# OEB Staff Interrogatories 2019 Cost of Service Rate Application Niagara-on-the-Lake Hydro Inc. (NOTL Hydro) EB-2018-0056 Oct 24, 2018

## Exhibit 1: Administrative Documents and Business Plan

1-Staff-1

## Updated Revenue Requirement Work Form (RRWF)

Upon completing all interrogatories from OEB staff and intervenors, please provide an updated RRWF in working Microsoft Excel format with any corrections or adjustments that the applicant wishes to make to the amounts in the populated version of the RRWF filed in the initial applications. Entries for changes and adjustments should be included in the middle column on sheet 3 Data\_Input\_Sheet. Sheets 10 (Load Forecast), 11 (Cost Allocation), 12 (Residential Rate Design) and 13 (Rate Design) should be updated, as necessary. Please include documentation of the corrections and adjustments, such as a reference to an interrogatory response or an explanatory note. Such notes should be documented on Sheet 14 Tracking Sheet, and may also be included on other sheets in the RRWF to assist understanding of changes.

## 1-Staff-2

## **Updated Bill Impacts**

Upon completing all interrogatories from OEB staff and intervenors, please provide an updated Tariff Schedule and Bill Impact model for all classes at the typical consumption / demand levels (e.g. 750 kWh for residential, 2,000 kWh for GS<50, etc.).

## Ref: Exhibit 1, Page 12

One of NOTL Hydro's requests, stated on page 12 of Exhibit 1, is for "An Order establishing a new transmission Standby Charge to be applied to customers with behind the meter generation greater than 1MW".

Staff did not find any evidence related to the new transmission Standby Charge in the application.

- a) Please confirm whether or not NOTL Hydro is requesting approval of the establishment of a new transmission Standby Charge.
  - i. If so, please provide the reference.

## 1-Staff-4

## Ref: Exhibit 1, Pages 88-94

NOTL Hydro provides the 2016 scorecard and its analysis on the 2016 scorecard in pages 88 to 94 of Exhibit 1. Staff notes that 2017 scorecard is available at the end of September 2018.

a) Please provide NOTL Hydro's 2017 scorecard with the scorecard MD&A.

## 1-Staff-5

# Ref: Appendix 1E - 2017 Customer Satisfaction Survey Detailed Final Report

Staff notes that Customer Satisfaction Index Score by Consumption Tranches in the 2017 customer survey was not calculated. The note on page 19 of Appendix 1E states that the score was not calculated because NOTL Hydro declined to present customer usage information for this calculation.

a) Please explain why the customer consumption information was not provided to Redhead Media Solutions Inc. for the calculation of this score.

# Ref: Appendix 1H CGC 2018 Customer Engagement Report

NOTL Hydro held four open houses in April 2018. CGC Educational Communications Inc. was hired to have confidential discussions with NOTL Hydro's customers after each open house and its observations are summarized in a final report dated May 30, 2018. Based on the customers' feedback, page 11 of the report made the following recommendations:

- 1. Cost containment should not be so stringent as to limit maintenance and ongoing reliability;
- Communication with customers should expand beyond the event reported here. Customers prefer to see quarterly or semi-annually reports demonstrating Niagara-on-the-Lake Hydro's progress in achieving milestones in the future plans;
- 3. Customers would prefer to see a more robust power restoration communication systems;
- 4. Residential customers would prefer to see more guidance in navigate time of use rates, especially when it comes to food preparation, such as meals at suppertime;
- 5. Customers almost unanimously prefer to see Niagara-on-the-Lake Hydro continue its effective work on conservation;
- 6. Customers saw safety as currently underrepresented in Niagara-on-the-Lake's communication platform;
- 7. Business customers would appreciate more engagement on connection assessments for renewable energy; and
- 8. Class A and aggregate account customers need support to take full advantage of the Class A program.
- a) Please provide the updates to NOTL Hydro's work with respect to each of the recommendations. If the work has been done/in progress and presented in the Application, please provide the cross-references to the respective evidence.

# Ref: Appendix 1I 2017 Open House Presentation; Appendix 1G 2018 Open House Presentation; Appendix 1Q- AGM 2018 and Appendix 1R- AGM 2017

NOTL Hydro compares its rates to the rates of Hydro companies in the Niagara region at the 2017 and 2018 open houses and AGMs. These Hydro companies are Grimsby Hydro, Horizon Utilities, Welland Hydro, Hydro One-Thorold, Niagara Peninsula Energy Inc. and Canadian Niagara Power Inc.

- a) Please confirm whether or not NOTL Hydro considers these companies as comparators to itself.
- b) If so, has NOTL Hydro conducted any other benchmark analysis (such as OM&A) against these companies?
  - i. If so, please provide the analysis.
  - ii. If not, please explain why not.

# 1-Staff-8

# Ref: Business Plan dated August 2018 – Appendix to Exhibit 1

NOTL Hydro explains in its 2018 Business Plan for system renewal capital expenditures that

Annual expenditures are determined based on a combination of resource availability and the need to ensure that over time annual expenditures are sufficient to replace aging stock. This is estimated by adjusting the annual depreciation of poles, conduit and transformers for inflation.

Table 17 below provides the ratios between Depreciation and System renewal capital expenditures for the years of 2014 and 2017:

	2014	2015	2016	2017
Depreciation	\$564	\$574	\$590	\$600
Inflation adjustment	143%	144%	144%	144%
Required expenditure	\$806	\$827	\$850	\$864
Actual expenditure	\$1,005	\$640	\$1,025	\$770
Variance	\$199	(\$187)	\$175	(\$94)

#### Table 17: Depreciation vs. System Renewal (\$000's)

- a) Please explain if NOTL Hydro plans to replace the assets based on the asset health conditions.
  - i. If so, please provide the plan.
  - ii. If not, please explain why NOTL Hydro has not planned to replace the assets based on asset health conditions.
- b) Please confirm whether or not the values in the row of Depreciation in Table 17 represent the depreciation expenses recorded in NOTL Hydro's financial records for system renewal capital assets.
  - i. If not, please explain where the values come from.
- c) Please provide the source of the inflation adjustment numbers used for the years of 2014 to 2017 in Table 17.
- d) Please explain why the variances between the required expenditures and the actual expenditures on annual basis are relatively large from 2014 to 2017.

## 1-Staff-9

## Ref: Exhibit 1, Page 20

NOTL Hydro provides its historical PEG performance in the Table 6:

	2013	2014	2015	2016
Stretch Factor Cohort - Annual Result	3	3	3	3
Associated Stretch Factor Value	0.30	0.30	0.30	0.30

#### Table 6: PEG Past Performance (Stretch Factor)

NOTL Hydro states that "It is hoped that this performance improvement will continue over the next five years with the continued application of NOTL Hydro's values and that NOTL Hydro may even move into the Group 2 stretch cohort."

Staff notes from the published 2017 scorecard that NOTL Hydro's stretch cohort remains at Group 3.

a) Please provide details on any initiatives undertaken to improve NOTL Hydro's cohort assignment in future years.

## Exhibit 2: Rate Base and Distribution System Plan

## 2-Staff-10

# Ref: NOTL Hydro's Industry Relations Enquiry IRE-2018-0638 and IRE-2018-0630

Staff understands that NOTL Hydro sent two enquiries to the OEB in September 2018, indicating that NOTL Hydro is considering constructing a section of line between two transformer stations and installing necessary switching and metering equipment. Staff did not note any evidence regarding the section of line in this application.

- a) Please explain if NOTL Hydro plans to complete this work in the next five years.
  - i. If so, please provide updated evidence on this project and NOTL Hydro's plan is to address the impacts to rates.

## 2-Staff-11

## Ref: Exhibit 2, Page 11; Appendix 2B NOTL Hydro Capitalization Policy; International Accounting Standard (IAS) 16 Property, Plant and Equipment

NOTL Hydro states on page 11 of Exhibit 2 with respect to its policy for the timing of capitalizing a capital project:

For accounting simplicity, projects are kept as capital work in progress until all the paperwork, invoicing and payments have been completed. **This can become substantial period of time after the actual assets are in service.** To be conservative, previous years' capital work in progress has not been included in rate base. While this policy continues to be applied, for the purpose of this forecast we have assumed that all 2018

projects are completed in 2018 and that the assets are in service. [Emphasis added by staff]

Staffs notes that the above policy is not stated in the Appendix 2B NOTL Hydro Capitalization Policy.

Staff notes that the IAS 16 states that the timing for recognizing a PP&E item and for starting the depreciation is when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management:

Paragraph 20: Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Paragraph 55: Depreciation of an asset begins when it is available for use, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management

- a) Please confirm that the statement of "projects are kept as capital work in progress until all the paperwork, invoicing and payments have been completed" is a capitalization policy.
  - i. If so, please explain why it was not included in the Appendix 2B NOTL Hydro Capitalization Policy.
- b) Given NOTL Hydro's statement of "This can become substantial period of time after the actual assets are in service", please explain if and how NOTL Hydro's policy conforms to the requirements by the IAS 16.
- c) Please explain why NOTL Hydro does not consider the timing of "the actual assets are in service" as the timing when a PP&E item is in the location and condition necessary for it to be capable of operating in the manner intended by management.
- d) Please provide the time period that this policy has been used.
- e) Please confirm whether or not this policy impacts the Construction Work in Progress (CWIP) balances as at year end.
  - a. If so, please estimate the impacts for 2014 to 2017.
  - b. If not, please explain why not.

