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BY E-MAIL

January 6, 2016

Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Wellington North Power Inc.
2016 Distribution Rate Application
OEB Staff Interrogatories
Board File No. EB-2015-0110

In accordance with Procedural Order No. 1, please find attached OEB staff's interrogatories in the above noted proceeding. Wellington North Power Inc. (Wellington North) and all intervenors have been copied on this filing.

Wellington North's responses to interrogatories are due by January 27, 2016.

Yours truly,

Original Signed By

Jane Scott
Project Advisor – Electricity Rates & Prices

Attach.

Ontario Energy Board (OEB) Staff Interrogatories
2016 Cost of Service Rate Application
Wellington North Power Inc. (Wellington North)
January 6, 2016

Exhibit 1 - Administration

1-Staff-1 Conditions of Service
Ref: Exhibit 1, Tab 2, Schedule 12

Chapter 2 of the Filing Requirements now require the identification of any charges that may be included in the Conditions of Service since the last rebasing in addition to stating that only rates approved by the Ontario Energy Board (OEB) can be applied.

a) Please identify any rates and charges that are included in the Applicant's Conditions of Service, but do not appear on the OEB-approved tariff sheet, and provide an explanation for the nature of the costs being recovered through these rates and charges.

b) Please provide a schedule outlining the revenues recovered from these rates and charges from 2012 to 2014 inclusive, and the revenues forecasted for the 2015 bridge and 2016 test years.

c) Please explain whether, in the Applicant's view, these rates and charges should be included on the Applicant's tariff sheet of approved rates and charges.

1-Staff-2 Evolution of Customer Engagement
Ref: Exhibit 1, Tab 5, Schedule 1

Chapter 2 of the Filing Requirements states, "The RRFE Report contemplates **enhanced** engagement between distributors and their customers to provide better alignment between distributor operational plans and customer needs and expectations." (Emphasis added)

Please describe the differences between customer engagement conducted in preparation for the current application and previous customer engagement. Please explain how customer engagement has been enhanced.

1-Staff-3 Customer Satisfaction Survey
Ref 1: Exhibit 1, Tab 5, Schedule 2, Table 1.21
Ref 2: Exhibit 1, Appendix 1A, p. 122

The above reference shows a satisfaction score for certain investments. Please confirm whether the percentages shown represent the proportion of customers who believe this is a priority for investment or a rate of satisfaction in this area? For example: 31% score for 'making better use of social media'. Does this indicate that 31% think this is a priority area for investment or that 31% is satisfied with Wellington North's investment in this area?

1-Staff-4 Monthly Billing/E-billing
Ref: Exhibit 1, Tab 5, Schedule 4

In the above reference, Wellington North indicates that all of its customers receive a physical bill in the mail every month.

a) Does the Applicant provide e-billing to its customers? If so, please provide the percentage of customers on e-billing as of December 31, 2014 and describe the Applicant's efforts to promote e-billing to its customers. If e-billing is not provided, please explain the reasons.

b) Please describe other initiatives that the Applicant has undertaken, or intends to undertake, to manage the costs of monthly billing for all customers.

1-Staff-5 Return on Equity (ROE) and Corporate Governance
Ref: Exhibit 1, Tab 8, Schedule 1
Ref: Exhibit 1, Tab 10, Schedule 1

Wellington North has been under earning for the last four years as follows:

Year	Deemed ROE	Actual ROE
2011	8.57%	-7.59%
2012	9.12%	1.66%
2013	9.12%	4.35%
2014	9.12%	5.74%

a) Does Wellington North have a specific policy regarding the trade-off between the return to shareholders and the impact of spending on customers? If so, please provide it.

b) Wellington North significantly under earned in 2012, despite having had its rates rebased for that year as a result of its cost of service application. To which factors does Wellington North attribute this performance?

Exhibit 2 – Rate Base

2-Staff-6 International Financial Reporting Standards (IFRS) Conversion
Ref 1: Exhibit 2, Tab 1, Schedule 1, p. 2
Ref 2: Exhibit 2, Tab 2. Schedule 2, Table 2.2

In reference 1, Wellington North states that it converted its financial accounting records to IFRS on January 1, 2015 and prepared its application to the OEB under IFRS and in order to make the comparisons meaningful, all comparisons will be made under IFRS. In Table 2.2 and in other tables throughout the submission, 2014 and prior years are shown as reporting under CGAAP.

a) Please confirm whether all comparisons are presented in IFRS.

b) What was the impact of the IFRS conversion on Wellington North's financial statements, to the extent that such an impact affects Wellington North's rate base?

2-Staff-7 Capital Contribution to HONI
Ref 1: Exhibit 2, Table 2-17
Ref 2: Exhibit 2, Distribution System Plan (DSP), Section 5.4.5.3.1

Wellington North shows a contribution to HONI in 2016 for the 2nd 44kV feeder in the amount of $1,237,689.

a) Please provide a copy of the Connection and Cost Recovery Agreement (CCRA), if available. Please ensure that full details of the calculation of the contribution are provided, e.g. forecasted loading, total cost etc.

b) If the CCRA is not available, please provide full details of the calculation of the $1,237,689.

c) In reference 2, Waterloo North states "WNP wishes to pay a fixed price to Hydro One, rather than using a Discounted Cash Flow calculated amount that could result in annual payments to Hydro One as a result of deviation from Demand/Load Projections. Please explain this statement further including the impact on rates, both in the test year and future years, and with reference to the requirements and options set out in the Distribution System Code section 3.2, Expansions.

d) What was HONI's response to the request?

e) Given Wellington North's interest in cost certainty related to this project please explain the alternatives that it considered and rejected in favour of enhancing the service from this current supply point.

f) As part of its investigation of cost alternatives, did Wellington North request that Hydro One permit this expansion to be carried out as an alternative bid under 3.2.15A of the DSC?

