EB-2014-0099

North Bay Hydro Distribution Ltd. (“North Bay Hydro”)

Technical Conference Undertaking Responses

May 13, 2015

INDEX

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.1:

TO UPDATE THE RESPONSE AT 6-STAFF-19 AND PROVIDE AN UPDATED REVENUE REQUIREMENT WORK FORM IN WORKING EXCEL FORMAT FOR ANY ADDITIONAL CHANGES THAT ARE MADE AS A RESULT OF THE RESPONSE TO THE TECHNICAL CONFERENCE QUESTIONS, AND TO INCLUDE ANY SUCH CHANGES IN THE TRACKING SHEET.

Response:

An updated RRWF in working Microsoft Excel format is provided in the file named "NorthBay_Undertaking_Resp_JT1.1 - 2015_Rev_Reqt_Work_Form_V5_20150513". The adjustments made to the Application are documented in tab "10.Tracking Sheet". For completeness, all the adjustments made to the Application are listed below which include the first three steps outlined in response to 6-Staff-19 plus four additional steps. The adjustments reflect the following:

- Step 1: Application with 2014 actual capital
- Step 2: Step 1 with November 20, 2014 cost of capital parameters and new rate on 2015 SWAP
- Step 3: Step 2 with updated load forecast as per response to 3-Energy Probe-34
- Step 4: Step 3 with a second update to load forecast as per response to JT1.14 plus COP changes as per JT1.8
- Step 5: Step 4 with reduced OM&A outlined in 1-Energy Probe-15

- Step 6: Step 5 with the elimination of the small business tax credit
- Step 7: Step 6 with CCA reclassification

The results of step 7 have also been included in the middle column of the updated RRWF.

With regards to Step 5, the following costs have been removed from USoA 5635 in the 2015 Test year OM&A in relation to the table provided in 1-Energy Probe-15:

Board Expenses	**2015 Test Year**
NBHS Directors & Officers Insurance	5,305
HOLDCO	1,080
Generation	1,080
Total	**7,465**

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.2:

TO PROVIDE AN EXPLANATION FOR ANY SIGNIFICANT DIFFERENCE BETWEEN THE 2015 BUDGET AS APPROVED BY THE EXECUTIVE AND AS SHOWN IN THIS EXHIBIT WITH WHAT WAS FILED IN THE APPLICATION.

Response:

The chart below reconciles the significant differences between the 2015 budget as approved by NBHDL's Board and what was filed in the application. During the process of completing the application there were two budgets approved one on June 26, 2014 and the final on September 18, 2014. Both versions are included in the response for 1-SEC-1. Significant differences have been defined as NBHDL's adopted materiality threshold of $65,000 as defined in the application.

	OM&A
Board Approved Budget June 26, 2014	**6,857,188**
Board Approved Budget September 18, 2014	**7,006,374**
Operational Review amortized over 5 years	(166,400)
Fleet Depreciation	155,871
Other	9,000
2-JA Rate Application	**7,004,845**

For internal budget purposes, NBHDL included the full cost of an operational review in the amount of $208,000; for rate setting purposes the cost was amortized over a 5 year period resulting in a $166,400 reduction. Similarly, the fleet depreciation amount of $155,871 is an adjustment made for rate setting purposes that reflects the appropriate treatment for the capitalization of depreciation costs for NBHDL's fleet to ensure a reduction in depreciation expense and the appropriate amount recovered through OM&A. NBHDL has continued to use the same method for fleet depreciation that was adjusted and approved during the 2010 cost of service settlement process.

During the technical conference[1] working capital values from page 4 of the June 26, 2014 budget report were discussed and NBHDL incorrectly stated that the borrowing in 2014 was $6,000,000. The actual borrowing was $4,000,000; the $6,000,000 borrowing is scheduled for 2015. Confirmation of this correction can be found on page 6 of the budget presentation under the borrowing assumption.

[1] EB-2014-0099 Technical Conference – May 4, 2015 – page 10, line 17

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.3:

TO PROVIDE A VERSION OF THIS TABLE WITH THE BELL FSA CONTRIBUTIONS AND GROSS ADDITION COSTS REMOVED.

Response:

A revised version of the table provided in 2-Energy Probe-22 is provided below with all contributions and gross additions costs related to the Bell FSA project removed. The 5 year (2010 – 2014) average ratio of contributions and grants to the gross addition costs is 53.3% when the Bell FSA project is removed.

CAIC Details	2010 Actuals	2011 Actuals	2012 Actuals	2013 Actuals	2014 Actuals	2015 Test Year
Contributions in Aid of Construction (CAIC)	(905,001)	(464,129)	(675,928)	(927,219)	(500,670)	(503,987)
Gross Addition Cost related to CAIC	1,847,431	838,371	1,250,110	1,375,568	1,223,851	922,353
CAIC Ratio - CAIC Projects	**49.0%**	**55.4%**	**54.1%**	**67.4%**	**40.9%**	**54.6%**

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.4:

TO RECONCILE THE DEPRECIATION EXPENSE SHOWN IN THE REVENUE REQUIREMENT WORK FORM FROM 6-STAFF-19 OF $2,569,662 WITH THE TWO FIGURES SHOWN IN APPENDIX 2-CE OF 2-SCHOOLS-13.

Response:

The depreciation expense shown in the Application column of the Revenue Requirement Work Form from 6-Staff-19 of $2,569,662 was the original amount proposed in NBHDL's application; this was subsequently reduced through the submission of IRRs in the amount of ($57,411) for a revised proposed depreciation amount of $2,512,251 which is shown in the Interrogatory Responses column of the work form. NBHDL would refer to "10.Tracking Sheet" of the Revenue Requirement Work Form filed April 24, 2014 which provides the changes to depreciation as a result of the response to 2-Energy-28 in which NBHDL updated the capital additions to reflect 2014 actuals which in turn impacted the 2015 Test Year capital and depreciation amounts. The changes to depreciation resulted in a revised deprecation amount of $2,512,251 which can be found in the revised Appendix 2-CE in response to 2-SEC-13 d).

