TORYS LLP

79 Wellington St. W., 30th Floor
Box 270, TD South Tower
Toronto, Ontario M5K 1N2 Canada
P. 416.865.0040 | F. 416.865.7380
www.torys.com

Jonathan Myers
jmyers@torys.com
P. 416.865.7532

August 4, 2016

EMAIL & COURIER

Independent Electricity System Operator
120 Adelaide Street West, Suite 1600
Toronto, ON
M5H 1T1

Attention: General Counsel

Dear Mr. Lyle:

Re: Notice of Dispute - Niagara-on-the-Lake Hydro Inc.

We are counsel to Niagara-on-the-Lake Hydro Inc. ("NOTL Hydro"). On behalf of NOTL Hydro, please find enclosed a Notice of Dispute in respect of which the IESO has been identified as a respondent. The Notice is being served on the IESO in accordance with Section 2.5 of Chapter 3 of the Market Rules and, as such, is at this time being provided for the purpose of commencing good faith negotiations. We would appreciate if you could please confirm receipt by email.

To discuss next steps, please contact the undersigned or either of NOTL Hydro's contact persons identified in the Notice of Dispute.

Yours truly,

Jonathan Myers

Enclosures

cc: T. Curtis, Niagara-on-the-Lake Hydro
C. Keizer, Torys LLP
Dispute Resolution, Legal Services, IESO

21679267.1

Notice of Dispute

To commence good faith negotiations complete Parts 1, 2, 3 and 5 of this form. Serve the *Notice of Dispute* on the *respondent(s)* by prepaid first class mail, fax, electronic mail, courier or other form of personal delivery. Ensure you retain your proof of service. Service by email will be effective when email confirmation has been received by the party serving the *Notice of Dispute* from the receiving party. If the IESO is a respondent, send the *Notice of Dispute* to the address below to the attention of General Counsel. In all cases, send a copy to Dispute Resolution, Legal Services at the IESO at:

120 Adelaide Street West, Suite 1600
Toronto, ON
M5H 1T1
Fax number: 416-506-2843
Email: IESO-LegalServices@ieso.ca

In the event that the dispute is not resolved through good faith negotiations, to commence the arbitration or mediation processes, complete all sections of this form.

1. Submit this form and all attachments by prepaid first class mail, facsimile, electronic mail, courier or other form of personal delivery to the *respondent(s).* Retain proof of service.

2. File the Notice of Dispute form, proof(s) of service on the respondent(s), and all attachments with the *Secretary Dispute Panel* by prepaid first class mail, facsimile, electronic mail, courier or other form of personal delivery at following addresses:

The *Secretary, Dispute Resolution Panel*
120 Adelaide Street West, Suite 1600
Toronto, ON
M5H 1T1
Fax number: 416-506-2843
Email: IESO-LegalServices@ieso.ca

All information submitted in this process will be used by the *IESO* solely in support of its obligations under the "Electricity Act, 1998", the "Ontario Energy Board Act, 1998", the "Market Rules" and associated policies, standards and procedures and its *licence*. All information submitted will be assigned the appropriate confidentiality level upon receipt.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the "Market Rules"

Name and Address of *Respondent:*

Party Name:	Independent Electricity System Operator
Street Address:	120 Adelaide Street West, Suite 1600
City, Province:	Toronto, ON
Postal Code:	M5H 1T1
Telephone Number:	905-403-6900
Fax Number:	416-506-2843

-and-

Name and Address of Other *Respondent* (if any):
Party Name:
Street Address:
City, Province:
Postal Code:
Fax Number:

PART 1 – GENERAL INFORMATION ABOUT THE *APPLICANT*

Organization Name: Niagara-on-the-Lake Hydro Inc.	
Address: PO Box 460, 8 Henegan Road	
City/Town: Virgil	Province/State: Ontario
Postal/Zip Code: L0S 1T0	Country: Canada

PART 1 – GENERAL INFORMATION ABOUT THE *APPLICANT* (CONTINUED)

Main Contact	
Name: Tim Curtis	Title: President
Telephone No.: 905-468-4235 x. 550	E-mail Address: tcurtis@notlhydro.com
Market Participant/*Metering Service Provider* No.: 104422	*IESO* Customer Relations Ticket No. (if available):
Dispute Number:	(to be assigned by *IESO* upon receipt)
Alternate Contact (if any)	
Name: Hassan Syed	Title: Vice President, Operations
Telephone No.: 905-468-4235 x. 520	E-mail Address: hsyed@notlhydro.com
Fax Number:	

PART 2 – INFORMATION ABOUT THE DISPUTE

Is there a section of the *Market Rules* involved in the dispute?