# 2-Staff-12

## Ref: Exhibit 2, Pages 14-19

Table 2.10 to Table 2.15 provide the Fixed Assets Continuity Schedules including the CWIP information. Staff summarizes the CWIP information in the Tables 2.10-2.15 for 2014 to 2019 as below:

Exhibit 2, Table 2.10 -	2014	2015	2016	2017	2018	2019
2.15	Actual	Actual	Actual	Actual	Forecast	Forecast
CWIP- Internal	599,452	259,586	574,975	1,117,946	0	0
CWIP - Customer						
Projects	753,380	973,622	200,223	376,553	0	0
Total CWIP	1,352,832	1,233,208	775,198	1,494,499	-	-

NOTL Hydro has not included any CWIP in 2018 and 2019 forecast.

- a) Please explain the reasons of the fluctuation of the CWIP-Internal and CWIP-Customer Projects annually from 2014 to 2017.
- b) Please provide an update for the status of NOTL Hydro's ongoing capital projects in 2018 and the likelihood of the capital projects being in service as at end of 2018.
- c) Given the fluctuation of the actual CWIP from 2014 to 2017, please explain if and how it is reasonable for NOTL Hydro to not forecast any CWIP for 2018 bridge year and 2019 test year.
- d) Please provide updated CWIP balances and updated Fixed Asset continuity schedule as applicable.

# 2-Staff-13

# Ref: Exhibit 2, Page 33; Appendix 2-BA Fixed Asset Continuity Schedule

On page 33 of Exhibit 2, NOTL Hydro states that

In 2019, it is planned to dispose of one of the old 25 MVA transformer at the time the new transformer is purchased. The disposal of this asset reduced NOTL Hydro's net book value for 2019 by approximately \$225k and has been incorporated into the rate base.

In the table below, staff summarizes the gross cost and accumulated depreciation and calculates the net book value for disposals in 2014 to 2019 as per Appendix 2-BA Fixed Asset Continuity Schedule:

	2014	2015	2016	2017	2018	2019
	Actual	Actual	Actual	Actual	Forecast	Forecast
Cost -	-\$	-\$	-\$	-\$		
Disposals	310,581	320,555	223,348	587,057	\$-	-\$335,048
Accumulate						
d						
Depreciation	-\$	-\$	-\$	-\$		
- Disposals	193,582	276,486	181,818	485,585	\$-	-\$110,001
Net Book						
Value -						
Disposals						
(Calculated	-\$	-\$	-\$	-\$		
by Staff)	117,000	44,069	41,529	101,472	\$-	-\$225,047

- a) Please confirm whether or not NOTL has forecasted the gain/loss from the disposal in 2019.
  - i. If so, please confirm that the forecasted gain/loss is included in the other revenues of the test year and provide the reference to the other revenue account.
  - ii. If not, please explain why not.
- b) Please provide the actual disposals (including gross cost and accumulated depreciation) for 2018 as of now.
- c) Please update the Appendix 2-BA for 2018 disposals using the actual disposals incurred to date and forecasted disposals for the remaining period in 2018, as applicable.

## 2-Staff-14

## Ref: Exhibit 2, Page 13

#### NOTL Hydro states that

Beginning in 2014 under IFRS, all new capital contributions were recorded in Account 2440 Deferred Revenue and allocated to revenue over the service life of the related assets, For the purpose of cost allocation, and continuity within this application, NOTL Hydro has included Account 2440 in the Continuity Schedules. This is consistent with the Board required treatment.

Staff notes from Appendix 2-BA that the amortization of Account 2440 Deferred Revenue was removed from the FA continuity schedule each year and included into Account 4245 as part of the other revenues from 2016 to 2019. For 2019 test year, a total of \$123,822 for the amortization of the deferred revenues was removed from the FA continuity schedule and included in the other revenues.

- a) Please confirm whether or not NOTL Hydro agrees that the amortization of the customer contributions should remain in the FA continuity schedule (i.e. net against the depreciation expense) to align with the treatment of Account 2440.
  - i. If so, please update the Appendix 2-BA FA continuity schedule and the Appendix 2-H Other Operating Revenues.
  - ii. If not, please explain why not.
- b) Please update the RRWF and provide the impact on the service and base revenue requirements.

# 2-Staff-15

## Ref: Appendix 2Z Cost of Power

Staff compares the GS>50 consumption for non-RPP customers that are eligible for GA modifier in Appendix 2Z to the aggregate consumption of retailer customer filed by NOTL Hydro in RRR 2.1.5.4 and notes the following discrepancy:

	Consumption kWh
GS 50 to 2,999 KW rate class GA mod	
consumption kWh (cell J20 in Appendix 2Z)	14,691,294
Aggregate consumption kWh of retailer	
customers (RRR 2.1.5.4)	19,552,534.62
Difference	(4,861,240.81)

a) Please explain the discrepancy.

b) Please update the relevant appendices/schedules as applicable.

## Ref: Exhibit 2, Page 56

NOTL Hydro provides the 2017 interruptions (total customers affected and total customer hours) by cause codes on page 56 of Exhibit 2. Staff notes that the cause code 8 Human Element is the 2<sup>nd</sup> cause for the 2017 interruptions.

2017							
Causes of Interruptions							
Code	Description	Total Customer Affected Total Customer H					
1	Scheduled	54.0	219.5				
2	Loss of Supply	-	-				
3	Tree Contact	308.0	432.2				
4	Lightning	1,073.0	664.3				
5	Defective Equipment	45.0	60.2				
6	Adverse Weather	4,362.0	2,186.1				
7	Adverse Environment	-	-				
8	Human Element	2,255.0	1,052.3				
9	Foreign Interference	30.0	25.6				
10	Unknown/Other	39.0	48.0				
	Total	8,166.0	4,688.2				
	Total (Excluding Loss of Supply)	8,166.0	4,688.2				
	Total (Excluding Major Events)	8,166.0	4,688.2				

- a) Please explain the nature of these interruptions that are caused by Human Element. Please provide examples as necessary.
- b) Has NOTL Hydro analyzed these interruptions for future improvements?
  - i. If so, please provide a brief description of the work performed.
- c) Has NOTL Hydro developed any process/procedures to address the issues from the analysis work performed in b)?
  - ii. If so, please provide a brief description of the process/procedures developed.

# 2-Staff-17

# Ref: Exhibit 2, Page 50; Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Page 10

NOTL Hydro notes the following regarding the proposed capital expenditure on a battery in 2019:

NOTL Hydro is proposing to include in its 2019 capital expenditure the purchase and installation of a 250 kVA lithium-ion battery, which will be used to enhance the capacity of the M1 feeder to allow for more distributed energy. This battery is being purchased as part of a Ministry of Energy Smart Grid Fund project.

The project will be analyzing the use of the battery to enhance the capacity of a feeder for installation of increased renewable generation, to improve voltage regulation and to engage in peak use shifting. The project will run from 2018 to 2021 when the final report is due.

NOTL Hydro states on page 10 of the consolidated DSP that "continued investment in voltage conversion program and the planned battery investment will help try to further reduce the line loss rate over the forecast period". In addition, NOTL Hydro states that "Continued investment in transformer stations and in smart grid technologies will save customers by trying to keep the outage down."

- a) Please explain in detail how the planned battery investment would help further reduce the line loss rate.
- b) Please explain in detail how the battery investment would help to keep the outage rate down.
- c) Please explain if the project would stop running after 2021 when the final report is due.
  - i. If so, please explain the benefits of the project after 2021 if any.

## 2-Staff-18

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Page 9

NOTL Hydro states, under point (e), that a key element of the DSP is as follows:

The DSP has still been planned so that, in line with OM&A, the net effect on rates is minimal. This is a key goal of NOTL Hydro.

- a) Please provide the analysis to show that the current planned capital expenditure with the current proposed OM&A have a minimal net effect on rates.
- b) If there is no such analysis referred in a), please explain how NOTL Hydro ensures the minimal net effect on rates with current capital expenditures and the OM&A proposed.

## 2-Staff-19

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Pages 9 and 19

With respect to the proposed new 83 MVA transformer, NOTL Hydro notes that this \$3.3 million investment will provide Niagara-on-the-Lake with full redundancy at both supply points at any time of the year. The new capacity at both stations will be sufficient for many years. The investment will also replace an aged 25 MVA transformer that recently required emergency repairs.

On page 19 of the Consolidated DSP, NOTL Hydro indicates that on August 28, 2015, there was a loss of supply from Hydro One on one line that resulted in a loss of supply to customers because the other Hydro One line was out of service for maintenance. NOTL Hydro was able to receive power for over half of its customers as the supply lines are bidirectional, but four hours elapsed before full power was restored.

- a) Has NOTL done any analysis of the expected increase in system reliability as a result of being able to meet maximum peak demands through either of its transformer stations?
  - i. If so, please provide this analysis.

- ii. If not, please explain why no analysis has been done.
- b) Would the investment in a new 83 MVA transformer mitigate against severe weather events such as severe lightning storms and ice storms that took place in 2015?
- c) Would the proposed increase in transformer capacity to 83 MVA at York MTS have had any impact on the results of the outage in 2015 due to the loss of supply from Hydro One?
  - i. If so, please identify the expected decrease in customer outages that would have resulted.