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.5:

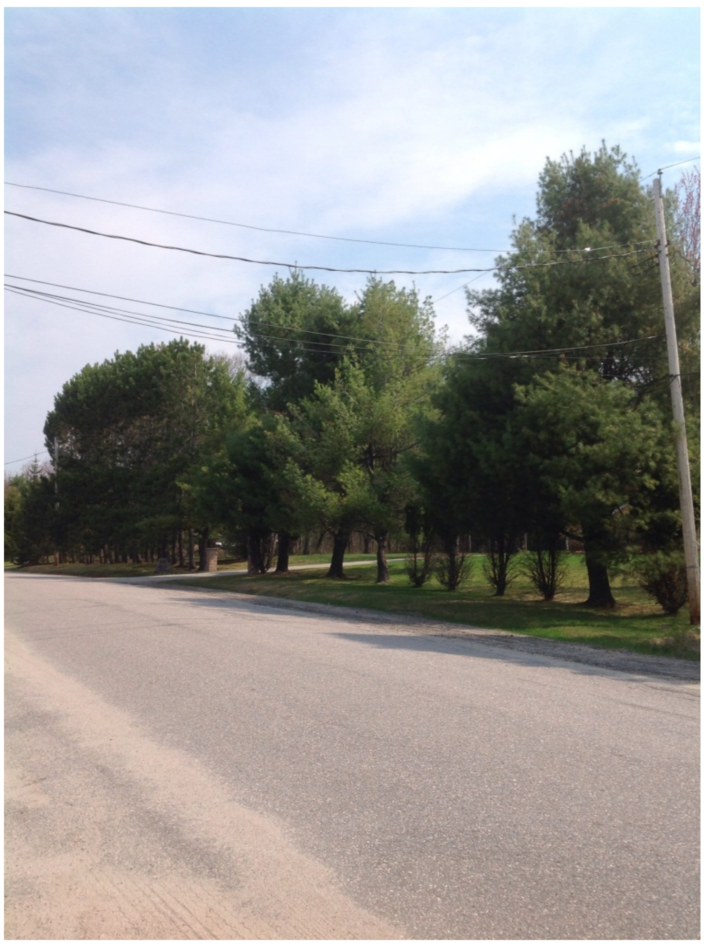
TO PROVIDE THE KILOMETRES OF TREE TRIMMING OF THE RIGHT-OF-WAYS FOR THE YEARS 2010-2014, AND 2015 FORECAST.

Response:

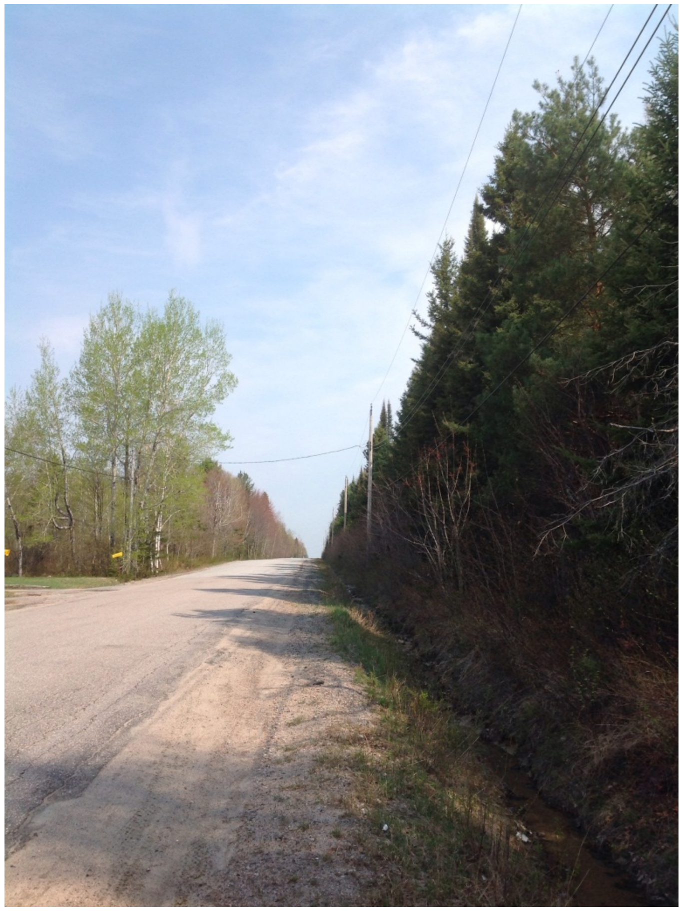
The kilometres of tree trimming of the right of ways for the years 2010-2014, and the 2015 forecast are summarized in the table below:

Cycle	Section	km of Line	2010	2011	2012	2013	2014	2015
1	A	21.43	X					X
	B	44.96	X					X
	C	26.98	X					
	D	41.22	X					
2	A	22.31					X	
	B	19.40					X	
	C	13.01					X	
	D	35.94						X
3	A	18.17			X			
	B	21.61			X			
	C	28.26		X				
	D	22.34						X
4	A	16.29				X		
	B	12.88				X		
	C	36.48				X		
	D	24.43				X		
Total Kilometers of Tree Trimming			**134.60**	**28.26**	**39.78**	**90.08**	**54.72**	**124.67**
Cost			**$279,039**	**$411,366**	**$187,121**	**$350,991**	**$581,736**	**$656,194**

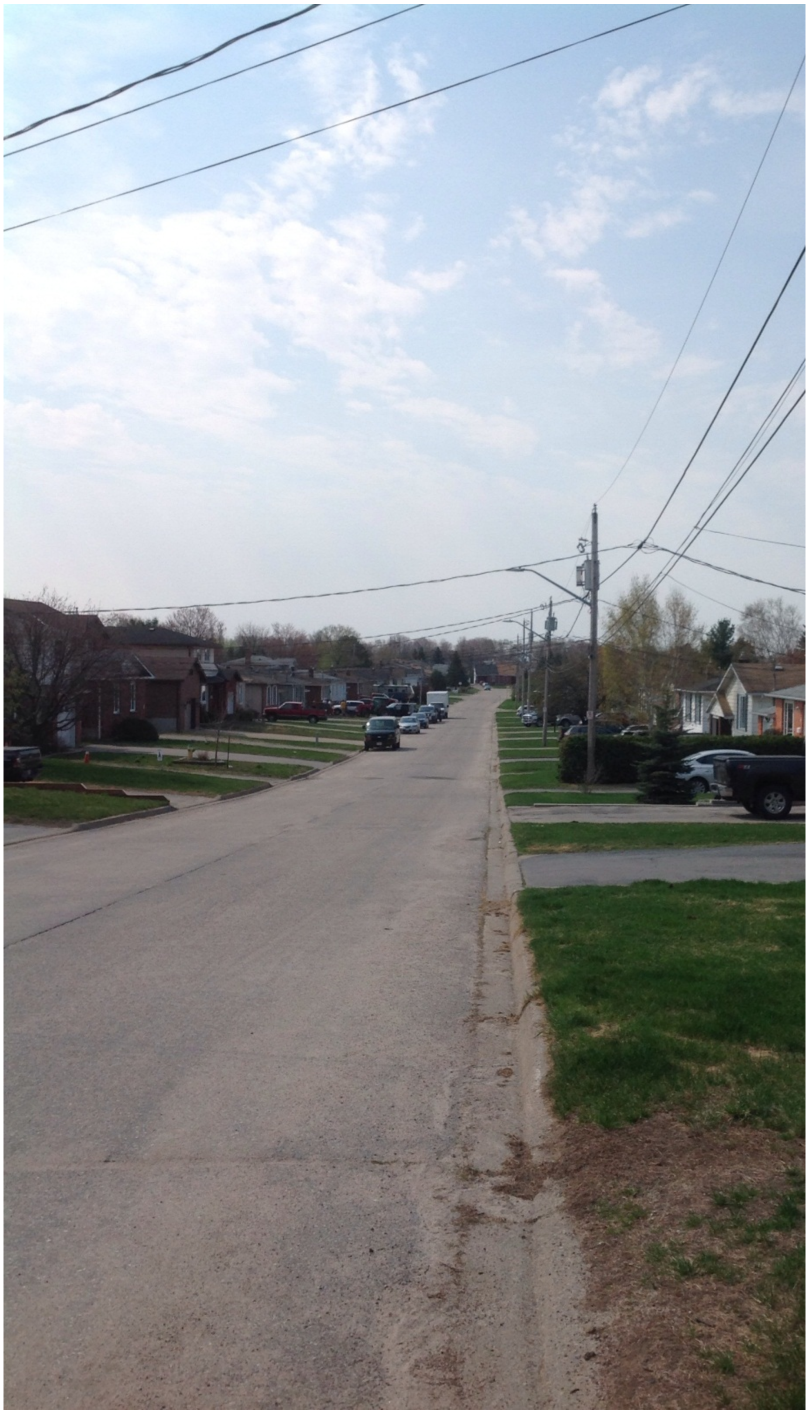
NBHDL prepared this table in response to this specific undertaking, but does not use this information as a metric or tool for the estimation of cycle costs. NBHDL does not believe the information to be indicative of the amount of work required, or the associated costs to perform the work required as the amount, type, size, and location of trees varies from cycle to cycle and from kilometer to kilometer. In addition, there can be a significant difference between the costs required to perform vegetation management activities in urban areas and rural areas. A few pictures have been included below illustrating the differences.



