

EB-2014-0101
Oshawa PUC Networks Inc.
5 year Custom Distribution Rates Application
BOARD STAFF INTERROGATORIES
April 16, 2015

1.0 Administration

1.0-Staff-1

Ref: Exhibit 1, Tab C

OPUCN recognizes in its evidence that the value to customers of its planned spending must be demonstrated. Please provide detailed information, preferably in chart form.

- a) What specific outcomes does OPUCN target for its planned OM&A and capital spending over the five year plan term (e.g. reduction in unit cost to targeted level, reduction in outage length by x%)?
- b) How is progress toward the targeted outcomes to be quantified?
- c) By what metric of performance will success in achieving the outcome be demonstrated?
- d) How is the value to customers of the proposed spending over the plan term to be demonstrated?
- e) What consequences should occur if targeted outcomes are exceeded? If targeted outcomes are not achieved?
- f) Please describe how each of the targeted outcomes aligns with customer preferences identified by OPUCN, with reference to the evidence in this application.

1.0-Staff-2

Ref: Exhibit 1, Tab C

On Oshawa PUC's Scorecard on the OEB website, the row "Asset Management – Distribution System Plan Implementation Progress" is presently blank. The management discussion and analysis for Year 2013 indicates that the DSP Implementation Progress metric is a new measure that OPUCN is logging for fiscal year 2014.

- Please describe what metric OPUCN will use for this measure, and relate this metric to the measures of performance for its proposed capital spending and DSP filed in this application.

1.0-Staff-3

Ref: Exhibit 1, Tab D

In this Customer Engagement Exhibit, OPUCN provides information on its customer engagement activities and customer engagement surveys. Please provide a program or investment project roadmap that directly connects OPUCN's creation and adjustment of its future plans in accordance with the findings of its customer engagement surveys.

2.0 Rate Base and Capital Expenditures

2.0-Staff-4

Ref: Exhibit 2, Tab A, page 145

Service Quality and Reliability Performance are reported in this part of the Exhibit. Has OPUCN developed any Service Quality or Reliability Performance Targets that correspond with this 5 year plan? If so, please provide them, if not, why not?

2.0-Staff-5

Ref: Exhibit 2/Tab B/Schedule 7/Attachment G/ p. 1 – 3

The evidence indicates that the first two projects in the chart showing 2014 – 2019 Material Capital Expenditures were intended as a short term solution to the capacity constraints identified at Wilson TS and Thornton TS. For those two projects:

- a) Are the projects now complete? If yes, what were the actual costs? If no, what costs were incurred in 2014, and what costs are forecast to be incurred in 2015?
- b) Do capacity constraints exist at those two TS at the present time with the current load?

2.0-Staff-6

Ref: Exhibit 2/Tab B/Schedule 2/pp. 1 – 3

Regarding the planning decision on a long term solution to meeting transmission capacity requirements in the East GTA, HONI's planning status letter states that local planning is expected to be complete in Q1 2015.

- a) Is the local planning exercise complete? If no, when is it expected to be complete?
- b) Is the option of the addition of two feeder breaker positions at Wilson TS and Thornton TS still being considered in light of the statement in the HONI letter that this is no longer a viable permanent solution?
- c) Does OPUCN have a say in the choice of a permanent solution?
- d) If the local planning exercise is complete, please describe the results of the planning exercise and provide in detail the consequences for OPUCN's DSP and the amount and timing of the capital contribution to HONI that will be required.

2.0-Staff-7

Ref: Exhibit 2/Tab B/Schedule 2/p. 2

The HONI letter states:

“As per the LDC's anticipated load growth in the region, the connection facilities are forecasted to exceed their normal supply capacity in the near-term... In light of the updated total peak load forecast, the option of adding two new feeder breaker positions at both stations (Wilson TS and Thornton TS) is no longer deemed to be a viable permanent solution to address the station capacity limitations...”

- a) What is the source of the information on “anticipated load growth in the region” and the “updated total peak load forecast” referred to in the letter?
- b) Are the capacity constraints driven solely by OPUCN's anticipated load?
 - If no:
 - What percentage of the capacity constraints at Wilson TS and Thornton TS is driven by OPUCN's needs?
 - Which other LDCs in the region contribute to the capacity constraints?

- Which other LDCs in the region would a new transmission station serve?
- What contribution will other LDCs in the region make to the permanent solution?
- If yes, at what point in time is the capacity of the two TS exceeded under OPUCN's present load forecast?
 - Under what load forecast is the initially proposed upgrade to Wilson and Thornton TS new breaker positions a sufficient long term solution?
 - Under what load forecast is a new transformer station a more efficient long term investment?

2.0-Staff-8

Ref: Exhibit 2/Tab B/Schedule 2/p. 2

The HONI letter indicates that the proposed new transmission station would have an in-service date of 2018 – 2019, and that interim options for managing the load at Wilson TS and Thornton TS are being reviewed. The letter indicates that available station capacity and feeder capacity utilization in the East GTA Region are being reviewed, and that interim solutions may require additional LDC investments.

- a) Please provide any updated information OPUCN has regarding these interim solutions.
- b) What will those costs be for OPUCN customers of the interim solutions being considered?
- c) In the absence of timely transmission upgrades and interim solutions, what tools and plans has OPUCN developed to ensure reliability of supply for its customers during peak periods prior to new facilities being in service?

