Q. (Re: September 2014 Report submitted as part of Application) It is stated (page 4 lines 20 to 21): "*As part of the review, a construction work plan was developed and approved by both Project Execution and Hydro Operations in Labrador*". Please file copies of the original construction work plan and the new construction work plan that received approval by both Project Execution and Hydro Operations in Labrador.

A. Please see CA-NLH-4 Attachment 1 for the original work plan and CA-NLH-4 Attachment 2 for the work plan for 2014. The work plan for 2015 is currently being drafted and has not been completed to date.

SCOPE OF WORK FOR THE 25 KV UPGRADING PLAN

Due to the complexity of this plan and the amount of work required to implement it, it is recommended the upgrades be performed over a number of years. The first phase of the plan will be the upgrading of the Vanier Substation and the portion of Quartzite Substation associated with T2 to 25 kV, the conversion of feeders L6, L7, L8, L21, L22, and L23, the construction of a tie line between Vanier and Quartzite Substation, and reconnecting the Vanier Substation to L33. The second phase would include upgrading the remaining half of the Quartzite Substation to 25 kV, converting feeders L12, L13, L14, L19, and L20 to 25 kV, and the removal of the Harrie Lake Substation from service. The third phase of the upgrades would include converting feeders L1, L2, L3, L4, L5, L15, L16, L17, and L18 to 25 kV, and removing the Bartlett Substation and the Hudson Substation. The final phase of the upgrades will involve removing of the Townsite Switching Station. Once completed the Vanier substation and Quartzite Substation would remain and the Bartlett, Harrie Lake, Hudson, and Townsite Switching Substations would be removed.

Note max foreseeable fault levels for breaker sizing are provided. This takes the following upgrades and conditions into consideration. Maximum foreseeable fault levels include the installation of the third synchronous condenser at Wabush Terminal Station, a third 230 kV circuit into Labrador West, all 46 kV tie switches/breakers closed, and the 25 kV bus tie breaker in the substations closed. Transformer impedances were assumed to be approximately 6 %, similar to Quartzite Transformer No. 2.

1.1 VANIER SUBSTATION

Extend and upgrade the Vanier Substation:

- Extend the Vanier Substation Northward.
- Remove the existing 4.16 kV equipment.
- Install a new control building of suitable size.
- Construct a new transformer pad.
- Construct a 46 kV box structure complete with 46 kV bus and two breakers bays. The structure should be laid out such that and additional breaker can be accommodated in the future.
- Purchase and install two 46 kV breakers.
    - As a minimum the breakers should have the following capabilities:
        - Symmetrical Interrupting Rating: 10631 A, 847 MVA
        - Continuous Current Rating: 941 A.
- Purchase and install two 46/25 kV, 15/20/25 MVA power transformers.
    - Transformers are to be fitted with On Load Tap Changers having 33 positions at 0.625 % per tap. The taps are to have a range from 39.1 kV (0.85) to 48.3 kV (1.05).
- Construct a 25 kV box structure, adjacent to the existing structure.

  - The structure is to contain a 25 kV bus, and three 25 kV breaker bays.
  - The structure is to be laid out such that sufficient space is available for a bus tie breaker, and the transformer load side breakers.
- Purchase three new 25 kV circuit breakers,
  - Two of the breakers will be installed between the transformer load side bushings and the 25 kV bus.
  - The third breaker will be installed as a bus-tie breaker between B1 and B2.
  - As a minimum the breakers should have the following capabilities:
    - Symmetrical Interrupting Rating: 7066 A, 306 MVA
    - Continuous Current Rating: 686 A.
- Purchase and install five reclosers, along with all necessary buswork, etc.
  - As a minimum the reclosers should have the following capabilities:
    - Symmetrical Interrupting Rating: 7066 AIC, 306 MVA,
    - Continuous Current Rating: 560 A.
- Leave the provision for an additional recloser.
- Purchase and install all necessary metering and RTUs to provide full SCADA capabilities to EMS control.
- A total of six 941 A 46 kV disconnect switches will be required.
- A total of two 686 A 25 kV class disconnects will required for isolation of the power transformer and low voltage circuit breaker.
- A total of fifteen 560 A 25 kV class disconnects will required for isolation and the recloser bypass switches.

