| • Refurbishment and modernization at TWG, GLN, SCT and STV. | \$4.5 Million |
| • PCB Phase out   | \$3.3 Million |

## **7. Rate Stabilization Plan (RSP)**

### Newfoundland and Labrador Hydro

#### **2012 review:**

The rate stabilization plan balances were reviewed with the following highlighted:

- Hydraulic plan production
  - 118 GWh more than cost of service (\$10.8 M credit)
  - \$47.0 M credit balance at year end
  - \$14.3 M allocated back to customers
  
- Fuel price variance plan accumulated
  - 1.4 million barrels consumed
  - Cost \$59.33/bbl more than cost of service
  - \$84.6 million cost to customers

**2013 Quarter 1:**

- Hydraulic production
  - 231 GWh more than cost of service (\$20.0 M credit)
  - \$53.5 M credit balance at the end of quarter
- Fuel price variance plan accumulated
  - 0.7 million barrels consumed
  - Cost \$53.28/bbl more than cost of service
  - \$39.5 million cost to customers

**2013 Quarter 1 Balances:**

Nfld. Power	\$ 61.5 M credit
Industrial Customers	\$109.5 M credit
Hydraulic	\$ 53.5 M credit
TOTAL	\$224.5 M credit

**8. Reliability Performance**

**Newfoundland and Labrador Hydro**

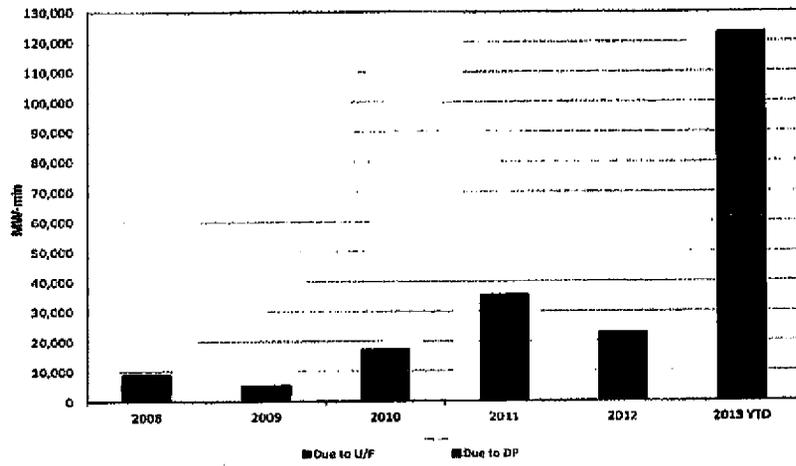
Hydro's reliability performance was reviewed through a series of slides. The following were highlighted:

- a. The number of under-frequency events has been averaging at 5.4 per year with 5 in 2012 and 6 in 2013 to date.
- b. Transmission interruption frequency has been nil to industrial customers in recent years.
- c. Interruptions to Newfoundland Power have been low in frequency and duration before the year of 2012, however there has been a significant increase during 2012 and 2013.

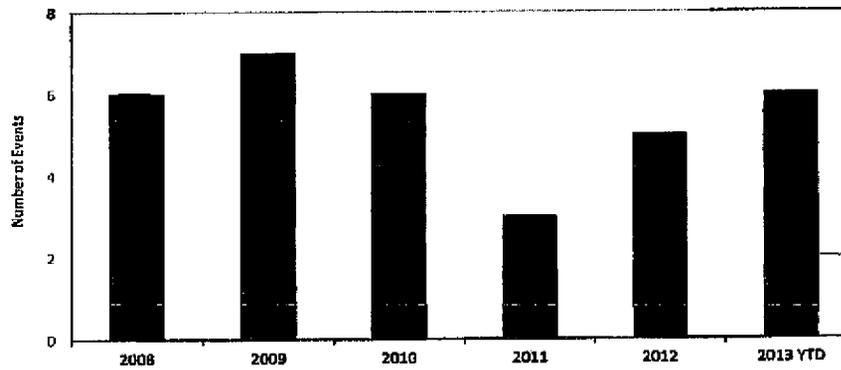
**Newfoundland Power**

Newfoundland power's target has been showed as 2.53 SAIDI and 1.65 SAIFI for the year of 2013.