2-Staff-8 Depreciation
Ref: Exhibit 2, Tab 2, Schedule 2, p. 25

Wellington North adopted depreciation rates based on the Kinectrics Asset Depreciation Study. While Wellington North's accumulated depreciation generally increases at the same pace as the utility's capital investment, the

accumulated depreciation decreased in 2015 and 2016 due to increased depreciable lives. Please explain the drivers behind the reduction in accumulated depreciation, including, if applicable, changes in accounting or increased O&M costs.

2-Staff-9 Smart Meter Useful Life
Ref: Exhibit 2, Tab 2, Schedule 2. Table 2.21

For the smart meters that failed, Wellington North has provided the following information (note that the totals in the table at reference 1 are incorrect; correct totals shown below)

Year	Total Meters Scrapped (11.5% of total meters installed)	% 7 years old	% 6 years old	% 5 years old	% 4 years old	% 3 years old	% 2 years old	% 1 years old
2013	164	N/A	N/A	2.4	0.6	92	3	2
2014	193	N/A	5	3.5	90	N/A	1.5	N/A
2015	57	9	5	86	N/A	N/A	N/A	N/A

a) From the above, it appears that the vast majority of smart meters that failed were 3-5 years old. How then has Wellington North determined that 10 is the useful life for a smart meter?

b) Wellington North has indicated it uses Elster meters. Has Elster indicated that there has been a problem with this generation of meters? If so, have they indicated that the problem(s) has been fixed? What steps did Wellington North take to obtain replacements and/or redress from the supplier?

c) Has any assessment been undertaken to confirm whether the smart meter failure rate experienced by Wellington North is consistent with industry experience?

d) What is the financial impact on depreciation and revenue requirement of changing the useful life of Smart Meters from 15 to 10 years?

2-Staff-10 Capital Expenditures
Ref: Exhibit 2, Table 2.28

Please update 2015 capital expenditures and net fixed assets with the most recent available actuals.

2-Staff-11 Capitalization of Labour
Ref: Exhibit 2, Tab 5, Schedule 3, p. 40

Wellington North capitalizes Labour Direct Cost, which comprises all the eligible salaries for staff as well of their supervisors on a capital project**.** Please provide a table showing the percentage of labour that was capitalized in the previous rate application period, as well as in the current application period.

2-Staff-12 Cost of Power
Ref: Exhibit 2, Tab 3, Schedule 1

Please update the Cost of Power used in the calculation of the Working Capital Allowance for the November 1, 2015 RPP rates, the updated regulatory charges issued on November 19, 2015 and the 2016 Uniform Transmission Rates, if available at the time of responding to these interrogatories.

2-Staff-13 Capital Investment Overview
Ref: Exhibit 2, DSP, Section 5.0

In Table 1, Wellington North presents a current, historic and future capital investment overview. The section generally presented an overview of Wellington North's capital planning processes, and speaks to Wellington North's budgetary prioritizations. Underspending in certain years can be expected to lead to higher than forecasted spending in other years, as well as higher than planned maintenance costs in the years during which the underspending occurred.

a) 2016 System Access and System Renewal costs and 2020 System Access costs are well below historical and future averages. What is the financial impact of this deferred spending, in terms of deferred Capex, safety, and O&M costs?

b) Given that discretionary projects are regularly moved into later years, what has the impact been on O&M costs historically and what is it expected to be in the future?

c) On page 6, please confirm that the average annual capital budget for base projects is $722k not $645k.

2-Staff-14 Material Project Justification
Ref 1: OEB Chapter 5 Filing Requirements, Sections 5.2 and 5.4.5.2.
Ref 2: Exhibit 2, DSP, Section 5.4.4.2.4, Table 84

Reference 1 states “Distributors are encouraged to organize the required information using the section headings indicated. If a distributor’s application uses alternate section headings and/or arranges the information in a different order, the distributor shall demonstrate that these requirements are met by providing a table that clearly cross-references the headings/subheadings used in the application as filed to the section headings/subheadings indicated below”. While Wellington North has used the headings indicated, it has generally not used the subheadings indicated, nor has it organized the material according to the requirements specified in the OEB filing requirements under each heading/subheading. No cross-reference table is provided to clarify where to find information.

In Reference 2 a line item “Recloser Smart Technology @MS3” with an estimated cost of $104,000 has no description of the justification for this project in the text following the table, nor is the justification described elsewhere in the DSP.

For the missing project justification in Reference 2, please use the headings, subheadings, bullets and points in Reference 1 to structure the justification and provide the required information.

2-Staff-15 Risks and Mitigation Strategies
Ref 1: OEB Chapter 5 Filing Requirements, Sections 5.4.5.2 bullet #4
Ref 2: Exhibit 2, DSP, Section 5.4.5.3

In Reference 1, OEB requires a description of “the risks to the completion of the project or activity as planned and the manner in which such risks will be mitigated”.

Please describe the risks and mitigation strategies for the projects described in Reference 2.

2-Staff-16 Impact of Investment Projects on O&M Costs
Ref 1: OEB Chapter 5 Filing Requirements, Sections 5.4.5.2 bullet #3
Ref 2: Exhibit 2, DSP, Section 5.4.5.2

In Reference 1, the OEB requires the distributor to "identify the consequences for system O&M costs, including the implications for system O&M of not implementing the project".

Please describe the consequences for system O&M costs and the implications for system O&M of not implementing the projects for the System Renewal activities described in Reference 2.