☒ Yes ☐ No

Please cite the *Market Rules* section number(s):

Chapter 6, Sections 11.1.4 and 11.1.4A.2

Chapter 9, Appendix 9.1, Sections 1.5.6, 1.5.7, 1.5.12.2, 1.7.1, 1.7.2 and 1.7.3

Market Manual 5, Section 1.3.2 and Appendix C.2

For convenience, a compendium of the above-referenced Market Rules is provided in Schedule 'A' attached hereto.

Please cite the basis for the dispute:

The Applicant disputes the decision of the IESO Metering Group to not make any corrections to certain estimated metering data in respect of (a) a period from November 5 – 23, 2015 (excluding November 18, 2015), and (b) a period from March 10 - 11, 2016, despite the availability of better information that would have more accurately identified the actual energy delivered during these periods.

If a *settlement statement re-calculation* is requested, please indicate the contested amount.

The contested amount is estimated at $600,184.10, plus HST of $78,229.64, for a total of $678,413.74. This estimate has been calculated using formulas based on actual bills for the months of November 2015 and March 2016.

PART 3 – DETAILED DESCRIPTION OF *DISPUTE*

This description **must** include:

- The nature and the basis for the complaint;
- The *Market Rules* at issue;
- The parties to the dispute and the name of any person having knowledge of, or who may be directly affected by, the dispute;
- A concise summary of the facts underlying the dispute;
- The relief sought and a summary of the grounds for such relief; and

- A description of any documentation on which the *applicant* intends to rely in support of its claim. Copies of the documentation may, but need not, be provided as part of the *Notice of Dispute*.

("Market Rules", Chapter 3, Section 2.5)

PART 3 – DETAILED DESCRIPTION OF *DISPUTE (*continued***)**

Nature and Basis for Complaint

The Applicant disputes the decision of the IESO Metering Group to not make any corrections to certain estimated metering data in respect of (a) a period from November 5 – 23, 2015 (excluding November 18, 2015), and (b) a period from March 10-11, 2016, despite the availability of better information that would have more accurately identified the actual energy delivered during these periods. As a consequence of this decision, the Applicant was charged and not reimbursed for certain volumes of electricity that were not actually delivered by the IESO. The cost of this undelivered electricity, if not reimbursed, will be borne directly by the Applicant's customers through rates despite such customers having received no benefit in return for this cost.

This aspect is disputed in accordance with Section 2.5.1A.4C of Chapter 3 of the Market Rules, being a dispute involving an order, direction, instruction or decision of the IESO not otherwise addressed by subsections 2.5.1A.1 to 2.5.1A.4A of Chapter 3. Consequently, it is subject to a limitation period of two years from the date of receipt of the order, direction, instruction or decision.

Market Rules at Issue

Chapter 6, Sections 11.1.4 and 11.1.4A.2

Chapter 9, Appendix 9.1, Sections 1.5.6, 1.5.7, 1.5.12.2, 1.7.1, 1.7.2 and 1.7.3

Market Manual 5, Section 1.3.2 and Appendix C.2

Parties to the Dispute and Persons with Knowledge

The parties to the dispute are Niagara-on-the-Lake Hydro Inc. ("NOTL Hydro") and the Independent Electricity System Operator ("IESO"). No other parties are directly affected by the dispute. One additional person, with relevant knowledge of the dispute, is the Applicant's Metering Service Provider, CRU Solutions Inc. (the "MSP"). The Applicant's key contact at the MSP is Mark Bax, Supervisor, Meter & Field Services.

Summary of the Facts

As noted, the Applicant disputes the decision of the IESO Metering Group to not make any corrections to certain estimated metering data in respect of (a) a period from November 5 – 23, 2015 (excluding November 18, 2015), and (b) a period from March 10 - 11, 2016, despite the availability of better information that would have more accurately identified the actual energy delivered during these periods. The underlying facts are as follows.