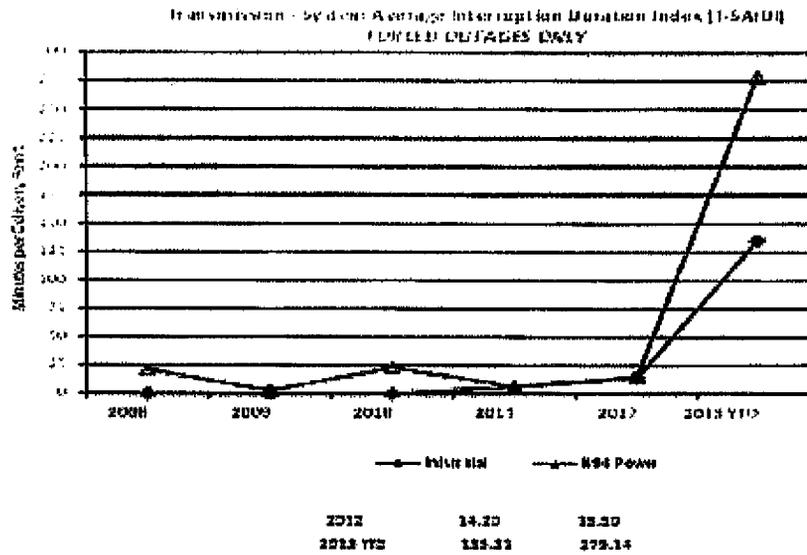
### Unsupplied Energy



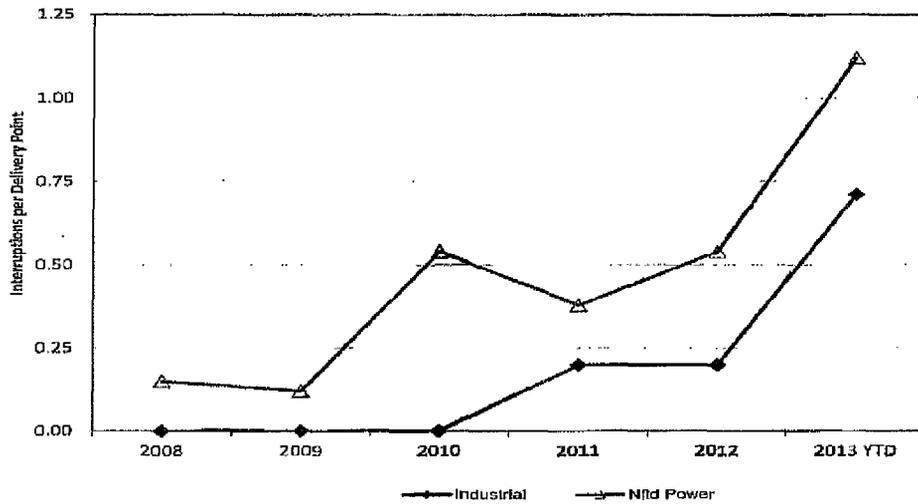
### Underfrequency Load Shedding Events



Joint Utility Meeting  
Transmission Performance



Transmission - System Average Interruption Frequency Index (T-SAIFI)  
FORCED OUTAGES ONLY



## 9. Energy Control Center

### Newfoundland and Labrador Hydro

- The work protection application is nearly completed.
- Online work protection code audit data base have been chosen for control center.
- Two new system operators trained, started shift early spring.
- EMS system upgraded with the addition of 3 new stations (MFR, VAN, QZT)

(No formal presentation from Vale or NARL)

