Hawkesbury Hydro Inc.
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March 30, 2012

Kirsten Walli
Board Secretary
Ontario Energy Board
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OEB File No. EB-2011-0173

Enclosed please find Hydro Hawkesbury Hydro ("HHI")'s final submission in regard to its 2012 IRM Application. Should you require any further information, please do not hesitate to contact Mr. Michel Poulin at the number below.

Yours very truly,

Michel Poulin, General Manager

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HAWKESBURY HYDRO INCORPORATED

REPLY SUBMISSION

2012 ELECTRICITY DISTRIBUTION RATES

EB-2011-0173

Submitted March 30, 2012

Overview

Hawkesbury Hydro Incorporated ("HHI") is seeking an order from the Ontario Energy Board ("the Board") approving just and reasonable rates for the distribution of electricity in the Town of Hawkesbury effective May 1, 2012. The IRM supporting the proposed 2012 rates ("the Application") was submitted to the Board on November 11, 2011.

The Application, submitted on November 11, 2011 was supplemented by HHI's responses to a rounds of interrogations provided to Board staff and VECC ("the other parties") on February 10, 2012.

As explained in Board Staff' submission, Board staff identified certain discrepancies in the data entered in the application model by HHI during the interrogatories process. In response to Board staff interrogatories which requested either a confirmation that these discrepancies were errors or, an explanation supporting the validity of the original data filed with the application, HHI confirmed that they were errors and provided the corrected data.

Board Staff, VECC and SEC made submission on the following topics which are addressed in this reply submission;

- Z-factor claim;
- Incremental Capital Module;
- Load Forecast;
- Disposition of Group 1 Deferral and Variance Account Balances;
- Disposition of Account 1521 – Special Purpose Charge ("SPC");
- Lost Revenue Adjustment Mechanism ("LRAM"); and
- Account 1562 – Deferred Payments in Lieu of Taxes ("PILs").

Z-Factor and ICM

In its application, HHI applied to recover the revenue requirement associated with an amount of $712,909 intended for replacement of a 44KV substation and site preparation through a Z-factor claim and also proposed an incremental capital module to recover the incremental capital costs of $1,517,813 associated with the replacement of existing transformers with a new 25MVA. HHI proposed to recover the costs associated with the Z-Factor claim through fixed and variable rate riders that would be in place until HHI's next rebasing application. HHI proposed to allocate the revenue requirement associated with the incremental capital expenditures eligible for cost recovery on the basis of distribution revenue.

Replacement of the 44KV

In its submission, Board Staff reiterated HHI's rational behind filing a Z-Factor. HHI's decision to file a Z-factor application, rather than an Incremental Capital Module ("ICM"), was that, despite the utility having taken every preventative and safety measure possible to adequately management the uncertainty surrounding the 44KV transformer, the utility could not prevent the sudden failure of the transformer, which up until late 2009, was considered to be the more reliable of all transformers.

Board Staff submitted that this event did not qualify for Z factor treatment. However, Board staff submitted that cost recovery should be considered under the umbrella of the ICM. In its submission, SEC agreed with HHI that is should be allowed to recover expenditures for its replacement of its failing 44kV transformer, however, SEC advised that the request should be considered under an ICM mechanism instead of a Z-Factor. VECC also stated in its submission that HHI should seek recovery of the amounts under an ICM, not a Z-factor. All parties agreed that Hydro Hawkesbury provided sufficient evidence on "Materiality" and "Prudence and Need".

HHI's position:

HHI is open to the replacement of the 44KV being considered under and ICM instead of a Z-Factor. In conjunction with its responses to Board Staff and VECC' s IRs, HHI filed an Incremental Capital Workform and Incremental Capital Project Summary Workform that combined the two transformer projects. HHI therefore requests approval of an ICM claim in the amount of $712,909 to replace its defective 44KV.

Commissioning of 25MVA

HHI's incremental capital expenditures are related to the replacement of one of the existing transformers with a new 25 MVA. As stated in its application and summarized by Board Staff, HHI currently receives electricity at a substation at 110KV with two distribution transformers in the West end and a 44KV station in the East end of Hawkesbury. The two transformers at the 110KV station are approximately 45 years of age and have shown signs of deterioration. HHI indicated that at their current load capacity, they can only partially cover the load of each other. Board Staff summarized the mechanical issues reported by HHI in its application stating that the evidence presented in the application included pictures that exhibit the poor quality of the equipment and noted that both a mechanical inspection and an oil inspection gave rise to concern.