NOTL Hydro has two transmission stations: York Station (108509) and NOTL Station (100289). York Station has one transformer with one meter point (1000015980). NOTL Station has two transformers with two meter points, T1 (1000031360) and T2 (1000004180). These meter points are hereinafter referred to as “York”, “NOTL T1” and “NOTL T2”, respectively.

On October 20, 2015 NOTL Hydro took NOTL T2 offline to do work and transferred the load to NOTL T1, being the other transformer at the NOTL Station. NOTL Hydro verbally obtained approval from Hydro One and the IESO control room prior to taking this outage. On October 22, the IESO issued a Meter Trouble Report (“MTR #2388”) to the MSP due to the lack of communication with the main and alternate meters on NOTL T2. A copy of MTR #2388 is provided in Schedule ‘B’ attached hereto. The IESO also notified NOTL Hydro of MTR #2388 having been issued to the MSP. That same day, October 22, NOTL Hydro advised the MSP of MTR #2388 along with the reasons for the outage. On October 26 the MSP confirmed to the IESO through the MTR comment tool that NOTL T2 was on an outage and that the load had been transferred to NOTL T1.

On November 23, 2015 the IESO advised the MSP through the MTR comment tool that the last meter read on NOTL T2 was from November 5 and that the MSP must submit data files (showing ‘zero’ values), or else historical estimates would be applied from that date onward. The IESO also advised the MSP to continue to submit data until the outage was concluded.

As later explained to NOTL Hydro in an April 27, 2016 email from Hanna Smith, the IESO account manager, December 2, 2015 was the last date by which the MSP could have provided the data files to address the absence of meter readings for the period of November 5-23 and, after December 2, 2015, the data became final for settlement purposes. As further explained in the email, the MSP did not provide the data files by December 2 and did not take any action until posting on December 18 that NOTL T2 was back online and that metering communications were restored. The email also explained that the IESO was able to use actual data (showing ‘zero’ values) from November 24 onward, as data for those dates could be edited based on the settlement calendar. Consequently, settlement for the period of November 5-23 was based on historical estimates of load, with the exception of the period from approximately 8:20 am on November 17 to midnight on November 18 for which no historical estimates were applied and zero values were used. The applicant has no knowledge as to why this period was treated differently. A copy

of the April 27, 2016 email from Ms. Smith is provided in Schedule 'C' attached hereto.

On March 2, 2016 the York Station was taken offline so that Hydro One could continue work on its transmission line (IESO Outage ID 14380392). On March 14 the MSP checked with NOTL Hydro as to whether York Station was offline, in response to which NOTL Hydro confirmed that York Station was offline and would remain so for the month of March. A meter trouble report was issued due to there being no communication with the meter ("MTR #4159") and the IESO advised that it would apply historical estimates unless data files (showing 'zero' values) were provided. A copy of MTR #4159 is provided in Schedule 'D' attached hereto. While the MSP provided data files with 'zero' values on March 24 and April 4, 2016, the Applicant understands that those files may not have captured the entire period of the outage. Consequently, the IESO indicated in MTR #4159 that it would apply historical estimates for the outstanding dates for which no data files were provided. These dates consisted of March 10-11, 2016. On April 4, 2016 the Applicant advised the IESO account manager that the March 2016 load data looked wrong. This was followed up several days later with supporting information. The IESO account manager indicated that the IESO was still looking at the November 2015 data but that it would investigate the concerns with the March 2016 data as well.

On an April 27, 2016 call from the IESO account manager, NOTL Hydro was advised that the IESO Metering Group had reviewed the issue and determined that it would not be making any corrections to the metering data that was used for either of the November or March settlement periods. This is the decision that is the subject of dispute. In a follow-up meeting with NOTL Hydro on April 28, the IESO account manager acknowledged that the IESO does not dispute that the meter data on which NOTL Hydro has been billed is incorrect.