#### **10. Group Actions:**

- [REDACTED] to obtain and forward to Vale the long term maintenance plan for Long Harbour transmission line and terminal station to assist in long term coordination of plant outages with Vale.
- [REDACTED] to identify correct person at NLH to determine where T1 and T2 neutral grounding resistor work is with respect to the NLH maintenance plan and get that person in contact with NARL to ensure it is reflected in the schedule.
- [REDACTED] to identify person at NLH for Vale to discuss opportunities for U/F load Shedding and coordinate the discussion.
- Vale to contact [REDACTED] to arrange for mutual visits to control centers with NLH for educational purposes.
- [REDACTED] to follow up with planning department regarding issues for NARL and NP with overvoltage and switching issues resulting from capacitor bank installation at Come-By-Chance.
- [REDACTED] to email copy of distribution map to Vale.
- [REDACTED] to provide sample agenda as well as terms of reference for distribution prior to next Joint Utilities Meeting.
- [REDACTED] to provide further information on MASAS program to attendees.
- [REDACTED] to solicit possible ideas for topics of interest for afternoon mutual discussion prior to next Joint Utilities Meeting.

#### **11. Next Meetings' Hosts**

- 2014 – Nalcor Exploits

The session ended



**JOINT UTILITIES MEETING**  
Hosted by Newfoundland and Labrador Hydro  
Hydro Place, St. John's  
September 18, 2014

In Attendance:

- ██████████ – Deer Lake Power
- ██████████ – Newfoundland Power
- ██████████ – Newfoundland Power
- ██████████ – Vale
- ██████████ – Newfoundland and Labrador Hydro – Nalcor
- ██████████ – Newfoundland and Labrador Hydro – Nalcor

Regrets:

- ██████████ – NARL
- ██████████ – NARL
- ██████████ – St. Lawrence – ENEL
- ██████████ – Nalcor Exploits
- ██████████ – Nalcor Exploits
- ██████████ – Fermeuse Wind
- ██████████ – Newfoundland Power
- ██████████ – Vale

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The meeting started at approximately 8:45 am.

1. **Introductions**

2. **Safety Moment – ██████████**

██████████ gave an overview of the importance of effective communication. We need to have a clear understanding of the task before proceeding and not to proceed until you have that. This is especially important during switching activities. This was followed by a discussion about some recent switching events that occurred at NLH over the last couple of months.

3. Review of Previous Minutes -- [REDACTED]

[REDACTED] reviewed the minutes from the previous meeting and action items that were assigned.