1.2 QUARTZITE SUBSTATION

Rebuild and upgrade the Quartzite Substation:

- Remove the existing 4.16 kV equipment.
- Install a new control building of suitable size.
- Construct a 46 kV box structure complete with 46 kV bus and two breakers bays. The structure should be laid out such that and additional breaker can be accommodated in the future.
- Purchase and install two 46 kV breakers.
  - As a minimum the breakers should have the following capabilities:
    - Symmetrical Interrupting Rating: 9765 A, 778 MVA.
    - Continuous Current Rating: 941 A.
- Purchase and install two 46/25 kV, 15/20/25 MVA power transformers.
  - Transformers are to be fitted with On Load Tap Changers having 32 tap positions at 0.625 % per tap. The taps are to have a range from 39.1 kV (0.85) to 48.3 kV (1.05).
- Construct two 25 kV box structures.
  - Each structure is to contain a 25 kV bus, and three 25 kV breaker bays.
  - The structures are to be laid out such that sufficient space is available for a bus tie breaker, and for transformer load side breakers.

- Purchase three new 25 kV circuit breakers, two of the breakers will be installed between the transformer load side bushings and each 25 kV bus, the third breaker will be installed as a bus-tie breaker between B1 and B2.
    - As a minimum the breakers should have the following capabilities:
        - Symmetrical Interrupting Rating: 6851 A, 297 MVA.
        - Continuous Current Rating: 686 A.
- Purchase and install four new reclosers, along with all necessary buswork, disconnects, etc.
    - As a minimum the reclosers should have the following capabilities:
        - Symmetrical Interrupting Rating: 6851 A, 297 MVA.
        - Continuous Current Rating: 560 A.
- Leave the provision for two additional reclosers.
- Purchase and install all necessary metering and RTUs to provide full SCADA capabilities to EMS control.
- A total of six 941 A 46 kV disconnect switches will be required.
- A total of two 686 A 25 kV class disconnects will required for isolation of the power transformer and low voltage circuit breaker.
- A total of eighteen 560 A 25 kV class disconnects will required for isolation and the recloser bypass switches.

1.3 DISTRIBUTION FEEDER UPGRADES

1.3.1 Line Extensions/Upgrades

- Construct ~60 m of double circuit line from structure 543 behind 807 Carol Drive to structure 544 behind 807 Carol Drive.
- Extend L15 ~80m from structure 363 (behind 512 Carol Drive) to structure 544 on L18 using 477 ASC Cosmos conductor.
- Upgrade ~180 m of feeder 15 from structure 360 to structure 363 to 3-Phase.
- Extend L15 ~80m from structure 385 (behind 618 Carol Drive) to structure 691 on L6 (behind 621 Carol Drive) using 477 ASC Cosmos conductor.
- Open L18 between structure 535 and structure 536 near the Vanier Substation.
- Construct ~90 m of 3-Phase line from the Vanier Substation to structure 536.
- Construct ~90 m of 3-Phase line from the Vanier Substation to structure 535.

The total required line extensions and upgrades to the low voltage distribution system is approximately 580 m. Since the system will be designed for contingency switching ability, and to remain consistent with the existing infrastructure, the type of conductor to be used for the above noted upgrades should be 477 ASC Cosmos.

1.3.2 Feeder Reconfigurations

Since the number of feeders will be reduced, some of the existing lines will have to be reconfigured. Most of this work will involve transferring existing feeders or sections of feeders to new 25 kV lines. The majority of the reconfigurations can be done using existing disconnects and tie switches. Load and Voltage Study results are required before feeder configurations can be finalized. The following describes a proposed reconfiguration based on the information currently available to provide roughly equal loading on each line. This work assumes that the line construction and upgrades described in the preceding section have already been completed, and that the voltage conversions on the respective line sections will be completed at the time they are transferred.