2.0-Staff-9

Ref: Exhibit 2, Tab B/page 15 – System O&M Costs

Exhibit 2, Tab A/page 29/Table 2-12 – Maintenance Expense

Exhibit 2, Tab B/page 50/Table 18 – Capital Investment 2010-2019

At Page 15, Exhibit 2, Tab B OPUCN states in part: "...for the sake of completeness, OPUCN has provided in this DS Plan its Historical, Bridge Year and

plan period System O&M costs. These costs are, however, independent of, and not directly impacted up or down by, investments contemplated in this DS Plan.”

At the same reference, OPUCN also states that: “...these ‘discretionary’ initiatives are expected to avoid future O&M costs. OPUCN has not precisely quantified such avoided future costs.”

At Page 29, Exhibit 2, Tab A OPUCN shows that maintenance expense is forecast to grow at about 2.2% per year over 2015-2019.

In addition, OPUCN has provided Table 18 from Exhibit 2, Tab B, on page 50: Historical & Planned Capital Investment, 2010 -2019.

- a) To provide an expenditure picture that allows a comparative analysis, please include capital and planned and unplanned maintenance in the same schedule for all relevant system assets, historical and forecast.
- b) Please provide the same for relevant non-system assets, historical and forecast.
- c) If there are any outliers, please provide an explanation.
- d) Please explain why maintenance is only correlated to inflation rather than forecast in accordance with the state of the underlying assets.

2.0-Staff-10

**Ref: Exhibit 10/Tab B/page 4 – Cost Estimate Summary Table
Exhibit 2/Tab A/page 12/ – Table 2-5 Capital Expenditures
Exhibit 2/Tab B/page 40/Table 16 – Project Estimates
Exhibit 2/Tab B/ Schedule 3/ p. 74-79/ Asset Management Plan – Capital and Maintenance Investments – Table 5.8**

With Regard to the Tables referenced:

- a) Do OPUCN’s cost estimates include contingencies? If so what are these percentages?
- b) Please clarify the comment in Table 16 regarding the pole replacement program.
- c) Please provide a short explanation for the cost estimate differentials found at Table 16.

- d) Did OPUCN rely on METSCO's budgeting analysis for its estimates? Please explain some of the variances for years 2017 and 2018. Are they related to the MS-9 substation?

2.0-Staff-11

Ref: Exhibit 2/Tab B/Schedule 7

Exhibit 2/Tab B/Schedule 7/Appendices A to G

To establish whether the most cost-effective actions have been adopted, staff suggests that the pre-filed evidence should include quantitative information on the economics of material projects/programs. Several of the projects are described as being driven by reliability considerations. OEB staff understands that these projects may impact system performance indicators.

- a) Where in the evidence is the economic evaluation of material projects, i.e. do nothing, vs. maintain vs. replace and a discussion of alternatives?
- b) Please distinguish between discretionary and non-discretionary projects, and provide:
- i. An overview of the economics of the project (eg. assumptions, NPV calculation) and a discussion of alternatives in that context ;
 - ii. Where applicable please reference or submit additional documentation, such as independent studies that support a recommended option;
 - iii. Any investment pacing considerations related to each project; and
 - iv. Quantitative benefits to be incurred from maintaining/upgrading versus replacing the asset(s), such as lower operating costs, increased efficiency, increased reliability, improved performance indicators, etc.

2.0-Staff-12

Ref:

- 1. Exhibit 2/ Tab B/ p. 72/ Table 31**
- 2. Exhibit 2/ Tab B/ p. 71, p. 85, and p. 92**
- 3. Exhibit 2/ Tab B/ Schedule 1/ OPA Letter**
- 4. Exhibit 2/ Tab B/ Schedule 4/ p. 12 (Capital Expense Forecast)**

In OPUCN's capital investment summary table (Reference 1), one entry is dedicated to "Ministry of Energy Approved Micro Grid Project". Further, at page 85 of Reference 2, OPUCN states that: "OPUCN's contribution to this project is its labour in kind".

At page 71 of Reference 2, OPUCN states that it "has adopted those UtiliWorks recommendations that will most affordably and cost effectively increase efficiencies to OPUCN system operations, improve on system outage durations, and minimize outage impact on its customers. The overall capital investment towards a "smarter grid" over the five year planning period is approximately \$2.6 million or 4% of the total overall DS Plan."

At Reference 3, the OPA Letter confirms that there are no future capital investments to accommodate FIT or microFIT initiatives over the 2015-2019 period.

At page 92 of Reference 2, and elsewhere in the pre-filed evidence, OPUCN affirms that system service expenditures are to incorporate new technologies that relate to grid modernization, many of which are 'smartening' the grid.

At Reference 4, the UtiliWorks' report provides a forecast of costs and benefits for OPUCN's Smart Grid initiatives. The forecast shows that while distribution operations will benefit from Smart Grid initiatives, the largest beneficiary over 2015-2019 are distributed resources, which according to the report include distributed generation, energy storage and demand response.

OEB staff notes that demand response is currently included in CDM initiatives.

- a) Respecting the micro-grid pilot project, please explain why 'labour in kind' is accounted for as a capital expenditure.
- b) Please explain how distribution operations would benefit further from additional capital spending in Smart Grid than what would already be accomplished through "smart" System Service upgrades.
- c) In the absence of planned future distributed resources, please explain how additional Smart Grid capital expenditures will provide an incremental benefit to OPUCN's customers?

2.0-Staff-13

Ref: Exhibit 2/Tab B/page 72/Table 31

As shown on this table, System Access accounts for about 23% of planned capital expenditures over 2015 -2019, and more than half of the increase is attributable to asset relocations to allow for highway works.