2-Staff-17 Asset Management Process
Ref 1: Exhibit 2, DSP, Section 5.3.1, Table 31

Wellington North states in the reference to Table 31: "The flowchart below summarizes the Asset Management Process stages and activities involved in determining whether a capital project is added to the company's Capital Expenditure plan." For each of the steps in the flowchart:

a) *Asset Inspection Programs:* Please clarify whether the data obtained in Asset Inspection Programs is collected according to surveys designed specifically for use in asset condition assessments and subsequently applied in prioritization using some type of rating (e.g. health indices) or other measures directly comparable against end-of-life criteria developed for each asset class. If so, please describe steps involved in designing Asset Inspection surveys, including identification of survey deliverables

b) *Asset Register*: Please clarify whether Asset Condition Assessment for each asset (i.e. the category/component/type as adopted from Kinectrics and shown in Table 32 on page 61 of 176) is carried out as part of Asset Register (e.g. as part of Manual Entry) prior to being considered for the next phase i.e. Project Identification. If so, please provide an asset management flow chart showing supporting asset management activities which are connected with the Asset Condition Assessments. Also, please explain if similar assets are grouped and considered as an "Asset Class"

for purposes of assessing the “health” of individual assets in a class or the relative health of assets between classes.

c) *Project Identification & Prioritization*: Please explain how the selection of assets for replacements and/or refurbishment is accomplished within and among the assets and how the risk ranking is established and included in the process. Please explain how the overall Wellington North utility program is prioritized for capital and OM&A programs so that individualized prioritization is accomplished as well.

d) *Categorization by Drivers:* Please explain and support by examples how investment categories and asset replacements are interrelated and how these four (4) categories are used for selection of the projects within the Asset Management context.

e) *Capital Expenditure*; Update & Plan; 1 to 5 Years Rolling: Please provide an asset management flow chart showing supporting asset management activities which would indicate the process which would be followed for assessment and prioritization of "backlogs" i.e. work not completed in the year, legacy work, emergency and unplanned work, etc. Please clarify whether there should be a Step 6 “Return to phase 1” if the defined work is not started or not completed.

f) Wellington North and Hydro One systems are interconnected. Please clarify whether there is a relationship between Wellington North’s Asset Management process and that of Hydro One. If there is such relationship, please explain the process of work prioritization.

2-Staff-18 Asset Management Process Overview
Ref 1: Exhibit 2, DSP, Section 5.3.1

Wellington North states: “The Operations Technician will find the particular asset in the GIS system and retrieve the data (i.e. age, date last inspected). Collectively the Operations Technician, Chief Operating Officer (COO) and Lead-Hand determine whether the asset needs to be replaced (or can it be monitored), and if so, when considering the following factors:

a) Safety – is there any risk to the public or workers (e.g. could a damage pole break and fall);

b) Reliability and maintenance history – has the asset shown signs of deterioration or poor performance and is this degrading;

c) Obsolescence – is the asset dated and been replaced with a “better” product? For example replacing porcelain insulators with polymer insulators. (WNP is in the process of replacing all ceramic conductors in its distribution system proactively or when they fail);

d) Cost versus benefit – is the asset already scheduled for replacement and included within WNP’s CapEx plan? For example, a damaged pole may be repaired as a short-term fix because the pole is part of a pole-line replacement project that has already been planned.

The Operations team maintains a list of assets that are being monitored for performance degradation. It is the responsibility of the Chief Operating Officer to add asset replacement projects to the company’s Capital plan.”

a) For the purposes of asset replacement (and/or refurbishment), do the factors (which could possibly be referred to as “end of life criteria”) listed as paragraphs a) to d) above, also include the following factors:

    1. Functionality – e.g. is asset capability below established requirements,
    2. Design Life – e.g. has asset Design Life exceeded Manufacturer’s recommendation or Industry standards, and
    3. Risk – e.g. does failure trending indicate that critical failure is imminent?

b) Please clarify whether these factors are considered and whether Wellington North has detailed descriptions for each of the factors, and instructions on how to apply these criteria for each of the assets. Is the asset replacement process subject to some kind of written, quantitative process, e.g. weighting or scoring? If so, please provide the detailed description and instructions of all the factors (i.e. criteria). If not, please explain how consistency of practice is maintained year over year in view of staff role changes.

2-Staff-19 Overview of Asset Managed – Substations and Feeders
Ref 1: Exhibit 2, DSP, Sections 5.3.2.1

The evidence states: "WNP owns and operates six municipal sub-stations. The station data is summarized below in Table 6 [*sic*]. They are located within the Village of Arthur and Town of Mount Forest, as shown in Figure 3. Each station is controlled by appropriately rated load break and/or air break switches."

Table 33 - Substation Data

Station	Year	Voltage	Transformer Size	Number of Feeders	HV Protection	LV Protection
Mount Forest MS1	1986	44 - 4.16kV	5.0MVA	4	SMD-2C 85A Type E Fuse	SM-5 400A Type E Fuse
Mount Forest MS2	2014	44 - 4.16kV	5.0MVA	4	SMD-2C 100A Type E Fuse	SEL 351R Recloser & Relay
Mount Forest MS3	1988	44 - 4.16kV	5.0MVA	4①	SMD-2C 100A Type E Fuse	SM-5 400A Type E Fuse
Mount Forest MS4	1964	44 - 4.16kV	2.0MVA	4②	SMD-2C 100A Type E Fuse	SM-5 400A Type E Fuse
Arthur MS5	1994	44 - 4.16kV	5.0MVA	3	SMD-2C 100A Type E Fuse	SM-5 400A Type E Fuse
Arthur MS6	2010	44 - 4.16kV	5.0MVA	2	SMD-2C 100A Type E Fuse	SM-5 400A Type E Fuse

① Feeder F1 is not in service due to catastrophic failure in the switch enclosure
② Feeder F3 is the only feeder connected and in service

a) Please list, or refer to a list in the DSP, which would include assets in a transformer station replacement (e.g. transformer, switches, protective devices, switchgear, etc.).

b) Please describe the process, or refer to a section in the DSP, for assessing the condition of these individual assets within the substation against the end of life criteria and their combined (overall) condition which would result in the need for complete transformer station replacement.

c) Please describe the process for using results of the condition assessments of the transformer stations utilized by Wellington North in the prioritization process to select a transformer station for replacement.

d) Please show the quantified parameters from the evaluations, if available.

e) Please explain whether individual assets within the transformer station are being evaluated and prioritized using a different method or a different process from that used for assets that are located outside the transformer stations.

