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Ontario

BY EMAIL

January 12, 2010

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4

Dear Ms. Walli:

Re: Oakville Hydro Electiricty Distribution Inc.
2011 IRM3 Distribution Rate Application
Board Staff Submission
Board File No. EB-2010-0104

In accordance with the Notice of Application and Written Hearing, please find attached the Board Staff Submission in the above proceeding. Please forward the following to Oakville Hydro Electricity Distribution Inc. and to all other registered parties to this proceeding.

In addition please remind Oakville Hydro Electricity Distribution Inc. that its Reply Submission is due by February 2, 2011.

Yours truly,

Original Signed By

Lawrie Gluck
Analyst, Applications & Regulatory Audit

Encl.

ONTARIO ENERGY BOARD

BOARD STAFF SUBMISSION

2011 ELECTRICITY DISTRIBUTION RATES

Oakville Hydro Electricity Distribution Inc.

EB-2010-0104

January 12, 2011

Board Staff Submission
Oakville Hydro Electricity Distirbution Inc.
2011 IRM3 Rate Application
EB-2010-0104

Introduction

Oakville Hydro Electricity Distribution Inc. ("Oakville Hydro") filed an application (the "Application") with the Ontario Energy Board (the "Board"), received on September 17, 2010, under section 78 of the *Ontario Energy Board Act, 1998* (the "*OEB Act*"), seeking approval for changes to the distribution rates that Oakville Hydro charges for electricity distribution, to be effective May 1, 2011. The Application is based on the 2011 3rd Generation Incentive Regulation Mechanism.

The purpose of this document is to provide the Board with the submissions of Board staff based on its review of the evidence submitted by Oakville Hydro.

In the interrogatory phase, Board staff identified certain discrepancies in the data entered in the application model by Oakville Hydro. 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, Oakville Hydro confirmed that they were errors and provided the corrected data. Board staff will make the necessary corrections to Oakville Hydro's model at the time of the Board's decision on the application.

Board staff makes submissions on the following matters:

- Incremental Capital Module; and
- Deferral and Variance Account Disposition.

INCREMENTAL CAPITAL MODULE

Background

The Request

Oakville Hydro proposed an incremental capital module to recover the incremental

capital costs of $20,488,000 (rounded) associated with the design and construction of a municipal transformer station in North Oakville ("MTS#1").[1] Oakville Hydro intends to recover the costs by means of a rate rider that would be in place until such time that Oakville Hydro files its next rebasing application. The impact attributed to MTS#1 is a total bill increase of approximately 1.8%.

The *Report of the Board on 3rd Generation Incentive Regulation for Ontario's Electricity Distributors (the "Report")* requires that incremental capital expenditures satisfy the eligibility criteria of materiality, need and prudence in order to be considered for recovery prior to rebasing. Applicants must demonstrate that amounts exceed the Board-defined materiality threshold and clearly have a significant influence on the operation of the distributor, must be clearly non-discretionary and the amounts must be clearly outside of the base upon which rates were derived. In addition, the decision to incur the amounts must represent the most cost-effective option for ratepayers.

Oakville Hydro completed the 2011 IRM3 Incremental Capital Work Form, and calculated that the costs of the MTS#1 exceed the materiality threshold of $13,633,026.[2] Oakville Hydro's 2011 forecasted capital expenditures are $32,228,000, which includes the forecasted cost of $20,488,000 to design and construct the municipal transformer station that is the subject of this incremental capital claim.

Oakville Hydro indicated that the incremental capital expenditures related to the design and construction of a municipal transformer station are required to provide relief for the critical shortage of supply to Oakville Hydro and to meet the requirements of the Town of Oakville's planned development in North East Oakville.[3] Oakville Hydro stated that the expenses are non-discretionary, and that the expenditures have not previously been included in Oakville Hydro's Board approved rate base.

The MTS#1 has a scheduled in-service date of June 2011. Oakville Hydro indicated that if there is a failure of a single critical component at one of the local Hydro One stations prior to that date, the Town of Oakville could experience wide-scale blackouts.