Cycle 1, Section A – 1 span in a rural area requiring the removal of 4 -14” white pines, and 23-10” red pines



Cycle 1, Section A – 1 span in a rural area requiring the removal 63 trees varying from 4” to 26” in diameter



Cycle 1, Section A – 5 spans in an urban area requiring very minimal trimming

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.6:

TO MAKE AN ATTEMPT TO FILL OUT THE TABLE, AND IF THERE ARE SOME BARRIERS TO REPORT BACK AS TO WHAT THOSE ARE.

Response:

NBHDL has completed the table circulated as Exhibit KT-1.2 to the best of its ability considering the data limitations with regards to the level of granularity NBHDL tracks at this point in time. A live Excel spreadsheet has been provided under file name "NorthBay_Undertaking_Resp_JT1.6_KT-1.2 – SEC ACA Summary_20150513". Notes have been provided at the bottom of the table detailing what information is available and what is not.

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.7:

WITH REFERENCE TO 2-SEC-33, APPENDIX 2-AA, THE CAPITAL PROJECTS TABLE, TO PROVIDE THE BREAKDOWN OF THE NUMBER OF TRANSFORMER PURCHASES AS BETWEEN UNDERGROUND AND OVERHEAD FOR THE HISTORICAL PERIOD (BROKEN OUT BETWEEN OVERHEAD AND UNDERGROUND), AND THE FORECAST; TO PROVIDE A BREAKDOWN OF THE TWO LINE ITEMS UNDER SYSTEM SERVICE RELATED TO METER INSTALLMENTS BY NUMBER, AS WELL AS FOR THE HISTORICAL PERIOD AS WELL AS FOR THE FORECAST; TO PROVIDE THE NUMBER OF WOOD POLES REPLACED FOR THE HISTORICAL PERIOD AND THE FORECAST; TO PROVIDE THE NUMBER OF CIRCUIT BREAKERS REPLACED IN THE LAST FIVE YEARS, AND PLANNED FOR REPLACEMENT, WITH THE CORRESPONDING COST.

Response:

NBHDL has filled out the table provided in 2-SEC-33 to the best of its ability considering the data limitations with regards to the level of granularity NBHDL tracks at this point in time. A live version of the spreadsheet is provided under file name "NorthBay_Undertaking_Resp_JT1.7 - 2-SEC-33 Table_20150513".

As explained in the technical conference, direct comparisons between a category of dollars and a specific replacement cost cannot be made as there are more costs/multiple activities within a category than the specific unit/replacement cost. This is the case with the two line items under system service related to meter installations; these two line items are various projects that encompass costs from multiple work orders and NBHDL does not track meter quantities by work order. For the purposes of the 2015 Test Year forecast, the amounts included for "Meter Installs and Upgrades-Smart Meters" of $15,000 represents an estimated meter cost of $75/meter for 200 residential smart meters. The miscellaneous “Meters” line represents an estimate of 5 interval meters at a total estimate of $10,000.

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.8:

TO UPDATE THE COST OF POWER CALCULATION, ASSUMING IT IS A MATERIAL CHANGE, TO REFLECT THE LATEST FORECAST FOR RPP PRICES.

Response:

NBHDL has updated the cost of power calculation to reflect the most recent RPP and non-RPP price obtained from the Regulated Price Plan Price Report for the period of May 1, 2015 to April 30, 2016 published by the Board April 20, 2015. For the purposes of calculating the 2015 Test Year, NBHDL has used an estimate of $.10210 per kWh for RPP customers. For non-RPP customers, NBHDL has used $.10186/kWh which includes $.01992 per kWh for the Forecast Wholesale Electricity Price and $.08194 per kWh for the Impact of the Global Adjustment charges. The calculation was derived using the proposed 2015 load forecast for the purposes of determining NBHDL's 2015 proposed rates as provided in Undertaking NO. JT1.14. The following table has been provided to summarize the proposed cost of power expense.