2-Staff-20 Overview of Asset Managed – Substations and Feeders
Ref 1: Exhibit 2, DSP, Sections 5.3.2.1

Wellington North states that the four municipal stations, fed by the 44kV sub-transmission system, are being replaced in a proactive manner as they reach their end of life. Municipal Station Two ("MS2") was replaced in 2014.

a) Please indicate where in the data provided (e.g. in Table 32, Appendix F: 3rd Party Substation Assessment Study) it is apparent that these are all "reaching end of life". MS1 is given as year 1986 and MS3 is 1988 (<30years) while MS4 from 1964 is >50years old.

b) Condition data pertaining to these units is not contained in the text under "Mount Forest Substation MS1, 2, 3 and 4" on pages 64, 65 and 66. Please provide or point to data on the condition of these, especially MS4, as it would seem more likely to be approaching the end of its typical useful life (TUL).

2-Staff-21 Overview of Asset Managed – Substations and Feeders
Ref 1: Exhibit 2, DSP, Section 5.3.2.1
Ref 2: Exhibit 2, DSP, Appendix F: 3rd Party Substation Assessment Study, Substation Condition Assessment Study Prepared by Costello Utility Consultants in June 2013

Wellington North states that MS3 is planned for replacement in 2018 and will include the addition of feeder reclosure equipment, which will allow momentary power outages to be restored automatically. Also, the control relays that will be installed at the rebuilt station will allow for advanced protection schemes as well as SCADA-control of the station. MS3's power transformer was refurbished in 1988; however, recent oil analysis testing has shown the transformer has experienced internal faults in the past.

a) Please provide a description of the Asset Management process that was used to determine that the priority was to replace MS3 and in particular please explain how any recommendation by Costello (in reference 2) to replace MS4 was included in the prioritization process.

b) With respect to the following Wellington North statement above "…Also, the control relays that will be installed at the rebuilt station will …", please clarify whether the capital plan is to replace the whole transformer station with new components or whether the plan is to rebuild the transformer station with refurbished components.

2-Staff-22 Asset Lifecycle and Inspection
Ref 1: Exhibit 2, DSP, Sections 5.3.3 and 5.3.3.4
Ref 2: Distribution System Code (DSC)

Wellington North states that it has implemented and follows inspection and maintenance procedures in accordance with the DSC, Regulation 22/04, Sections 4 and 5, and Electrical Safety Authority Guidelines.

a) Please describe in general terms how the DSC has been applied. Specifically, please provide a Table, or refer to a Table in the DSC, which includes names of assets managed (e.g. substations, substation transformer, pole mounted transformers, pad mounted transformers, etc), their quantity, inspection frequency cycle carried out for each of the assets, inspection method (e.g. visual, Infrared, Non-Destructive Testing, etc.) and performing party (e.g. by Wellington North or by a third party contractor).

b) Please clarify whether the frequency inspection cycle for some assets exceeds or if it is below the minimum requirements outlined in Appendix C of the DSC. If so, please identify those assets and their inspection frequency.

2-Staff-23 Adoption of Kinectrics Typical Useful Life
Ref 1: Exhibit 2, DSP, Section 5.3.3.1. Table 46
Ref 2: Exhibit 2, DSP, Appendix F: 3rd Party Substation Assessment Study, Substation Condition Assessment Study Prepared by Costello Utility Consultants in June 2013

Wellington North states that it reviewed the useful life of its assets with the aid of the Asset Depreciation Study by Kinectrics (Kinectrics Report) and adopted the mid-range typical useful life for its assets effective from January 1st 2012, as

presented in its 2012 Cost of Service application (EB-2011-0249, Exhibit 11, Schedule 2).

In reference 2, Costello Utility Consultants states as follows:

"1. Introduction

As part of Wellington North Power's (WNP) Asset Management Program, Costello Associates Inc. has been engaged to provide a preliminary assessment of six (6) municipal distribution substations. This assessment is based on visual inspections and limited maintenance records that were available at the time of the inspections.

1.2 Criteria for Substation Assessment

All stations were field inspected and assessed based on a model that was developed by Thunder Bay Hydro, with minor changes based on our own experiences. This model has been promoted within the Electrical Distributors Association (EDA), and has been submitted to the Ontario Energy Board (OEB) by several Local Distribution Companies (LCD's).

In determining the overall condition of a station, the evaluation model considers three main areas of concern:

- Public Safety
- Worker Safety
- Risk of Major Equipment Failure

Classification ratings of the above categories are as follows:

- Blue– excellent condition. No mitigation is required for twenty or more years.
- Purple–good condition. No mitigation is required for eleven to twenty years.
- Yellow– average condition. Mitigation is required between four and 11 years.
- Orange– fair condition. Mitigation is required between two to three years.
- Red– poor condition. Mitigation is required immediately, within one year.

In the cases, maintenance and safety issues may degrade the condition classification on a temporary basis. Once corrective action is taken, the condition classification may improve.