## 2-Staff-20

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Pages 10 and 31

NOTL Hydro states in Section 5.2.1.3 Cost Savings that "the primary source of savings from an effective asset management process is reduced unplanned maintenance and repairs". However, Table 16: Capital Expenditure Summary on page 31 of the Consolidated DSP shows that actual expenditures on System O&M have increased from \$904,000 in 2014 to \$1,152,000 in 2018, thus increasing by \$248,000 (27%) over 4 years.

- a) Please provide evidence that unplanned maintenance expenditure is decreasing.
- b) Given that unplanned maintenance cost is decreasing, please explain why overall System O&M costs are increasing.

#### 2-Staff-21

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Page 11

NOTL Hydro states in Section 5.2.1.6 Future Contingencies that

None of NOTL Hydro's plans are contingent on future events. The exceptions are the System Access activities which are contingent on customer demand but there is a strong track record of this demand.

A potential future event (though within this planning horizon) that could have a significant impact would be the lifting of the generation constraint within the Niagara region. This could lead to more investment in generation in Niagara-on-the-Lake to which NOTL Hydro would need to respond."

- a) Please confirm whether or not it is NOTL Hydro's practice to budget for contingencies in the Capital Expenditures Plan.
  - If contingencies have not been budgeted, please explain how NOTL Hydro would respond to ad-hoc investment needs resulting from any future risks or unforeseen events.
  - ii. If contingencies have been budgeted, please provide the reference to the Capital Expenditure Plan and clarify the amount budgeted as contingency.
- b) Has NOTL Hydro assessed the timing and the quantum of expenditures that would result from the lifting of the generation constraint within the Niagara region?
  - i. If so, please provide the analysis.
  - ii. If not, please explain why not, and how NOTL Hydro would respond to additional investment needs?

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Pages 31-34

Section 5.4.2, "Capital Expenditure Summary", provides details on year-overyear variances in capital expenditures from 2014-2018.

The variances by categories for the historical period of 2014-2018 are summarized in the table below:

	2014-2018 Planned Expenditure	2014-2018 Actual Expenditure	Variance \$ (Actual- Planned)	Variance %	Reasons provided
System Access	\$500k	\$1,746k	\$1,246k	249%	Underestimated the expenditures that it would be required to absorb under the Connection and Cost Recovery Agreements
System Renewal (excluding the transformer)	\$4,995k	\$4,292k	(\$703k)	(14%)	Resources were focused on the transformer project and not as much voltage conversion work was done as planned
System Service	\$315k	\$597k	\$282k	90%	Increased service to meet the requirements of the IESO and the maintenance of the old 25 MVA transformer
General Plant	\$475k	\$940k	\$465k	98%	The purchase of a new line truck in 2018

- a) Please explain why NOTL Hydro underestimated the expenditures for system access in 2014-2018.
- b) Please explain why the purchase of a new line truck was not included in the planned expenditures of 2014-2018.
- c) Given the variances experienced as described above by NOTL Hydro, please explain if any controls and additional steps have been introduced in NOTL Hydro's budgeting process to reduce the variances between actual and planned expenditures and to increase the accuracy of estimates.

## 2-Staff-23

# Ref: Exhibit 2, Appendix 2A, Consolidated Distribution System Plan, Page 46

NOTL Hydro explains one of its system access projects as follows:

The Region of Niagara undertook a rebuilding and road widening project on Lakeshore Road between Nine Mile Creek Rd and Townline Rd. This involved the rebuilding of an existing pole line of approximately 100 poles that was Bell Canada owned and part of the final arrangements included NOTL Hydro undertaking the construction responsibility and retaining the ownership of this line. This was negotiated by the Region and agreed by Bell Canada. The total cost of the rebuilding program is estimated to settle at \$600,000, of which about \$220,000 is expected to be recovered from the Region as a capital contribution.

- a) Did the existing line of 100 poles owned by Bell Canada carry electricity distribution lines or were they only used to support Bell Canada services?
  - i. In the event that the 100 poles noted carried electricity distribution lines, does NOTL Hydro benefit from any reduction in pole rents paid to Bell Canada as the result of assuming ownership of the replacement line?
  - ii. If the answer to (i) is yes, please indicate the annual reduction in pole rents paid.
- b) Does NOTL Hydro expect to receive revenues in the future from Bell Canada as a result of its assumption of ownership of the new line? If so, how much revenue is expected annually? And how this is reflected in the other revenues?

- c) What was the rationale for the adoption of final arrangements involving ownership by NOTL rather than Bell Canada?
- d) What is the basis of the expected capital contribution of \$220,000 to be provided by the Region?
  - i. Please provide any policies or models that are used by the Region to support its \$220,000 contribution.

#### 2-Staff-24

## Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Pages 49 - 52; Appendix F of the DSP

NOTL Hydro has proposed to replace the remaining 25 MVA unit at NOTL MTS with the 41.7 MVA transformer that is currently operating at York MTS, with the intention of outfitting York MTS with a new 83 MVA power transformer in its place. The noted justification is to ensure the capacity at both the NOTL and York MTS is independently sufficient to handle the full NOTLH load in the future and to ensure redundancy should there be a failure at one station. As per Table 29 Transformer Project Budget, the purchasing cost of the new transformer is \$1.35 million out of the total project cost of \$3.3 million. The proposed transformer upgrades for the proposed 83 MVA transformer plotted on Table 26 illustrate a significant capacity buffer over the projected MVA peak beyond 2045.

Staff notes that Appendix F of the DSP provides six options to increase station capacity. One of the options is to replace the existing 15/20/25 MVA NOTL T1 with a new 25/33/41.7 MVA transformer similar to York T1. This option would bring the NOTL DS capability up to 66.7 MVA, which would allow it to supply the utility peak load.

- a) Please provide the detailed analysis of pros and cons including cost considerations for each of the alternative options in Appendix F of the DSP and the rationale for the selection of this proposed option.
- b) Please provide the rationale for building a significant future capacity buffer by investing in the proposed 83 MVA transformer.
- c) The ultimate plan outlined in Appendix F envisaged two 25/33/41.7 MVA transformers at York rather than the single 83 MVA transformer that has been proposed. Would the proposed reliance on a single transformer, rather than two smaller transformers as outlined in Appendix F, carry greater reliability risk from the potential for transformer failure?

i. If so, please quantify the reliability risk.

#### 2-Staff-25

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Page 61

Table 34 below details NOTL Hydro's pole replacement analysis, including the quantity of poles scheduled to be replaced between 2019 and 2023 and the associated cost.

Pole Ranking	Quantity	Replacement Plan	cost
Critical	36	Replace in 2019	\$ 150,000
Poor - replace in < 5 years (146)	30	Replace in 2020	\$ 150,000
	35	Replace in 2021	\$ 200,000
	35	Replace in 2022	\$ 200,000
	45	Replace in 2023	\$ 225,000
Good - replace in 5 to 10 years (1577)	70 to 75 each year	2024 +	
Excellent - Replace 10 years + ( 3740 )			

Staff calculates the unit cost of the pole replacement based on the values provided in Table 34 as follows:

Pole Ranking	Quantity Replacement Plan		Cost	Unit Cost
Critical	36	Replace in 2019	\$150,000	\$4,167
Poor - replace in <5 Years (146)	30	Replace in 2020	\$150,000	\$5,000
	35	Replace in 2021	\$200,000	\$5,714
	35	Replace in 2022	\$200,000	\$5,714
	45	Replace in 2023	\$250,000	\$5,556

a) Please explain the annual variation in estimated unit cost for pole replacement.

## Ref: Appendix A, Asset Management Plan (AMP), Page 8

Table 4 below lists the Major Distribution Assets as of February 2018:

Asset	Count
Poles	6,809
Pole mounted transformers	1,003
Pad mounted transformers	799
Transmission voltage transformers	4
PMH units	20
Junction boxes	144
Primary wire - Overhead	236 km
Primary wire - Underground	132 km
Secondary wire - Overhead	171 km
Secondary wire - Underground	332 km

A robust Asset Management Plan would contain age distributions and asset health condition data for each asset class. This data would be used to determine asset failure rates, which would in turn be the basis for investment prioritization.

- a) Please confirm whether or not NOTL Hydro has age distribution data for each asset class.
  - i. If so, please provide.
  - ii. If not, please explain why not.
- b) Please confirm whether or not NOTL Hydro has asset health condition distribution data for each asset class.
  - i. If so, please provide.
  - ii. If not, please explain why not.

# 2-Staff-27

## Ref: Appendix A, Asset Management Plan, Page 13

Section 2.6 Prioritization explains that "NOTL Hydro assesses each investment on a case-by-case basis. The over-riding consideration in all assessments is what, in the opinion of NOTL Hydro, is in the long-term best interests of customers." Section 2.1 of the AMP explains that NOTL Hydro had polled and

ranked the customer priorities in 2018. Staff notes that reliability ranked number one.

- a) Please explain how NOTL Hydro determines what gets funded every year?
- b) Please explain how this ad-hoc prioritization on a project-by-project basis has aligned with the ranked customer priorities?