Oakville Hydro requested to recover the costs of MTS#1 by means of a rate rider over a

1 Application evidence, Manager's Summary, page 19
2 Application evidence, Manager's Summary, page 10-11
3 "North East Oakville" is defined as the area is bounded by Highway 407 to the north, Ninth Line to the east, Dundas St. to the south and Sixteen Mile Creek to the west

three-year period. Oakville Hydro proposed the establishment of a variable rate rider on the grounds that it would be less costly to administer than two separate rate riders.

Oakville Hydro has indicated that if the approval is not granted, Oakville Hydro will likely be faced with a significant negative cash flow in the short term and possible financial hardship during the incentive regulation term if no return is allowed. Oakville Hydro indicated that it may be forced to consider early rebasing if it fails to secure incremental revenues through its claim.[4]

The Issues

Board staff was originally concerned about the need and prudence associated with the MTS#1 project primarily due to the reduction in load experienced in Oakville Hydro's service area. Board staff filed extensive interrogatories designed to further inform the Board on whether the need and prudence eligibility criteria were met.

Board staff notes that Oakville Hydro provided full and complete responses to interrogatories. The answers provided have clarified the record and informed Board staff's review of the incremental capital module request.

Project Need

Oakville Hydro provided evidence supporting project need in its application and interrogatory responses. Oakville Hydro indicated that the transformer station is non-discretionary, and that the asset must be in place in 2011 to properly serve its customers and continue to be compliant with the Board's minimum reliability measures.

In recent years, Oakville Hydro has experienced a temporary shortfall in capacity of 28 MW, and has established that its longer term shortfall is 133 MW. Board staff noted in its interrogatories, that Oakville Hydro lost significant industrial load since its last rebasing application. Oakville Hydro also confirmed that there is a forecast CDM savings of about 3.6 MW as of 2015 with respect to the immediate load served by MTS#1.[5]

4 Response to Interrogatory number 9b, page 15
5 Response to Board Staff Interrogatory number 13c

Oakville Hydro acknowledged the reduction in load noted by Board staff, stating that, "It was known that the downturn would only delay the load growth, not eliminate it."[6] Oakville Hydro further submitted that, "[Oakville Hydro] must plan in such a way so as to accommodate that the load (sic) if the customer chooses to increase their operations to previous levels."[7]

A System Impact Assessment Report[8] from the IESO with respect to the MTS#1 provided estimated loading of the transformer station in its early years of operation. In 2013 the load forecast hits a minimum for the station of approximately 1.7MW, and by 2017 the expected loading is 61.7MW. Hydro One indicated that a customer impact assessment would not be considered necessary due to minimal impacts on the transmission system.[9]

Utilization factor ("UF") provides a measure of the peak loading experienced on a transformer station, and is often expressed as percentage of a transformer station's maximum continuous rating. UF at or exceeding 1.0 (or 100%) at any transformer station are generally a cause for concern from a system supply standpoint. Board staff requested this information for Oakville Hydro's supply points in Board staff interrogatory number 22b.

The UF of MTS#1 increases yearly, and by 2020 is expected to be 0.54 (or 54%). Oakville Hydro addressed the years of light loading and submitted that, "it is common practice for all new transformer stations to be lightly loaded following construction and gradually loaded as new load growth is placed on the station." Without the addition of new transformation supply at MTS#1, the UF exceeds 100% at several transformer stations. The table below highlights the current UF factor of the existing transformer stations and also notes the first year that the UF was or is expected to be exceeded.[10]:

Table 1

Transformer station	**Utilization Factor**	**Year**
Palermo TS	107%	2011
Trafalgar TS	111%	2011

6 Response to Board Staff Interrogatory number 10e
7 Response to Board Staff Interrogatory number 13b
8 Exhibit I, Appendix 3
9 Exhibit I, Appendix 4
10 Response to Board staff Interrogatory number 22b

Bronte TS	87%	2020
Oakville	100%	2012

Oakville Hydro noted that Hydro One has operated Palermo TS in excess of its published ratings for some time. Oakville Hydro also indicated that feeder loading has exceeded normal operating limits frequently over the last three years.[11]