1.3 Summary of Stations Deficiencies

1.3.1 Age

Major substation equipment such as power transformers and switchgear generally has a life expectancy of forty (40) years. Other equipment, such as insulated feeder cables, protection systems, batteries, and building structures may have shorter life expectancy. Life expectancy can often be extended with regular maintenance."

a) As this was a preliminary report, please clarify whether this report was followed by a finalized, report based on more detailed information from inspections and testing.

b) As the stations and the equipment were assessed based on a model developed by Thunder Bay Hydro, please point to or provide a retrievable reference for this model. Please clarify whether the same model is used by Wellington North for *all* of its assets, and briefly describe changes or enhancements to the model incorporated by Wellington North.

c) Regarding the three "main areas of concern" used to determine the overall condition, please explain the relationship between the report and the collective determination based on the factors used by the Operations Technician, Chief Operating Officer and Lead-Hand outlined on page 60 of 173 in the DSP. Specifically, is the approach applied to all Assets (and Asset Classes) within the substation, and is there an attempt to quantify the extent of degradation (e.g. by identifying and quantifying degradation mechanisms observed).

d) Please clarify whether the classification rating used for the transformer stations condition is also used by Wellington North for all their other assets. If not, are there plans to expand the application to other Assets and what time frame and investment to accomplish this is foreseen?

e) Re Section 1.3.1 "Age": Please explain how the life expectancy of 40 years in this statement correlates with seemingly longer life expectancy values adopted by Wellington North from the Kinectrics report, and which are outlined in Table 46, Section 5.3.3.1 "Adoption of Kinectrics Typical Useful Life". Please clarify whether further assessments were made to establish the relevance of the life adopted from the Kinectrics report and the life stated in the report by Costello Utility Consultants for the installed Wellington North equipment.

2-Staff-24 Asset Management Plan and Strategy
Ref 1: Exhibit 2, DSP, Sections 5.3.1 and 5.3.2.2

On page 70 of the above reference, Wellington North states:

"Rodan Energy Solutions was contracted to complete an Asset Management Plan and Strategy including inventory which forms the basis of WNP pole management".

With respect to the "spike" in pole numbers in the 1975-79 period on Table 36 "WNP Poles by Year and Count", the text states "Aged poles with unknown dates were assigned a 1975-79 vintage".

Under "Pole Capital", Wellington North anticipates the need to replace approximately 2.0% of the pole population or approximately 37 poles annually. A replacement cycle of 40 to 50 year will be targeted. Other utilities have observed that the factors affecting pole life may be dominated by external factors like insects and storms (severe weather events).

a) Is the Rodan Energy Solutions report available? If so please provide a copy.

b) Please indicate if Wellington North's intent is to develop similar strategy and asset management practices for other assets? If so, please outline for which asset categories and over what timeframe this would be done.

c) Please explain the decision to assign a 1975-79 vintage to aged poles with unknown dates and the implications of such a decision.

d) Given the relatively large number of poles in the 1975-79 category, and the fact that many are approaching their TUL of 45 years identified in Table 32, is the average replacement rate of 2%/annum sufficient and does it correspond to sufficient capital allocation for their replacement?

e) It is a standard practice of Ontario electricity distributors to take core samples of their poles as a useful measure of the health of this asset class. Has Wellington North considered this approach, and would it be expected to provide more reliable data on pole condition?

f) Also, some (nearby) utilities observe certain pole types (wood) to be particularly vulnerable to insect damage. Has Wellington North observed

this phenomenon? Is the pole supplier and wood type known and maintained in the database to permit this to be determined? If so please provide the data, if not please indicate if Wellington North intends to record such information in the data-base in future.

g) In the absence of more data on the health of this asset-class, please explain how replacing 2% of the pole population or 37 poles/year to achieve a replacement cycle of 40-50 years is likely to ensure that poles nearing the end of their actual useful life will be identified and replaced. Furthermore, it is observed that while 37 poles per year may be close to the average, the range of numbers of poles replaced each year varies widely about this "mean" which is admittedly only based on data since 2011.

h) Would pooling the pole data and trending with data from neighbouring utilities give a more stable basis for defining the pole replacement rate? Please outline if such measures are planned or underway.

i) Further to the foregoing, several Ontario Utilities cite weather as an important factor in the *specification* of components like poles and transformers, and that this results in a price premium being paid. Please indicate if Wellington North takes weather into consideration when specifying components, if this results in a cost premium, and if so please point to where this cost has been incorporated. Regarding the impact of changing weather on the frequency of extreme weather events, would a larger contingency for pole replacement due to an increasing frequency of extreme weather events be appropriate, and if so, please comment on the magnitude of this contingency. Conversely, has Wellington North determined that reactive action in response to pole failure is acceptable from a cost/risk perspective rather than a proactive approach?

2-Staff-25
Ref 1: Exhibit 2, DSP, Sections 5.1.1 and 5.3.2.3
Ref 2: Exhibit 2, Tab 5, Schedule 1, p. 37

Reference 1 at page 72 states that “all data is currently being captured in new construction or replacements” and at page 20, “An ice storm in April 2013 broke a number of HONI poles resulting in an outage lasting over 18 hours”

Reference 2 states “There was another power outage on December 22nd in the LDC’s service area of Arthur caused by another winter ice-storm”.

a) Does the data referred to in Reference 1 also include that from ongoing surveys for periodic inspection? If so, is this data being used to determine the condition of the assets and identify transformers likely to require imminent replacement? Please provide details if available.

b) Pole mounted transformers would be affected by weather events along with their poles (as noted in the previous IR). What is Wellington North’s experience in this regard? In particular, is there evidence of increasing frequency and intensity of such storms and their damage to poles and transformers? If so, would pooling of data with neighbouring utilities provide a more reliable estimate of the likely future impact of storms on these asset classes? Please indicate if such an initiative is underway or planned.

2-Staff-26 Smart Grid
Ref: Exhibit 2, DSP, Section 5.4.3.4, and Appendix G, Table 1

On page 120, Wellington North states, “The six MS’s have a total of 20-4kV feeders with a total capacity of 27MVA available to meet the current and long term electrical demand and limited embedded generation connections.” Under “Asset Management System (GIS) Implementation”, Wellington North states, “The utility asset information is maintained in a central repository, representing a single source of truth for the organization. This information is being further integrated across all functions, thus linking engineering, operational and financial information for all assets. This is further enhanced by a network connectivity model, which more accurately represents the impact of assets on one another. As mentioned, the model would also be a foundation for system analysis studies, which will be essential for addressing FIT and microFIT applications and assessing their potential impacts on the WNP distribution system.”