## 2-Staff-28

#### Ref: Appendix A, Asset Management Plan, Page 14

Page 14 of the AMP contains the following statement:

Part of any DSP is a replacement program for the assets of the LDC. Ongoing investments in capital renewal are an important part of maintaining a strong distribution system. The AMP helps identify which assets to replace in any given year and which assets may benefit from alternative measures such as enhanced maintenance, rebuilds or technological changes. The database part of the AMP will allow the LDC to take in all factors such as age, condition, location and customer needs when determining what assets to replace.

- a) Please provide additional information on the database that is part of the AMP. What system application is used to capture age, condition, location and customer needs?
- b) How many of the different asset classes have their age, condition, location and customer needs captured?
- c) Please explain how asset replacement needs are prioritized from a customer perspective.

## 2-Staff-29

# Ref: Appendix 2A, Cost of Service Rate Application – Consolidated DSP, Page 9; Appendix A, Asset Management Plan, Pages 21 and 24

Section 4.9 Asset Replacement explains that NOTL Hydro's focus has been on the voltage conversion program to date, but that "as the rural voltage conversion

becomes close to being finished, NOTL Hydro will switch to a more strategic asset replacements based on asset conditions, line performance and correlation with other future strategic plans."

Section 5.2.1.1 of the DSP states that "within four years all the major pockets of the rural areas will have been converted."

The Capital Expenditure Plan proposes to budget for a relatively consistent system renewal budget from 2022 to 2028.

- a) Please confirm whether or not NOTL Hydro has any current guidelines or asset management processes that will guide the future shift to more strategic asset replacements based on asset conditions, line performance and correlation with future strategic plans?
- b) How has the completion of the voltage conversion program been reflected in the long term capital expenditure plan from 2022 to 2028?
  - i. If it has been reflected in the budget, please explain how it has been reflected.
  - ii. If it has not been reflected in the budget, please update the budget.

## 2-Staff-30

# Ref: Consolidated DSP, Page 49; Appendix E Condition Report, Pages 2-4; Appendix F Long Term Supply Plan, Pages 7-9; Appendix G NOTL T2 OLTC Failure, Section 6 – Conclusion

Regarding the proposed 83MVA Transformer at York TS and the move of the existing 41.7MVA transformer to replace the T2 transformer at NOTL TS, the Consolidated DSP notes at page 49 that NOTL Hydro needs to replace the T2 transformer as soon as possible.

Section 7 of the Long Term Supply Plan prepared in 2012 by Raven Engineering Inc. (Appendix F) outlined six options to increase the station capacity at York TS and NOTL TS to permit each station to supply peak utility load. Its summary of Option 2 for replacing transformers at NOTL TS states that:

The existing transformers are 29 years old and could be either refurbished and sold, or sold as is to help offset the cost of two new larger transformers. **However, the transformers have significant life left in them and the utility should utilize these assets if possible.** This option

is better suited to a very large utility that can use the transformers at another substation location. [**Emphasis added by Staff**]

Section 8 outlines Raven Engineering Inc.'s recommendation that "the most economical option to provide station capacity to meet utility peak load under contingency conditions is Option 4 – Add a Fourth Substation Transformer." Option 4 involved "replacing the 25 MVA NOTL T1 with a new 41.7 MVA transformer similar to York T1. This would bring the NOTL DS capability up to 66.7 MVA which would allow it to supply the utility load peak."

The T1 and T2 Asset Condition Assessment by Ascent in 2012 (Appendix E) notes with respect of the 25 MVA transformers:

Both units appear to be fit for continued service, although it is evident from the test data that the replacement of both transformers should be considered and budgeted for within the next five years, as both transformers are approaching end of life, regardless of their current condition. [Emphasis added by Staff]

Later on page 4, Ascent notes:

Both NOTL DS-T1 and NOTL DS-T2 are fit for continued service – although there are indications of overloading. Since the transformers will continue to be overloaded and are approaching the end of their design life, the following measures should be taken to ensure continued trouble-free service.

A number of measures for ensuring trouble-free service were then suggested, including a detailed load study and quarterly oil sampling.

EPTCON's report dated 2018 on the T2 Tap Changer Failure (Appendix G) notes:

T2 itself, based on the test data obtained during this investigation, appears to be healthy.

- a) Given the evidence by Ascent, EPTCON and Raven Engineering Inc. that indicates the health condition of T2, please provide an explanation as to why 25 MVA transformer (T2) at NOTL station needs to be replaced as soon as possible.
- b) Please provide any updated engineering or third party report(s) used by NOTL Hydro to examine its investment options and to support its recommendation to install a new 83 MVA transformer at York MTS and move the existing York MTS 41.7 MVA transformer to NOTL MTS, while putting the remaining 25 MVA transformer (T2) in standby mode.
  - i. If not, please explain why no analysis has been done.
- c) Please provide an explanation of how information on asset condition has informed the decision on the recommended transformer upgrade program.

#### **Exhibit 3: Load and Other Revenue Forecast**

#### 3-Staff-31

## Ref: Exhibit 3, Page 10; NOTL Hydro Load Forecast Wholesale Model, Sheet 6. WS Regression Analysis

NOTL Hydro indicates that variables used include heating and cooling degree days as well as "total customer count, daylight hours, days per month, a spring/fall flag, and cost of power."

- a) Please confirm that the Blended Rate coefficient is indicating that as the price of electricity increases, the wholesale energy usage increases as well. Please explain how higher energy prices would lead to increased consumption.
- b) Please explain why the variables Blended Rate and Daylight Hours were included in the regression model despite t-Stats of 0.31 and -1.12 respectively which indicate a lack of statistical significance.
- c) Has NOTL Hydro attempted regression(s) including a trend variable and an indicator of economic output such as GDP or full time employment?
  - i. If so, please explain why they were dismissed.
  - ii. If not, please produce a load forecast including a trend variable and an economic variable as an alternative scenario. Please also summarize the impact to the load forecasts under this scenario as compared to the current methodology.

# Ref: Exhibit 3, Pages 11-14; NOTL Hydro Load Forecast Wholesale Model, Sheet 4. Customer Growth

NOTL Hydro has calculated a geometric growth rate for the residential rate class of 1.0292, which would result in a customer connection forecast in 2019 of 8,303. It concluded that a forecast of 8,152 was more appropriate, and provided the following rationale:

In 2015/2016, the Cannery Park residential development was completed. A total of 187 residential customers were added in these two years just from this development. There are no developments of this scale planned for 2018-2019 or even for the next five years.

NOTL Hydro also states:

In late 2017, NOTL Hydro completed the transfers of loads with its neighbouring utilities, Alectra and Niagara Peninsula Energy Inc. As a result of these load transfers, a net of 38 residential customers were transferred to these other LDCs.

Staff calculates that removing 187 customers from 2015/2016 would result in a geometric mean growth rate of 1.0251 for the residential class as below:

Geometric Mean Growth Rate 
$$= \left(\frac{2017 \ Customer \ Count}{2011 \ Customer \ Count}\right)^{\frac{1}{6}}$$
$$= \left(\frac{7838 - 187}{6594}\right)^{\frac{1}{6}}$$
$$= 1.1887^{\frac{1}{6}}$$
$$= 1.0251$$

Staff calculates that applying a geometric mean growth rate of 1.0251 to the residential class customer count, and reducing the 2018 customer count by 38 would result in a residential customer count of 7,997 in 2018, and 8,198 in 2019.

2018 Customer Count = 7,838 \* 1.0251 - 38 = 8,035 - 38 = 7,997 2019 Customer Count= 7,997 \* 1.0251= 8,198

- a) Please confirm the staff calculated rate of 1.0251.
- b) Please confirm the staff calculated residential customer counts of 7,997 in 2018 and 8,198 in 2019 respectively.
- c) Please explain why NOTL views 8,152 customers as appropriate in 2019 given the calculations in parts a) and b).

#### 3-Staff-33

# Ref: Exhibit 3, Page 20; Filing Requirements for Electricity Distribution Rate Applications – Chapter 2, July 12, 2018, page 23

NOTL Hydro indicates that it adopted a "7 year average from 2011 to 2017 as the definition of weather normal in order to remain consistent with the other variables used in this analysis."

NOTL Hydro explained the reasons for the seven historical years selected for its weather normalization for the load forecast:

The proposed normal weather methodology was chosen as the last seven years captures the impact of increasing temperatures from climate change and NOTL Hydro has no grounds for making any non-normal assumptions.

The filing requirements state that "In addition to the proposed test year load forecast, the load forecasts based on 10-year average and 20-year trends in HDD and CDD" must be provided and "If the applicant proposes an alternative approach, it must be supported".

- a) Please provide load forecast runs where HDD and CDD are defined as 10-year average and a trend based on 20-years.
- b) Please provide the source and/or the supporting evidence of the statement "the last seven years captures the impact of increasing temperatures from climate change".

# Ref: Exhibit 2, Appendix 2A, Page 46; Exhibit 3, Page 30; Exhibit 7, Pages 14-15

NOTL Hydro is proposing the use of a variance account to true-up the load of a customer assigned to a new large use rate class. The forecasted load is an assumed 5,000 kW based on customer estimates which range from 4 MW to 20 MW. NOTL is also proposing a standby rate for the Large Use rate class for a 2.5MW of Combined Heat and Power Generator.