- a) After accounting for capital contributions, what is the rate impact of these asset relocations?
- b) Please confirm the level of input provided to OPUCN prior to the adoption of the route where OPUCN's assets would be affected?
- c) Is OPUCN aware of other route alternatives that would have avoided or lessened relocation costs?

2.0-Staff-14

Ref: Exhibit 2/Tab B/pages 28-29/Table 31

At this reference, OPUCN describes historic reliability performance in detail and states (at page 30) that its planning process "identifies projects in the System Renewal category to improve system reliability by mitigating the risk of in service failure of assets, significant outage duration and associated negative outage impact to its customers".

Does OPUCN have a target or targets in relation to reliability performance improvement, including specifically in relation to equipment-related failures? What improvement, in which specific performance metric(s), would demonstrate value for money for OPUCN's customers?

2.0-Staff-15

Ref: Exhibit 2/Tab B/page 36

OM&A per Customer: The DSP states that forecast OM&A cost per customer in 2019 will be unchanged from 2013. How sensitive is this result to the actual number of OPUCN customers at the end of 2019?

2.0-Staff-16

Ref: Exhibit 2/Tab B/pages 35-36

Net Fixed Assets per Customer: The DSP states that OPUCN's forecast Average Net Fixed Assets per Customer in 2019 is \$1,818, which remains below the 2013 average for the comparable LDCs and that consequently, OPUCN's planned capital investment levels are fair and reasonable.

Staff notes that a measure of net fixed assets per customer shows growth of 27% from 2013 (\$1436/customer) to 2019 (\$1818/customer).

- a) Please provide the reasons for this growth per customer.
- b) Please confirm that this increase per customer will be greater if the forecast customer connections do not materialize by the end of 2019.
- c) Please explain why OPUCN has chosen two different “benchmarks” for OM&A per customer and net fixed assets per customer. That is, OM&A per customer is compared to OPUCN’s historic level, while net fixed assets per customer is compared to other utilities’ historic levels.

2.0-Staff-17

**Ref: Exhibit 2/Tab B/7/G, page 4
New Municipal Substation MS9**

OPUCN states that in the past, load growth did not materialize as originally forecasted and that accordingly, the MS9 investment was placed on hold. OPUCN acknowledges (at page 92) that there is a risk that the load may not materialize in full or at the pace projected by the City of Oshawa, but expresses confidence that the new substation is required and that the design and construction needs to start in 2015.

- a) Given the apparent risks, how will OPUCN ensure customer value from the MS9 investment – which represents almost 50% of proposed System Service capital expenditure over the 5 year plan period – is achieved?
- b) Since the development of MS9 is expected to take three to four years, what would the impact to OPUCN be if the start of development was delayed to 2016 or 2017?

3.0 Operating Revenue (Load Forecast)

3.0-Staff-18

Ref: Exhibit 3, page 26

In its Residential Class, OPUCN has assumed an annual customer growth rate of 3.0% over the 5 year test period, after showing customer growth of just over 1% for the previous 5 year period. In its Distribution System Plan (Exhibit 2/Tab

B/page 7) OPUCN indicates a number of factors for assuming this additional growth:

- a) Phase One of the 407 extension to be completed in 2015, with Phase Two complete in 2019/2020. Please provide any updated forecast for the completion of Phase One. Please provide additional rationale for how the completion of Phase One of this highway will provide additional residential customers? How will the completion of Phase Two of this project affect customer numbers over the course of this application if complete in 2019?
- b) On page 8, Oshawa refers to a demonstrated increase in large residential subdivisions and commercial developments confirms the need for load requirements. Please provide further information on this demonstrated need and relate this to the forecast increase in Residential customer connections.

3.0 –Staff-19

Ref: Exhibit 3, page 26

In its General Service <50kW class, OPUCN has assumed an annual customer growth rate of 3.0% over the 5 year test period, after showing virtually no customer growth in the previous 5 year period. Notwithstanding its reference to the two examples of commercial developments in its service territory, please provide more specific evidence that would justify 3.0% growth over the course of this application for this class.

3.0 –Staff-20

Ref: Exhibit 3, page 26

In its General Service <50kW class, OPUCN has assumed an annual customer growth rate of 3.0% over the 5 year test period, with customer numbers forecast to grow to 4,529 in 2019, from 3,924 in 2014, an increase of 16%. In the kWh forecast, consumption for this class is growing by only 7.4% over this period. Please provide more specific detail explaining this difference.

3.0 –Staff-21

Ref: Exhibit 3, page 26

Similarly, in its General Service 50 kW to 999 kW class, OPUCN has assumed an annual customer growth rate of 3.0% over the 5 year test period, after showing negative growth in the previous 5 year period. Notwithstanding its reference to the two examples of commercial developments in its service territory, please provide

more specific evidence that would justify 3.0% growth over the course of this application for this class.

3.0 –Staff-22

Ref: Exhibit 3, page 26

Since this application was prepared and filed, has any additional information come to light to indicate that the forecast for 2015 is inappropriate in any way?

3.0 –Staff-23

Ref: Exhibit 3, page 26

If these forecast customer numbers and kWh loads are not accurate, is it the intention of OPUCN to update these numbers as part of its annual adjustment proposal as shown at Exhibit 1/Tab B/page 2?