On page 6 of Appendix G, Wellington North states, “in 2011, the LDC completed an overhead conductor rebuild on the Main Street South in Mount Forest (project # 2011-011) as per the company’s asset management plan. The objective of this project is to provide our customers with new, reliable, modernized, electricity distribution assets, increase the capacity of our distribution system for embedded generation projects”.

a) Please explain what is meant by “limited” in referring to embedded generation and explain to what degree Wellington North is able to accommodate current and projected requests for FIT and MicroFIT installations?

b) What are the limiting factors that would or are likely to prevent additional generation connections?

c) What standards does Wellington North adopt to evaluate additional connection requests?

d) Are FIT/MicroFit the only sources of embedded generation referred to in Appendix G Table 1? If additional projects are present or foreseen, please describe these. What is the expected increase in overall “embedded generation”? Are additional conductor (or other asset) upgrades planned to accommodate this “embedded generation”?

e) Does this include provision for storage? Please provide Wellington North’s assumptions concerning growth of embedded generation, including storage on both the customer side and the utility’s side of the meter. Please indicate the impact of these assumptions on the System Renewal budget.

f) When is the Asset Management GIS implementation (described in Ref 1) expected to be sufficiently complete to permit the impacts of FIT and MicroFIT to be more accurately predicted? Does Wellington North plan to do the analysis of the data for the impact analysis internally, or are contracts in place for the data analysis required for this? Please point to where in the budget for future years these costs are addressed.

g) The Asset Management System description on page 120 implies it will be able to store operational and maintenance data. Is this planned? If so, please indicate by when, and what is the cost anticipated for this work.

h) The expenditure for “meters” projected for 2015 in Appendix G Table 1 is only $3,500. Please explain if such a small estimate is intended to

cover costs associated with meter requirements for embedded generation. If not, please point to where these costs are addressed in the Plan.

2-Staff-27 Typical Useful Lives

Ref 1: Exhibit 2, DSP, Section 5.3 Asset Management Process Pages 57-96.

Ref 2: Asset Depreciation Study for the OEB, Report No: K-418033-RA-001-R00 ("Kinectrics Report")

In Reference 1, beginning at Section 5.3.3 Wellington North provides an overview of Asset Lifecycle. Subsection 5.3.3.1 – Adoption of Kinectrics Typical Useful Life, paragraph 2 states, "WNP reviewed the useful life of its assets with the aid of the Asset Depreciation Study by Kinectrics (Kinectrics Report – Ref 2) and the LDC adopted the mid-range typical useful life for its assets effective from January 1st 2012". The asset life adopted by Wellington North for each asset class is shown in Table 32 on page 62 of Reference 1. The Kinectrics report cited involves relatively small populations of assets in several classes and correspondingly higher uncertainties for the TUL's for these.

a) Has an effort been made by Wellington North to compare the mid values used from the Kinectrics study with data from its own experience or that of its neighbours and Electricity Distributors Association members? If so, please describe this effort and results obtained.

b) The values assumed in Table 32 under "Current" expected asset life as compared to "Previous" are considerably longer. This is particularly notable for Wood-cross-arm Fully Dressed Concrete Poles (#2) from 25 to 60 years and in underground EPR cables (#25) from 25 to 65 years, both of which significantly exceed the TUL given in the Table for these assets by Kinectrics. Please provide justification for these increases in TUL, and comment on the possibility that these values may lead to an underestimation of the renewal demands of these assets and thereby their replacement budget. Please indicate the size of the reduction of budgeted replacement funds for assets most affected by these increases in TUL assumed.

2-Staff-28 Evaluation Criteria
Ref 1: Chapter 5 Filing Requirements, Section 5.4.5.2. B
Ref 2: Exhibit 2, DSP, Section 5.4.3.4 Tables 63-101 and Appendix G

Reference 1 provides for the application of criteria to material investments which derived from the OEB's guidance on the Ministerial Directive on the Smart Grid. Please confirm that in Tables 63 through 101 all of the criteria required by section of the Chapter 5 Filing Requirements were applied to the material projects and that the tables only list criteria that are applicable in each instance in Wellington North's judgment.

2-Staff-29 Advanced Capital Module
Ref 1: Exhibit 2, DSP, Section 5.4.5.3.2
Ref 2: EB-2014-0219, Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module, September 18, 2014

In reference 1, Wellington North has requested approval of an advanced capital module to replace Municipal Substation MS3 in 2018. Reference 2 in section 4.2 states that "[d]istributors must file, at the time of the cost of service application, a description of the actions the distributor would take in the event that the Board does not approve the ACM proposal."

a) What actions would Wellington North take if the OEB does not approve this ACM proposal?

b) Are any customer contributions associated with this project?

c) If so, please provide an estimate of the amount of contributions.

2-Staff-30 Advanced Capital Module
Ref 1: Exhibit 2, DSP, Table 77 and Table 84
Ref 2: EB-2014-0219, Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module, September 18, 2014

In its Application, Wellington North is requesting pre-approval for an Advanced Capital Module for incremental capital funding of the replacement of MS3 in Mount Forest in 2018.

Table 77 summarizes 2017 planned capital projects, and lists a project "Substation – MS3 Replacement (Phase 1)" with $nil identified. Table 84 summarizes 2018 planned capital projects, and lists a project "Substation MS3 Replacement (Phase 2)" with a 2016 forecasted capital expenditure of $1,600,000. There is a separate project listed as "Recloser Smart Technology @MS3" with a forecasted cost of $104,000.

In the spreadsheet "Capital Module Applicable to ACM and ICM" filed by Wellington North in support of its proposed 2018 ACM, Wellington North documents the project as "Replacement Substation MS3 including Recloser Smart Technology" and with a documented 2018 capital expenditure of $1,776,000.