The DSP states that "One customer is expanding significantly and has estimated their ultimate demand will be between 15 MW and 20 MW."

- a) Please provide examples where variance accounts have been approved for variances from the load forecast under similar circumstances.
- b) Please provide details available to NOTL Hydro regarding the estimates of load from 4 MW to 20 MW for the large use customer.
- c) Given that the range in the DSP spans 15 MW to 20 MW, please explain the reasons that NOTL Hydro assumes 5 MW for the large use customer's load forecast when this amount is significantly below the range of values used in the DSP.
- d) Is the 2.5 MW of standby generation in addition to the 5 MW of forecasted demand, or a part of it? I.e. 5 MW at the load account plus 2.5 MW supplied by the generator? Or is it a 2.5 MW at the load account plus 2.5 MW supplied by the generator?
- e) Does the load profile for the Large User rate class reflect only the anticipated deliveries to the load account, or does it reflect the anticipated deliveries to the load account plus load displacement generation?
- f) Would the proposed variance account true-up the load account, or the combination of the load account and standby charges account?

# 3-Staff-35

# Ref: Exhibit 3, Pages 33-34

NOTL Hydro states that "While the forecast as presented in the previous section assumes some level of embedded 'natural conservation', it does not take into

account the impacts on energy purchases arising from CDM programs undertaken by NOTL Hydro's customers."

a) What steps has NOTL Hydro taken to ensure that un-adjusted forecast as presented in Table 3.29 captures natural conservation, but not the impacts of historic CDM?

## 3-Staff-36

# Ref: Exhibit 3, Pages 35-36; NOTL Hydro Load Forecast Wholesale Model, Tab 10 CDM Adjustment and Tab 10.1 CDM Allocation

Table 3.32 indicates the CDM adjustment to the load forecast should be 3,770,854 kWh. However, Table 3.33 indicates that the total CDM adjustment to the load forecast is 3,293,292 kWh. The same inconsistency is noted on Tab 10 and Tab 10.1 of the load forecast model.

- a) Please reconcile the apparent inconsistency.
- b) Please update the load forecast model and evidence as applicable.

## 3-Staff-37

## Ref: Appendix 2-H Other Operating Revenues

Staff notes that the sum of the revenues listed in the Appendix 2-H does not add up to the total other revenues in row 51 of Appendix 2-H because the SSS Admin revenues are not included in the table.

a) Please update the Appendix 2-H by including SSS Admin Revenues (USoA 4086) for all years.

#### Ref: Exhibit 3, Page 46

NOTL Hydro provides a breakdown of the other income and expense in the Table 3.44:

	Actual	Actual	Actual	2017	Forecast	Forecast	Forecast
	CGAAP	CGAAP	MIFRS	MIFRS	MIFRS	MIFRS	MIFRS
	2014	2015	2016	2017	2018	2019	2019 (new rates)
	Total	Total	Total	Total	Total	Total	Total
Other Income and Expenses							
Regulatory Debit	(\$223,973.78)	-\$18,904.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4305 CGAAP Accounting Changes	(\$96,075.39)	-\$145,981.35	-\$200,949.82	-\$239,781.83	-\$277,138.39	-\$92,379.46	\$0.00
REVENUE FROM JOBS	\$28,107.64	\$30,384.92	\$139,972.87	\$37,213.35	\$37,213.35	\$37,213.35	\$37,213.35
PROFIT/LOSS ON INVESTMENT	\$45,452.00	\$36,133.00	\$62,352.00	\$46,137.00	\$0.00	\$0.00	\$0.00
GAIN ON DISP OF PROPERTY	(\$3,380.74)	\$0.00	\$0.00	\$9,413.44	\$0.00	\$0.00	\$0.00
Loss on Disposal of Property	\$0.00	\$0.00	\$0.00	-\$19,023.31	\$0.00	\$0.00	\$0.00
REVENUES NON-UTILITY OPERATIO	\$644,642.68	\$3,723.32	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EXPENSES NON-UTILITY OPERATIO	(\$674,289.75)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CDM REV	\$0.00	\$956,195.28	\$371,343.55	\$597,786.59	\$500,000.00	\$300,000.00	\$300,000.00
CDM EXP	\$0.00	-\$875,823.97	-\$381,147.39	-\$512,228.80	-\$500,000.00	-\$300,000.00	-\$300,000.00
MISC INCOME SALE OF SCRAP	\$4,754.10	\$0.00	\$6,254.50	\$3,019.50	\$3,507.03	\$3,507.03	\$3,507.03
MISC INCOME ADMIN EXP RECOVER	\$5,572.56	\$6,783.72	\$6,962.58	\$4,377.96	\$5,924.21	\$5,924.21	\$5,924.21
INT & DIV INCOME MISCELLANEOUS	\$0.00	\$3,679.73	\$9,779.83	\$0.00	\$0.00	\$0.00	\$0.00
INT & DIV INCOME CIBC T-BILLS	\$0.00	\$0.00	\$0.00	\$1,170.23	\$1,170.23	\$1,170.23	\$1,170.23
INT & DIV INCOME CIBC 69-0211	\$6,208.41	\$9,503.40	\$2,362.55	\$3,119.19	\$3,119.19	\$3,119.19	\$3,119.19
					\$0.00		
Total Other Income and Expenses	(\$262,982.27)	\$5,693.18	\$16,930.67	-\$68,796.68	-\$226,204.39	-\$41,445.46	\$50,934.00
Total Other Revenue	-\$44,439.78	\$248,915.16	\$318,872.28	\$237,274.92	\$111,968.52	\$331,717.68	\$502,939.00

#### Table 3.44: Other Income and Expenses

Staff notes that Regulatory debit of (\$223,973.78) is the main cause for the net cost for 2014 actual other revenues.

a) Please explain the nature of Regulatory debt line in Table 3.44.

## Exhibit 4 Operation, Maintenance & Administrative Costs

#### 4-Staff-39

# Ref: Appendix 2-JB Recoverable OM&A Cost Drivers; Exhibit 4, Page 11, Table 4.10

The recoverable OM&A cost drivers table in Appendix 2-JB does not match to Table 4.10 in the Exhibit 4. Staff notes that the table in excel may not have the correct closing balances for the OM&A expenses.

a) Please update the Appendix 2-JB to match with the Table 4.10 in Exhibit 4.

#### 4-Staff-40

## Ref: Appendix 2-JC OM&A Programs Table; Exhibit 4, Page 22

Staff notes that the following cell values on the Appendix 2-JC OM&A Programs Table does not agree to the Board approved column on Table 4.20 of Exhibit 4:

- Cell B35, sub-total for Operation for last rebasing year
- Cell B55, sub-total for Administrative and General for last rebasing year
- Cell B56, total for last rebasing year

Staff notes that the values for last rebasing year on Table 4.20 of Exhibit 4 agree to the values approved by the OEB in NOTL Hydro's 2014 CoS application.

a) Please update the Appendix 2-JC to ensure that the values on the Appendix agree to the OEB-approved values.

#### 4-Staff-41

## Ref: Exhibit 4, Page 11 and Page 12; Appendix 2-K Employee Costs

NOTL Hydro explains that one of the OM&A cost driver is the cost for new staff: "In 2016 and 2017 NOTL Hydro hired a new Customer Service Representative and a new Lineman due to the overall growth in the company business."

Table 4.10 on page 10 of Exhibit 4 list the new staff's cost which is separate from the wage increase for a total of \$141,321 (\$31,780+\$67,541+\$42,000).

Staff notes from Appendix 2-K Employee Costs that NOTL Hydro's headcount in 2019 has not been increased from 2014 OEB-approved headcount (2014 approved headcount of 19.1 and 2019 forecasted headcount of 18).

- a) Please confirm whether or not the new staff (headcounts) hired in 2016 and 2107 were included in the 2014 headcounts and the OM&A expense approved by the OEB?
  - i. If so, please explain why the cost of new staff is considered as a cost driver for the OM&A expense increase.
  - ii. If not, please reconcile the cost drivers of total wage increase and total new staff costs to the increase of employee costs from 2014 approved to 2019 forecast in Appendix 2-K.
- b) Please update the Appendix 2-JB OM&A Cost Drivers and Appendix 2-K Employee Costs as applicable.

# 4-Staff-42

# Ref: Exhibit 4, Page 17

In explaining the 2017 to 2018 year-over-year variance for OM&A, NOTL Hydro states that

Operation costs are forecast to be flat. The transfer of the cost of VP Operations to administration is being offset by an increase in labour as less allocation to capital work is expected. This is not a change in accounting policy but change in work practice.

- a) Please elaborate on why and how NOTL Hydro considers less allocation to capital work is a change in work practice, not a change in accounting policy.
- b) Please provide the quantum of the change of this work practice and the impact of the OM&A expense and capital.

#### Ref: Exhibit 4, Page 18 and Page 19

NOTL Hydro compares its 2016 OM&A per customer to the provincial average excluding Hydro One and states that:

According to the OEB's published 2016 Yearbook, the total cost per customer provincial average was \$431. However, if Hydro One is removed from this calculation the provincial average becomes \$278. NOTL Hydro's total cost per customer average was \$278.

