



**Wellington North Power Inc.**

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January 17, 2014

Attention: Michael Janigan  
Counsel for VECC  
Public Interest Advocacy Centre (PIAC)  
ONE Nicholas Street, Suite 1204  
Ottawa, ON K1N 7B7

Dear Mr. Janigan:

**Re: OEB File Number: EB-2013-0178**  
**Wellington North Power Inc. – ED-2002-0511**  
**2014 4<sup>th</sup> Generation Distribution Rate Application**  
**Response to VECC Final Submissions**

Enclosed are Wellington North Power Inc.'s reply submissions to the Vulnerable Energy Consumers Coalition (VECC) Final Submissions relating to the LDC's Incentive Rate Mechanism Adjustment Application for 2014 Distribution rates (file number: EB-2013-0178).

An electronic copy of this Submission response has been filed on the OEB's RESS site and two hard copies have been sent by courier to the Board's office for the attention of the Board Secretary.

Should VECC have questions regarding this matter please contact myself at [rbucknall@wellingtonnorthpower.com](mailto:rbucknall@wellingtonnorthpower.com) or call 519-323-1710.

Yours truly,

Richard Bucknall

**Regulatory Compliance and Office Manager**

cc: Board Secretary (by e-mail)  
cc: Stephen Vetsis – OEB Analyst, Applications & Regulatory Audit (by e-mail)  
cc: Intervenors on Record (by e-mail)  
cc: Mr. Randy Aiken, Consultant to Energy Probe (by e-mail)  
cc: Ms. Shelley Grice, Consultant to VECC (by e-mail)

**Wellington North Power Inc. ("WNP")**  
**2014 IRM Rate Application**  
**Applicants Responses to VECC Final Submissions**  
**EB-2013-0178**

**Purpose:**

The purpose of this document is to provide the Board with the reply submissions of Wellington North Power Inc. ("WNP") based on its review of VECC's Final Submissions document (dated December 13, 2013).

In its submission, WNP has inserted the comments from the VECC's Final Submissions document and, where relevant, the Applicant has provided a response.

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**Incremental Capital Module**

- In its original application, Wellington North requested the approval of incremental rate riders to recover the incremental cost to replace an existing substation (MS2 in Mount Forest) with a new 44kV 5 MVA substation at a capital cost of \$1,600,000. Wellington North requested an incremental capital amount of \$1,360,000 to account for \$240,000 that relates to a provision for substation major asset component replacement that was included in its original 2014 CapEx plan.
- Wellington Hydro calculates the 2014 incremental revenue requirement impact of its ICM at \$105,665. Wellington North requests approval to recovery this revenue requirement though Option A, which allows for the collection of a combined fixed service charge and variable volumetric charge.
- Wellington Hydro retained the services of Costello Associates (Costello) to undertake an asset condition assessment study of its six distribution substations. In its June 2013 Report, Costello identified deficiencies that require attention and specifically identified two substations (MS2 and MS4) as candidates for replacement based on concerns regarding age and condition.
- At the MS2 substation, the station age and transformer age is 41 years. At the MS4 substation, the station is 21 years old and the transformer is 49 years old. Based on the Kinetrics Study, the new typical useful life for a transformer is 45 years. Both stations have shown safety and reliability concerns, equipment deficiencies, issues with cables, wiring code violations, bonding and grounding issues.
- Costello concluded that the general age and condition of the stations warrant the development of a long term replacement/rehabilitation program. Costello assessed each substation independently and did not recommend replacement of one substation over another. Costello recommended that ongoing periodic assessments be performed to determine the priority of replacement projects.
- Based on its experience and knowledge of its distribution infrastructure, Wellington Hydro is requesting replacement of the MS2 substation as a priority in 2014, ahead of MS4 which it has marked for replacement in 2016.