Board Staff's position in regards to HHI's request for incremental capital funding associated with the design, construction, and operation of the 25MVA transformer for the 110KV station is that the request should be granted. Board staff states that HHI has demonstrated immediate short term and long term need as evidenced by the GE and BPR reports mentioned above. Board staff notes that a previous Board Decision (EB-2009-0132) highlighted HHI's lack of asset management plans and recommended a more proactive approach to increase

the safety and reliability of its system. Board staff goes on to say that that HHI's request is consistent with the Board's direction to proactively maintain its distribution system.

SEC stated in its submission that HHI had not met the test for an ICM, specifically the requirement of "need". SEC goes on to say that while it would appear that in the medium term the transformer will need to be replaced due to age, at the present time there has been no material change in its condition from the HHI's last cost-of-service which occurred right after major maintenance was done. SEC submitted that the HHI had not shown that the change in condition is material enough to be considered outside the basis which rates were derived. SEC states that nothing had happened since the last rebasing to change that characterization. The evidence provided by the HHI did not demonstrate that the condition of the transformer is that of near catastrophic failure or is an unacceptable risk to the health and safety the community or any worker.

VECC submitted that the condition of the transformers at the 110 KV substation had not significantly changed since 2010, and Hydro Hawkesbury should continue with its original plan to budget for the replacement of one existing transformer in its next Cost of Service application in 2014.

HHI's Position

In response to VECC and SEC's proposition that HHI should wait until the next rebasing application to include its commissioning of the 25MVA, HHI interprets VECC and SEC's positions as "taking no action", one of the options considered in GE's report as well as considered by the utility and its board of director. HHI adamantly dismissed and continues to dismiss the option of "taking no action" since this puts the utility's customer at considerable risk and also poses an unacceptable risk to the utility and its shareholders.

In response to SEC's claim that HHI has not demonstrated the requirement for need, HHI's view is that with respect to replacement of large assets which is deemed to be critical part of a utility's operation, the only way the utility could clearly demonstrate "need" is if waits until the transformer fails, a risk that HHI is not willing to take. The risk to the safety and reliability, not to mention potential financial cost associated with taking a reactive stance could be devastating to the utility and its customers. In its application, HHI provided a cost estimate of $5,215,000 to $6,455,000 for the generator rental and overhauling of one transformer for a 4 to 5 months period.

HHI's primary concern has always been to keep its rates as low as feasible without compromising the safety and reliability of its distributions system. HHI's original objective was to budget for the replacement of both transformers in its next Cost of Service scheduled for 2014 which would have provided the utility's customers with a form of rate mitigation. If HHI felt it prudent to wait until the next rebasing application to request funding this capital expenditure, it undoubtedly would. The choice to apply for funding in this IRM application is entirely out of concern for the reliability of its distributions system. The fact that the 44kV, the transformer which was considered the "more reliable" of the two transformers went from "reliable but showing signs of aging" to "failure" in a period of approximately 9 months. Given the similarity in age of both transformer, its history of mechanical problems that seem to be common to both transformers, and recommendations of experts, HHI feels there is a high probability that the 110KV could fail unexpectedly in the next year. If the transformer does happen to fail, HHI will have no choice but to lease a mobile transformer until the 25MVA is built or refurbished, which could take anywhere from 5 to 18 months. As mentioned above, the cost of taking a reactive stance could be financially devastating for HHI and its customer.

SEC's claimed that HHI had not demonstrated that the condition of the transformer is that of near catastrophic failure or is an unacceptable risk to the health and safety the community or any worker. To this, HHI responds that its

application clearly stated that funding for assessing both transformers was granted as part of its 2010 cost of service. Therefore the assessment would have been conducted after the Cost of Service was completed. HHI's application clearly states that for the last several years the 110KV station has been a slowly growing source of concern. Documented issues were clearly identified at page 160 of 987 of the application. (reproduced below)