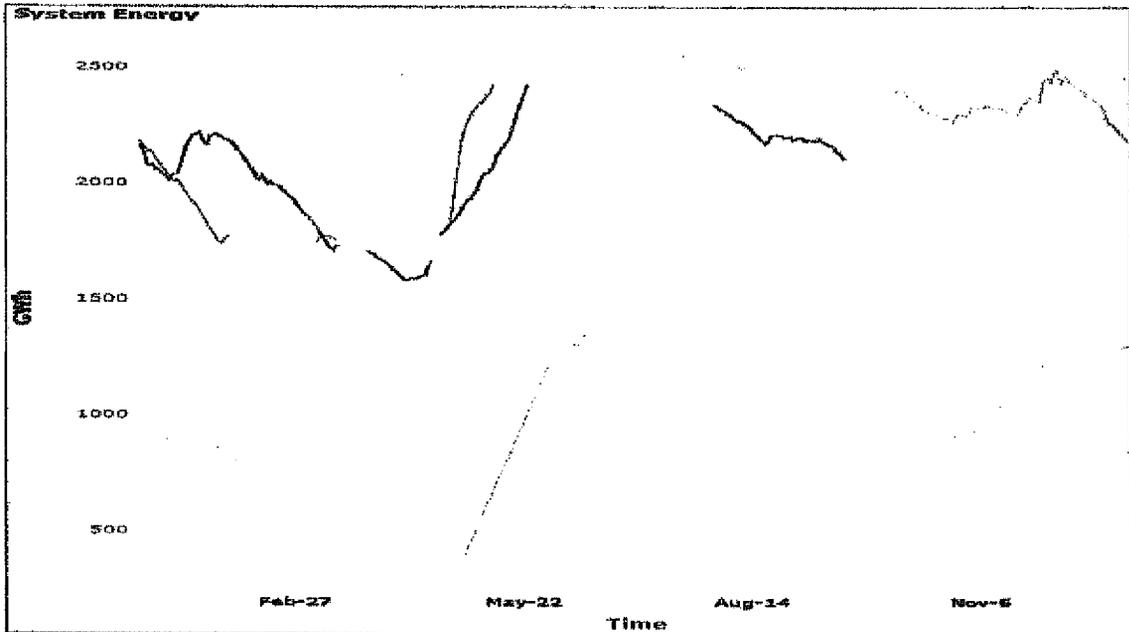
Action items

- [REDACTED] to coordinate with [REDACTED] regarding mutual visits by operators to the Energy Control Centre and the Vale facility.

4. Reservoir Status/Production Forecast

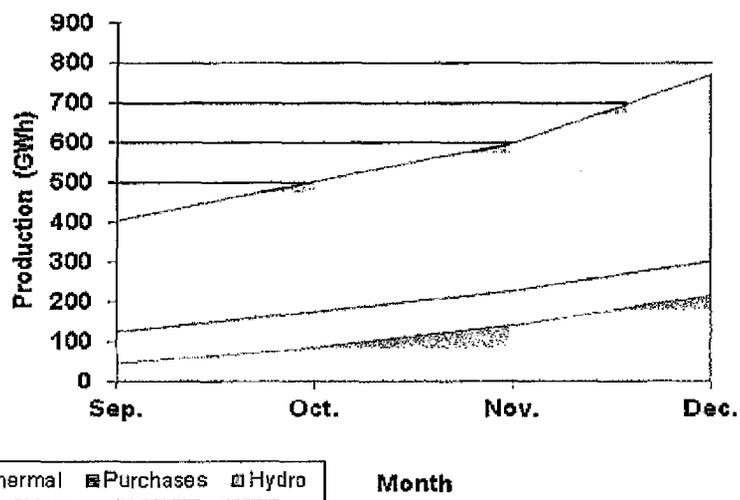
Newfoundland and Labrador Hydro

NLH reports that its aggregate reservoir storage is at 86% of the maximum operating level, or 2129 GWh, on September 15<sup>th</sup>. This is depicted in the following graph.



NLH provided some context around the minimum storage curve. It is based on history and trying to protect against historical dry sequences. There was further discussion on this and what it will mean with the connection of Muskrat Falls.

Hydro's production forecast for the remainder of 2014 is shown in the graph below. Purchases are forecast to be steady for the remainder of the year and be between 75 and 90 GWh per month. It is expected that Holyrood will produce at its minimum power output when the units are placed in service, driven primarily by the need to reliably meet Avalon loading requirements. Hydro sees one Holyrood unit in-service until early to mid-October, two units from mid-October and November and three in December. Hydro generation will provide the balance to meet the overall system loading requirements.



NLH mentioned that there are on-going discussions with industrial customers for interruptible loads and capacity assistance arrangements (similar to this year with Kruger).

The group held some discussion around the loads we have seen on the system this year. They have been much higher this year. Both NLH and Newfoundland Power believe some of this could be attributed to heat pumps. Some are undersized and the backups are oversized. They are not great in colder temperatures and a lot of times the backup will initiate.

#### Newfoundland Power

Newfoundland Power reports that its aggregate reservoir storage position is around 35 percent of full storage. Full storage is represented by 90 GWh of energy. The current storage position is near normal for this time of year.

### Deer Lake Power

The Grand Lake reservoir elevation is 75% full. This is approximately three feet below the rule curve.