- In response to VECC interrogatory #3, Wellington Hydro provided additional details to justify replacing MS2 before MS4 in part MS2 is more heavily utilized than MS4. MS2 supplies four 4,160V circuits with capacity to supply 5MVA, whereas MS4 station currently supplies one 4,1460V circuit with a capacity to supply 2 MW. Wellington North indicates the impact of a major equipment failure at MS2 is more significant than at MS4 based on the current configuration: four feeders at MS2 to be backed up by MS1, MS3 and MS4 affecting the entire distribution system in Mount Forest, compared to one feeder at MS4 to be backed up by MS2. In addition, MS2 is critical to the majority of the industrial load in the north part of Mount Forest. MS2 is a large parcel of land allowing for more design flexibility. MS4 has land constraints and the distribution plant in and around MS4 requires significant upgrade making re-build of this asset with an in-service date of 2014 difficult.
- Wellington North indicates it is planning to replace the MS4 substation and may include it as part of its next Cost of Service application for 2016 rates or in an IRM application depending on the learning and experience gained from replacing MS2.
- Costello classified MS4 as "red" due to the age of the transformer, the improperly installed neutral connection and the diagnostic test results. Costello indicates maintenance and safety issues may degrade a condition classification and once corrective action is taken, the condition classification may improve. VECC acknowledges that the transformer at MS4 is past end of life but notes that Wellington North has resolved the neutral connection problem at MS4 and returned the substation to service. VECC submits Wellington North's proposal to replace MS4 beyond 2014 (in 2016) is reasonable given the capital planning and distribution capital construction needed and difficulty in undertaking the work in 2014.

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### **Wellington North Power Inc. - Response:**

WNP acknowledge that VECC appreciates that to replace MS4 beyond 2014 (in 2016) is reasonable given the capital planning and distribution capital construction needed and difficulty in undertaking the work in 2014.

- With respect to Wellington North's ICM request for the replacement of MS2, VECC makes the following comments.
- For incremental capital expenditures to be considered for recovery prior to rebasing, the Board's Guidelines indicate the amounts must satisfy the following eligibility criteria: **need, prudence and materiality**.
- **Need:** *Amounts should be directly related to the claimed driver, which must be clearly non-discretionary. The amounts must be clearly outside the base upon which rates were derived.*
- Wellington North has identified MS2 as a high priority for replacement based on concerns identified in the substation condition assessment study completed by Costello in June 2013. Costello assessed MS2 substation as having potentially serious safety concerns as well as equipment deficiencies and future reliability is a concern. For MS2, Wellington North has assigned a high risk to public safety based on the fence and improperly installed sub-station bonding and grounding, and a medium risk to worker safety due to improperly installed sub-station bonding and grounding.
- On an annual basis Wellington North has performed scheduled maintenance of its six substations including MS2. Wellington Hydro noted that in 2012 all six substations underwent preventive maintenance, which interestingly enough did not highlight any of the problems identified by Costello.
- In response to VECC interrogatory #1(b), Wellington North listed the types of deficiencies where it has the capability (knowledge, training and expertise) to address the issues compared to those where it does not and 3rd party assistance is required. Wellington North indicates it has taken immediate action to ensure safety at MS2 is improved and it has been working through all critical items identified by Costello. The perimeter fence is in poor condition and has been temporarily resolved. A perimeter fence could be replaced for \$30,000. Wellington North has spent \$14,000 to date on substation remediation as a result of Costello's report and is confident it has acted promptly to resolve the issues identified. Wellington North indicates more of these repair and maintenance costs are expected in late 2013 and 2014, however no costs for this work was provided.
- Costello assigns ratings based on public safety, worker safety and risk of major equipment failure. Costello assigned a rating of "red" to substation MS2 which will improve to "yellow" once the safety issues are resolved and switchgear deficiencies are addressed. The Costello report defines "yellow" as average condition and states that mitigation is required between 4 and 11 years. "Red" means poor condition and mitigation is required immediately within one year.
- VECC submits Wellington Hydro has adequately demonstrated the need to include MS2 as part of a strategy for replacement but the question to be addressed is whether it needs to be done as a priority in 2014.
- Wellington North indicates that according to the Kinetrics Study, the "new" typical useful life for a transformer is 45 years. VECC notes that once removed from service, Wellington North plans to keep the MS2 transformer on hand as a spare, given it has shown good performance characteristics and an assumed 4 years of remaining useful life.
- Given the recent work undertaken at MS2 to address the issues identified by Costello and future work to address all of the issues identified, VECC submits with mitigation it is probable the rating would improve to "yellow" thereby extending the life expectancy a minimum of 4 years. On this basis, VECC submits the need to replace MS2 in its entirety in 2014 is not required. For the purposes of ICM, the project should be considered discretionary.