- Open feeder VA23 at structure 546. Reconnect the section of VA23 that feeds the Labrador City Mall to feeder VA22.
- Open disconnect QZ7-D2. Reconnect the section of QZ7 from Centennial Drive to Churchill Street to feeder VA22 by closing tie switch QZ7VA22-1.
- Open disconnect QZ6-D4, and close tie switches HU18VA23-1 and QZ6HU18-1 to transfer a section of feeder HU18 and feeder QZ6 to feeder VA23.
- Open L15 at structure 380 on both the source and load sides. Close tie switch BA2HU15-1 and open disconnect BA2-D4 to transfer the bulk of feeder BA2 to the new feeder VA23.
- Open disconnect BA1-D1, and close tie switch BA1BA2-1 to transfer the whole of feeder BA1 to the new feeder VA23.
- Open disconnect QZ8-D8, and close the tie switch BA1QZ8-1 to transfer the respective section of feeder QZ8 to the new feeder VA23.
- Open L15 at structure 338. Transfer the whole of feeder HU15 to the new feeder VA15 by closing the disconnect HU15-D6.
- Transfer feeder BA3 to the new feeder VA15 by closing the tie switch BA3HU15-1.
- Transfer the remainder of feeder BA2 to the new feeder VA15 by jumpering the lines together at structure 183.
- Open the disconnect HU17-D10. Jumper the lines sections of BA1, BA2, BA3, and HU17 just outside the Bartlett Substation together to transfer the respective section of feeder HU17 to the new feeder VA15.
- Open disconnect HU17-D12 and transfer the section of feeder HU17 bounded by HU17-D10 and HU17-D12 to the new feeder VA15.
- Transfer the sections of feeder HU18 bounded by HU18VA21-2, HU18-D2, HU18-D7 and the industrial park to feeder VA21.
- Open feeder HU16 and install a normally open disconnect at structure 1439. Reconnect the section of L16 bounded by Airport Road and Humphrey Avenue to the new feeder VA21 by closing tie switch HU16HU18-1.
- Transfer the remainder of feeder HU18 from Vanier Substation to Hudson Substation to the new feeder VA18.
- Transfer the remainder of feeder HU17 to the new feeder VA18 by jumpering the lines near the Hudson Substation.

- Transfer the remainder of feeder HU16 to the new feeder VA18 by closing the tie switch HU16HU17-1.
- Transfer feeder QZ6 to the new feeder QZ8 by closing the tie switch QZ6QZ8-1.
- Transfer the remainder of feeder QZ7 to the new feeder QZ8 by jumpering the lines together at structure 580.
- Transfer the remaining of section feeder HU15 bounded by tie switch QZ6HU15-1 and structure 380.
- Transfer a section of feeder QZ13 to feeder QZ12 by opening the disconnect QZ13-D4 and closing the tie switch QZ12QZ13-1.
- Transfer a section of feeder QZ8 to feeder QZ12 by opening the disconnect QZ8-D6 and closing the tie switch QZ8QZ12-2.
- Transfer a section of feeder BA5 to feeder QZ12 by opening the disconnect BA5-D3 and closing the tie switch BA5QZ12-1.
- Transfer a section of feeder BA5 to feeder QZ12 by opening the disconnect BA5-D5 and closing the tie switch BA5QZ12-3.
- Transfer a section of feeder BA4 to feeder QZ13 by opening the disconnect BA4-D8 and closing the tie switch BA4QZ13-2.
- Transfer the remainder of feeders BA4 and BA5 to feeder QZ13 by opening disconnects BA4-D1 and BA5-D1, closing the tie switch BA4QZ13-1 and jumpering BA4 and BA5 together at structure 246.
- Install a normally open disconnect between the new feeders QZ13 and VA15 at the structure behind 404 Bartlett Drive.
- Transfer feeder HL19 to feeder QZ14 by opening the disconnect HL19-D1 and closing the tie switch QZ14HL19-1.
- Transfer feeder HL20 to feeder QZ14 by opening the disconnect HL20-D1 and closing the tie switch QZ14HL20-1.