### Vale

Vale expects to have a rectifier bank in service this winter. This would be about a 30 MW load.

## 5. Planned Generation/Transmission Outages

### Newfoundland and Labrador Hydro

#### *Generation*

- Holyrood 1 – 16 Weeks (July 20 – Nov 7)
- Holyrood 2 – Available Sept 19
- Holyrood 3 – 3 day outage (When Holyrood 2 Available)
- Hardwoods GT – Available Sept 26
- Bay d’Espoir 7 – 2 weeks (Sept 14 – Sept 26)
- Paradise River – 2 weeks (Sept 14 – Sept 26)
- Bay d’Espoir 5 and 6 – 3 weeks (Sept 28 – Oct 17)
- Stephenville GT - 4 weeks (Sept 29 – Oct 24)
- Hinds Lake – 5 weeks (Oct 19 – Nov 21)
- Holyrood GT – Expected to be in service by December 7

#### *Transmission*

#### Kruger

- Converter – Quarterly Inspection, Vibration Monitoring System Replacement and transformer PM/CM (Sept 22 – 26)

#### NARL

- T1 and T2 – High and Low voltage neutral bushing replacement – 1 week each
  - Looking at early to mid-November

### Newfoundland Power

- HLY T2 and B1T2 – Transformer Maintenance and Breaker PM
  - Two 6 hour outages – October 18<sup>th</sup> and 19<sup>th</sup>
- HRD Bus 7 PT and 38L CT
- HRD Bus 12, TL218 and 38L
  - Contractor to sag conductor to new structure near both lines
  - October 16<sup>th</sup>
- HWD Bus 8 PTS
  - Week of September 29<sup>th</sup>
- HWD B8B9 CT replacement
  - End of October
- OPD T1
  - September 22<sup>nd</sup> - Mid November
- SSD T1
  - Delay on transformer. Now arriving on site October 31<sup>st</sup>
  - Requires outage to Bus 1: Late September – Early October for B1T1-1 and B1L03
  - Requires 2 hour outage when transformer arrives for installation of the transformer on the concrete pad. End of October.
- STB air system upgrade – Tie in for breakers
  - Ongoing
- STB – 130L and 133L Line disconnects (Potential)
- SVL – T3 and Bus 1 PT's (This week)
- TL201 – Insulator Replacement
  - Mid-September – End of October
- TL203 – Insulator Replacement
  - When TL201 is complete until early December
  - TL218 – Reconfiguration of line around Soldiers Pond
  - Look at completing before TL203 or potentially during TL203 outage
- WAV T5 – Tap changer Replacement
  - Ongoing. Completion first week of October.

### Action items

- [REDACTED] to follow up and get status of GT1 in OPD
- [REDACTED] to confirm time and dates for SSD T1 work

## Newfoundland Power

### *Generation*

- Hearts Content: Upgraded. Scheduled to be complete mid-November
- Wesleyville GT: Sent to Scotland for repairs. Expected back mid-November.
- Greenhill GT: Out for repairs (Fuel Leak). Expected back mid-November.
- Mobile GT: Currently on Bell Island until Mid-November.

### *Transmission*

- 12L: Rebuild in progress. Mid October completion.
- 13L: Starting the week of September 29<sup>th</sup>. Completion by end of November.
- Holyrood Substation breaker installs: September – December
- Bay Roberts: Rebuild. Scheduled to be completed in December
  - 138 kV loop will be broken during this time.
- Springdale: Work ongoing in substation
  - Problem with mobile substation (P4).

Newfoundland Power also mentioned they are replacing 7 transformers by the end of this year (no impact to the bulk electric system). They also mentioned there was no work planned on feeder lines to the Vale work site.

## Deer Lake Power

- Kruger is planning a mill shutdown from September 25<sup>th</sup> – 27<sup>th</sup>. There will be maintenance completed on L1 during this shutdown.
- Generator #6 will be out of service until December 10<sup>th</sup> for penstock replacement.