The Capital Module spreadsheet above calculates a preliminary "Maximum Allowed Incremental Capital" of $1,551,793 based on information available in this Application; all information is subject to updating if the ACM is approved and when WNP applies for rate riders to begin recovering eligible incremental capital when the project is completed and goes into service, assumed to be 2018.

a) Section 4.1.3 of the *Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module (EB-2014-0219)*, issued September 18, 2014, states:
Any discrete project (discretionary or otherwise) adequately supported in the DSP is eligible for ACM funding subject to capital funding availability flowing from the formula results. The same approach shall apply going forward to new projects proposed as ICMs during the Price Cap IR term. ***[Emphasis in original]***

   If the Recloser Smart Technology project is separate from the MS3 replacement in the 2018 capital projects and has a cost of $104,000, please identify why it is aggregated with the MS3 project in the Capital Module spreadsheet.

b) The sum of the MS3 capital project and the Recloser Smart Technology project sum to $1,704,000 ($1,600,000 + $104,000) in Table 84 of the DSP, but are shown as $1,776,000 in the Capital Module spreadsheet. Please reconcile.

c) Please explain what is Phase 1 of the MS3 replacement project in 2017 with no documented capital expenditures. Please distinguish what work is here as opposed to the Phase 2 work in 2018 with a forecasted capital expenditure of $1,600,000.
d) Recognizing that the amounts identified in this application are the best available information at the time of this Application, but are subject to updating when, assuming OEB pre-approval for the qualifying ACM project, Wellington North files for the rate riders, assumed to be as part of the 2018 Price Cap IR application filed in 2017, what is the incremental capital amount which WNP believes would qualify at this time:
    i. $1,776,000
    ii. $1,704,000
    iii. $1,551,793.

Exhibit 3 – Revenues

3-Staff-31 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 2, p. 4

Wellington North states that it does not have a process to weather normalize actual data since the Applicant is not aware that an OEB approved method has been established.

(a) Would Wellington North agree that if the following was done, it would result in 'weather normal' for historical years:
- Run the regression model for historical years using all actual dependent variables including HDD and CDD for the actual year. (A)
- Average HDD and CDD would be inserted in the regression model back to 2005, thus, resulting in new Weather Normalized Predicted Purchases. (B)
- Apply the weather normalization factor (B/A) from the above two runs for each year to the actual purchases.

(b) Please provide the results of running the regression model for 2005 to 2014 as per the above process, or if Wellington North has a different methodology to weather normalize historical years, please provide the results and explain the methodology.

3-Staff-32 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 3, Table 3.3

Please provide an additional column in Table 3.3. containing year-end actuals for 2015, as available.

3-Staff-33 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 5, p. 8

On page 8 of the above reference Wellington North states with respect to its General Service 1,000 to 4,999 kW class "WNP has observed these customers load patterns steadily increasing, to the extent that one of the customers is seeking an increase in their kW demand at their plant."

a) Please reconcile this statement with the forecasted decrease in both kWh and kW for this class.

b) How has the stated increase in load for one of the GS 1,000 to 4,999 kW customers been incorporated into the load forecast for 2016?

3-Staff-34 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 7, Table 3.12

In the above referenced table, Wellington North has highlighted periods that contributed to the continual increase in kWh purchases. How has Wellington North adjusted for these events in its load forecast?

3-Staff-35 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 7, Table 3.13

The above reference table provides historical full-time employment levels for Wellington North's economic region. What are the forecasted values for this variable for 2015 and 2016?

3-Staff-36 Load Forecast
Ref: Exhibit 3, Tab 1, Schedule 11, Table 3.28

Table 3.28 shows the alignment of non-normalized forecast to weather normalized forecast, representing an adjustment of (382,269) kWhs and 822,479 kWhs in 2015 and 2016 respectively. Please indicate how these amounts are calculated.

3-Staff-37 Conservation and Demand Management (CDM) Adjustment
Ref: Exhibit 3, Tab 2, Schedule 2, p. 37

The evidence states that the CDM adjustment to the load forecast is allocated on a "pro-rata basis using the 2016 kWh forecast provided in Table 3.36 of Exhibit 3/Tab1/Schedule 1per class."

a) Please provide the correct reference, as this appears to be incorrect.

b) Does Wellington North have an initial determination of whether it has met its CDM target for 2015? If so, please provide.

3-Staff-38 CDM Adjustment
Ref: Exhibit 3, Tab 2, Schedule 2 Table 3.37

Wellington North has proposed a CDM adjustment for the street lighting class of zero for both 2015 and 2016.

a) Has Wellington North had any discussions with the Townships of Wellington North and Southgate regarding conversion of street lights to LEDs?

b) If so, how does Wellington North plan to incorporate this change in demand?

3-Staff-39 CDM Adjustment
Ref: Exhibit 3, Tab 2, Schedule 1

Please provide a table that lists all the appropriate IESO/OPA CDM initiatives that produced net CDM savings which were used in the LRAMVA calculations.

For each rate class, please list all relevant CDM initiatives in the applicable year and provide the subsequent net CDM savings for each. An example is provided below:

Residential	**Net kWh**	**Net kW**
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
GS < 50 kW	**Net kWh**	**Net kW**
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
GS > 50 kW	**Net kWh**	**Net kW**
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
Other classes (e.g., Streetlighting, Large Use, etc.), as needed	**Net kWh**	**Net kW**
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		

A separate table should be provided for each year.

3-Staff-40 Proposed Specific Service Charges
Ref: Exhibit 3, Tab 4, Schedule 3 – MicroFIT charge

Wellington North is proposing a change to the microFIT service charge. Wellington North incurs a $10.00 monthly fee per microFIT meter point from its vendor Utilismart and would like to pass this charge onto its microFIT customers. This increase in the customer charge from $5.40 to $10.00 was also agreed to in St. Thomas Energy Inc.'s (EB-2014-0113) Cost of Service Application. Wellington North has provided for this increase in revenue in its 2016 revenue offsets.