	Metric	2015 kWh - Jan~Apr	Loss Factor - Current	2015 Uplifted kWh	2015 kWh - May~Dec	Loss Factor - Proposed	2015 Uplifted kWh	2015 kW - UTR	2015 Rates	2015
Electricity - Commodity - RPP										
Class per Load Forecast										
Residential	kWh	75,971,454	1.0480	79,618,084	114,595,767	1.0471	119,993,228		$ 0.10210	$ 20,380,315
GS<50	kWh	27,282,407	1.0480	28,591,963	46,572,633	1.0471	48,766,204		$ 0.10210	$ 7,898,269
GS>50	kWh	4,489,717	1.0480	4,705,223	7,278,892	1.0471	7,621,728		$ 0.10210	$ 1,258,582
Unmetered Scattered Load	kWh	10,704	1.0480	11,218	21,340	1.0471	22,345		$ 0.10210	$ 3,427
Intermediate	kWh		1.0375			1.0366			$ 0.10210	$ -
Sentinel Lighting	kWh	129,569	1.0480	135,788	248,521	1.0471	260,226		$ 0.10210	$ 40,433
Street Lighting	kWh		1.0480			1.0471			$ 0.10210	$ -
TOTAL		**107,883,852**		**113,062,277**	**168,717,153**		**176,663,731**			**$ 29,581,025**
Electricity - Commodity - Non-RPP										
Class per Load Forecast										
Residential	kWh	5,952,069	1.0480	6,237,768	8,978,134	1.0471	9,401,004		$ 0.10186	$ 1,592,965
GS<50	kWh	4,245,280	1.0480	4,449,053	7,260,717	1.0471	7,602,697		$ 0.10186	$ 1,227,591
GS>50	kWh	67,816,717	1.0480	71,071,920	127,249,163	1.0471	133,242,599		$ 0.10186	$ 20,811,477
Unmetered Scattered Load	kWh		1.0480			1.0471			$ 0.10186	$ -
Intermediate	kWh	6,106,035	1.0375	6,335,011	11,148,775	1.0366	11,556,821		$ 0.10186	$ 1,822,462
Sentinel Lighting	kWh	9,551	1.0480	10,009	18,319	1.0471	19,182		$ 0.10186	$ 2,973
Street Lighting	kWh	778,826	1.0480	816,209	1,239,937	1.0471	1,298,338		$ 0.10186	$ 215,388
TOTAL		**84,908,477**		**88,919,971**	**155,895,046**		**163,120,640**			**$ 25,672,857**
TOTAL POWER PURCHASED - USoA 4705		**192,792,329**		**201,982,248**	**324,612,199**		**339,784,371**			**$ 55,253,882**
Wholesale Market Service										
Class per Load Forecast										
Residential	kWh	81,923,523	1.0480	85,855,852	123,573,902	1.0471	129,394,232		$ 0.0041	$ 873,505
GS<50	kWh	31,527,687	1.0480	33,041,016	53,833,350	1.0471	56,368,901		$ 0.0041	$ 362,834
GS>50	kWh	72,306,434	1.0480	75,777,143	134,528,055	1.0471	140,864,327		$ 0.0041	$ 879,152
Unmetered Scattered Load	kWh	10,704	1.0480	11,218	21,340	1.0471	22,345		$ 0.0041	$ 136
Intermediate	kWh	6,106,035	1.0375	6,335,011	11,148,775	1.0366	11,556,821		$ 0.0041	$ 72,607
Sentinel Lighting	kWh	139,120	1.0480	145,798	266,839	1.0471	279,408		$ 0.0041	$ 1,726
Street Lighting	kWh	778,826	1.0480	816,209	1,239,937	1.0471	1,298,338		$ 0.0041	$ 8,581
TOTAL WHOLESALE MARKET SERVICE - USoA 4708										**$ 2,198,541**
Rural Rate Assistance										
Class per Load Forecast										
Residential	kWh	81,923,523	1.0480	85,855,852	123,573,902	1.0471	129,394,232		$ 0.0013	$ 279,825
GS<50	kWh	31,527,687	1.0480	33,041,016	53,833,350	1.0471	56,368,901		$ 0.0013	$ 116,233
GS>50	kWh	72,306,434	1.0480	75,777,143	134,528,055	1.0471	140,864,327		$ 0.0013	$ 281,634
Unmetered Scattered Load	kWh	10,704	1.0480	11,218	21,340	1.0471	22,345		$ 0.0013	$ 44
Intermediate	kWh	6,106,035	1.0375	6,335,011	11,148,775	1.0366	11,556,821		$ 0.0013	$ 23,259
Sentinel Lighting	kWh	139,120	1.0480	145,798	266,839	1.0471	279,408		$ 0.0013	$ 553
Street Lighting	kWh	778,826	1.0480	816,209	1,239,937	1.0471	1,298,338		$ 0.0013	$ 2,749
TOTAL RURAL RATE ASSISTANCE - USoA 4730										**$ 704,297**
Transmission - Network										
Based on 2013 kW for NBHDL										
IESO	kW							1,023,625	$ 3.78000	3,869,303
Hydro One	kW							41,037	$ 3.23000	132,549
RSVA Adjustment										- 307,406
TOTAL NETWORK - USoA 4714										**$ 3,694,445**
Transmission - Connection										
Based on 2013 kW for NBHDL										
IESO	kW							1,075,278	$ 2.86000	3,075,295
Hydro One	kW							41,811	$ 2.27000	94,911
RSVA Adjustment										- 353,411
TOTAL CONNECTION - USoA 4716										**$ 2,816,795**
Low Voltage										
Based on 2013 kW for NBHDL										
Hydro One	kW							40,438	$ 0.68200	27,579
Hydro One - Fixed Charges										7,096
RSVA Adjustment										- 14,771
TOTAL LOW VOLTAGE - USoA 4750										**$ 19,904**
Smart Meter Entity Charges										
Based on 2013 customer count				# of Cust			# of Cust	# of Months		
Residential	CX #			21,124			21,124	12	$ 0.78800	199,749
General Service <50 kW	CX #			2,668			2,668	12	$ 0.78800	25,229
TOTAL SMART METER ENTITY CHARGE - USoA 4751										**$ 224,977**
TOTAL COST OF POWER EXPENSE - 2015										**$ 64,912,842**

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.9:

TO PROVIDE THE IMPACT ON TAXABLE INCOME IN THE TEST YEAR, IF THE 2014 AND '15 ADDITIONS IN COMPUTER SOFTWARE WERE REMOVED FROM CCA CLASS 50 AND PUT IN CCA CLASS 12.

Response:

During the analysis for this undertaking NBHDL noted that a project amounting to $9,000 was included as Computer Hardware (Acct 1920) in the 2015 Continuity Schedule, but should be included in the additions for Computer Software (Acct 1611 – formally Acct 1925). As this amount is immaterial, NBHDL proposes to update the continuity schedule for 2015 when final rates are determined. For clarity, the additions to Computer Software (Acct 1611) for the 2015 Test Year should be $37,250 and additions to Computer Hardware (Acct 1920) for the 2015 Test Year should be $126,800.

If the 2014 (actual - $86,870) and 2015 (forecasted - $37,250) computer software additions are re-allocated to CCA Class 12, from CCA class 50, there would be a ($23,370) reduction to taxable income in the 2015 Test Year.

In reviewing the capital additions for 2014 and 2015 in more detail against the CCA Class definitions in the context of the comments made by Mr. Aiken in the Technical Conference[2], NBHDL has determined that a re-allocation of 2014 actual additions of $86,870 and 2015 forecasted additions of $37,250 to Class 12 is appropriate. NBHDL has made this revision and included the changes in the response to Undertaking NO. JT1.1. NBHDL is proposing a ($23,370) reduction to taxable income in the 2015 Test Year.