## Vale

- They have no planned outages.
- Vale talked about switching supply between T1 and T2 as there is a problem with the distribution transformers. Need to complete a transient analysis of distribution system. Feeder breakers have under voltage trips.

### Action items

- [REDACTED] to follow up with Vale to address any concerns with terminal station operation

6. Major Capital Expenditures

Newfoundland and Labrador Hydro

Hydro presented a summary of its 2014 capital plan and highlighted the following:

Generation Assets – Total expenditure \$27.0 Million in 2014. Some of the highlights:

- Bay d’Espoir Unit #3 stator rewind \$4.3 Million
- Bay d’Espoir surge tank 3 refurbishment \$2.3 Million
- Holyrood Unit 2 turbine/generator overhaul \$5.1 Million
- Holyrood six forced draft fans variable speed drives \$2.7 Million
- Holyrood condition assessment phase 2 \$1.5 Million
- Stephenville GT upgrade plant life extension \$3.0 Million

Transmission & Terminals Assets – Total expenditure \$64.0 Million in 2014. Some of the highlights:

- Upgrade breakers and power transformers \$5.6 Million
- Replace compressed air systems – STB and SSD \$2.1 Million
- Install additional OPD transformer capacity \$15.3 Million
- Wood pole line management program \$2.6 Million
- Refurbish anchors and footings: TL202 and TL206 \$1.2 Million
- Distribution upgrades, additions and extensions \$16.1 Million

Supplemental Capital Projects

- Holyrood Combustion Turbine \$119.0 Million
- New Bay d’Espoir to Western Avalon TL \$292.0 Million (Estimated)
- Sunnyside replacement equipment \$7.2 Million
- Western Avalon Tap Changer replacement \$1.5 Million

There are also \$6.6 Million in General Properties for the 2014 capital budget

### Newfoundland Power

Newfoundland Power discussed some of the ongoing capital work this year

- Work in Bay Roberts is ongoing.
- Gander Substation is completed.
- Work in Holyrood Substation will be completed this year.
- Replacement of a transformer in Hardwoods will be completed this year.
- Bell Island Cable replacement is ongoing.
- Work has started on the SCADA system replacement, slated for 2015 – 2016.

### Vale

- \$500,000 in small projects for this year.
- \$75,000 for changes to onsite generation that can supply to the grid. Vale noted that this has not been approved yet.

### Deer Lake Power

- Replacement of penstocks in 2014 and 2015. Current ones there since 1955. One being completed this year and two will be completed next year. Total cost will be \$7 - \$12 million.
- Some work this year on cleaning of generators.
- There will be breaker and relay work completed during the September mill shutdown.

7. Load Forecast

Newfoundland and Labrador Hydro

A table of load growth for Hydro's rural areas was presented. It shows a decrease in the annual peak and annual energy of between 0.5 and 2.0 percent from base levels. The table is as follows:

Year	Demand		Energy	
	(MW)	% Change	(GWh)	% Change
2011 A	95.5	17.0%	437.6	7.7%
2012 A	88.8	-7.0%	445.6	1.8%
2013 A	95.9	7.9%	458.0	2.8%
2014	95.4	-0.5%	467.5	2.1%
2015	95.2	-0.2%	463.9	-0.8%
2016	93.3	-2.0%	461.1	-0.6%
2017	91.6	-1.8%	439.5	-4.7%
2018	90.5	-1.2%	433.2	-1.4%