- a) Please compare NOTL Hydro's OM&A per customer in 2017 to the provincial average excluding Hydro One that is published from 2017 Electricity Distributors Yearbook.
- b) Has NOTL Hydro benchmarked itself with the neighbouring distributors with respect to the OM&A expense, similar to the revenue benchmark NOTL has performed and presented in the open houses and AGMs?
  - i. If so, please provide the benchmark analysis.
  - ii. If not, please explain why not.

#### 4-Staff-44

#### Ref: Exhibit 4, Page 23

NOTL Hydro provides the variance analysis for operation costs by program in the table below:

Cost	Variance since Board Approved 2014	Variance since 2017	Explanation
Distribution sub-stations	\$53,690	\$18,984	Increased maintenance at the 2 transmission stations due to age, increased activity and service requirements. Most of this work is contracted to third parties due to need for transmission voltage expertise.
Overhead	\$192,432	\$69,673	All non-capital service work on overhead lines increasing due to wage increases, increased traffic in Town and shift in focus on customer service from capital work.
Engineering	-\$45,671	-\$62,067	Transfer of most of non-dedicated VP Operations time to Administration.

#### Table 4.21: Operations Program Costs Drivers

- a) With respect to the increase of \$192,432 in Overhead costs, please provide a further breakdown of the total increase to the increase due to wage increases, the increase due to increased traffic in Town and the increase due to the shift in focus on customer service from capital work.
- b) Please confirm whether or not the shift in focus on customer service from capital work means the shift in focus on maintenance service from capital work?
- c) Please provide the linkage between "the shift in focus on customer service from capital work" and the overhead capital projects in Exhibit 2.

#### 4-Staff-45

#### Ref: Exhibit 4, Page 24 and Page 28

NOTL Hydro provides the variance analysis for administration costs by program in the table below:

Cost	Variance since Board Approved 2014	Variance since 2017	Explanation
Executive salaries and professional services	\$296,103	\$161,609	Increased due to addition of VP Operations to Administration, new staff in all three executive roles and less time charged to capital due to focus on other responsibilities.
IT, software, communications	\$67,273	\$10,986	Increased due to increased cyber-security demands that required new contract with IT provider and more time dedicated by internal staff.

 Table 4.23: Administration Program Costs Drivers

Staff notes that the executive headcount has not been increased over the period of 2014 to 2019 as per Table 4.29 in Exhibit 4 page 28.

- a) Please provide a further breakdown of the variance of \$296,103 for executive salaries and professional services to the increases due to three reasons provided in Table 4.23.
- b) Please explain and reconcile the statement of "the new staff in all three executive roles" with the fact that the executive headcount has not been increased from 2014 to 2019.

#### 4-Staff-46

#### Ref: Exhibit 4, Page 32

NOTL Hydro provides a breakdown of the 2019 shared services to its sister company ESNI in the table below:

Year:		<u>2019</u>						
Shared Services								
Name of Company			Pricing	Price for the	Cost for the			
From	То	Service Offered	Methodology	Service \$	Service \$			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Water Billing- Customer Service- Billing/collecting/Account Inquiries/Reports/Water reads	Cost-Base	\$85,676.13	\$71,666.7			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Gas Water Heaters- Finance-Accounts Payable/Receivable,Account Reconcilations, Payroll	Cost-Base	\$0.00	\$0.0			
Niagara-on-the-Lake	Eneray Services Inc	Electric Water Heaters- Finance-Accounts Payable/Receivable,Account Reconcilations, Payroll/Solar Panel- Engineering Consulting	Cost-Base	\$2,103.03	\$1,752.5			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Water Bills- Printed/Cancelled bills	Cost-Base	\$44,117.04	\$40,106.4			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Water Meter Installs- Contractor charges for #Meter Installed	Cost-Base	\$12,078.00	\$10,980.0			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Adminstrative Expenses- Mtce General Plant, Property Taxes, Property Insurance, Audit Fees, Office Supplies	Cost-Base	\$6,516.63	\$5,924.2			
Niagara-on-the-Lake Hydro Inc	Energy Services Inc	Board Of Directors-Payroll	Cost-Base	\$8,400.00	\$8,400.0			

a) Please reconcile the mark up on the share services for 2019 to the other revenues in Appendix 2-H for the 2019 test year.

#### 4-Staff-47

#### Ref: Exhibit 4, Page 32

NOTL Hydro forecasts \$30,000 for oral hearings and \$75,000 for intervenor costs as part of the total cost of \$190,000 for preparing the 2019 cost of service application. NOTL Hydro explains that "Interrogatory, settlement and hearing costs have been estimated based on other rate applications".

a) Please provide the rate applications that NOTL Hydro has used for its estimate of the oral hearing and intervenor costs and how the estimates were derived.

- b) Given the two intervenors in this case, please confirm whether or not any of the estimated cost for preparing the 2019 cost of service application is to be updated.
  - i. If so, please provide the updated estimate and the updated appendix.
  - ii. If not, please explain why not.

## 4-Staff-48

## Ref: Exhibit 4, Page 51

NOTL Hydro states that "NOTL Hydro had a loss for income tax purposes in the years 2014-2016 so no income tax expense was calculated."

- a) Please provide the tax losses for the years 2014-2016 respectively.
- b) Please explain if NOTL Hydro has carried back the tax losses from 2014-2016.
- c) If the answer to b) is no, please provide NOTL Hydro's plan to carry forward the tax losses from 2014-2016.
- d) Please provide the impact of NOTL Hydro's plan in c) to the forecast PILs in 2019 if any.

## 4-Staff-49

# Ref: NOTL Hydro 2019 Test Year Income Tax PILs Model; Appendix 2-BA Fixed Asset Continuity Schedule

Staff notes that the total addition on Schedule 8 CCA for the test year in NOTL Hydro's PILs model agrees to the total addition for the test year fixed asset continuity schedule in Appendix 2-BA. However, the addition for Building and Fixture of \$52,260 is included as part of the CCA class 47 addition of \$4,702,650 on schedule 8 for the test year in the PILs model.

Staff notes that the building and fixture was mapped to the CCA class 1b with the CCA rate of 6% on NOTL Hydro's 2017 tax return.

- a) Please explain why the CCA class of building and fixture for the test year is mapped to Class 47 with the CCA rate of 8% instead of Class 1 with the CCA rate of 6%.
- b) Please update the PILs model as applicable.

#### 4-Staff-50

## Ref: NOTL Hydro 2019 Test Year Income Tax PILs Model

Staff notes that the capital addition of the battery for the smart grid project is mapped to CCA Class 43.1 with the rate of 30% on the test year schedule 8.

The Government of Canada website<sup>1</sup> describes the CCA Class 43.1 as follows:

#### Class 43.1 (30%)

Include in Class 43.1 with a CCA rate of 30% electrical vehicle charging stations (EVCSs) set up to supply more than 10 kilowatts but less than 90 kilowatts of continuous power. This is for property acquired for use after March 21, 2016, that has not been used or acquired for use before March 22, 2016.

- a) Please explain the rationale to map the battery to the CCA Class 43.1.
- b) Please explain if NOTL Hydro has consulted with any external professionals for its assessment of the CCA class of the battery.
  - i. If so, please provide the correspondence.
- c) Please update the PILs model if in any case the assessment for the CCA Class is changed.

## 4-Staff-51

## Ref: NOTL Hydro LRAMVA Workform, Sheet 5 2015-2020 LRAM, Table 5-b and Table 5-c; 2014 Cos of Service Application (EB-2013-0155) Settlement Agreement, Page 54

NOTL Hydro provides a rate class breakdown of its LRAMVA threshold established in Table 3.2.17 from the 2014 Settlement Agreement.

<sup>&</sup>lt;sup>1</sup> https://www.canada.ca/en/revenue-agency/services/tax/businesses/topics/sole-proprietorshipspartnerships/report-business-income-expenses/claiming-capital-cost-allowance/classesdepreciable-property.html#class43.1

- a) Please confirm the years in which actual savings were included in the 2014 load forecast.
- b) Please discuss the appropriateness of including 2011 persistence savings in 2016 and 2017.

# Ref: NOTL Hydro LRAMVA Workform, Sheet 3-a Rate Class Allocations and Sheet 5 2015-2020 LRAM

The LRAMVA is the difference between actual savings allocated across customer classes compared to forecast savings by customer class. NOTL Hydro did not provide a summary table as requested in Table 3-a to outline the calculation of the rate class allocations.

- a) Please explain how the savings for the commercial and industrial classes were allocated to NOTL Hydro's customer classes.
- b) Please show the calculation of 30% of the savings for saveOnEnergy retrofit program to the streetlighting class in 2015.

#### 4-Staff-53

## Ref: NOTL Hydro LRAMVA Workform, Sheet 6 Carrying Charges

In Table 6 of the LRAMVA workform, NOTL Hydro includes 1.89% interest rate for Q4 2018 to calculate the carrying charge for the LRAMVA.

a) Please update the Q4 2018 interest rate in Table 6 to reflect the OEB's most recently approved prescribed interest rate for deferral and variance accounts.

#### 4-Staff-54

- a) Please file a excel copy of the 2017 Final Results Report.
- b) Please file a copy of the 2014 Persistence Savings Report.

 c) If NOTL Hydro made any changes to the LRAMVA work form as a result of its responses to interrogatories, please file an updated LRAMVA work form. Please confirm any changes to the LRAMVA workform in "Table A-2. Updates to LRAMVA Disposition (Tab 2)".