Documented issues with the transformers

- *The two transformers at the 110kV station are reaching end of life,*
- *The current configuration of the station does not provide proper separation between major equipment (transformers, main structures and reclosers). There are no blast walls between the transformers and the near structures. This creates a situation where a fire could potentially destroy the entire station*
- *The protection on the original transformers uses fusing. This is not in line with today's industry standard and increase the chance of catastrophic failure in case of a fault near the transformer(s).*
- *The transformers are not equipped with sudden pressure relays, thus increasing the chance of catastrophic failure of the transformers in case of a fault near the transformer(s).*
- *The original transformers are not equipped with oil containment. This is a potential liability for HHI in case of release of oil from the original transformers.*
-

Mechanical Inspection

- *Both transformers show signs of rust, oil leaks and deteriorated paint.*
- *Fans are in poor condition, lot of rust, and noise due to probable unbalance.*
- *Control devices, accessories and wiring are outdated and some terminal blocks are broken.*
- *Transformer accessories such as temperature and oil level gauges are in poor condition.*
- *Both transformers are not equipped with gas detectors, up to date Qualitrol pressure relief devices and lightning arresters.*
- *Transformer concrete pad are cracked and deteriorated.*

- *Both transformers are not equipped with oil retention basin.*
- *Both transformers are equipped with primary fuse protection instead of electronic protective relays and fast acting high voltage breakers.*

Oil Inspection

- *Super charge inhibitor was added to oil in both transformers during our inspection.*
- *Dissolved Gas Analysis (55T1 & 55T2)after ground switches on both transformers were by-passed show stabilization.*
- *We noticed on both transformers on-load tap changers a very low dielectric breakdown and high power factor probably due to moisture in oil.*
- *On-load tap changers on both transformers are due for an overhaul. (Arcing and main contact replacement)*
- *Off-load tap changer on each transformer were not inspected due to inaccessibility. (Bottom of main tank)*
- *Furanic Compounds in Electrical Insulation Liquids show a degree of polarization around 800 which indicates that the paper insulation is approximately "middle aged". (Estimated operating age of the equipment for 55T1 is 9.6 years and 8.3 years for 55T2)*
- *The Canadian Federal Law on PCBindicates that oil filed power equipment> 2 ppm of PCB,oil need to be replaced when removed from its container. Both transformers are contaminated with PCB.(see PCBresults)*

Electrical Inspection

- *Electrical results were acceptable*

Recommendations

- *Following our mechanical electrical inspection and oil analysis both transformers would need an overhaul to extend their life expectancy and reliability.*
- *The IEEE loading guide C57.91 indicates that the life of a transformer depends mainly on the life if its insulation system. Ageing is a process mainly defined by the chemical reaction which primarily depends on temperature and time. Normal life expectancy of a power transformer is usually 30 years.*

- *An overhaul would have to include: control update, tap changer overhaul. New accessories, gauges replacement, gasket replacement and new paint. This would be very costly. Therefore, we recommend starting the process of purchasing new transformers and substation modernization.*

VECC claims its mandate seeks to minimize the cost of energy to vulnerable consumers while ensuring that energy services are delivered to vulnerable consumers in a safe and reliable manner. SEC's mandate to protect the financial interests of School Boards when natural gas and electricity utilities apply for increases in distribution rates for their energy sources.

HHI would like to point out that if the 110KV transformer fails before the next cost of service two years from now, and HHI is forced to incur disaster recovery costs in excess of 6 million dollars, the financial interest of VECC and SEC's consumer they're representing will be severely compromised.

Having done its due diligence, HHI trusts the expertise and recommendation of professional engineers who have extensive experience in the subject and are also very familiar with the ongoing issues with HHI's transformers. Please note GE's comment with respect to "Alternative#0" which is to do nothing. "*Alternative#0 is not an option as this maintains an unacceptable risk of losing service for a long period of time. Due diligence must be served in this situation and the replacement of the two transformers like for like will not resolve significant problems at this station."*

Therefore, HHI respectfully asks that Board approves HHI's request to recover the revenue requirement associated with an amount of $1,517,813 associated with the replacement of existing transformers with a new 25MVA. This will ensure that HHI's service remains reliable.

Disposition of Group 1 Deferral and Variance Account Balances;

As described by Board Staff in their final Submission, HHI's 2010 Actual year-end total balance for Group 1 Accounts including interest projected to April 30, 2012 is a debit of $164,300. This amount results in a total debit claim of $0.00108 per kWh, which exceeds the preset disposition threshold of $0.001. HHI proposed to dispose of this debit amount over a one-year period.