[2] EB-2014-0099 Technical Conference – May 4, 2015 – page 77, line 16-19

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.10:

TO REFILE UPDATED SCHEDULES 2-JA, 2-JB AND 2-JC FOR 2014 ACTUALS.

Response:

Tables 2-JA, 2-JB and 2-JC are provided in a live Excel spreadsheet named "NorthBay_Undertaking_Resp_JT1.10 - Tables 2-JA_2-JB_2-JC - IRR 2-SEC-35_20150513".

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.11:

TO EXPAND THE TABLE AND PROVIDE A RESPONSE TO PART A TO INCLUDE 2014 ACTUALS FOR THE CUSTOMER THAT CLOSED SHOP IN 2014.

Response:

The table provided in 3-Energy Probe-37 a) has been updated below to include 2014 actual kWh and kW for the customer in the GS 3,000 to 4,999 kW class that has shut down its operations in North Bay.

GS 3,000 to 4,999 kW	2011	2012	2013	2014
Annual kWh	18,306,480	16,843,520	16,515,224	8,003,616
Annual kW	31,967	30,627	31,107	15,594

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.12:

TO UPDATE THE EQUATION IN ENERGY PROBE 35(B) ADD IN TWO ADDITIONAL EXPLANATORY VARIABLES, ONE OF WHICH -- THE FIRST ONE OF WHICH IS A DUMMY VARIABLE WITH A VALUE OF 1 IN AUGUST OF 2003 FOR THE BLACKOUT AND ZERO ELSEWHERE AND THE EMPLOYMENT VARIABLE, AND THE 8 MILLION CDM ADJUSTMENT (THE CURRENT NUMBERS) IN ONE LIVE EXCEL SPREADSHEET, AS IN 35(B).

Response:

The requested live Excel spreadsheet has been provided in the file named "NorthBay_Undertaking_Resp_JT1.12 - 2015 Load Forecast Model_20150513". This version of the load forecast is the load forecast provided in response to Undertaking NO. JT1.14 with the following changes.

1) The North Bay Economy variable has been set to zero for August 2003.

2) The Blackout Flag variable has been added and set to 1 for August 2003. All other months are set to zero.

3) The Northeastern Employment variable used in response to 3-VECC-17 d).

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.13:

TO DESCRIBE THE RELATIVE CHANGES IN RESIDENTIAL CDM ADJUSTMENT.

Response:

The CDM adjustment is a function of two factors: the estimated savings from CDM and the weighting factor used for the load forecast.

For results from 2011, 2012 and 2013 programs in 2015, there were minor changes to ensure consistency with OPA reported results (after adjustments), as documented in the final table provided in the response to VECC-53. These values do not affect the forecast, as these years are given a weighting factor of 0. In the original submission, a weighting factor of 0.5 was used for 2013 as the forecast did not originally use 2014 actual data. Because the revised forecast did make use of actual 2014 data, the weighting factor for 2013 was reduced from 0.5 to 0.

For 2014, estimated savings at the time of the original submission were revised from estimated savings to the amount necessary to meet NBHDL's OEB specified 2011-2014 target, consistent with the instruction on Appendix 2-I Load Forecast CDM Adjustment Work Form (2015). The preliminary results for 2014 from the IESO suggest that NBHDL will realize savings close to the targets, but NBHDL expects that final results will indicate additional savings not captured in the preliminary results. As suggested by Energy Probe in its IR number 36, NBHL has estimated persistence of 2014 programs into 2015, even though the OEB's Appendix 2-I Load Forecast CDM Adjustment Work Form (2015) does not do so. Because the revised forecast used actual 2014 energy use data, the appropriate weighting factor for 2014 program results in 2015 was reduced from 1.0 to 0.5.

For 2015, the target is expressed more precisely (20,258,133 kWh versus 20,300,000). As the programs from 2011 to 2014 are continuing in 2015, the share across rate classes is more likely to be consistent with that seen for 2013 when these programs were relatively mature, and this results in a greater allocation to the residential rate class, as discussed further below. Estimated savings in 2015 are based on the completion of the cogeneration project, and realization of one-sixth of the remaining 2020 target.

There is no change to the weighting factor for 2015 programs in 2015; it remains at 0.5.

Looking at individual classes, beginning with the Residential class, the anticipated CDM savings in 2013, 2014 and 2015 programs in 2015 are higher than originally estimated, even after incorporating loss of persistence of programs from 2013 and 2014. This is primarily due to higher than originally anticipated savings in 2014 and 2015 in this class, resulting in savings in 2015 from 2015 programs and 2013 and 2014 program persistence of 2,725,796 kWh versus the original estimate of 1,562,200 kWh. Where originally the residential class was anticipated to be responsible for 20% of overall savings, based on 2013 results that number is closer to 44% (excluding street lighting and GS 3000 – 4999 classes). However, by incorporating actual 2014 usage data into the load forecast, and thereby changing the weighting factors from 0.5, 1.0, and 0.5 in 2013, 2014 and 2015 respectively to 0.0, 0.5 and 0.5 in 2013, 2014 and 2015 respectively, the average weighting factor went from 0.628 for the three years in the original forecast to 0.325 in the revised forecast. Consequently, the load factor adjustment in the residential sector went from 981,146 kWh in the original forecast to 884,849 in the revised forecast.

In the case of the GS<50 rate class, there was a more significant reduction in anticipated savings over the three years. The 2013 results used to estimate the 2015 allocation across rate classes are showing about 25% of savings in this rate class, whereas it had previously been estimated at 35% (not including the REM). In addition, the overall savings across all rate classes in 2014 was reduced to just meet the 2011-2014 target. Thus the estimated savings before applying weighting factors for the adjustment were reduced from 2.7 GWh to 1.5 GWh. Due to the inclusion of the 2014 actual data in the load forecast, the average weighting factor for the three years for this rate class dropped from 0.628 to 0.327. Consequently, the adjustment factor needed went from 1.7 GWh to 0.5 GWh.

For the GS 50 to 2999 rate class, the overall reduction in 2014 estimated savings, the incorporation of loss of persistence for 2013 and 2014 programs, and the smaller share of total savings in this class observed in 2013 and used for 2015 estimates meant that the estimated savings for the three years of programs in 2015 fell from 17.3 GWh to 14.1 GWh. Significant savings (2.16 GWh) were anticipated from a program of Roving Energy Managers (REM) in 2014, but those are not being shown in the preliminary OPA report for 2014 so have been excluded. The cogeneration facility is still expected to come on stream in 2015. With the inclusion of the 2014 actuals in the load forecast, the average weighting factor for this rate class fell from 0.589 to 0.476 and the size of the manual adjustment required to the load forecast went from 10.2 GWh to 6.7 GWh.

Finally, the original forecast included estimated savings from the GS 3000 to 4999 rate class and for the street lighting program. Both of these are now excluded from the load forecast, and the manual adjustment for these rate classes is 0.