The above work will complete the conversion and reconfiguration of the 4.16 kV distribution feeders to the new 25 kV distribution system. The reconfiguration will off load the Bartlett, Hudson, and Harrie Lake Substations and will allow them to be removed from service.

1.3.3 Primary and Underground Services

There are a number of primary, underground, and customer owned services in Labrador City. The system will have to be surveyed to determine the exact number. The previous plan determined that most of the customers are willing to be switched to overhead services. However, as this would involve replacement of underground cables, removal of padmount and indoor transformers, and replacement of service entrances, completely converting the services to overhead may prove to be costly. An alternate solution to serve these customers is to install pole mounted 25/4.16 kV step-down transformers and continue to supply these customers at 4.16 kV, therefore the underground services could remain intact.

The Smokey Mountain line is a section of feeder Vanier 21, it runs from the Beverly Lake Water Supply to the Smokey Mountain Ski Hill. Much of this line is not constructed to NL Hydro Standards and to convert it would require significant upgrading of approximately 5.7 km of distribution line. To lower the cost of conversions a step down transformer should be installed so that the line can continue to be operated at 4.16 kV.

The Labrador City Mall is fed by five underground primary services which run under the mall parking lot to indoor transformers (1 MVA) inside the building. Pole/platform mounted transformers should be installed to avoid complete replacement of the existing customer owned equipment.

1.3.4 QNS&L Railway Feeder

The Quebec North Shore and Labrador Railway (QNS&L) line is a 23/11.5 kV single-phase center-tapped customer owned line. The line runs from Labrador City, NL to Sept Isles, PQ, and is constructed with two hot conductors and uses a ground return path for phase to neutral connected loads. Currently this line is fed from the Hudson Substation via a pair of 2.4/23-11.5 kV single-phase power transformers (400 kVA each). The center-tap connection on the transformers is grounded to provide the neutral return path for the line.

The line is metered at the substation and demand readings show this line has exceeded the capacity of the transformers by 19 % of the rated nameplate capacity. The load on this customer owned line will require a capacity increase. It is recommended to replace the existing transformers with two 25/23-11.5 kV, 1 MVA units once the conversion of L16 to 25 kV is completed. The transformers will no longer be located at Hudson Substation as it is slated for removal. Instead the transformers will be located within QNSLs railway yard in the Labrador City Industrial Park. The supply will come off of two phases of L16 (i.e. line-to-line), and will be connected to the line section of L16 that is operated by the QNS&L Railway. The section of the QNS&L line that is located between the Hudson and the new QNS&L substation is to be removed.

1.4 46 KV SUBTRANSMISSION FEEDER UPGRADES

The present 46 kV system in Labrador City consists of a single 46 kV line (L32) from Wabush Terminal Station to the Townsite Switching Station, and three radial feeders (L9, L10, and L11) which serve the 46/4.16 kV substations. A second feeder from Wabush Terminal Station (L33) runs to Fermont, Quebec. There are tie points on this line near the Townsite, Hudson, Vanier, and Harrie Lake Substations. This forms a quasi-looped system. However utilizing this loop requires manual switching operations by the regions line crews, and since only a

single feed runs into the individual substations the effectiveness of this configuration is somewhat limited.

To improve the operability of this system, the 46 kV subtransmission system will be upgraded to a looped system similar to the electrical systems in Corner Brook, and Stephenville. At least two feeds will be brought into each substation, with control provided by the high voltage breakers in the substations.