Board staff had no concerns with the December 31, 2010 Group 1 account balances sought for disposition in this proceeding. Board staff submitted that HHI's proposal for a one-year disposition period is in accordance with the EDDVAR Report.

HHI's Position

Neither VECC nor SEC provided comments on the topic and Board Staff concluded that HHI's approval was reasonable and compliant with policy. Therefore HHI asks the Board to approve the disposal of the proposed balances of $164,300 to be disposed over a period of one-year.

Disposition of Account 1521 – Special Purpose Charge ("SPC");

As summarised by Board Staff, HHI originally requested the disposition of a debit balance of $13,776 in Account 1521 with carrying charges calculated as of April 30, 2012 and subsequently amended its balance resulting in a residual debit balance of $13,387 for disposition, comprising principal as of December 31, 2011 and interest to April 30, 2012.

Board staff submitted that the Board should authorize the disposition of Account 1521 as of December 31, 2010, plus the amount recovered from customers in 2011, including carrying charges as of April 30, 2012 over a one-year period. Board staff submitted that if the Board decides to dispose of Account 1521, the disposition should be on a final basis and Account 1521 should be closed.

HHI's Position

Since neither of the interveners objected to the proposed balances, HHI requests that the Board approves the debit balance of $13,387 for disposition over a one-year period.

Lost Revenue Adjustment Mechanism ("LRAM")

Board staff's and VECC's submission on Hydro Hawkesbury's LRAM claim focused on three issues: whether the 2010 approved cost of service load forecast had already included load reductions to account for subsequent CDM initiatives, lost revenues related to 2006 to 2009 and consideration for lost revenues persisting in 2011 and 2012. Hydro Hawkesbury concurs with Board staff and VECC's submission with respect to lost revenues prior to 2010. However Hydro Hawkesbury wishes to address the issue with respect to load reductions included in its 2010 load forecast and persisting amounts in 2011 and 2012.

In its submission, Board staff stated:

> *"In cases in which it was clear in the application or settlement agreement that an adjustment for CDM was not being incorporated into the load forecast specifically because of an expectation that an LRAM application would address the issue, and if this approach was accepted by the Board, then Board staff would agree that an LRAM application is appropriate. Renfrew may want to highlight in its reply whether the issue of an LRAM application was addressed in their cost of service application."*

As noted in the Board's Decision EB-2009-0186 in developing the 2010 load forecast in its cost of service application, Hawkesbury used a regression model to forecast its demand and energy levels for 2009 and 2010. The model used a multivariate regression of monthly wholesale deliveries to Hawkesbury against six variables; heating degree days ("HDD") and cooling degree days ("CDD"), full time employment in the Ottawa area, peak days, and two dummy variables to explain an unusual change in energy use in May 2005 and for non-holiday weekday consumption.

Board staff, through the interrogatory process, tested the model and submitted that the volumetric forecast was a reasonable forecast.

VECC pointed out some limitations of the methodology. It stated that the approach to the modelling is simplistic in that it assumes all weather sensitive customer rate classes

have the same degree of weather sensitivity. VECC also stated that there is a disconnect between the methodology used for the weather sensitive customer classes (residential, GS<50 kW and GS>50 kW) and the smaller customer classes (USL, street lighting, and sentinel lighting) which are not weather sensitive. VECC suggested an alternative approach, but concluded that because the loss factors implicit in the Hawkesbury's approach are not materially different from historical values, Hawkesbury's approach was reasonable for 2010.

The Board acknowledged the stated limitations of the HHI's methodology with respect to its inability to differentiate between the classes' responses to weather and employment. However, the Board did not consider that deficiency to be significant enough to undermine the forecast. The Board accepted Hawkesbury's proposed volumetric forecast, as it was based on regional projections, which seemed to the Board to be an appropriate approach.

As noted above Hydro Hawkesbury's load forecast had limitations. While some LDCs in their applications specifically lower their load forecast in the test year and in subsequent years to include expected future reductions due to their adoption of CDM initiatives, Hydro Hawkesbury did not have the sophistication to take this approach. One could conclude that Hydro Hawkesbury's forecast was developed in expectation of making LRAM claims in future years to compensate it for any subsequent CDM initiatives it undertook. Therefore, Hydro Hawkesbury submits that its LRAM application is indeed appropriate.