It is the applicant's understanding that the MSP requested that the IESO correct the data by replacing the historical estimates in each of the relevant periods with actual data showing 'zero' values. Further to that request, on May 2, 2016, the IESO account manager advised NOTL Hydro that she and the IESO's Manager of Meter Data Management, Richard Zaworski, had a call with the MSP during which it was explained that, in the IESO's view, there were no provisions in the Market Rules that would permit the IESO to retroactively process an adjustment in these circumstances. A copy of the May 2, 2016 email is provided at Schedule 'E' attached hereto.

Based on the foregoing, the first period at issue in this Notice of Dispute corresponds to November 5-23, 2015 (with the exception of November 18) during which the IESO applied historical estimates for settlement purposes. The second period at issue in this Notice of Dispute corresponds to March 10-11, 2016 during which the IESO also applied historical estimates for settlement purposes.

As a consequence of the IESO applying historical estimates for settlement during these periods, and refusing to correct those estimates based on actual data that subsequently became available,

NOTL Hydro has incurred significant costs for electricity that it did not receive. In particular, NOTL Hydro has estimated that it has paid to the IESO $460,377.17 (plus HST) for electricity it did not receive during the November 5-23, 2015 period, and $139,806.94 (plus HST) for electricity it did not receive during the March 10-11, 2016 period, for a total of $600,184.10 (plus HST). With HST of $78,229.64 this brings the total contested amount to $678,413.74. As NOTL Hydro is an OEB-licenced electricity distributor, these costs for electricity not delivered by the IESO will, if not reversed, be borne entirely by NOTL Hydro's customers. Worksheets setting out NOTL Hydro's calculation of these estimated amounts are provided in Schedule 'F' attached hereto. The Applicant acknowledges that the IESO may have the ability to calculate the corresponding amounts with greater accuracy.

Relief Sought

NOTL Hydro seeks total reimbursement of $678,413.74 based on the use of data files showing 'zero' values in place of historical estimates for the periods of November 5-23, 2015 (excluding November 18, 2015) and March 10-11, 2016.

Grounds for Relief

The Market Rules contemplate the use of two possible methodologies for estimating metering data for settlement purposes for a load when there have been problems with the metering installation or associated communications. It is not clear as to which of the two possible methodologies were applied by the IESO to the November 2015 and March 2016 periods that are at issue. However, the IESO does not appear to have correctly applied either of the two methodologies, as follows.

The first methodology is described in Section 11.1.4A.2 of Chapter 6, which says that "in the case of a metering installation for a load, withdrawal for each hour shall be estimated at 1.80 times the self-cooled rating of the power transformer or, if none exists, the highest hourly level of withdrawal of energy recorded for that load during the twelve-month period preceding the date of the notice referred to in section 11.1.2 or 11.1.3.1, as the case may be." The use of this methodology by the IESO, for the periods at issue, would be inappropriate. This is because, in accordance with Section 11.1.4, this particular methodology is only required where an outage of a metering installation is not rectified within certain specified time periods and, in the IESO's opinion, the outage is likely to have a significant impact on one or more market participants other than the metered market participant for that metering installation, and the IESO so notifies the metered market participant for that metering installation.

NOTL Hydro did not receive any notification from the IESO pursuant to Section 11.1.4 to indicate that the IESO was of the opinion that

the outage was likely to have a significant impact on one or more other market participants. Moreover, it would be unreasonable for the IESO to hold such an opinion in these circumstances. The only market participant that was likely to have been impacted significantly was NOTL Hydro. The metering outage was not likely to have resulted in any significant impacts on any other market participant, nor did NOTL Hydro receive any indication of the IESO having reached that conclusion. Consequently, it was not open to the IESO to apply the estimation methodology set out in Section 11.1.4A.2 of Chapter 6.

The second methodology is described in Section 1.5.6 of Appendix 9.1 to Chapter 9, which is the Validation, Estimation and Editing ("VEE") Process. To paraphrase, Section 1.5.6 says that where metering data from both the main and the alternate meter in a registered wholesale meter installation is unavailable, an estimate of the data shall be prepared by an automated process in accordance with Section 1.5.7 and the VEE Standard, subject to such further adjustment made pursuant to Section 1.5.12.2, and used for settlement purposes. Section 1.5.7 says that where the period during which data was unavailable is one hour or more in duration, the estimate of metering data shall be based on validated data collected or received from the metering installation in the three most recent comparable trading days. Since the IESO did receive data for a period between October 20 and November 5, which was during the station outage but before the metering communication problems started, the three most recent "comparable" trading days would have been days on which there was no electricity flowing through the meter and, thereby, an estimate based on Section 1.5.6 of the VEE Process would be expected to have resulted in a value of zero.