The line to ground fault levels on the 46 kV system in Labrador West are limited to approximately 24 MVA (300 A). This is for purposes of protecting the machinery at the mine sites. Additionally the ground resistivity in the region is rather high; therefore to adequately protect the system from line-to-ground faults it will be necessary to operate the system as an open loop.

Since two substations will remain in the 25 kV system, a single tie line will be constructed between Vanier Substation and Quartzite Substation.

The work to upgrade the 46 kV subtransmission system to an open loop will involve the following:

- Construct approximately 300 m of 46 kV (3ART Structure Type, 477 ASC – Cosmos) line from the Quartzite Substation to the nearest point on L9 (near the intersection of Cavendish Crescent and Bartlett Drive).
- Remove the section of L9 between the new tap to the substation and the existing tap to the substation (two to three spans).
- Under contingency the 266.8 ACSR Partridge conductor on L9 does not have sufficient capacity to supply the Labrador City Distribution and Fermont. Therefore this line (~4.5 km) will be reconductored to 477 ASC Cosmos.
- Construct approximately 450 m of 46 kV (3ART Structure Type, 477 ASC – Cosmos) line from the Vanier Substation to the nearest point on L33 (near the Beverley Lake Pumping Station where L11 and L33 separate).
- Open and remove switch TS11-D12. Jumper over switch TS11WA33-2 and remove the tie switch. The Vanier Substation will be fed via L33.
- Remove the section of L33 between the two taps to the Vanier Substation (approximately one span).
- Purchase and install three disconnect switches on L33 at the Fermont-Harrie Lake tap. The switches may be gang operated and capable of carrying up to 81 MW of power.
- Purchase and install a 46 kV disconnect on L33 just after the tie switch WA33WA36-1.

To enable energizing of L33 while still remaining isolated from Fermont. The border switch WA33-D3 will be kept normally open. The health of this line will be monitored as far as the border switch by the breaker at Vanier Substation, VA33-CB1. It will be necessary to inform Hydro Quebec of the proposed new operating arrangement, so they can arrange for monitoring the health of the line at their end.

Upon completion of the above noted work on the 46 kV System the following equipment is to be removed:

- Remove 46 kV disconnects and tie switches TS11WA33-1, TS9TS10-1, TS11-D2, TS11-D12, TS11WA33-2, TS9-D5, TS9WA33-1, WA33-D2.
- Remove L11 and all associated hardware.
- Remove L10 and all associated hardware.

1.5 ASSET RETIREMENTS

Upon completion of this work the following assets are to be retired:

- Remove 46 kV disconnects and tie switches TS11WA33-1, TS9TS10-1, TS11-D2, TS11-D12, TS11WA33-2, TS9-D5, TS9WA33-1, WA33-D2.
- Remove L10 and all associated hardware.
- Remove L11 and all associated hardware.
- Feeder L9 is to be retired, this asset will be transferred to L32.
- Remove the Bartlett Substation and all associated hardware.
- Remove the Hudson Substation and all associated hardware.
- Remove the Harrie Lake Substation and all associated hardware.
- Remove the double circuit on BA4 and BA5.