The following tables summarize these changes:

Estimated energy savings in 2013 from 2015 programs, and persisting 2013 and 2014 programs

	Residential	General Service < 50 kW	General Service 50 to 2999 kW	General Service 3000 to 4999 kW	Street-lighting	Total
Application	1,562,200	2,733,850	17,266,950	720,000	1,241,072	23,524,072
Update	2,725,796	1,480,296	14,149,946			18,356,038
Difference	- 1,163,596	1,253,554	3,117,004	720,000	1,241,072	5,168,034

Weighting factors for manual adjustment of 2015 savings

	2013 programs	2014 programs	2015 programs
Application	0.5	1.0	0.5
Update	-	0.5	0.5

Average weighting factors by rate class

	Residential	General Service < 50 kW	General Service 50 to 2999 kW	General Service 3000 to 4999 kW	Street-lighting
Application	0.628	0.628	0.589	1.000	1.000
Update	0.325	0.327	0.476	-	-

Manual adjustment required to 2015 load forecast

	Residential	General Service < 50 kW	General Service 50 to 2999 kW	General Service 3000 to 4999 kW	Street-lighting	Total
Application	981,146	1,717,006	10,163,579	720,000	1,241,072	14,822,804
Update	884,849	483,952	6,730,877	-		8,099,678
Difference	96,297	1,233,054	3,432,703	720,000	1,241,072	6,723,126

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.14:

TO PROVIDE A REVISED VERSION OF TABLE 3-18 BASED ON THE MOST RECENT FORECAST VALUES.

Response:

The requested revised Table 3-18 is provided below. The version of the load forecast which supports this table is the revised version of the proposed 2015 load forecast for the purposes of determining NBHDL's 2015 proposed rates. In this regard, a live Excel spreadsheet which is the revised proposed load forecast is provided under file name "NorthBay_Undertaking_Resp_JT1.14 - 2015 Load Forecast Model_20150513".

Year	Residential	General Service < 50 kW	General Service 50 to 2999 kW	General Service 3000 to 4999 kW	Street Lighting	Sentinel Lighting	Unmetered Scattered Load	TOTAL
Non-normalized Weather Billed Energy Forecast (GWh)								
2015 (Not Normalized)	205.5	85.5	212.7	34.5	2.0	0.4	0.03	540.7
Adjustment for Weather (GWh)								
2015	0.9	0.4	0.8	0.0	0.0	0.0	0.00	2.1
Adjustment for CDM (GWh)								
2015	(0.9)	(0.5)	(6.7)	0.0	0.0	0.0	0.00	(8.1)
Adjustment for Loss of Customer (GWh)								
2015	0.0	0.0	0.0	(17.3)	0.0	0.0	0.00	(17.3)
Weather Normalized Billed Energy Forecast (GWh)								
2015 Test - Normalized	205.5	85.4	206.8	17.3	2.0	0.4	0.03	517.4

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.15:

TO UPDATE VECC 26 BASED ON THE NEW CDM ESTIMATES, BOTH IN TOTAL AND HOW YOU APPLIED THE HALF YEAR AND FULL YEAR RULES.

Response:

The following tables are provided with the updated 2015 CDM adjustments to be incorporated into the updated load forecast.

Overall kWh:	From final results	From final results	From final results	From preliminary results	Estimated		
kWh	2011	2012	2013	2014	2015	Multiplier	Manual adjustment to Load Forecast - 2015
2011 CDM Programs	2,634,934	2,597,007	2,575,709	2,504,545	2,484,385	-	-
2012 CDM Programs		2,691,068	2,667,382	2,650,992	2,473,591	-	-
2013 CDM Programs			2,576,330	2,531,398	2,468,424	-	-
2014 CDM Programs				2,670,635	2,656,334	0.50	1,328,167
2015 CDM Programs					13,543,022	0.50	6,771,511
Total in Year	**2,634,934**	**5,288,075**	**7,819,421**	**10,357,570**	**23,625,757**		**8,099,678**

For all rate classes, a weighting factor of 0 has been used for years 2011 to 2013 since the CDM savings from programs in these years are captured by the use of actual energy use through 2014 in the load forecast. A weighting factor of 0.5 is used for 2014 persistence into 2015 to account for only about one-half of 2015 savings from 2014 programs being captured in the 2014 actual data due to the half-year rule, and a weighting factor of 0.5 is also used for 2015 since the actual impact on load is approximately one-half of the amount the IESO is expected to report, again based on the half-year rule.

Residential kWh:	From final results	From final results	From final results	From preliminary results	Estimated		
kWh	2011	2012	2013	2014	2015	Multiplier	Manual adjustment to Load Forecast - 2015
2011 CDM Programs	516,867	516,655	516,443	516,231	516,019	-	-
2012 CDM Programs		323,834	323,834	323,834	323,619	-	-
2013 CDM Programs			985,696	965,077	956,098	-	-
2014 CDM Programs				1,193,174	1,185,127	0.50	592,564
2015 CDM Programs					584,571	0.50	292,285
Total in Year	**516,867**	**840,489**	**1,825,973**	**2,998,316**	**3,565,434**		**884,849**

GS < 50 kW kWh:	From final results	From final results	From final results	From preliminary results	Estimated		
kWh	2011	2012	2013	2014	2015	Multiplier	Manual adjustment to Load Forecast - 2015
2011 CDM Programs	856,649	836,702	815,615	774,690	754,743	-	-
2012 CDM Programs		664,057	660,988	653,971	485,438	-	-
2013 CDM Programs			562,583	562,067	512,392	-	-
2014 CDM Programs				634,888	634,262	0.50	317,131
2015 CDM Programs					333,642	0.50	166,821
Total in Year	**856,649**	**1,500,759**	**2,039,187**	**2,625,616**	**2,720,477**		**483,952**

GS 50 to 2,999 kW kWh:	From final results	From final results	From final results	From preliminary resu	Estimated		
kWh	2011	2012	2013	2014	2015	Multiplier	Manual adjustment to Load Forecast - 2015
2011 CDM Programs	1,261,418	1,243,650	1,243,650	1,213,623	1,213,623	-	-
2012 CDM Programs		1,094,485	1,073,869	1,064,495	1,055,842	-	-
2013 CDM Programs			716,309	692,512	688,192	-	-
2014 CDM Programs				842,573	836,944	0.50	418,472
2015 CDM Programs					12,624,809	0.50	6,312,405
Total in Year	**1,261,418**	**2,338,135**	**3,033,828**	**3,813,203**	**16,419,412**		**6,730,877**

For completeness, the comparable table for the Street Lighting rate class follows, but because no new CDM programs are anticipated for this rate class, and the programs implemented in 2012 and 2013 are fully captured by the use of actual data through 2014, there is no manual adjustment required, and no claim for lost revenues for this rate class is expected.