**Wellington North Power Inc. - Response:**

Having read VECC's commentary under the section **Need** (page 4), WNP understands that the Intervenor's argument can be summarised as: whether MS-2 substation replacement should take place in 2014. VECC argue that *"the need to replace MS2 in its entirety in 2014 is not required. For the purposes of ICM, the project should be considered discretionary"*

In VECC's Submission, there is reference to how the current MS2 substation can move from a "red" status (i.e. mitigation action is required immediately, within one-year) to a "yellow" status (i.e. average condition where mitigation is required between four to eleven years). WNP submit the following comments regarding this particular reference:

- a) A "Yellow" status (as per the Substation Assessment Study prepared by Costello Utility Consultants for WNP – Appendix 5 of the LDC's IRM application) would move the rating of the substation to "Average" and potentially extend the asset life anywhere from an additional four (4) to eleven (11) years. WNP wish to point out that that both money and time would need to be spent in making the existing MS2 substation safe but, it is the LDC's opinion, that this is a short-term solution with no guarantee that the asset life would be extended by up to a further eleven (11) years – this is rather like delaying the inevitable. Furthermore, WNP anticipate the "need" to rebuild (e.g. MS-4 substation) or replace major components of other LDC substations (e.g. MS-1 and MS-3) over the next two (2) to ten (10) years;
- b) As mentioned in WNP's response to VECC's Interrogatory #1e, the impact of a major equipment failure at MS2 is significant when compared with the impact of a major equipment failure at MS4. If MS2 was to fail, the four feeders leaving MS2 would have to be backed-up by MS1, MS3 and MS4. That said, the impact of a MS2 failure affects the entire distribution system in Mount Forest and WNP see this as a risk if MS2 substation is not replaced in 2014;
- c) In its' filed IRM application, WNP included the methodology that the LDC applied to prioritize and categorize its planned 2014 CapEx projects into Discretionary and Non-Discretionary categories (Exhibit 5 – incremental Capital Module, pages 76 to 79). This was a challenging

exercise yet demonstrated the LDC's pragmatic and realistic approach in balancing what capital projects need to be undertaken in 2014 versus the cost-benefit to customers and the LDC. It is the opinion of the Applicant that the replacement of the MS2 substation is considered as non-discretionary;

- d) WNP wishes to assure Board and Board Staff that it is moving forward with its plan to replace the MS2 substation and build a new station. As per the Applicant's response to Energy Probe Interrogatory #4b, WNP plans to issue a tender document in January / February 2014 for a contractor to design, build and construct the new substation (MS2) with an in-service date of quarter 4 2014.
- e) In Board Staff's Submission (dated December 13<sup>th</sup> 2013) relating to OEB file EB-2013-0178, page 6 states, "*Given the concerns with safety and age of assets identified in the Costello report, Board Staff submits that the need and prudence criteria have been met for the proposed MS-2 substation rebuild.*" WNP believes that in its' Incremental Capital Module requirement as part of its 2014 IRM application, the LDC has presented compelling reasons justifying the need to replace MS2 substation and has provided information to why this needs to happen in 2014.
- f) Finally, should the Board not approve WNP's ICM recovery for a new substation, then it could be argued that there is an inconsistency between this decision and prior applications (for example, EB-2011-0160 – Centre Wellington Hydro 2012 IRM Application).

- ***Prudence***: *The amounts to be incurred must be prudent. This means that the distributor's decision to incur the amounts must represent the most cost effective option (not necessarily least initial cost) for ratepayers.*
- Wellington North considered three alternatives in addressing MS2 as follows:
  1. Do nothing (no cost)
  2. Replace the original substation with a new substation (\$1.6 m)
  3. Replace the original substation with a new substation using the existing Transformer and allowing \$50,000 to refurbish existing transformer prior to re-use (\$1.39 m)
- Wellington North recommended Alternative #2 (replace MS2) which is the highest cost option evaluated. Wellington North did not evaluate the option of remediating MS2.
- VECC does not support the implementation of any of the above three alternatives for MS2 in 2014.
- The "Do Nothing" option is not practical given the age of the substation and transformer and the condition issues identified by Costello.
- As discussed above, in VECC's view Option 2 is not the preferred option at this time given that remediation measures would reasonably extend the life of the substation between 4 and 11 years.
- Option 3 is similar to option 2 except that the existing transformer would be reused. Wellington North lists a number of disadvantages to using existing equipment including the risk of equipment failure given that the existing transformer is aged (41 years). VECC submits Option 3 is not the most cost effective option.
- VECC believes the preferred option is to remediate substation MS2 in 2014 to address the issues identified by Costello in order to extend the life of the substation and improve the "red" rating to a "yellow" rating, and to include the replacement of MS2 in a longer term substation replacement strategy informed by future asset condition assessments. In VECC's view this is the most cost effective option for ratepayers.