Moreover, even if the estimate, applied correctly under Section 1.5.6, resulted in a value greater than zero, the adjustment mechanism under Section 1.5.12.2 would apply so as to change that value to zero based on actual data that subsequently became available. This provision says that when the IESO receives notification from the MSP that the MTR has been resolved (as was done on December 18 in respect of the November period and on March 24 and April 4, 2016 in respect of the March period), the IESO shall, where an estimate has been prepared under Section 1.5.6, adjust the estimate in accordance with Section 1.7.1 if the IESO is satisfied that resolution of the trouble call has identified a source of data more accurate than the estimate and, if not, then the IESO shall use the estimate for settlement purposes.

Adjustment under Section 1.7.1 could be by application of an absolute value (i.e. zero) or another listed method, as determined by the IESO in accordance with 1.7.2, which says that the IESO shall select the method that in its opinion will result in the use of data for settlement purposes that most closely reflects the flow of energy through the meter during the relevant intervals.

It is clear that the IESO knew or ought to have known that no energy was flowing across the meters during the relevant periods. The IESO granted prior approval for the outages. In particular, approval for

the October 2015 outage was obtained verbally from Hydro One and IESO through the Hydro One Control Centre, and approval for the March 2016 outage was obtained by NOTL Hydro's station monitoring control authority, Horizon Utilities, through IESO Outage ID 14380392. In addition, the MSP reported the outages to the IESO through the MTR comment tool. Additionally, both stations report their status to the IESO control room via ICCP link, which we understand can detect if the station is online or offline. Furthermore, after the stations went back online the MSP offered to provide the IESO with the actual data files to confirm zero values for the relevant periods, but we understand these were refused on the basis that it was too late. Each of these are sources of data that were available to the IESO and that were more accurate than the historical estimates. However, despite having the opportunity to use this information that more closely reflected the actual flow (or absence of flow) of energy during the relevant periods, and despite the IESO account manager acknowledging that the meter data on which NOTL Hydro was billed is incorrect, the IESO continued to rely on the historical estimates.

The IESO is obligated under section 1.7.2 of Appendix 9.1 of Chapter 9 to adjust the historical estimates once better information becomes available and there is nothing that bars the IESO from making the adjustment if that better information becomes available after the settlement statement for the period is finalized.

Consistent with the above analysis is Market Manual 5. Section 1.3.2 thereof states:

"Based on the resolution of the meter trouble report, the automatic estimates may be retained, or replaced by actual metering data or edited metering data. After resolving the meter trouble report, the metering service provider may propose an adjustment to the estimated value, or to metering data that has failed validation; this comprises the "editing" process. The IESO must agree to any proposed change prior to editing the metering data. Guidelines for editing metering data exist for stand-alone metering installations (Appendix C.1) and for main/alternate (Appendix C.2)."

In turn, Appendix C.2 of Market Manual 5, which is part of the VEE Standard under the Market Rules, states that, for main/alternate metering installations:

"Based on the findings of the metering service provider the IESO shall manually edit the metering data where necessary. The metering service provider may request that the metering data be adjusted based on the findings on site. The adjustment shall be one or more of (1) a multiplier, (2) an adder/subtractor or (3) an absolute value for each interval affected. The request for an adjustment shall be supported by auditable documentation. Alternatively, the metering service provider may request that the IESO prepare an estimate based on the estimating method described in the VEE procedure. In deciding which method to adopt and the values to be used the overall consideration will be to try and achieve the closest approximation to the actual energy delivered or received for the intervals concerned . . . The IESO shall agree with the metering service provider (on) an adjustment as described above if the site

investigation reveals a more accurate source of data than the estimation procedure. Otherwise, the original estimate shall be retained."