Oakville Hydro has chosen to build a 153 MW 12-feeder station, rather than a 102MW 8-feeder station, because Oakville Hydro's total load requirement is 133 MW. Oakville Hydro noted that the additional capacity allows for additional operating flexibility and maintenance. Board staff asked Oakville Hydro if it was possible to stage the development (construction and commissioning) of a number of feeders at MTS#1 until a later date on account of significant excess capacity. Oakville Hydro responded that:

> All of the substation equipment integrates together into a single operational system. A sophisticated interlocking scheme… …**must be commissioned for all feeders even if they are not currently in use.** Additionally, use of high speed bus differential protection system is standard practice in Ontario, and requires integration with and commissioning of all breaker positions even if they are not in use.[12] [Emphasis added]

Project Alternatives

Hydro One Networks Inc. ("Hydro One") had proposed to build a new transformer station, Tremaine TS, in east Burlington and to provide feeders from this station to distributors in Milton, Burlington, and Oakville Hydro. In an interrogatory, Board staff asked Oakville Hydro to discuss the possibility of using Tremaine TS to meet its demand.

Oakville Hydro responded that, Tremaine TS would only provide relief for one to two years based on the forecast growth, and would not result in the lowest capital outlay in the long term, as a new station would still be required.[13] Oakville Hydro stated that, Tremaine TS will not provide sufficient supply through 2015, even taking into account full restoration of Bronte TS and Oakville TS.

11 Response to Board staff Interrogatory number 15
12 Response to Board staff Interrogatory number 10

Oakville Hydro also examined the possibility of a "North Oakville TS", constructed by Hydro One. Oakville Hydro indicated that construction of North Oakville TS would require upgrading costs to be incurred at Trafalgar TS pursuant to Section 6.7.5 of the TSC.[14] Oakville Hydro asserted that this would not be the case with the MTS#1 new build, stating that:

> [B]ased upon discussions with Hydro One, that as per Section 6.7.5 of the Transmission System Code, OHEDI would not be obliged to use the remainder of the capacity at the Trafalgar TS if the MTS #1 was built.[15]

Oakville Hydro provided a table comparing project alternatives in its response to Board staff Interrogatory number 22a, but did not include the potential costs associated with bypass which are also not discussed in evidence. Oakville Hydro provided a Connection Cost Responsibility Agreement ("CCRA")[16] with Hydro One with respect to MTS#1. At page 5, S17.2, Hydro One states that, "Hydro One has not received a Notice of Customer Intent to Bypass an Existing Load Facility and Customer has Transferred Existing Load." In a letter attached to the CCRA, Hydro One further clarified the implications of bypass, stating that:

> Moving load from an existing station to the new MTS for the purpose of avoiding Transformation Connection payments is considered to be bypass, and is subject to the bypass provisions as set out in the Transmission System Code. Bypass is considered to have occurred if the loading at existing facilities has been reduced to below the "Existing Load" as defined in the Transmission System Code and noted in the CCRA."[17]

It appeared from Oakville Hydro's application that temporary operating restrictions at Oakville TS and Bronte TS would be removed by the end of 2012, and Board staff sought clarification from Oakville Hydro about the implications of the return of this transformation capacity. Oakville Hydro responded that, even with these operating restrictions removed, Oakville Hydro would still experience a shortfall of at least 14MW

13 Response to Board staff interrogatory number 11c
14 "When a load customer provides its own connection facility to serve new load or transfers new load to the connection facility of another person, the transmitter shall not require bypass compensation from that customer." This text implies that Oakville Hydro would not be obliged to use the remainder of the capacity at Trafalgar TS if it builds MTS#1 (i.e. provides its own connection facility to serve new load)
15 Response to Board Staff Interrogatory number 12d
16 Exhibit I, Appendix 8
17 Exhibit I, Appendix 8, September 28, 2010 letter, para 3.

in 2013, and that the need for new station capacity could not be avoided.[18]

The table below depicts the rate impacts associated with the alternatives considered by Oakville Hydro. The rate impacts are least under the new MTS#1 when compared to the other alternatives.