## Exhibit 5: Cost of Capital

## 5-Staff-55

## Ref: Exhibit 5, Page 12

NOTL Hydro states regarding the additional future debt that NOTL Hydro will need to borrow to fund the planned investment in a new transformer. Negotiations are currently underway with CIBC and a long term fixed rate loan (either a fixed rate loan or a long term floating rate loan with a swap) is expected. The cost of this debt will depend on interest rates in 2019 so cannot be forecast with any certainty. The current average borrowing rate of 3.71% appears to be a reasonable proxy.

Staff understands that NOTL Hydro borrowed a long-term debt for the 2015 transformer from the town of Niagara-on-the-lake with 3% interest rate.

- a) For the purposes of lowering the interest rates, has NOTL Hydro considered any other options (such as town) for the borrowing for the new transformer in 2019?
  - i. If not, please explain why not.

#### 5-Staff-56

# Ref: Appendix 1L 2017 Audited Financial Statements (AFSs), Page 21, Note 12 Long-term Debt; Exhibit 5, Page 9

NOTL Hydro states, in its 2017 AFSs Note 12, for the long-term debt that "The Corporation has two demand instalment loans bearing interest at prime plus 0.75%." and "The Corporation has a third demand instalment loan which bears interest at the underlying market rate for banker's acceptance notes."

NOTL Hydro further states that "The Corporation has entered into interest rate swap agreements to fix the interest rates on two of the demand instalment loans at 6.03% and 5.38% with maturity dates of August 2018 and October 2020."

Staff notes from Table 5.11 2014 to 2019 Debt Instruments that NOTL Hydro lists two demand installment loans in the 2017 debt instrument table. These demand loans have 6.13% and 6.03% interest rates respectively.

- a) Please explain why NOTL Hydro stated three installment loans in its 2017 AFSs while the evidence for 2017 debt instrument only shows two demand instrument loans.
- b) Please explain the differences or provide a reconciliation between the interest rates stated in Note 12 of the 2017 AFSs and the values shown in the table of 2017 Debt instruments.

## **Exhibit 7: Cost Allocations**

## 7-Staff-57

## Ref: Exhibit 7, Page 5

In describing its proposed services weighting factors, NOTL Hydro states that it "services all Residential accounts as well as GS < 50 kW and GS 50kW – 4,999kW accounts with a 200 amp or less service."

NOTL Hydro proposes to use a weighting factor of 0.1 for the General Service 50kW - 4,999kW rate class "on the basis of the ratio of customers in this class with a 200 amp or less service. Staff notes that a 200 amp service operating at 240 volts is capable of serving not more than 48kW of load.

- a) Please confirm whether or not a 200 amp or less service refers to a 200 amp single phase service at approximately 240/120 volts.
- b) Please confirm whether or not the customer is required to pay for the service connection where a greater service is required.

- c) If part a) and part b) are confirmed, please explain how approximately 10% of the customers in the General Service 50kW – 4,999kW rate class can be served with 200 amp or less services.
- d) If part a) or part b) are not confirmed, please provide a derivation of services weighting factors. In doing so, please provide an average cost to NOTL for service connections provided in whole or in part by NOTL Hydro in each rate class, and the proportion of customers who are served by a service connection provided by NOTL Hydro in whole or in part.

#### 7-Staff-58

# Ref: Exhibit 2, Appendix 2A, Page 46; Exhibit 7, Pages 7, 8 and 10; Cost Allocation Model, Sheet I6.1 Revenue, Sheet I6.2 Customer Data, Sheet I8 Demand Data

NOTL Hydro has indicated on Sheet I6.1 Revenue that in the General Service > 50 kW rate class, a portion of the load qualifies for transformer ownership allowance, and that in the Large Use rate class, all of the load qualifies for transformer ownership allowance.

However, on Sheet I6.2 Customer Data the large user is counted in the line transformer customer base and secondary customer base, indicating it is reliant on NOTL line transformation and secondary distribution. In the General Service > 50 kW rate class, the number of customers entered as reliant on NOTL Hydro's line transformation is 112 as compared to 131 total customers, which is consistent with some customers providing their own transformers. However, all 131 customers are entered as being connected to NOTL Hydro's secondary distribution system.

The DSP states that "NOTL Hydro recovered as a capital contribution, all new infrastructure costs at the transformer station, feeder upgrades, smart switch, metering and all other connection costs to meet the requested obligation totaling to an estimated \$800,000."

On worksheet I8, all non-coincident peak (NCP) demand for all rate classes has been recorded at all levels of the distribution system, including Primary, Line Transformation, and Secondary.

- a) Please review and explain the apparent inconsistencies.
- b) Please correct the entries as applicable.
- c) Are any existing primary distribution assets, including feeders, poles, conduit, and associated hardware used in the provision of service to the Large Use customer?
  - i. If so, please explain.
  - ii. If not, has NOTL Hydro considered a direct allocation of the identified dedicated assets and associated operation and maintenance to the Large Use rate class?

#### 7-Staff-59

# Ref: Exhibit 7, Page 9; Cost Allocation Model, Sheet I7.1 Meter Capital, Sheet I7.2 Meter Reading

NOTL Hydro indicates that it has ten smart meters in the GS > 50 kW rate class, and is using Demand with IT meters in both the GS < 50 kW and GS > 50 kW.

The Street Light rate class has no meters assigned at all. For meter reading, NOTL indicates all GS < 50 kW reads are the less costly smart meter reads, while all GS > 50 kW, meter reads are the more costly interval meter reads. NOTL Hydro states that "The higher allocation percentage for GS>50 and Street lights reflect the incremental costs associated with reading interval meters".

- a) Please confirm that the methodology to read a smart meter and a Demand with IT meter depends on the class using the meter, or revise as required.
- b) Please explain or correct the apparent inconsistency of meter reading for five meters in the street light rate class, while no meters are recorded for the class.

# Ref: Cost Allocation Model, Sheet O1 Revenue to Cost; RRWF, Sheet 11.Cost Allocation

The Cost Allocation model indicates \$186,682 of allocated revenue requirement the Large User and \$185,989 for Street Light (row 40). The RRWF indicates \$186,682 for streetlights, and \$185,989 for the Large User.

a) Please correct the reversal of the entries.

# 7-Staff-61

## Ref: Exhibit 7, Page 16

NOTL Hydro states that:

- The full feeder line to the customer is scheduled to be completed in July 2018. NOTL 3 Hydro therefore does not have any usage history with the customer having full access of up to 20 MW of capacity.
- The customer is still working on their premises so will not be in a position to determine peak demand for at least a year.
- a) Please advise on the status of the feeder line which was to be completed July 2018, and whether the customer has access to the full 20 MW of capacity.
- b) Please provide an updated estimate of peak demand, if one is available
- c) Please provide an updated estimate of when the customer premises are expected to be completed.

## Ref: Exhibit 7, Page 22; RRWF, Sheet 11.Cost Allocation

NOTL Hydro is proposing to decrease the revenue to cost ratio for the Streetlights rate class from 161.88% to 129.52%, and increase the Large Use revenue to cost ratio from 72.15% to 100.37%, which is greater than the low-end of the OEB's policy range of 85%.

NOTL Hydro states that the two year adjustment to the Street Lights is to minimize the impact to the Residential rate class, the revenue to cost ratio for which is proposed to increase from 90.53% to 90.75%.

- a) Please explain why the Large User revenue to cost ratio has been increased to 100.37% beyond the revenue to cost ratio of the next lowest rate class, Residential, and beyond unity or 100%.
- b) Please provide bill impacts for a scenario where the street light rate class revenue to cost ratio is reduced to 120% in 2019.

## 7-Staff-63

## Ref: Exhibit 7, Page 14 and 15

NOTL Hydro proposes a standby rate for Large User customer rate class. Staff notes that there is only one customer in this proposed rate class.

NOTL Hydro proposes that Standby Charge will be based on applicable monthly Large Use Volumetric Charges. NOTL Hydro states that in the case where the utility grade metering is installed on the generator, the customer is only charged if the customer is generating at the peak time and then only for the generation at that time.

The Large User customer has the utility grade metering installed on the generator and agrees with the metering approach proposed by NOTL Hydro.

a) Please provide the names of the utilities who NOTL is aware are using the same method for the Standby Charge and the EB# of the applicable rate applications.

b) Please provide the proposed changes to NOTL Hydro's Conditions of Service with respect to the Standby Charge proposed.

#### Exhibit 8: Rate Design

#### 8-Staff-64

# Ref: Exhibit 8, Pages 7-8; Filing Requirements for Electricity Distribution Rate Applications – Chapter 2, July 12, 2018, Page 50

Filing Requirements for Electricity Distribution Rate Applications – Chapter 2, July 12, 2018, Page 50 states that

If a distributor's current fixed charge for any non-residential class is higher than the calculated ceiling, there is no requirement to lower the fixed charge to the ceiling, nor are distributors expected to raise the fixed charge further above the ceiling for any non- residential class.

The current fixed charges for all rate classes are higher than the minimum system with PLCC adjustment as calculated in the cost allocation model, an amount that is commonly referred to as the ceiling.