3.0 –Staff-24

Ref: Exhibit 2/Tab B/, page 36

OPUCN has indicated that its OM&A cost per customer is forecast to remain at 2013 level of \$208 per customer at the end of the 5 year plan. However, Board staff notes that if customer numbers are forecast to grow at only 1.5% per year, the 2019 customer number is 58,718 and the OM&A per customer number will grow to \$224 or 8% higher than the current OPUCN forecast. What confidence can the OEB have in this demonstration of efficiency given this risk of optimistic customer growth over the plan term?

3.0 –Staff-25

Ref: Exhibit 3, page 33

OPUCN has indicated that its kWh load forecast for the Intermediate class (GS>1,000 kW) will be falling from 72,223,027 in the 2014 bridge year to 47,307,974 in 2019, a drop of 35%. At the same time customer numbers are growing only slightly. Please provide additional rationale for the significant drop in load for this class over the 5 year test period.

3.0 –Staff-26

Ref: Exhibit 3, page 39

At Table 3-21 on this page, OPUCN has shown the Predicted kWh Purchases compared to Actual kWh Purchases from 2003 to 2013, showing the differences from in each year. Are the Predicted Purchases using the 10 year Normalization or

the 20 Year Normalization? If the 10 year, please provide a similar chart showing the differences using the 20 year normalization.

In addition, at Table 3-22 the 10 and 20 Year Normalized Columns show exactly the same results for all years. Please explain why these results do not differ depending on the normalization period.

4.0 Operating Costs

4.0-Staff-27

Ref: Exhibit 4, page 20

Board staff notes that Operations and Maintenance costs grow by 11.5% in 2014, 25.6% in 2015 and 15.2% in 2016. The main driver of these increases appears to be the Succession Planning, with 8 positions identified for labour overlap to facilitate succession. Please provide more detail on these 8 positions and why overlap is needed for this number of positions.

4.0-Staff-28

Ref: Exhibit 4, page 20

Board staff notes that Billing and Collecting Expenses increase from \$2,462,900 in 2013 to \$2,594,600 in 2014, an increase of 5.3%. There are further increases above the rate of inflation from 2015 to 2019. Please provide additional detail on why these costs increased to such an extent in 2014 and why Billing and Collection Costs continue to rise in the test years. What steps has OPUCN taken to increase efficiency in their Billing and Collection operations and what steps will it take in the future (such as encouraging electronic billing) over the test year period?

4.0-Staff-29

Ref: Exhibit 4, page 21

Administration & General costs increase by 8.4% in the 2015 test year, from \$5.1 million in 2014 to \$5.5 million in 2015, setting a base for continuous increases each year to 2019. This occurs in spite of the fall in Post Retirement Benefit costs of \$400,000. Please provide additional detailed rationale for the Administration and General increase in 2015.

4.0-Staff-30

Ref: Exhibit 4, page 21

Community Relations Costs are set to rise by 5.9% in 2015 and then an additional 12.7% in 2016 with inflationary level increases each year to 2019. While OPUCN

has provided some reasons for the general increase, please provide additional rationale for the 2015 and 2016 increases.

- a) What additional activities will be undertaken?
- b) How will those activities feed into OPUCN's plans?
- c) What alternatives were considered and rejected in favour of the proposed spending on these areas?

4.0-Staff-31

Ref: Exhibit 4, page 24

Under 'Benefits', OPUCN indicates that post retirement benefit costs will be reduced in 2015 by a projected amount of \$400,000 from 2012 actual levels.

- a) Please provide these costs from 2010 to 2019 on an actual and forecast basis.
- b) OPUCN also indicates it will file an update of the actuarial report for 2014 and report any material differences. When will this report be filed and when will any updates occur?

4.0-Staff-32

Ref: Exhibit 4, page 61

Under 'Regulatory Costs' OPUCN shows \$973,694 as the one-time regulatory cost total for this application.

- a) Please provide an explanation for the item, Unamortized 2012 Rate Application Costs of \$47,686.
- b) Please provide additional detail for the item, Consultants Costs of \$434,500.

5.0 Cost of Capital and Capital Structure

5.0-Staff-33

Ref: Exhibit 5, page 2-3

OPUCN requests that "the Long-Term Debt rate used for all long-term deemed debt, funded and unfunded, be the weighted average of rates applicable to funded debt for OPUCN; and that such annual adjustments incorporate the actual market-based cost of any new debt issuances since this original filing."

When OPUCN makes its annual update, will it include new Long Term Debt incurred at the rate which this debt carries, if it is lower than the current long term debt rate released by the OEB in November of each year? If not, will the OEBs deemed long term debt rate apply?

6.0 Revenue Sufficiency/Deficiency

7.0 Cost Allocation

7.0 –Staff-34

Ref: Exhibit 7, page 3

OPUCN indicates that it has used the customer and load forecast as provided in Exhibit 3 for its Cost Allocation evidence. Staff has questioned the customer and load forecast, implying that it is too optimistic. Please comment on the impact of a reduced customer and load forecast on OPUCN's Cost Allocation Model results from lower customer and load growth in the residential and GS 50 to 999 kW classes over the course of this plan.

7.0 –Staff-35

Ref: Exhibit 7, Table 7-16, page 11

In this Table, OPUCN provides a summary of the Proposed Revenue-to-Cost Ratios from 2015 to 2019. For both the GS Intermediate Class and the Sentinel Light Class, the R/C ratio is set to 120 (top of the policy range) in 2015 and continues at that level each year until 2019. As the Board indicated in its EB-2007-0667 Report dated November 28, 2007 on page 7:

“Distributors should endeavour to move their R/C ratios closer to one if this is supported by improved cost applications.... Distributors should not move their R/C ratios further away from one.”