Table 2

Project Alternative	**Total bill impact per residential customer**
Oakville Hydro "MTS#1"	1.8%
Hydro One "North Oakville TS"	2.7%
Hydro One "Tremaine TS"	2.4%

Oakville Hydro also noted that the proposed locations of MTS#1 and North Oakville TS are most suitable since they are adjacent to the area which will experience the greatest load growth. Oakville Hydro indicated that the location of Tremaine TS is much further away from the load growth area, and insufficient in terms of capacity.

Oakville Hydro provided a progress update with respect to the design, construction, and operation of MTS#1. Oakville Hydro indicated that it is on schedule for in-service date of June 2011. The alternatives, North Oakville TS and Tremaine TS, would be in-service 2012 and 2013 respectively, and both these alternatives would place Oakville Hydro at risk of supply outages in 2011.[19]

Additional Risks of Self-Build

Board staff noted that Hydro One has a significant "strategic spare parts inventory" which it may use in the event of equipment failures.[20] Board staff requested information on Oakville Hydro's approach to risk management with respect to the self-build of MTS#1 by Oakville Hydro. Oakville responded that:

18 Response to Board Staff Interrogatory number 21a
19 Response to Board Staff Interrogatory number 22a, "Comparison of Station Costs to Oakville Hydro"
20 *Transformer Station Supply Options Study May 2009,* Appendix 3, p.11 *Tremaine TS* –

> [Oakville Hydro] has evaluated the risk of equipment failure along with other technical and economic factors in its decision to proceed with the project. **[Oakville Hydro] has negotiated extended warranty contracts for all major equipment, and has purchased spare parts and technical services where prudent. The financial risk of unplanned failures beyond warranty period will be mitigated with property and equipment insurance**…[21] [Emphasis added]

In response to an interrogatory, Oakville Hydro acknowledged that Hydro One has access to spare equipment.[22] Oakville Hydro submitted that, "it is unclear as to the extent of Hydro One's spare components, as area transformer stations have had significant operating constraints in place for several years due to equipment issues." Oakville Hydro gave no indication that it would seek to form a strategic relationship with Hydro One to gain access to its strategic spare parts inventory.

Transmission Assets

Board staff notes that the new Oakville Hydro MTS #1 transformer station proposed by Oakville Hydro will be tapped off lines T36B and T37B of the 230 kV Hydro One Networks Transmission System on the section of transmission line between Palermo TS and Trafalgar TS. As a result, the transformer station will provide transformation connection service, meaning that Oakville Hydro would be considered to be operating as a transmitter under the *Transmission System Code* ("TSC"). Consequently, Oakville Hydro would have to acquire a transmission licence, or request that MTS#1 be deemed a distribution asset to ensure compliance with the TSC.

Oakville Hydro indicated that it intends to request that the Board deem the new transformer station a distribution asset under s.84(a) of the *OEB Act*.[23]

Capitalized Interest Expense

Oakville Hydro indicated that the $20,488,489 in capital costs related to the proposed North Oakville Transformer Station includes a capitalized interest expense of $710,667.

"Benefits of a Pool Funded Station"
21 Response to Board Staff Interrogatory number 19b
22 Response to Board Staff Interrogatory number 19d
23 Response to Board Staff Interrogatory number 16

This estimate was based upon a proposed financing agreement with Infrastructure Ontario for a loan in the amount of $20 million to be financed at a rate of 5.33% over 20 years. In response to a Board staff interrogatory, Oakville Hydro updated its calculation using the most recent published prescribed interest, and revised its application to reflect a capitalized interest period of six months, rather than eight months. The revised capitalized interest is $401,000 on $20 million for a period of six months at 4.01% interest.

Capital Contributions

Oakville Hydro indicated that a capital contribution of $240,400 is being paid to Hydro One for the construction of a 230 kV line connection to MTS#1 from Hydro One's 230 kV circuits (T36B and T37B). Oakville Hydro is requesting that this capital contribution be capitalized as a distribution asset and amortized over the life of the asset. A copy of the executed Connection Cost Responsibility Agreement is provided at Appendix 7.[24]

Submission

Project Need

Board Staff submits that Oakville Hydro's request for incremental capital funding associated with the design, construction, and operation of MTS#1 should be granted.