Hydro Hawkesbury's LRAM current claim is built on the same premise of persistency as accepted by the Board in earlier decisions. These decisions include Burlington Hydro's LRAM claims (Decision on EB-2010-0067 dated March 17, 2011; Decision on EB-2009-0259 dated March 1, 2010) as well as decisions on other LDCs' LRAM claims (Decision on Middlesex Power Distribution's LRAM claim EB-2010-0098 dated March 17, 2011; Decision on Norfolk Power Distribution's LRAM claim EB-2011-0046 dated May 6, 2011; Decision on Hydro One Brampton's LRAM claim EB-2010-0132 dated April 4, 2011).

Hydro Hawkesbury by default did not include CDM programs in its 2010 load forecast and should be fully entitled to claim an LRAM related to these programs. Hydro Hawkesbury submits that disallowing an LRAM claim for un-forecasted CDM would act as a major disincentive to participation in future CDM initiatives at Hydro Hawkesbury and other LDCs.

Board staff requested that Hydro Hawkesbury provide an updated LRAM amount that only includes lost revenues from 2006-2009 excluding 2010 and , persistence for 2011 and 2012 with the associated rate riders.

Attached is Hydro Hawkesbury's calculation as requested.

In submitting that its LRAM claim is appropriate and is fully consistent with previous Board decisions, Hydro Hawkesbury requests that the Board approve the LRAM claim for $48,981.41 as developed and fully supported in the evidence.

Customer Class	LRAM
Residential	$31,680.66
General Service Less Than 50 kW	$739.64
General Service 50 to 4,999 kW	$1,530.25
Total To April 2012	**$33,950.55**

Customer Class	2010 RRR	Units	LRAM	Proposed Rate Rider
Residential	50,277,839	kWh	$31,680.66	$0.0006
General Service Less Than 50 kW	19,562,613	kWh	$739.64	$0.0000
General Service 50 to 4,999 kW	209,711	kW	$1,530.25	$0.0073
Total To April 2012			**$33,950.55**	

Account 1562 – Deferred Payments in Lieu of Taxes ("PILs").

HHI originally requested to recover a debit balance of $4,138 consisting of a principal debit amount of $2,575 plus related carrying charges of $1,563. Following interrogatories, HHI's amended its evidence to support a credit balance of approximately $6,299 consisting of a credit principal amount of $4,519 plus related credit carrying charges of $1,780.

HHI's Position

In its submission, Board staff stated that the revised credit amount of $6,299 was calculated in accordance with the regulatory guidance and the decisions issued by the Board in determining the amounts in Account 1562 Deferred PILs. Neither VECC nor SEC commented on the issue therefore HHI asks that the Board approves the disposition of its balance of $6,299.

Actual VS Forecasted

In its application Hydro Hawkesbury applied the actual kWh from 2010 year end instead of the load forecast approved as part of its 2010 COS application. The rationale being that the utility felt that the "actuals" were more representative than the 2010 forecasted. VECC quoted the Board's Chapter 3 Guidelines which says: "*The IRM application process is intended to streamline the processing of a large volume of rate adjustment applications, and is therefore mechanistic in nature. For this reason, the Board has determined that the IRM process is not the appropriate venue by which a distributor should seek relief on issues which are substantially unique to an individual distributor or more complicated and potentially contentious*." On this basis , VECC objected to the use of Actuals vs Forecasted for the purpose of this application.

SEC submits that adjusting the load forecast within the IRM term in this way, is inappropriate. SEC goes on to say that the Cost of Service load forecast is approved by the Board after being rigorously tested by Board Staff and interveners. SEC seems to imply that because ratepayers do not benefit from an adjustment that the adjustment is not warranted. .

HHI's Position

Hawkesbury Hydro maintains that the in times of economic uncertainty, especially in smaller municipality, using 2010 Actuals is a better reflection of the actual economical conditions since they reflect costs which have occurred and can be reliably measured. It was not HHI's objective to increase its revenues, as implied by SEC, but instead to present an accurate picture of its current load. While the utility did its best effort to predict the impact of its loss of the large user on future years, in its 2010 approved Load Forecast, the 2010 Actuals were much lower than anticipated. In the same manner in which a utility must update its interest rates and its cost of capital to reflect the most up to date information, the utility felt that the 2010 Actuals vs Forecasted would reflect the most up to date information available. Therefore, Hydro Hawkesbury considers approval to utilize real kWh data as at December 31, 2010.

~Respectfully submitted~

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