Why does OPUCN not propose to move those classes more toward the middle of the range over the 2015 – 2019 period?

7.0 –Staff-36

Ref: Exhibit 7, Table 7-16, page 11

In this Table, OPUCN provides a summary of the Proposed Revenue-to-Cost Ratios from 2015 to 2019. For both the GS < 50kWh Class, the R/C ratio is set to 120 (top of the policy range) in 2015 and is proposed to move only slightly below

120 from 2017 to 2019. Why does OPUCN not propose to move this class more toward the middle of the range over the 2015 – 2019 period?

8.0 Rate Design

8.0 –Staff-37

Ref: Exhibit 8, Table 8-4, page 5

In this Table, OPUCN shows its proposed Fixed/Variable split for all classes from 2015 to 2019. In considering the OEB's April 2, 2015 announcement of its policy regarding fixed distribution charges for residential customers (EB-2012-0410), please provide OPUCN's plan to move toward the implementation of the Board's policy over the 2015 – 2019 period.

9.0 Deferral and Variance Accounts

9.0 –Staff-38

Ref: Exhibit 9, page 2

OPUCN indicates that it will not be requesting disposition of its DVA accounts and indicates that " A large portion of this balance is driven by unusual movements in commodity and global adjustment costs in the latter part of 2013 and early 2014, which in turn led to larger than normal swings in some DVA balances." Please explain the cause of these unusual movements in the DVA accounts.

9.0 –Staff-39

Ref: Exhibit 9, page 7

OPUCN indicates that it intends to request a new variance account, to capture Deferred Rate Impact Amounts. Please provide a rationale for the creation of this account under the Board's 3 criteria: Causality, Prudence and Materiality and provide a draft Accounting Order applicable to this account.

9.0 –Staff-40

Ref: Exhibit 9, page 7

On this page under New Variance Accounts, OPUCN does not indicate that it is requesting the:

- a) Net New Connection Cost Variance Account as mentioned at Exhibit 10/Tab D/page 7.
- b) 2015 Revenue Variance Account as mentioned at Exhibit 1/Tab B/page 1.
- c) Rate Smoothing Deferral Account as mentioned at Exhibit 1/Tab B/page 2

- d) Distribution Plant Relocation Cost Variance Account as mentioned at Exhibit 1/Tab B/page 3.
- e) Unbudgeted Regional Planning Investment Cost Variance Account as mentioned at Exhibit 1/Tab B/page 3
- f) Controllable Capital Investment Efficiency Incentive Mechanism (CCIEIM) Deferral Account as mentioned at Exhibit 1/Tab B/page 3.
- g) Total Cost Efficiency Carryover Mechanism (TCECM) as mentioned at Exhibit 1/Tab B/page 3.

Please provide a rationale for the creation of these accounts under the Board's 3 criteria: Causality, Prudence and Materiality and provide a draft Accounting Order applicable to each of these accounts.

10.0 Custom IR Supporting Evidence

10.0-Staff-41

Ref: Exhibit 10, Tab D

Please confirm or correct the following list of adjustments proposed and the method of adjustment. Please note that in some cases the list in the application has been further disaggregated:

- A. Adjustments to be made to base rates annually to account for changes in:
 - Forecast revenue indicated by updated customer growth, demand and consumption forecasts
 - Actual and forecast net new customer connection costs
 - Cost of capital parameters (return on equity, short term debt rates and long term debt rate)
 - Working capital allowance resulting from changes in the cost of powerRates could also be adjusted as a result of a successful Z-factor application.

- B. Rate riders added to rates once costs for the following are finalized:
 - Revenue requirement impacts of contributions to Hydro One Networks Inc. Transmission
 - Revenue requirement impacts of unbudgeted distribution projects required as a result of regional planningIn the meantime, the revenue requirement impacts of these costs will be tracked by OPUCN.

- C. Deferral or variance accounts to be created to record changes in:

- Revenue requirement impacts of cost variances from forecast (embedded in rates) for distribution plant relocations in response to third party requests
 - Revenue requirement impacts of cost variances from forecast (embedded in rates) for new customer connections
- The two deferral accounts would be disposed of at the end of the plan term.

10.0-Staff-42

Ref: Exhibit 10, Tab D

For each proposed annual rate adjustment, including the rate riders and deferral accounts, please provide:

- a) a reference to the Board policy or precedent that provides for the adjustment. If no Board policy or precedent exists for a proposed adjustment, please describe the particular circumstances of OPUCN that justify the need for the adjustment.
- b) a best estimate of the materiality of the variance the adjustment is designed to address.
- c) OPUCN's estimate of the annual time and cost (including intervenor participation) of implementing these annual updates.

10.0-Staff-43

Ref: Exhibit 10, Tab D

At page 19 of the RRFE Report, the Board indicates that distributors applying under the Custom IR option to demonstrate the ability to manage within the rates set, given that actual costs and revenue will vary from forecast [*emphasis added*]. Please indicate how OPUCN's proposed annual adjustments for variances in cost and revenue are consistent with demonstrating this ability.

- a) Did OPUCN consider a set of costs and supporting forecasts that would not have required planned annual adjustments prior to filing this application? Why or why not?
- b) Please describe the consequences to rates for customers and financial performance of OPUCN of selecting a five-year customer forecast, cost index and investment profile that would not require annual adjustment. In what ways would the utility be unable to balance risks and rewards for the company and its customers?