Newfoundland Power

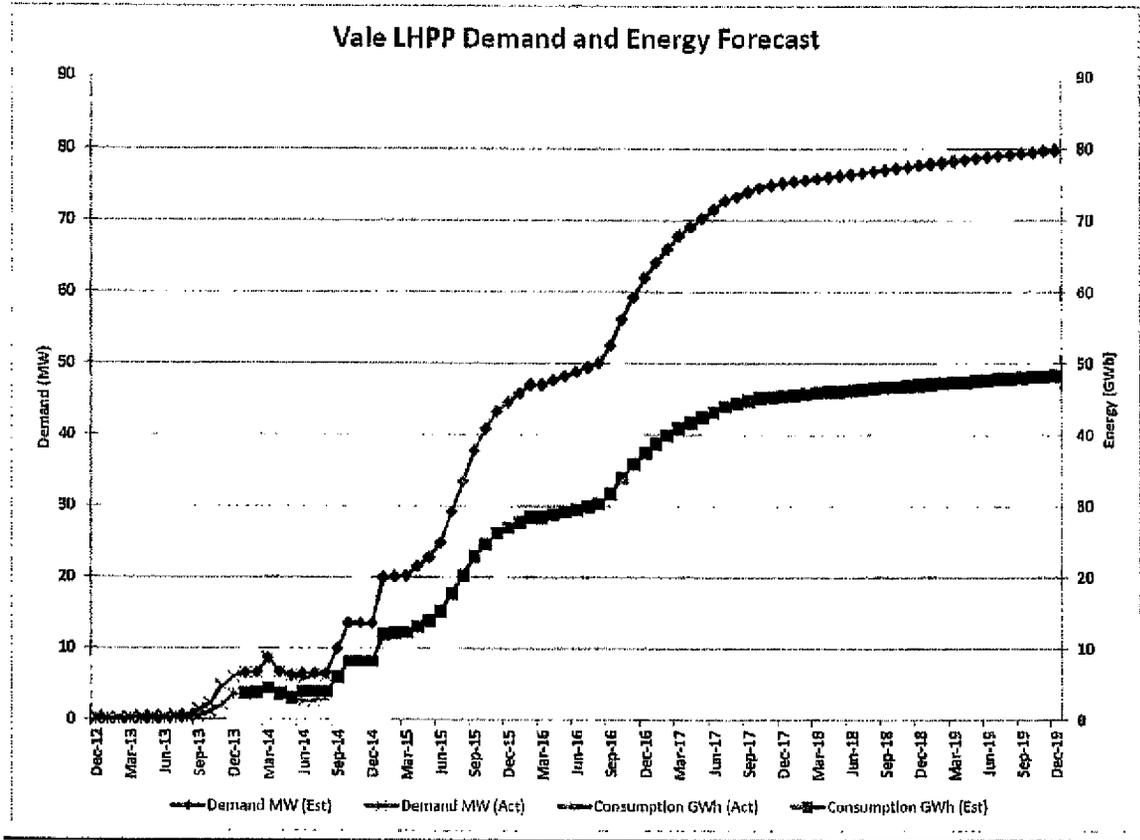
Newfoundland Power forecasts a 2.5 percent energy growth this year. There is a 1.4 percent projected increase in the total number of customers.

In 2013, there was a 2.0 percent energy growth and 1.6 percent growth in total number of customers.

Vale

Vale will soon be going to the ramp up period as per the power service contract. They will then declare a monthly power on order amount.

Vale also presented their load forecast. The following graph indicates the forecast load.



Deer Lake Power

Deer Lake Power noted they are working with the TakeCharge program within NLH on the industrial rebate program. They are working together to increase efficiency to reduce demand. The results to date have been very positive.

8. Rate Stabilization Plan (RSP)

Newfoundland and Labrador Hydro

The rate stabilization plan balances were reviewed with the following highlighted:

- 2013 Review
  - Hydraulic Production
    - o 222 GWh more than cost of service (\$20.4 M credit)
    - o \$56.5 M balance at year end
    - o \$16.7 M allocated back to customers
  - Fuel price impact
    - o 1.6 barrels consumed
    - o Cost \$51.16/bbl more than cost of service
    - o \$82.1 M due to customers
  - Year end balances
    - o NP Customers - \$80.2 M credit
    - o Industrial customers - \$0.5 M debit
- To date in 2014
  - Hydraulic Production
    - o 269 GWh more than cost of service (\$23.6 M credit)
    - o \$66.1 M credit balance at the end of July
  - Fuel price impact
    - o 1.5 barrels consumed
    - o Cost \$56.53/bbl more than cost of service
    - o \$84.8 M due to customers
  - 2014 balances (Up to July 31<sup>st</sup>)
    - o Utility Customer - \$29.6 M credit
    - o Industrial customers - \$5.3 M debit
    - o Hydraulic - \$66.1 M credit
    - o Utility Load - \$0.3 M debit
    - o Industrial Load - \$25.0 M credit
    - o Utility RSP - \$120.3 M credit
    - o Industrial RSP - \$10.9 M credit

9. **Reliability Performance**

**Newfoundland and Labrador Hydro**

Hydro's reliability performance was reviewed. The following were highlighted:

- Unsupplied energy (MW-Mins) is above target for 2014. NLH has had an increase in this in both 2013 and 2014

Year	Planned	Forced	UFLS	Combined
2014 YTD	7,635	229,429	4,243	241,307
2014 T	11,500	16,000	2,500	30,000

- The number of under-frequency events has been averaging at 6 per year between 2009 and 2013. In 2014, there have been 10 to date.
- The System Average Interruption Frequency Index (SAIFI) for 2013 was
  - Newfoundland Power : 1.2 interruptions per delivery point
  - Industrial : 0.7 interruptions per delivery point
- The System Average Interruption Duration Index (SAIDI) for 2013 was
  - Newfoundland Power: 156 minutes per delivery point
  - Industrial Customers: 279 minutes per delivery point

**Newfoundland Power**

Newfoundland Power provided the following information:

	August 31	Target August	Target Year End 2014
SAIFI	1.34	1.14	1.71
SAIDI	1.71	1.45	2.41

10. **Control Room**

**Newfoundland and Labrador Hydro**

- ECC uses an electronic application for the Work Protection Code (WPC). This is now fully functional as the testing portion of the application went in production in March of this year.
- ECC completes annual refresher training in the WPC using customized online training.
- One training session using the Operator Training Simulator has been completed to date. Another session is planned for the fall timeframe.
- A Backup Control Centre exercise will take place in October.

- ECC staffing
  - One new System Operator trained, started in the shift rotation in June
  - Two System Operators currently in training. One will be on shift the end of 2014. The other is from Holyrood and will return to the plant in April 2015.
  - A new System Operator Trainee is being recruited.
- ECC modifications
  - Currently looking at the requirements for modifications to the ECC when Muskrat Falls comes on stream.

#### Newfoundland Power

Newfoundland Power has a control room staff of 12, structured using four 3-person teams. They have potential retirements in the next 2 – 3 years.

Other Items discussed:

- SCADA system replacement has started. Scheduled to be in service in 2016.
- There will be changes to the mobile radio system. NP will be transferring to the Aliant passport system.

#### Vale

Vale are starting to ramp up their production and are starting to staff up their control room for the facility.

#### Action items

- [REDACTED] to follow up with Vale regarding a communications protocol for the Vale control room and the Energy Control Centre.
- [REDACTED] to provide contact number for the Vale control room.

#### Deer Lake Power

Deer Lake Power currently has a full complement of operators. They also recently signed a Memorandum of Understanding (MOU) with NLH and the government for the apprenticeship program.

### **11. Other Items**

- Discussed ways to try and improve the meetings and participation. Things like time of year and topics of interest.
- NP and NLH suggested that outage coordination meetings should happen early in the year (i.e. March/Early April).
- [REDACTED] discussed the Automatic Generation Control (AGC) application used in the ECC and how NLH will be modifying this to look at the total island generation. This would now include generation from NP and Deer Lake Power.

**12. Next Meeting's Host**

Newfoundland Power will host the meeting in 2015. The time and date will be determined. However, consensus among the group is to hold the meeting in May, as has been done in past years.

The session concluded at 2:30 pm.