Labrador City Voltage Conversion

Reduced Scope: 2014 Work Schedule

	18-May-14	19-May-14	20-May-14	21-May-14	22-May-14	23-May-14	24-May-14	25-May-14	26-May-14	27-May-14	28-May-14	29-May-14	30-May-14	31-May-14	1-Jun-14	2-Jun-14	3-Jun-14	4-Jun-14	5-Jun-14	6-Jun-14	7-Jun-14	8-Jun-14	9-Jun-14	10-Jun-14	11-Jun-14	12-Jun-14	13-Jun-14	14-Jun-14	15-Jun-14	16-Jun-14	17-Jun-14	18-Jun-14	19-Jun-14	20-Jun-14	21-Jun-14	22-Jun-14	23-Jun-14	24-Jun-14	25-Jun-14	26-Jun-14	27-Jun-14	28-Jun-14	29-Jun-14	30-Jun-14	1-Jul-14	2-Jul-14	3-Jul-14	4-Jul-14	5-Jul-14	6-Jul-14	7-Jul-14	8-Jul-14	9-Jul-14	10-Jul-14	11-Jul-14	12-Jul-14	13-Jul-14	14-Jul-14	15-Jul-14	16-Jul-14	17-Jul-14	18-Jul-14
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
SHIFT #1 - May 20 to June 3 **Outage Bartlett L4 on May 24** **Outage Bartlett L5 on May 25** **Convert Quartzite Line 6 on May 31 & June 1 (29 Transformers)**																																																																		
OFF SHIFT																																																																					
SHIFT #2 - June 10 to June 24 **Outage Bartlett L4 on June 14** **Outage Quartzite L13 on June 15** **Convert Quartzite Line 7 on June 21 & 22 (13 Transformers)**																																																																		
OFF SHIFT																																																																					
SHIFT #3 - July 1 to June 15 **Outage Quartzite L13 on July 5** **Outage Bartlett L4 on July 6** **Convert Quartzite Line 8 on July 12 & 13 (36 Transformers)**																																																																	
OFF SHIFT																																																																					
SHIFT #4 - July 22 to August 5 **Convert Quartzite Line 12 on August 2 & 3 (29 Transformers)**																																																																	
OFF SHIFT																																																																					
SHIFT #5 - August 12 to August 26 **Partial Conversion of Quartzite Line 13 on August 23 & 24 (64 Transformers)**																																																																	
OFF SHIFT																																																																					
SHIFT #6 - September 2 to September 16 **Complete Conversion of Quartzite Line 13 on September 13 & 14**																																																																	
OFF SHIFT																																																																				
SHIFT #7 - September 23 to October 7 **Convert Bartlett Line 4 on October 4 & 5 (45 Transformers)**																																																																
OFF SHIFT																																																																				
SHIFT #8 - October 14 to October 28 **Convert Bartlett Line 5 on October 25 & 26 (35 Transformers)**																																																																

Labrador City Voltage Conversion

Reduced Scope: 2014 Work Schedule

	19-Jul-14	20-Jul-14	21-Jul-14	22-Jul-14	23-Jul-14	24-Jul-14	25-Jul-14	26-Jul-14	27-Jul-14	28-Jul-14	29-Jul-14	30-Jul-14	31-Jul-14	1-Aug-14	2-Aug-14	3-Aug-14	4-Aug-14	5-Aug-14	6-Aug-14	7-Aug-14	8-Aug-14	9-Aug-14	10-Aug-14	11-Aug-14	12-Aug-14	13-Aug-14	14-Aug-14	15-Aug-14	16-Aug-14	17-Aug-14	18-Aug-14	19-Aug-14	20-Aug-14	21-Aug-14	22-Aug-14	23-Aug-14	24-Aug-14	25-Aug-14	26-Aug-14	27-Aug-14	28-Aug-14	29-Aug-14	30-Aug-14	31-Aug-14	1-Sep-14	2-Sep-14	3-Sep-14	4-Sep-14	5-Sep-14	6-Sep-14	7-Sep-14	8-Sep-14	9-Sep-14	10-Sep-14	11-Sep-14	12-Sep-14	13-Sep-14	14-Sep-14	15-Sep-14	16-Sep-14	17-Sep-14	18-Sep-14
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
SHIFT #1 - May 20 to June 3 **Outage Bartlett L4 on May 24** **Outage Bartlett L5 on May 25** **Convert Quartzite Line 6 on May 31 & June 1 (29 Transformers)**																																																														
OFF SHIFT																																																														
SHIFT #2 - June 10 to June 24 **Outage Bartlett L4 on June 14** **Outage Quartzite L13 on June 15** **Convert Quartzite Line 7 on June 21 & 22 (13 Transformers)**																																																														
OFF SHIFT																																																														
SHIFT #3 - July 1 to June 15 **Outage Quartzite L13 on July 5** **Outage Bartlett L4 on July 6** **Convert Quartzite Line 8 on July 12 & 13 (36 Transformers)**																																																													
OFF SHIFT	▨	▨	▨																																																									
SHIFT #4 - July 22 to August 5 **Convert Quartzite Line 12 on August 2 & 3 (29 Transformers)**				🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟥	🟥	🟩	🟩																																											
OFF SHIFT																			▨	▨	▨	▨	▨	▨																																						
SHIFT #5 - August 12 to August 26 **Partial Conversion of Quartzite Line 13 on August 23 & 24 (64 Transformers)**																									🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟥	🟥	🟩	🟩																							
OFF SHIFT																																								▨	▨	▨	▨	▨	▨																	
SHIFT #6 - September 2 to September 16 **Complete Conversion of Quartzite Line 13 on September 13 & 14**																																														🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟩	🟥	🟥	🟩	🟩		
OFF SHIFT																																																													▨	▨
SHIFT #7 - September 23 to October 7 **Convert Bartlett Line 4 on October 4 & 5 (45 Transformers)**																																																														
OFF SHIFT																																																														
SHIFT #8 - October 14 to October 28 **Convert Bartlett Line 5 on October 25 & 26 (35 Transformers)**																																																													