Street Lighting kWh:	From final results	From final results	From final results	From preliminary results	Estimated		
kWh	2011	2012	2013	2014	2015	Multiplier	Manual adjustment to Load Forecast - 2015
2011 CDM Programs						-	-
2012 CDM Programs		608,692	608,692	608,692	608,692	-	-
2013 CDM Programs			311,742	311,742	311,742	-	-
2014 CDM Programs						-	-
2015 CDM Programs						-	-
Total in Year	**-**	**608,692**	**920,434**	**920,434**	**920,434**		**-**

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.16:

TO PROVIDE A VERSION OF APPENDIX 2-EB THAT REFLECTS A THREE-YEAR DISPOSITION PERIOD AND THEN, BASED ON THIS THREE-YEAR DISPOSITION PERIOD, CALCULATE THE AMOUNT TO BE RETURNED EACH YEAR AND THE APPROXIMATE IMPACT ON RATES FOR EACH OF 2015, '16, AND '17, AND TO EXPLAIN WHY NORTH BAY HYDRO'S PROPOSING A ONE-YEAR DISPOSITION PERIOD RATHER THAN A TWO- OR THREE-YEAR DISPOSITION PERIOD.

Response:

In preparing the response to this undertaking NBHDL noted that the WACC % used in 9-Staff-26 b) to determine the revised amount proposed for disposition in Account 1576 was the WACC % NBHDL utilized in the application as submitted December 12, 2014 of 6.28%. NBHDL has revised the amount proposed for disposition in Account 1576 using the proposed WACC of 6.18% as provided in the updated Revenue Requirement Work Form in Undertaking NO. JT1.1. NBHDL has updated the EDDVAR model for the change to the proposed disposition amount and to reflect changes to the load forecast as explained in Undertaking NO. JT1.14; the live Excel file is named "NorthBay_Undertaking_Resp_JT1.16 - North Bay 2015_EDDVAR_Continuity_Schedule_20150513".

For ease of reference the revised proposed disposition amount of ($3,650,089) for Account 1576, for the purposes of determining rates, is provided in the following amended Table 2-EB. NBHDL is proposing to refund this amount to customers in a timely manner over a one-year disposition period. Considerations for NBHDL's proposal are explained in Exhibit 9 (page 30) of the application.

Appendix 2-EB
Account 1576 - Accounting Changes under CGAAP
2012 Changes in Accounting Policies under CGAAP

For applicants that made capitalization and depreciation expense accounting policy changes under CGAAP effective January 1, 2012

	2010 Rebasing Year	2011	2012	2013	2014	2015 Rebasing Year
Reporting Basis	CGAAP	IRM	IRM	IRM	IRM	MIFRS
	Forecast	Actual	Actual	Actual	Forecast	Forecast
			$		$	$
PP&E Values under former CGAAP						
Opening net PP&E - Note 1			41,679,603	42,509,617	44,736,004	
Net Additions - Note 4			3,700,091	5,378,215	5,029,115	
Net Depreciation (amounts should be negative) - Note 4			-2,870,077	-3,151,829	-2,087,071	
Closing net PP&E (1)			42,509,617	44,736,004	47,678,048	
PP&E Values under revised CGAAP (Starts from 2012)						
Opening net PP&E - Note 1			41,679,603	43,643,038	47,042,865	
Net Additions - Note 4			3,700,091	5,378,215	5,029,115	
Net Depreciation (amounts should be negative) - Note 4			-1,736,656	-1,978,388	-956,337	
Closing net PP&E (2)			43,643,038	47,042,865	51,115,643	
Difference in Closing net PP&E, former CGAAP vs. revised CGAAP			-1,133,421	-2,306,861	-3,437,595	

Effect on Deferral and Variance Account Rate Riders

Closing balance in Account 1576	-	3,437,595	**WACC**	6.18%
Return on Rate Base Associated with Account 1576 balance at WACC - Note 2	-	212,495		
1 **Amount included in Deferral and Variance Account Rate Rider Calculation**	-	3,650,089	**# of years of rate rider disposition period**	1

A revised version of Appendix 2-EB is provided below – for illustrative purposes, NBHDL has revised the amount in Account 1576 using the proposed WACC of 6.18% and a 3 year disposition term as requested in this undertaking. Bill impacts on rates for each of 2015, 2016 and 2017 are also provided below. The assumptions made in order to provide the bill impacts are as follows:

- 2016 through 2017 distribution rates (i.e.; fixed and volumetric rates only) were increased by a Price Cap Index % only to reflect the IRM position that NBHDL will be in through that period. The increase was based on the assumption that the proposed 2015 rates would be approved by the Board.
- NBHDL assumed a PCI of 1.3% based on the 2015 IRM rate proceeding.
- All rate riders, excluding Account 1576, would have a one-year term and expire in 2016.
- Costs outside of NBHDL’s control (i.e.; TOU, WMS, Network, 1 DRC, etc.) remained static at 2015 amounts.

Appendix 2-EB
Account 1576 - Accounting Changes under CGAAP
2012 Changes in Accounting Policies under CGAAP

For applicants that made capitalization and depreciation expense accounting policy changes under CGAAP effective January 1, 2012

Reporting Basis	2010 Rebasing Year	2011	2012	2013	2014	2015 Rebasing Year
	CGAAP	IRM	IRM	IRM	IRM	MIFRS
	Forecast	Actual	Actual	Actual	Forecast	Forecast
			$		$	$
PP&E Values under former CGAAP						
Opening net PP&E - Note 1			41,679,603	42,509,617	44,736,004	
Net Additions - Note 4			3,700,091	5,378,215	5,029,115	
Net Depreciation (amounts should be negative) - Note 4			-2,870,077	-3,151,829	-2,087,071	
Closing net PP&E (1)			42,509,617	44,736,004	47,678,048	
PP&E Values under revised CGAAP (Starts from 2012)						
Opening net PP&E - Note 1			41,679,603	43,643,038	47,042,865	
Net Additions - Note 4			3,700,091	5,378,215	5,029,115	
Net Depreciation (amounts should be negative) - Note 4			-1,736,656	-1,978,388	-956,337	
Closing net PP&E (2)			43,643,038	47,042,865	51,115,643	
Difference in Closing net PP&E, former CGAAP vs. revised CGAAP			-1,133,421	-2,306,861	-3,437,595	

Effect on Deferral and Variance Account Rate Riders

Closing balance in Account 1576	-	3,437,595
Return on Rate Base Associated with Account 1576 balance at WACC - Note 2	-	637,484
Amount included in Deferral and Variance Account Rate Rider Calculation	-	4,075,079