Board staff submits that Oakville Hydro has provided adequate evidence to demonstrate that the long term need outweighs its load forecast over the near term, and light loading of the transmission station in the early years. Board staff acknowledges that system reliability is maintained by adding new supply capacity in advance of the development of load.

The utilization factors of transformer stations serving as supply points to Oakville's service area, and the feeder loading profile over recent years lead Board staff to the conclusion that there is insufficient transformation capacity to meet Oakville Hydro's system demands, and that new transformation capacity is necessary to meet future load growth in the immediate area identified by Oakville Hydro.

24 Response to Board Staff Interrogatory number 17

Board staff notes that from the evidence, it is unclear whether Oakville Hydro will be required to make payments to Hydro One in respect of bypass. Board staff submits that this may affect Oakville Hydro's analysis of the total costs of alternatives presented. Board staff submits that the bypass issue, and associated costs, have not been adequately addressed in Oakville's application.

While staff submits that MTS#1 is optimized to satisfy Oakville Hydro's immediate service area needs, and that Oakville has demonstrated MTS#1 as the lowest cost alternative, there has been little evidence presented to demonstrate that Oakville Hydro has shown consideration for supply optimization in the context of regional supply planning. The Board may want to encourage the company to enhance its cooperation with neighbouring utilities for future planning activities.

Project Alternatives

Board staff submits that the proposed MTS#1 results in the least rate impacts in Oakville Hydro's immediate service area, and the transformer is ideally located to serve Oakville Hydro's expected load growth in the immediate area of its distribution system. Board staff notes that Oakville Hydro intends to recover the incremental capital costs by means of a variable rate rider that would be in place until such time that Oakville Hydro files its next rebasing application. Board staff also notes that the variable rate rider will be based on kW demand or kWh consumption, depending on class.[25] Board staff submits that Oakville Hydro's proposal to recover the costs of the new transformation supply on a volumetric basis and the rationale for the proposed billing determinants are consistent with the Board's Report.

Board staff submits that the other alternatives to construction of MTS#1 are less suitable based on total cost, in-service dates, and the associated risk of supply outages. The transformer station proposed is the most cost-effective alternative presented, and Board staff submits that it is in the best interest of Oakville Hydro's ratepayers that MTS#1 be built.

Risks of Self-Build

25 Residential, General Service < 50kW, and Unmetered Scattered Load are on a kWh basis. General Service greater than 50 kW, Sentinel, and Street Lighting are on a kW basis.

Board staff submits that it appears Oakville Hydro has taken reasonable steps to protect the company and its ratepayers from unplanned costs as a result of failures associated with MTS#1. Oakville Hydro has budgeted for spare parts and technical services where prudent. However, Board staff notes that Oakville Hydro is still at risk of a catastrophic failure (i.e. the 150 MVA transformer) beyond the warranty period. It is unclear from Oakville's evidence the duration of warranties, cost of insurance, and collaboration with neighboring utilities to reduce supply risk. Oakville Hydro may wish to comment in its reply submission.

Transmission Assets

Board staff submits that Oakville Hydro has taken the appropriate steps for the safe connection of MTS#1 to the transmission system. Oakville Hydro does not have a rate for transmission service and intends to use MTS#1 solely for the purposes of serving its immediate distribution customers at distribution voltages less than or equal to 50kV. In the past, the Board has granted the requests of other distributors to have transmission assets deemed as distribution assets for recovery through distribution rates pursuant to Section 84(a) of the *OEB Act*. It appears Oakville Hydro is taking all necessary steps, and Board staff submits that the Board may reasonably approve Oakville Hydro's request.

Capitalized Interest Expense

Board staff submits that the figure of $401,000 of revised capitalized interest expense associated with MTS#1 over a six month period has been calculated correctly and reflects appropriate application of the Board's prescribed interest rate policy.

Capital Contributions

Board staff submits that the treatment of the capital contribution paid to Hydro One with respect to the construction of the transmission lines connecting MTS#1 to Hydro One's 230kV transmission system is in compliance with the Accounting Procedure Handbook.