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### **Wellington North Power Inc. - Response:**

WNP has reviewed the comments made in the ***Prudence*** section of VECC's Submission (page 5) and the Applicant wishes to make the following comments:

- a) WNP agrees with VECC's submission that Option 1 – "Do Nothing" is not an acceptable solution;
- b) WNP agrees with VECC's submission that Option 3 is not the most cost-effective solution;

- c) WNP does not agree with VECC's preferred option to *"remediate substation MS2 in 2014 to address the issues identified by Costello in order to extend the life of the substation and improve the "red" rating to a "yellow" rating, and to include the replacement of MS2 in a longer term substation replacement strategy informed by future asset condition assessments"*.

WNP submits that this option is a cost-effective option to the rate-payer today (in 2014) yet at some point in the medium term, the substation will need to be replaced. Remediation costs may extend the life of the current substation from anywhere from four (4) years to eleven (11) years as per the 3<sup>rd</sup> party report filed with the LDC's IRM application. The remediation work will extend the asset life but there is no definite answer by how long (an approximate of between 4 years to 11 years has been provided by the 3<sup>rd</sup> party expert.) WNP do not doubt the 3<sup>rd</sup> party expert's viewpoint but feel that given the age, condition and types of faults identified at MS2 substation, it would be more cost-effective and a sustainable solution for the rate-payers and the LDC to replace the substation in 2014.

- d) Under VECC's preferred option, any remediation costs will be capitalized and incur depreciation expense.

Should the Board agree with VECC's remediation option submission, WNP will require direction from Board, Board Staff and/or VECC to determine how many years depreciation expense should be calculated - 4 years, 5 years, 11 years...?

- e) WNP questions if this is the best and most efficient use of spending rate-payers money. In WNP's opinion, the remediation solution proposed by VECC implies that the current MS2 substation is "patched" to address the problems identified for a quick solution. The applicant would rather "do things right" and build a new MS2 substation that will benefit from latest technology and offer a higher confidence in reliability and safety;

- f) VECC's comment of *"..to include the replacement of MS2 in a longer term substation replacement strategy informed by future asset condition assessments"* could be viewed as meaning that a further substation study by a 3<sup>rd</sup> party will need to be conducted in the future. In WNP's opinion, this does not demonstrate cost-effectiveness to rate-payers or the LDC when (i) further costs are incurred and (ii) such a study was recently undertaken in 2013.



- g) WNP anticipate the “need” to rebuild (e.g. MS-4 substation) or replace major components of other LDC substations (e.g. MS-1 and MS-3) over the next two (2) to ten (10) years. By commencing with substation replacement work in 2014, WNP is aiming to spread these substation asset replacement costs over several years, rather than have two or three major capital costs be incurred in a single year.
  
- h) It is WNP’s opinion that VECC’s remediation option for MS-2 substation is indeed “least initial cost” and not necessarily the most cost-effective solution for WNP rate-payers and the LDC.