WACC	6.18%
# of years of rate rider disposition period	3

Rate Class	Year	kWh	kW	Prev Year Dist Bill $	Cur Year Dist Bill $	$ Difference	Bill Impact %	Prev Year Total Bill $	Cur Year Total Bill $	$ Difference	Bill Impact %
Residential	2015	800		$30.59	$31.20	$0.61	2.00%	$128.23	$129.16	$0.93	0.73%
	2016	800		$31.20	$31.39	$0.18	0.59%	$129.16	$129.35	$0.19	0.14%
	2017	800		$31.39	$31.77	$0.38	1.21%	$129.35	$129.74	$0.39	0.30%
GS < 50 kW	2015	2000		$71.89	$71.61	($0.27)	(0.38%)	$313.60	$313.92	$0.32	0.10%
	2016	2000		$71.61	$68.48	($3.14)	(4.38%)	$313.92	$310.72	($3.19)	(1.02%)
	2017	2000		$68.48	$69.31	$0.83	1.22%	$310.72	$311.58	$0.85	0.27%
GS 50-2,999 kW	2015	20000	60	$467.48	$573.38	$105.90	22.65%	$2,711.72	$2,827.99	$116.27	4.29%
	2016	20000	60	$573.38	$502.53	($70.85)	(12.36%)	$2,827.99	$2,755.93	($72.05)	(2.55%)
	2017	20000	60	$502.53	$508.95	$6.42	1.28%	$2,755.93	$2,762.46	$6.53	0.24%
GS 3,000-4,999 kW	2015	900000	3000	$11,485.60	$15,277.26	$3,791.66	33.01%	$110,442.28	$114,769.38	$4,327.10	3.92%
	2016	900000	3000	$15,277.26	$10,203.77	($5,073.49)	(33.21%)	$114,769.38	$109,609.64	($5,159.74)	(4.50%)
	2017	900000	3000	$10,203.77	$10,339.08	$135.31	1.33%	$109,609.64	$109,747.25	$137.61	0.13%
Unmetered Scattered Load	2015	150		$9.80	$7.35	($2.45)	(25.01%)	$26.75	$24.30	($2.45)	(9.16%)
	2016	150		$7.35	$7.91	$0.56	7.69%	$24.30	$24.88	$0.58	2.38%
	2017	150		$7.91	$8.01	$0.10	1.26%	$24.88	$24.97	$0.09	0.37%
Street Lighting	2015	150	1	$30.85	$34.42	$3.57	11.57%	$50.08	$53.83	$3.75	7.49%
	2016	150	1	$34.42	$33.42	($1.00)	(2.90%)	$53.83	$52.81	($1.02)	(1.89%)
	2017	150	1	$33.42	$33.86	$0.44	1.31%	$52.81	$53.26	$0.45	0.84%
Sentinel Lighting	2015	150	1	$20.07	$18.75	($1.33)	(6.61%)	$38.99	$37.76	($1.24)	(3.17%)
	2016	150	1	$18.75	$22.82	$4.07	21.73%	$37.76	$41.89	$4.13	10.95%
	2017	150	1	$22.82	$23.12	$0.30	1.31%	$41.89	$42.20	$0.31	0.74%

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.17:

TO UPDATE THE RETAIL TRANSMISSION SERVICE RATES TO REFLECT ANY CHANGES TO THE SUB-TRANSMISSION.

Response:

NBHDL has utilized the most recent Retail Transmission Service Rates in the cost of power calculation provided in Undertaking NO. JT1.8. NBHDL has provided a live version of the RTSR model under the file name “NorthBay_Undertaking_Resp_JT1.17 - North Bay 2015_RTSR MODEL_V4_0_20150513”.

North Bay Hydro Technical Conference Undertaking Responses

Undertaking NO. JT1.18:

WITH REFERENCE TO APPENDIX 2-BA, TO EXPLAIN THE DIFFERENCE IN NET ADDITIONS AND NET DEPRECIATION BETWEEN OLD CGAAP AND MODIFIED IFRS.

Response:

NBHDL understands that this undertaking is in relation to Table 9-9 of NBHDL's application, specifically Appendix 2-EA for Account 1575, and the difference in the net additions between CGAAP and MIFRS. The difference in net additions is a reflection of the dispositions in distribution assets that NBHDL will record under MIFRS that would not be recorded under CGAAP. Table 9-8 within Exhibit 9 of NBHDL provides the disposition entry by USoA Account.

For ease of reference, NBHDL has included a revised Table 2-EA to account for 2014 actuals and to exclude WIP from the Net Book Value amount. The difference in net additions by USoA is provided below.

PP&E Disposals	USoA #	Asset Cost	Accumulated Amortization	Net Book Value (Loss on Retirement of Assets)
Accounts:				
Poles, Towers and Fixtures	1830	(298,298)	264,578	(33,720)
Overhead Conductors and Devices	1835	(107,848)	89,857	(17,991)
Underground Conduit	1840	(8,934)	3,231	(5,703)
Underground Conductors and Devices	1845	(12,591)	11,314	(1,277)
Line Transformers	1850	(62,751)	59,849	(2,902)
Total Disposals		**(490,421)**	**428,829**	**(61,592)**

The reconciliation between Net Additions under CGAAP and Net Additions under MIFRS is as follows:

Net Additions - reconciliation - per MIFRS:	
Net Additions, per CGAAP	5,029,115
Dispositions, per MIFRS	(490,421)
Net Additions, per MIFRS	**4,538,693**

A revised Table 2-EA to account for 2014 actuals and to exclude WIP from the Net Book Value amount is provided below.

Appendix 2-EA
Account 1575 - IFRS-CGAAP Transitional PP&E Amounts
2015 Adopters of IFRS for Financial Reporting Purposes

For applicants that will adopt IFRS on January 1, 2015 for financial reporting purposes

	2010 Rebasing Year	2011	2012	2013	2014	2015 Rebasing Year
Reporting Basis	CGAAP	IRM	IRM	IRM	IRM	MIFRS
	Forecast	Actual	Actual	Actual	Forecast	Forecast
					$	$
PP&E Values under CGAAP						
Opening net PP&E - Note 1					47,042,865	
Net Additions - Note 4					5,029,115	
Net Depreciation (amounts should be negative) - Note 4					-956,337	
Closing net PP&E (1)					51,115,643	
PP&E Values under MIFRS (Starts from 2014, the transition year)						
Opening net PP&E - Note 1					47,042,865	
Net Additions - Note 4					4,538,693	
Net Depreciation (amounts should be negative) - Note 4					-527,508	
Closing net PP&E (2)					51,054,050	
Difference in Closing net PP&E, CGAAP vs. MIFRS					61,592	

Effect on Deferral and Variance Account Rate Riders

Closing balance in deferral account	61,592
Return on Rate Base Associated with deferred PP&E balance at WACC - Note 2	3,807
1 **Amount included in Deferral and Variance Account Rate Rider Calculation**	65,400

WACC	6.18%
# of years of rate rider disposition period	1