Based on the foregoing, it was and continues to be incumbent upon the IESO to adjust the historical estimates by replacing those estimated values with absolute values of zero based on the information it had and/or that it was offered by the MSP. By continuing to rely upon historical estimates for the relevant periods, the IESO has failed to reflect the flow of energy through the meter during those periods. By not achieving the closest approximation to the actual energy delivered, the IESO has acted contrary to the Market Rules. As a consequence, NOTL Hydro has incurred a very significant cost for electricity that was not actually delivered by the IESO and, as a rate regulated distributor, these costs will flow through to rates such that NOTL Hydro's customers will ultimately bear the cost of this electricity that they did not receive. For these reasons, actual data values of zero should be substituted for the historical estimates for the November 5-23, 2015 (excluding November 18) and March 10-11, 2016 periods, and the IESO should give effect to the cost consequences of those adjustments by reimbursing the corresponding amounts back to NOTL Hydro.

Supporting Schedules

A. Compendium of Referenced Market Rule Provisions

B. MTR #2388

C. April 27, 2016 email from Hanna Smith

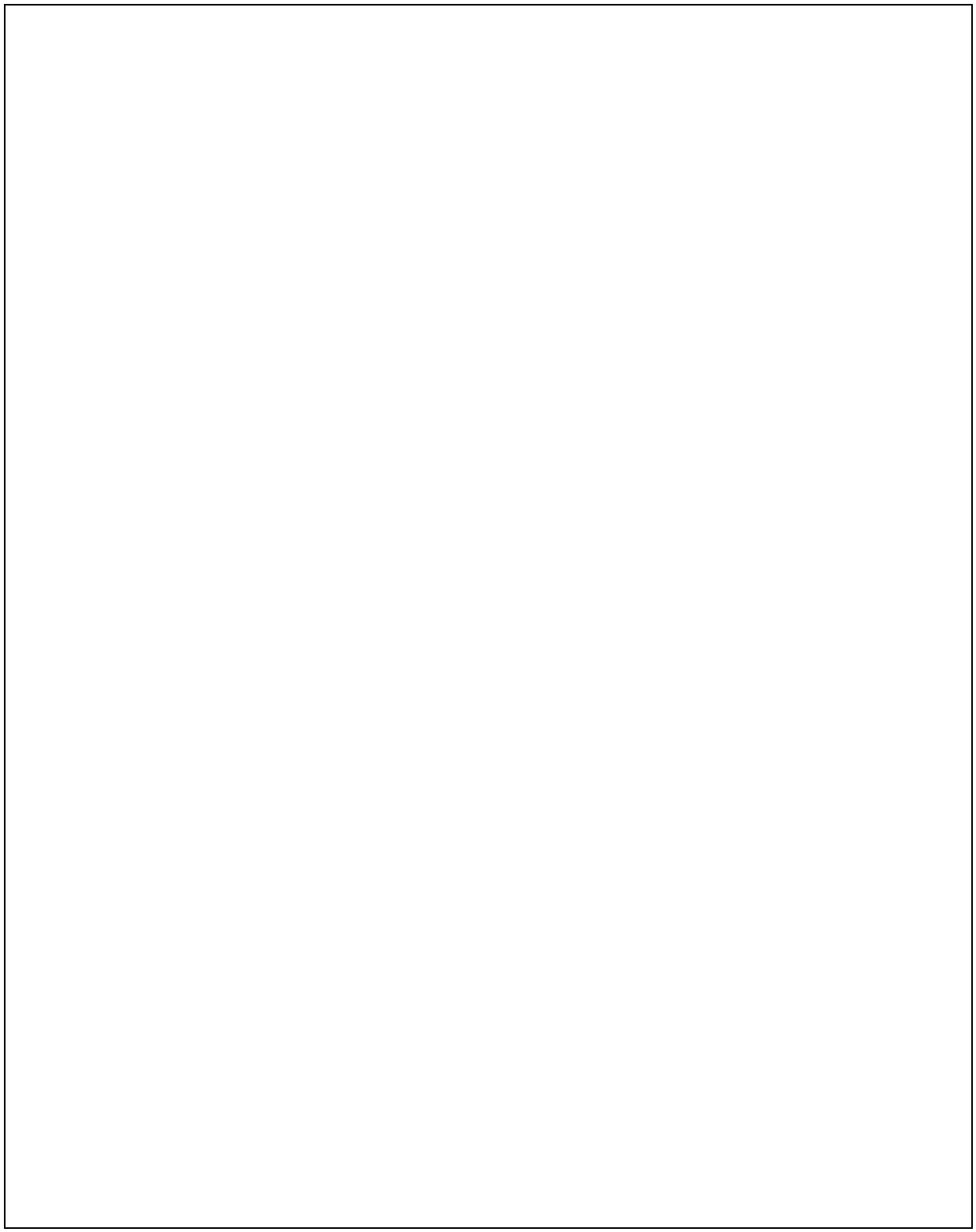
D. MTR #4159

E. May 2, 2016 email from Hanna Smith

F. Worksheet Calculation of Contested Amounts

PART 4 – SUMMARY OF *DISPUTE*

Please summarize the information provided in Part 3. This section must be completed if the good faith negotiations fail to resolve the dispute between the parties. This summary will be posted on the publically available *IESO* Web site in the event that the dispute proceeds to arbitration. ("Market Rules", Chapter 3, Section 2.5)



PART 5 – DECLARATION

The undersigned, a duly authorized representative of the *applicant*, hereby declares that the information contained in and submitted in support of this *Notice of Dispute* is, to the best of the *applicant's* knowledge, complete and accurate.

Dated at the City of Niagara-on-the-Lake, in the Province/State of ON, this 4th day of August, 2016.

Signature: _____

Name: Tim Curtis

Title: President, Niagara-on-the-Lake Hydro Inc.

I have authority to bind the *applicant*.

Please attach a copy of any documents that you wish to provide in support of the claims made in this *Notice of Dispute*.

ATTACHMENTS INCLUDED:

☒ Yes ☐ No Total Number of Pages (including this *Notice of Dispute* and all attachments): 34

SCHEDULE 'A'

COMPENDIUM OF REFERENCED MARKET RULES