- c) What additional benefits are Oshawa's customers receiving from the proposed annual adjustments that would not be provided by a custom index of rates for the five year period, based around the most likely customer forecast and most likely set of capital requirements?
- d) If OPUCN's plan is reasonable, in what way are the Board's off-ramps insufficient for adjustments to the plan, should actual developments turn out substantially different from those planned?

10.0-Staff-44

Ref: Exhibit 10, Tab C, page 14

In its decision in EB-2013-0416, the recent Hydro One Networks Inc. rate application, the Board said in section 3.2 at pages 14 and 15:

"The OEB expects Custom IR rate setting to include expectations for benchmark productivity and efficiency gains that are external to the company. The OEB does not equate Hydro One's embedded annual savings with productivity and efficiency incentives. ...It is not sufficient to embed savings in cost forecasts. ...The productivity and efficiency elements allow the OEB to move away from detailed input cost assessment and focus more on utility performance. These factors provide utilities with strong incentives to continually seek efficiencies and share expected savings with ratepayers 'up front', avoiding 'after the fact' regulatory scrutiny."

- a) The Hydro One decision was issued after OPUCN made its application. However, given the guidance that is now available from the Hydro One decision, please estimate the stretch factor or other productivity and efficiency index to be applied each year of OPUCN's plan term that would equate to the productivity or efficiency OPUCN has embedded in its cost forecasts.
- b) If OPUCN does not agree that a stretch factor should be imposed on OPUCN for the term of the plan, please explain why a stretch factor would be ineffective or inappropriate for OPUCN's circumstances.

10.0-Staff-45

Ref: Exhibit 10/Tab C, page 15

- a) Please provide the rationale for choosing the two projects to be subject to this proposed incentive.
- b) Is it OPUCN's view that all other capital investment programs are not controllable?
- c) What percentage of OPUCN's total capital investments do these two programs represent?

10.0-Staff-46

Ref: Exhibit 10/Tab C, page 16

OPUCN indicates that if any projects included in the program are not completed by the end of the plan term for reasons beyond OPUCN's reasonable control, the incomplete projects will be removed from the incentive calculation.

- a) Please provide more details as to what causes of delay would be considered "beyond OPUCN's reasonable control".
- b) Does OPUCN agree that for any project eliminated from the calculation due to lack of completion, OPUCN would need to provide evidence that the delay was due to factors entirely outside OPUCN's control?
- c) Does the rule regarding incomplete projects create a disincentive to complete a project where the capital costs are expected to exceed the Board-approved cost of the project?
- d) OPUCN recognizes that the onus will be on OPUCN to demonstrate that the completed projects achieve the results of the capital program reflected in the scope and criteria for the projects as set out in OPUCN's Distribution Plan. Does OPUCN agree that some type of hearing or other review, involving interested stakeholders (intervenors) will be necessary for the incentive to be implemented for any variances that occur?
- e) It appears that this proposal involves the calculation of a Rate Rider every year until the subject project assets are depreciated. What is the average life of the relevant assets? Please comment on the administrative burden involved in implementing this proposal.

10.0-Staff-47

Ref: Exhibit 10/Tab C, pages 17-19

Please describe the main differences between the CCIEM proposed by OPUCN and the incentive mechanism developed by Ofgem that is referred to in the evidence.

Does OPUCN agree that the proposed incentive will not achieve its purpose if OPUCN's forecast of capital costs is too high?

10.0-Staff-48

Ref: Exhibit 10/Tab C, page 13

- a) Please describe the similarities and differences between OPUCN's proposed TCECM incentive and the carry-over mechanism proposed by

Enbridge Gas Distribution Inc. rejected by the Board in the Enbridge Custom IR rate application (EB-2012-0459) and referred to in OPUCN's evidence.

- b) Please describe the similarities and differences between the TCECM proposed by OPUCN and the incentive mechanism approved by the Alberta Utilities Commission that is referred to in the evidence.
- c) Why did OPUCN choose a 2 year period for the rate rider to apply? Were other time periods considered in the analysis of this proposal?

10.0-Staff-49

Ref: Exhibit 10/Tab C, page 14

Please confirm that the proposed TCECM is not symmetric, that is if the difference between average actual RoE over the plan term and Board approved RoE is positive, OPUCN will be entitled to recover 50% of that difference (up to 50bp) for the two years following the end of the plan term. However, if the difference is negative, OPUCN will not be penalized by a reduction in RoE over the two years following the plan term.

10.0-Staff-50

Ref: Exhibit 10/Tab C, page 12

Following the presentation on April 2, 2015, OPUCN agreed that return on equity is affected by many factors, only one of which is efficiencies found by the utility.

- a) Please list the factors other than efficiency which OPUCN believes would affect RoE over the plan term.
- b) Please provide any proposal that would eliminate or reduce the effect of factors other than efficiency from the calculation of the TCECM.
- c) How was the issue of the effect on RoE of factors other than efficiency addressed by the Alberta Utilities Commission in its approval of the incentive referred to in OPUCN's evidence?

10.0-Staff-51

Ref: Exhibit 10/Tab C, page 14

OPUCN describes the proposed TCECM incentive as "simple to calculate and apply".

- a) Does OPUCN agree that if factors that affect RoE other than efficiency are to be eliminated from the calculation, these factors would have to be

considered by the Board at the time this incentive is implemented? Please confirm that the TCECM would be considered and applied at OPUCN's next rebasing application.

- b) For what reasons does OPUCN believe that a stretch factor, as contemplated in the Board's RRFE policy, is an ineffective mechanism at incenting OPUCN to continue to find efficiencies in the final years of the plan term?