Labrador City Voltage Conversion

Reduced Scope: 2014 Work Schedule

	19-Sep-14	20-Sep-14	21-Sep-14	22-Sep-14	23-Sep-14	24-Sep-14	25-Sep-14	26-Sep-14	27-Sep-14	28-Sep-14	29-Sep-14	30-Sep-14	1-Oct-14	2-Oct-14	3-Oct-14	4-Oct-14	5-Oct-14	6-Oct-14	7-Oct-14	8-Oct-14	9-Oct-14	10-Oct-14	11-Oct-14	12-Oct-14	13-Oct-14	14-Oct-14	15-Oct-14	16-Oct-14	17-Oct-14	18-Oct-14	19-Oct-14	20-Oct-14	21-Oct-14	22-Oct-14	23-Oct-14	24-Oct-14	25-Oct-14	26-Oct-14	27-Oct-14	28-Oct-14	29-Oct-14	30-Oct-14	31-Oct-14	1-Nov-14
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SHIFT #1 - May 20 to June 3 **Outage Bartlett L4 on May 24** **Outage Bartlett L5 on May 25** **Convert Quartzite Line 6 on May 31 & June 1 (29 Transformers)**																																										
OFF SHIFT																																										
SHIFT #2 - June 10 to June 24 **Outage Bartlett L4 on June 14** **Outage Quartzite L13 on June 15** **Convert Quartzite Line 7 on June 21 & 22 (13 Transformers)**																																										
OFF SHIFT																																										
SHIFT #3 - July 1 to June 15 **Outage Quartzite L13 on July 5** **Outage Bartlett L4 on July 6** **Convert Quartzite Line 8 on July 12 & 13 (36 Transformers)**																																										
OFF SHIFT																																										
SHIFT #4 - July 22 to August 5 **Convert Quartzite Line 12 on August 2 & 3 (29 Transformers)**																																										
OFF SHIFT																																										
SHIFT #5 - August 12 to August 26 **Partial Conversion of Quartzite Line 13 on August 23 & 24 (64 Transformers)**																																										
OFF SHIFT																																										
SHIFT #6 - September 2 to September 16 **Complete Conversion of Quartzite Line 13 on September 13 & 14**																																										
OFF SHIFT																																										
SHIFT #7 - September 23 to October 7 **Convert Bartlett Line 4 on October 4 & 5 (45 Transformers)**																																										
OFF SHIFT																																										
SHIFT #8 - October 14 to October 28 **Convert Bartlett Line 5 on October 25 & 26 (35 Transformers)**																																										