I. Market Rules, Chapter 6 – Wholesale Metering

11.1.4 Where an *outage* or malfunction of or the defect in a *metering installation* is not rectified in accordance with and within the time period specified in section 11.1.2.1, 11.1.2.2, 11.1.3.2 or 11.1.3.3 and is, in the *IESO's* opinion, likely to have a significant impact on one or more *market participants* other than the *metered market participant* for that *metering installation*, the *IESO* shall so notify the *metered market participant* for that *metering installation*. Within one *business day* of receipt of such notice, the *metered market participant* shall notify the *IESO* as to the:

11.1.4.1 [Intentionally left blank]

11.1.4.2 [Intentionally left blank]

11.1.4.3 corrective action taken or arranged by the *metered market participant* to rectify the *outage* or malfunction of or the defect in the *metering installation*.

The *IESO* shall estimate the *metering data* for *settlement* purposes in accordance with section 11.1.4A from the date referred to in section 11.1.5 until the date on which the *outage* or malfunction of or defect in the *metering installation* is rectified.

11.1.4A For the purposes of sections 11.1.4.3 and 11.1.4B.2, estimation of metering data shall be based on the following:

11.1.4A.1 in the case of a metering installation for a generation facility, production shall be estimated at zero; or

11.1.4A.2 in the case of a metering installation for a load, withdrawal for each hour shall be estimated at 1.80 times the self-cooled rating of the power transformer or, if none exists, the highest hourly level of withdrawal of energy recorded for that load during the twelve-month period preceding the date of the notice referred to in section 11.1.2 or 11.1.3.1, as the case may be.

*****

II. Market Rules, Chapter 9 – Settlements and Billings, Appendix 9.1 – VEE Process

1.5 Validation, Estimation and Editing: Main/Alternate Metering Installation

1.5.6 Where the *metering data* from both *meters* in an *RWM* that is a *main/alternate metering installation* is unavailable or has not successfully passed the validation procedures referred to in sections 1.5.1 and, where applicable, 1.5.2, an estimate of the metering data shall be prepared by automated process in accordance with section 1.5.7 and the VEE standard. Such estimate shall, subject to:

1.5.6.1 any adjustment and totalization that may be required pursuant to Chapter 6; and

1.5.6.2 any subsequent adjustment made pursuant to section 1.5.12.2,

be used for *settlement* purposes. Such estimation shall be flagged in the *metering database*.