- ***Materiality:*** *The amounts must exceed the Board-defined materiality threshold and clearly have a significant influence on the operation of the distributor; otherwise they should be dealt with at rebasing. Distributors are to use a Board approved formula to calculate a materiality threshold*
- The ICM is intended to address the treatment of capital investment needs that arise during the rate-setting plan which are incremental to the materiality threshold. The Board determined that the eligible incremental capital amount sought for recovery should be new capital in excess of the materiality threshold. A distributor applying for recovery of incremental capital should calculate the maximum allowable capital by taking the difference between 2014 total non-discretionary capital expenditure and the materiality threshold.
- Wellington North's total non-discretionary capital budget for 2014 is \$1,996,000 which includes the ICM project.
- Using the Board's formula (Threshold Test), Wellington Hydro calculated the materiality threshold as \$609,573 using a price cap index of 0.48% (price escalator of 1.60%, a productivity factor of 0.72% and a stretch factor of 0.40%), growth of 1.44% and a dead band of 20%. The resulting eligible incremental capital amount for the purposes of ICM funding is \$1,386,427 (\$1,996,000 - \$609,573).
- If the Board finds that the replacement of MS2 is non-discretionary and should be done in 2014, VECC submits the materiality criterion has been met and the incremental capital requested by Wellington Hydro (\$1,356,100) exceeds the Board defined materiality threshold.
- Wellington North updated the Incremental Capital Project Workform and the rate riders in response to: Board Staff interrogatory#2 (revision to the useful lives of each capital asset in accordance with the Typical Useful Life from Kinetrics Report taking into account the revised amortization expenses and CCA balances; Board Staff interrogatory #6 (update rate class for GS 50 to 999 kW from 38 to 40 customers resulting in change in growth percentage from 1.44% to 1.15%); Energy Probe interrogatory #1 (update to stretch factor to 0.45%); and Energy Probe #3 (update actual forecasted amount to \$1,596,100 from \$1,600,000 less \$240,000 already provisioned for in 2014 CapEx plan substation asset condition replacement).
- Wellington North agreed the price escalator (inflation factor) and productivity factor should be updated to reflect the Board's calculation for 2014 IRM applications. On November 21, 2013 the Board released its report that sets the inflation factor at 1.7% for 2014 and the productivity factor at 0.0%. If the ICM for MS2 is approved, Wellington North should recalculate the materiality threshold and eligible incremental capital amount using the updated threshold parameters identified above resulting in a price cap index of  $(1.7-0.00-0.45=1.25\%)$ .
- VECC supports Energy Probe's calculation of the updated materiality threshold of \$645,076 based on a price cap index of 1.25% which reduces the eligible capital amount to \$1,350,024 for the purposes of calculating updated ICM rate riders, slightly less than the \$1,356,100 sought by Wellington North.

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### **Wellington North Power Inc. - Response:**

WNP has reviewed the comments made in the ***Materiality*** section (page 6) of VECC's Submission and the Applicant wishes to make the following comments:

- a) WNP agrees that the Price Cap Index should be 1.25% when applying the following rate-setting parameters as issued by the OEB on November 21, 2013 in “EB-2010-0379 – Report of the Board: Rate Setting Parameters and Benchmarking under the Renewed Regulatory Framework for Ontario’s Electricity Distributors”:
- Price Escalator (GDP – IPI) of 1.70%;
  - Productivity factor of 0.00%
- b) WNP agrees that the using the Price Cap Index of 1.25% would:
- Yield a Materiality CapEx Threshold of \$645,976;
  - Reduce the Eligible Incremental Capital Amount from \$1,412,449 to \$1,350,024;
  - Result in the Total Incremental Capital Amount for the ICM Rate Rider Calculation to be \$1,350,024 (\$6,076 lower than the LDC’s requested amount)

The table below provides a comparison summary between the Applicants revised Incremental Capital Workform that was submitted with its Interrogatory responses (November 27, 2013) and updated data to reflect the latest rate-setting parameters as issued by the Board on November 21, 2013:

	Incremental Capital Workform submitted with IR#1 Responses	Calculations applying Board Rate-Setting Parameters (21-Nov-2013)	
Price Escalator (GDP-IPI)	1.60%	1.70%	<i>Agreed - as per EB-2010-0379 Report of the Board Rate Setting Parameters &amp; Benchmarking under RRFE - page 11 Agreed - as per EB-2010-0379 Report of the Board Rate Setting Parameters &amp; Benchmarking under RRFE - page 17 Agreed - as per EB-2010-0379 Report of the Board Rate Setting Parameters &amp; Benchmarking under RRFE - Appendix D, page XXI</i>
Less: Productivity Factor	-0.72%	0%	
Less: Stretch Factor	-0.45%	-0.45%	
<b>Price Cap Index</b>	<b>0.43%</b>	<b>1.25%</b>	
Growth	1.15%	1.15%	
Ratebase	\$7,489,318	\$7,489,318	
Depreciation	\$387,630	\$387,630	
DeadBand	20%	20%	
Threshold Test	150.54%	166.65%	
Threshold CapEx	\$583,551	\$645,976	
2014 Non-Discretionary Capital Budget	\$1,996,000	\$1,996,000	
Eligible Incremental Capital Amount	\$1,412,449	\$1,350,024	
Total Incremental Capital Amount for ICM Rate Rider Calculation	\$1,356,100		
Difference between Incremental Capital Workform submitted in IR#1 Responses		(\$6,076)	

- c) Should the Board accept the Total Incremental Capital Amount for the ICM Rate Rider Calculation to be \$1,350,024, WNP realise that the ICM Rate Riders will be different to amounts calculated in the latest Incremental Capital Workform model that was filed with the Applicant's Interrogatory responses (November 27, 2013).