NOTL Hydro notes that there is no requirement for it to lower fixed charges below the calculated ceiling. It proposes to not change the fixed charge for the GS < 50 kW and GS > 50 to 4,999 kW rate as these rate classes are already above the ceiling. NOTL Hydro proposes to reduce the fixed charges for Street Lighting and Unmetered Scattered Load customers to the ceiling.

For Large Use rate class, NOTL Hydro has decided to fix the variable rate at the same rate as the GS > 50 to 4,999 kW rate class, which resulted in a variable charge of \$4,538.81 – an amount which "appeared reasonable given a review of Large User fixed rates across the province."

- a) Why has NOTL Hydro decided to set the fixed charge for street light at the ceiling when rates are proposed to decrease, and it was possible to maintain the fixed/variable split?
- b) Why has NOTL Hydro decided to lower the fixed charge for unmetered scattered load when it had the option to maintain the fixed charge and

doing so would have resulted in a smaller increase to the variable charge than was proposed?

- c) Please provide a brief description of the review conducted for the Large User fixed rate across the province.
- d) Has NOTL Hydro considered alternatives for the Large Use rate class rate design?
  - i. If so, please explain options considered and why they were dismissed.
  - ii. If not, please explain why not.

#### 8-Staff-65

# Ref: Exhibit 8, Page 30; NOTL Hydro 2019 Tariff Schedule and Bill Impact Model

NOTL Hydro provides the bill impacts by segment analysis in the following table:

Bill Segment	Residential	GS < 50	GS > 50	USL	5	Streetlights	Large User
Distribution Rates plus ICM	\$ 0.38	\$ 0.60	\$ 5.71	\$ 0.63	\$	(669.04)	\$ 4,468.66
Rate Riders	\$ 1.00	\$ 3.20	\$ 228.68	\$ (0.41)	\$	62.71	\$ 8,354.73
Line losses	\$ (0.04)	\$ (0.10)	\$ (3.59)	\$ (0.04)	\$	(0.53)	\$ (132.86)
Transmission	\$ (0.32)	\$ (0.84)	\$ (18.93)	\$ (0.33)	\$	(3.08)	\$ (965.50)
	\$ 1.01	\$ 2.86	\$ 211.87	\$ (0.15)	\$	(609.94)	\$ 11,725.03
	2.61%	3.31%	26.03%	-0.40%		-18.21%	7.19%

Table 8.25: Bill Impact Summary – Segmented Impact

a) Please provide references for the values in Table 8.25 to the Tab 20 of the Bill Impacts model.

#### **Exhibit 9: Deferral and Variance Accounts**

#### 9-Staff-66

#### Ref: Exhibit 9, Page 37

NOTL Hydro explains the GA rate used to bill the customers and accrue the unbilled:

NOTL Hydro bills non-RPP customers on the actual GA rate. The GA rate used to calculate unbilled revenue from January through November 2017 was based on the previous months actual GA rate as the actual GA rate for the reporting month is not available at the time unbilled accounting entries are processed. Unbilled revenue for December 2017 was trued-up to the actual amount billed and is therefore based on the actual GA rate.

Staff understands that the actual GA rate for the current month is published by the IESO on the tenth business day of the following month.

- a) Regarding the customers with calendar month billings, please confirm whether or not NOTL Hydro uses the actual GA rate of the load month to bill the customers (for example, use July 2018 actual GA rate to bill the customer with July consumption).
- b) Regarding the customers with billing cycle spanning over the calendar months (for example, June 16<sup>th</sup> to July 15<sup>th</sup>), please provide the details how NOTL Hydro bills the GA to these customers (please explain the proration method, the rate used, and the months the rates related to etc.) Please use an illustrative example as necessary.

#### 9-Staff-67

#### **Ref: GA Analysis Workform**

In the GA Analysis Workform for 2017, under reconciling item 5 (significant prior period adjustments), the Applicant has indicated that there is a \$101,913 adjustment for a historical billing error impacting one customer.

- a) Please confirm which years this billing error pertains to.
- b) Please describe the nature of the error, how it occurred, and whether there are any IESO settlement ramifications as a result

c) Did this billing error require a reallocation of GA costs between RPP and Non-RPP customers? If so, please explain and, if necessary, provide the principal adjustment to reallocate costs between Accounts 1588 and 1589.

## 9-Staff-68

# Ref: GA Analysis Workform; Exhibit 9, Page 21

In the GA Analysis Workform for 2017, under reconciling item 9, NOTL Hydro has indicated that there is a \$42,891 adjustment for 2017 as a result of using estimates for embedded generation, rather than actuals. Staff notes that it is not evident if a corresponding adjustment was made to Account 1588.

- a) Please confirm whether or not a corresponding adjustment was made to allocate this amount between accounts RPP and non-RPP customer groups affected by the embedded generation reporting adjustment.
- b) If a corresponding adjustment was made in Account 1588 for the embedded generation amount; please confirm if an RPP settlement claim adjustment was made, if not please explain.
- c) If an adjustment is required, please quantify in the same manner as prepared in Table 9.14: Generation Estimates Adjustment.

## 9-Staff-69

## Ref: GA Analysis Workform

NOTL Hydro includes a reconciling item with respect to the line loss for \$69,662 in the GA Analysis Workform.

a) Please provide details and explain how the applicant calculated the amount of \$69,662 for the difference between the approved total system losses and those actually incurred.

## Ref: GA Analysis Workform

NOTL Hydro has identified that prior amounts accrued in 2015 and 2016 for a Notice of Dispute with the IESO have been settled and recorded on an actual basis in 2017.

a) Please confirm whether or not, at this time, there are any other outstanding disputes with the IESO with respect to the cost of power or global adjustment charges incurred in 2017; if so, please explain the nature of the dispute and quantify any estimated impacts on the commodity account balances.

## 9-Staff-71

## Ref: GA Analysis Workform

NOTL Hydro includes a reconciling item of \$47,862 on the GA Analysis Workform for the difference between the actual invoiced GA and the calculated GA portion for NOTL Hydro.

- a) Please confirm whether or not the entire amount of \$47,862 was the adjustment made by the IESO, i.e. the adjustments for total global adjustment charges for all customers (RPP and Non-RPP customers). If so, please confirm whether the adjustment amount was allocated to RPP customers and Non-RPP Class B customers.
- b) If a) is confirmed, please explain why 100% of the difference is shown as a reconciling item impacting non-RPP customers in the GA Analysis Workform for Account 1589, rather than allocating a portion of the difference between RPP and non-RPP customers. Please also update the GA Analysis Workform for this reconciling item as applicable.
- c) If the \$47,862 only relates to non-RPP customers please confirm that the amount related to the account 1588 portion was settled as a RPP settlement true up adjustment and when.

# Ref: Exhibit 9, Page 46; The OEB letter issued on May 23, 2017 for "Guidance on Disposition of Accounts 1588 and 1589"

NOTL Hydro indicates that it performs the RPP settlement true up on an annual basis:

The true-up process is completed once all billings for the reporting period have been processed through the billing system. The last billings for 2017 were completed in mid- February 2018. While the true-up was competed in 2018 all entries were booked to 2017.

The OEB issued a letter to all electricity distributors regarding the "Guidance on Disposition of Account 1588 and 1589". It states that:

RPP settlement true-up claims should be conducted monthly and if not, at a minimum on a quarterly basis. The year-end RPP settlement true-up claim for the last quarter of a year must be completed no later than the settlement claim with the IESO for the final month of the first quarter of the following fiscal year.

- a) Please confirm whether or not NOTL Hydro trues up its RPP settlements annually
  - i. If so, please explain why NOTL Hydro has not followed the guidance in the OEB letter issued on May 23, 2017. And please provide NOTL Hydro's plan to conform to the guidance.
  - ii. If not, please provide NOTL Hydro's RPP settlement true-up frequency (quarterly or monthly).

# 9-Staff-73

## Ref: Exhibit 9, Pages 32-33 and Page 36

NOTL Hydro provides the rate rider calculations for Group 1 DVAs, Group 2 DVAs, Account 1568 and Account 1589 Global Adjustment based on the assumed load forecast of the large user customer of 5MW.

a) Please provide the rate rider calculations under the scenarios of 10MW and 15MW for the large use customer respectively.

#### 9-Staff-74

## Ref: Exhibit 9, Page 49; Appendix 9C Draft Accounting Order

NOTL Hydro has prepared the Accounting Order on the basis that 5,000 kW per month is the best estimate available for this customer. Staff notes that NOTL Hydro has indicated that the customer's estimated consumption range is from 4MW to 20MW.

- a) Please confirm that NOTL Hydro plans to dispose either negative or positive balances in the new variance account, what customer groups NOTL Hydro proposes to return/recover the amounts from, and how NOTL Hydro plans to allocate the variance account balances to the respective customer classes.
- b) Please provide any information available of the consumption patterns of comparable customers of similar sizes and similar industries.
- c) As of the current date, has NOTL Hydro received any new information from the prospective Large Use Customer on their business plans, legal uncertainties, market demands, or any other factors that could assist NOTL Hydro in determining the customer's monthly consumption patterns?
- d) As of the current date, does NOTL Hydro have any knowledge or information with respect to the prospective Large Use Customer's intentions of maintaining operations within the service territory of the Applicant?
- e) If the answers to c) and d) above are No, please update any new information received during the process of this rate application before the record-closing date.