10.0-Staff-52

Ref: Exhibit 10, Tab B, pages 1-2

Please confirm that the information about the need and purpose of the projects described in this evidence was obtained from OPUCN. That is, NBM Engineering did not undertake to independently verify the need for the projects.

2.0-Staff-53

**Ref: Exhibit 10, Tab B/pages 4-17 – Cost Summary Tables
Exhibit 10, Tab B/page 22/ – Contingencies
Exhibit 2, Tab A/page 12/Table 2-5 – Capital Expenditures**

The cost summary tables at reference 1 do not include an expected accuracy range for the cost estimates. Also, at reference 2, NBM Engineering Inc.'s report indicates that overhead rebuilds have a 15% contingency while underground rebuilds have a 25% contingency.

- a) Please confirm that with the exception of the MS-9 substation project, NBM Engineering Inc.'s report relates only to System Renewal activities.
- b) Please confirm that the contingencies are included in cost estimates for underground and overhead rebuilds, and that these contingencies account for potential cost overruns?
- c) Are any contingencies included in cost estimates for substation work? If not, why not.
- d) What is the degree of definition or accuracy of the estimate of the design and associated cost of the new MS-9 substation?
- e) Please augment Reference 1 by including the +/- percentage variation typical from cost estimates to actual costs for each project.
- f) Why has the Hydro One Regional Planning Initiative which is classified under System Service been omitted from the study?

10.0-Staff-54

Ref: Exhibit 10, Tab B, page 1

- a) Please provide more information regarding the “essential considerations for the estimates”. Please provide a list or examples of these considerations.
- b) Which of these considerations would be subject to changes outside OPUCN’s control? Which would be subject to change at OPUCN’s discretion?

10.0-Staff-55

Ref: Exhibit 10, Tab B, page 2

The evidence indicates that in developing the cost estimates for the substation projects, NBM Engineering used industry standards along with an in-house resource table, and that the accuracy and practicality of the task was verified by former Hydro employees under contract.

- a) Please identify the former employer of the contract employees, referred to as “Hydro”.
- b) With respect to the “industry standards”, is this information publicly available? If yes, where can it be found? If no, is NBM Engineering willing to provide it?
- c) With respect to the “in-house resource table”, is this information publicly available? If yes, where can it be found? If no, is NBM Engineering willing to provide it?
- d) Were the same sources of cost information used for project categories other than substations? If no, what sources of cost information were used for each of the other project categories listed?

10.0-Staff-56

Ref: Exhibit 10, Tab B, page 3

Please confirm that the projects MS10 and MS11 maintenance (2015) and MS2 and MS15 maintenance (2016) are grouped under the station breaker replacement heading in the 2015 – 2019 summary chart.

10.0-Staff-57

Ref: Exhibit 10, Tab B, pages 5-15

- a) For the planned overhead and underground projects, if a project estimate is given in a particular year, does that indicate that the project is planned to be completed in that year?

- b) Are there any overhead or underground projects in the charts that are listed in more than one year? If no, does this mean all projects are initiated and completed in one year? If yes, for each such project please indicate whether the cost estimates in each year are to be added to produce the total cost estimate for the project.

10.0 –Staff-58

Ref: Exhibit 10, Tab A, page 1

OPUCN achieved Group 2 benchmark cost performance in 2014. If the Board approves this application as filed, OPUCN drops to Group 3 in 2015.

- a) Please provide the reasons for this drop.
- b) At what point over the 2015 – 2019 period does OPUCN achieve Group 2 status in its benchmark cost performance?
- c) What are the key factors that contribute to OPUCN's change in benchmark cost performance?

10.0 –Staff-59

Ref: Exhibit 10, Tab A, page 9

Please confirm that OPUCN's new information for the values for the "average line miles" has been filed under RRR. Are there any other differences between OPUCN's historical data used in PEG's analysis and the data in RRR? If yes, please explain the reasons for the differences.

10.0 –Staff-60

Ref: Exhibit 10, Tab A

Please confirm that to create an econometric benchmarking model to predict OPUCN's benchmark costs to compare with OPUCN's forecasted costs, the data used was drawn from the indexes described in the evidence at Exhibit 10, Tab A.

Was any data from other utilities used to specify the model or to derive the econometric benchmark? Why? If yes, please describe the data (including utility names, data source, data elements, and time series, etc).

10.0 –Staff-61

Ref: Exhibit 10, Tab A, page 6

At this page of the Exhibit, it is stated that the model used to benchmark OPUCN is “very similar to that estimated using the full sample of data and presented in our November 2013 report”.

- (a) Please describe any differences between these two models, and the implications, if any, of these differences on the value of the analysis to the Board in considering OPUCN’s application.
- (b) The Board determined it would not re-estimate the econometric benchmarking model parameters when benchmarking utility costs for the purpose of assigning stretch factors, so that utilities would have more certainty as to what cost performance improvements were needed to move from one group to another. Were the model parameters re-estimated for PEG’s OPUCN work? Why? If so, what implications, if any, does this have to the interpretation of OPUCN’s forecasted benchmarks and their comparability with the Board’s annual benchmarking results for OPUCN?
- (c) Which inputs, assumptions and variables (and any other parameters) in the benchmarking model contribute the most to the 11.7% benchmark differential between the model’s predicted and OPUCN’s forecasted costs? What are the implications, if any, of using different benchmarking model parameters for this analysis than the Board’s annual benchmarking analysis?