DEFERRAL AND VARIANCE ACCOUNT DISPOSITION

Background

For purposes of 2011 IRM applications, the *Electricity Distributors' Deferral and Variance Account Review Report* (the "EDDVAR Report") requires a distributor to determine the value of its December 31, 2009 Group 1 Deferral and Variance account balance and determine whether the balance exceeded the preset disposition threshold of $0.001 per kWh using the 2009 annual kWh consumption reported to the Board. When the preset disposition threshold is exceeded, a distributor is required to file a proposal for the disposition of Group 1 account balances (including carrying charges) and include the associated rate riders in its 2011 IRM Rate Generator for the disposition of the balances in these accounts. The onus is on the distributor to justify why any account balance in excess of the threshold should not be cleared.

Oakville Hydro proposed to defer the disposition of its Group 1 Deferral and Variance Account balance, as of December 31, 2009 (a credit of $3,807,145) until a future application. Oakville Hydro noted that the Group 1 Account balance is over the preset disposition threshold of $0.001/kWh. However, Oakville Hydro indicated that its Group 1 account balance as of Aug. 31, 2010 is a credit of $1,186,618, which would not exceed the preset disposition threshold. Oakville Hydro suggested that in order to minimize rate instability it would be beneficial to defer disposition of its December 31, 2009 Group 1 Deferral and Variance Account balances at this time.

In response to a Board staff interrogatory, Oakville Hydro confirmed that the August 31, 2010 balances have not been audited. Oakville Hydro noted that the Deferral and Variance Account balances are audited annually and expects that it will have the 2010 audited balances available at the end of March, 2011. Therefore, Oakville Hydro has proposed, in its Board staff Interrogatory Response #26, that once the audited balances are available, it assess whether the December 31, 2010 audited balance of Group 1 Deferral and Variance Accounts exceeds the threshold. If, at that time, the balances do exceed the Board determined threshold, Oakville has indicated that it will update its Application to include the disposition of the Group 1 Deferral and Variance Accounts.

Submission

Board staff notes that the EDDVAR Report is clear on the policy regarding the review and disposition of Deferral and Variance Account balances.

The Board states on Page 10 of the EDDVAR Report, that:

> During the IRM plan term, the Board has decided that a preset disposition threshold of $0.001 / kWh is appropriate. In the Board's view, this level would lead to a more systematic approach to the disposition of the revised Group 1 Account balances. This systematic approach should mitigate inter-generational inequities and the accumulation of large account balances. Further, this disposition threshold level should enhance the distributor's ability to manage its cash flow. When this threshold is exceeded, a distributor will file a proposal for the disposition of all revised Group 1 Account balances (including carrying charges).

Board staff submits that the unaudited August 31, 2010 Group 1 Deferral and Variance Account balances provided by Oakville Hydro do not provide enough evidence to suggest that the bias in the Group 1 Deferral and Variance Accounts will continue throughout the remainder of 2010. In addition, the Board's policy, as set out in the EDDVAR Report, allows for disposition of Group 1 Deferral and Variance accounts on an annual basis.

While Oakville Hydro proposed to assess its 2010 balances to determine if they exceed the threshold, the audited balances for 2010 are not on the record of this proceeding and would not be available until the end of March 2011.

For the reasons set out above, Board staff submits that in order to maintain a systematic approach to Group 1 Deferral and Variance Account disposition, the Board should direct Oakville to dispose of its Group 1 Deferral and Variance Account balances as of December 31, 2009.

Board staff notes that Oakville Hydro indicated in the Deferral and Variance Account Workform that the Global Adjustment Rate Rider would be recovered through the electricity component of the customer's bill. Board staff however notes that this approach was approved by the Board in 2010 IRM applications only in cases where the distributor could not readily accommodate a separate rate rider that would apply prospectively to non-RPP customers. Since Oakville Hydro was able to implement a separate rate rider in 2010 and was directed to do so in the Board's EB-2009-0271 Decision and Order, Board staff submits that this approach should be continued if the Board decides to require Oakville Hydro to dispose of its Group 1 Deferral and Variance Account balances.

All of which is respectfully submitted.