(a) Is Wellington North using the same provider as St. Thomas Energy Inc.?

(b) How many customers would be impacted by this change?

(c) How much revenue would the change in the microFIT rate equate to on an annual basis?

Exhibit 4 – Operating, Maintenance and Administration (OM&A)

4-Staff-41 OM&A
Ref: Exhibit 4, Tab 1, Schedule 1, Table 4.6

Please update Table 4.6 by adding a column showing most current 2015 actuals.

4-Staff-42 OM&A
Ref: Exhibit 4, Tab 1, Schedule 1, Table 4.6

Wellington North's OM&A costs have risen from $1.5M approved in 2012 to a forecast of $1.8M for 2016, an increase of 20% over 4 years.

a) Please identify what improvements in services and outcomes the Applicant's customers will experience in 2016 and during the subsequent IRM term as a result of increasing the provision for OM&A in 2016.

b) How has the Applicant communicated these benefits and the associated costs to its customers, and how did customers respond?

Please provide some examples, including a synopsis of any customer feedback. If no communications took place, please explain why not.

4-Staff-43 OM&A
Ref 1: Exhibit 4, Tab 2, Schedule 1, Appendix 2-JB
Ref 2: Exhibit 4, Tab 3, Schedule 8, Appendix 2-M

Reference 2 shows total Regulatory Costs as follows:

	2014	2015	2016
	$130,165	$150,600	$161,500
Increase from previous year		$20,435	$10,900

However, reference 1 shows one of the material cost drivers for 2015 to be Change in Regulatory Costs, in the amount of $70,665. Please explain the discrepancy.

4-Staff-44 Benchmarking
Ref 1: Exhibit 4, Tab 2, Schedule 2, Appendix 2-L
Ref 2: PEG Report to the Ontario Energy Board, Empirial Research in Support of Incentive Rate-Setting: 2014 Benchmarking Update, July 2015

In reference 1, Wellington North shows its OM&A costs per customer at $477 for the test year and states that in 2014 its OM&A per customer was above the provincial average. In reference 2, Wellington North has been assigned to the 4th efficiency cohort with a stretch factor of 0.45%. Please provide details on any initiatives undertaken to reduce the OM&A per customer and improve the applicant's efficiency cohort assignment in future years.

4-Staff-45 Other Post-Employment Benefits (OPEB)
Ref: Exhibit 4, Tab 3, Schedule 1, p. 35

Wellington North has recovered OPEBs in rates previously.

a) Please indicate if OPEBs were recovered on a cash or accrual accounting basis for each year since Wellington North started to recover OPEBs.

b) Please complete the table below to show how much more than the actual cash benefit payments, if any, have been recovered from ratepayers from the year Wellington North started recovering amounts for OPEBs.

OPEBs	First year of recovery to 2011	2012	2013	2014	2015	2016	Total
Amounts included in rates							
OM&A							
Capital							
Sub-total							
Paid benefit amounts							
Net excess amount included in rates greater than amounts actually paid							

c) Please describe what Wellington North has done with the recoveries in excess of cash benefit payments.

4-Staff-46 Employee Compensation
Ref: Exhibit 4, Tab 3, Schedule 3, Appendix 2-K

Please explain the large increase in 2012 approved ($44,866) to 2014 actual ($214,715) for benefits.

Exhibit 6 – Revenue Deficiency

6-Staff-47 Revenue Requirement Work Form (RRWF)
Ref: Exhibit 6, Appendix 6A

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.

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 10 Tracking Sheet, and may also be included on other sheets in the RRWF to assist understanding of changes.

Exhibit 8 – Rate Design

8-Staff-48 Bill Impacts
Ref: Appendix 2-W

Upon completing all interrogatories from OEB staff and intervenors, please provide an updated Appendix 2-W for all classes at the typical consumption / demand levels (e.g. 800 kWh for residential, 2,000 kWh for GS<50, etc.), including correcting for the following:

a) In calculating the bill impacts for the residential class, Wellington North has shown the Debt Retirement Charge (DRC) before May 1, 2016 as $0.0049/kWh and $0/kWh after May 1, 2016. For the residential class, the DRC was removed on January 1, 2016 and therefore should not appear on the bill impact calculations.

b) For all other classes, Wellington North has used $0.0049/kWh for the DRC. Is there a reason that Wellington North has not used $0.0070/kWh as in previous years?

8-Staff-49 Loss Factor
Ref: Exhibit 8, Tab 1, Schedule 12

Wellington North is proposing a loss factor of 1.0656, representing a five year average of actual losses for 2010-2014. Has Wellington North evaluated the impacts of the 2nd feeder and the replacement of MS#2 on its loss factor going forward? If so, what is the effect? If not, please do so and provide the results.

8-Staff-50 Implementation of Residential Rate Design
Ref: Exhibit 8, Tab 1, Schedule 16

Please show the impact of the change to residential rate design for the 10th percentile by providing Subtotal C for 2016 divided by total bill (without OCEB and debt retirement) for 2015.

8-Staff-51 Retail Transmission Rates
Ref: Exhibit 9, Tab1, Schedule 4

If the OEB issues a Rate Order for the 2016 Uniform Transmission Rates and/or Hydro One Distribution's Sub-transmission rates during the time Wellington North is answering IRs, please provide an updated RTSR Adjustment Workform in working Microsoft Excel format reflecting the new UTR's and Sub-Transmission Rates, as applicable, including any other corrections or adjustments that the Applicant wishes to make to the previous version of the Workform. Please include documentation of the corrections and adjustments, such as a reference to an interrogatory response or an explanatory note.