10.0 –Staff-62

Ref: Exhibit 10, Tab A, Table 5

Using PEG’s instructions on how to derive a utility-specific TFP trend¹ and using PEG’s working papers posted on Nov 21-13 and updated Dec 20-13 and Jan 24-14², staff calculated OPUCN’s annual growth in TFP as summarized in

Table 1 (attached as an Appendix to these IRs) below. Staff found OPUCN’s average growth in TFP over the 2002-2012 period to be -0.42%. Staff’s results for 2010, 2011 and 2012 differ from the results shown for those years in Table 5 of the Exhibit. Please provide insight into the reasons for the different results.

- a) Please calculate OPUCN’s long run total factor productivity trend from 2002-2012, and from 2012 to the present.

¹ <http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/401172/view/>

² <http://www.ontarioenergyboard.ca/oeb/ Documents/EB-2010-0379/EB-2010-0379%20PEG%20TFP%20and%20BM%20database%20calculations.xlsx>

- b) Which inputs, assumptions and variables (and any other parameters) in the analysis contribute the most to the trend over the 2002-present time period? What are the implications, if any, to the Board's consideration of OPUCN's application?
- c) Please confirm that the cost performance benchmark results and forecasted total factor productivity trend for OPUCN were calculated solely on the basis of forecast numbers provided by OPUCN.
- d) Please confirm that the evidence compares OPUCN's forecast future TFP only to the historical Ontario distribution industry TFP. Please comment on the value of this comparison for the Board's purposes in considering OPUCN's application.

10.0 –Staff-63

Ref: Exhibit 10, Tab A, page 19

On this page of the Exhibit, the evidence states that "Capital productivity growth is positive from 2017 – 2019, due in part to depreciation of recent high capex."

Please explain how depreciation is a source of productivity growth.

10.0 –Staff-64

Ref: Exhibit 10, Tab A

In the Board staff interrogatories on the Load Forecasts and OM&A costs, staff has questioned the customer and load forecasts provided by OPUCN. If customer counts and load growth are reduced over the course of the OPUCN plan, (for instance, annual residential customer growth of 1.5% rather than 3.0%, and total kWh growth of 1.0%, rather than 1.3%) how would this affect OPUCN's predicted benchmark cost performance and its forecasted annual growth in TFP over the course of the plan? Please provide a calculation of how these changes would affect the PEG results.

Table 1: OPUCN Total Factor Productivity Trend

PEGID Company Name	Year	Annual Growth Rates in Outputs				Input Costs		Input Quantities		Annual Growth Rates in Inputs		Share Calculations				Annual Growth in TFP	Average Growth
		Customer Numbers	Deliveries	Capacity Proxy	Growth in Output Quantity	OM&A	Capital	OM&A	Capital	OM&A	Capital	Total Costs	Share	OM&A Share	Average Capital Share		
54 OSHAWA PUC NET INC.	2002					8,874,750	9,826,455	88,747	586,949			18,701,205	47.5%	52.5%			
54 OSHAWA PUC NET INC.	2003	1.4%	2.5%	2.7%	1.9%	8,050,337	10,099,526	78,760	600,418	-11.9%	2.3%	18,149,863	44.4%	55.6 45.9	54.1%	-4.3%	6.1%
54 OSHAWA PUC NET INC.	2004	1.0%	-1.5%	2.2%	1.1%	7,593,543	10,631,704	72,463	630,884	-8.3%	4.9%	18,225,247	41.7%	58.3 43.0	57.0%	-0.8%	1.8%
54 OSHAWA PUC NET INC.	2005	1.7%	-4.0%	0.0%	0.6%	7,675,842	11,243,162	70,970	661,039	-2.1%	4.7%	18,919,003	40.6%	59.4 41.1	58.9%	1.9%	-1.3%
54 OSHAWA PUC NET INC.	2006	2.1%	-1.9%	0.0%	1.0%	7,571,117	11,020,964	68,739	652,809	-3.2%	-1.3%	18,592,081	40.7%	59.3 40.6	59.4%	-2.0%	3.1%
54 OSHAWA PUC NET INC.	2007	0.9%	7.3%	0.0%	1.3%	8,193,467	11,811,742	71,948	682,904	4.6%	4.5%	20,005,209	41.0%	59.0 40.8	59.2%	4.5%	-3.2%
54 OSHAWA PUC NET INC.	2008	1.6%	-2.2%	0.0%	0.8%	8,435,686	12,350,704	72,344	697,175	0.5%	2.1%	20,786,390	40.6%	59.4 40.8	59.2%	1.4%	-0.7%
54 OSHAWA PUC NET INC.	2009	0.7%	-2.7%	0.0%	0.1%	8,399,846	12,679,017	71,117	707,118	-1.7%	1.4%	21,078,863	39.8%	60.2 40.2	59.8%	0.2%	0.0%
54 OSHAWA PUC NET INC.	2010	1.0%	-0.5%	0.0%	0.6%	8,362,787	12,962,946	68,727	708,377	-3.4%	0.2%	21,325,733	39.2%	60.8 39.5	60.5%	-1.2%	1.8%
54 OSHAWA PUC NET INC.	2011	0.7%	-2.8%	0.8%	0.4%	9,402,665	13,421,696	75,993	732,276	10.0%	3.3%	22,824,361	41.2%	58.8 40.2	59.8%	6.0%	-5.7%
54 OSHAWA PUC NET INC.	2012	0.5%	-1.5%	0.0%	0.2%	10,665,324	13,084,837	84,859	751,862	11.0%	2.6%	23,750,161	44.9%	55.1 43.1	56.9%	6.3%	6.10%