1.5.7 An estimate of *metering data* referred to in section 1.5.6, 1.6.4 or 1.7.1.2 shall be based:

1.5.7.1 where the period for which the *metering data* is unavailable or has not successfully passed the validation procedures described in:

a. section 1.5.1 and, where applicable, 1.5.2; or

b. section 1.6.1 and, where applicable, 1.6.2,

is less than one hour, on a straight line joining the demand observed in the *metering data* in the interval immediately preceding such period and the interval immediately following such period; or

1.5.7.2 where such period is one hour or more, on validated *metering data* collected or received from the *metering installation* in the three most recent comparable *trading days* selected in accordance with section 1.5.8.

1.5.12 Upon receipt of the notification, the description and, where applicable, the request referred to in section 1.4.4, the *IESO* shall, where an estimate has been prepared pursuant to section 1.5.6:

1.5.12.1 adjust such estimate in accordance with section 1.7.1 if the *IESO* is satisfied that resolution of the trouble call has identified a source of *metering data* that is more accurate that such estimate; or

1.5.12.2 in all other cases, use such estimate for *settlement* purposes.

1.7 Adjustments and Failure to Resolve Trouble Call

1.7.1 An adjustment referred to in section 1.5.10.2, 1.5.11.2, 1.5.12.1, 1.6.5.2 or 1.6.6.1, as the case may be, shall be effected by the *IESO* by means of:

1.7.1.1 the application of a multiplier, an adder or subtractor or an absolute value for each applicable *metering interval*; or

1.7.1.2 the application of the estimation process referred to in section 1.5.7,

as the *IESO* determines appropriate in accordance with section 1.7.2, having regard to the written description and, where applicable, the request made by the *metering service provider* pursuant to section 1.4.4. Any flags in respect of the *metering data* previously entered into the *metering database* shall be modified accordingly.

1.7.2 The *IESO* shall, as between the adjustment methods referred to in section 1.7.1, select the method that in the *IESO's* opinion will result in the use of *metering data* for *settlement* purposes that most closely reflects the flow of *energy* through the *RWM* during the applicable intervals. Where both methods are determined by the *IESO* to be equivalent in this regard, the *IESO* shall select the method that is less likely to result in the *metered market participant* for the *RWM* to which the *metering data* relates obtaining a benefit from the adjustment relative to what the *metered market participant's* position would otherwise have been.

1.7.3 Where a trouble call has been issued pursuant to section 1.4.2.3 and:

1.7.3.1 the *IESO* does not receive the notification referred to in section 1.4.4.1;

1.7.3.2 the *IESO* does not receive the written description referred to in section 1.4.4.2; or

1.7.3.3 the trouble call is not resolved to the satisfaction of the *IESO*, the *IESO* shall for *settlement* purposes use:

1.7.3.4 the *metering data*, substituted *metering data* or estimated *metering data* referred to in section 1.5.4, 1.5.5, 1.5.6, 1.6.3 or 1.6.4, as the case may be; and

1.7.3.5 where applicable, the estimates referred to in section 11.1.4A of Chapter 6, until such time as the trouble call is resolved to the satisfaction of the *IESO*.

*****

III. Market Manual 5: Settlements, Meter Data Processing (Issue 28.0)

1.3.2 Metering Data Validation, Estimation, and Editing (VEE)

The raw *metering data* collected or received by the *IESO* are checked using the Validation, Estimation, and Editing (VEE) process. The *VEE process*, which operates according to the *settlement* schedule specified in the *market rules*, results in validated, estimated, or edited "settlement-ready" *metering data* suitable for use in determining *settlement amounts*. This allows errors to be detected in *metering data* resulting from improper operational conditions and/or hardware/software malfunctions, including failures of, or errors in, metering or communication hardware, and from *metering data* exceeding pre-defined variances or tolerances. All validation tests are performed automatically by the *meter* data collection application.

The *VEE process* applies to two types of *metering installations*:

- *main/alternate metering installation*, which includes two revenue quality *meter*s: one main *meter* and one alternate *meter*;
- stand-alone *metering installation*.

The *VEE process* uses the revenue *metering data* collected or received by the *IESO* from the main and alternate *meter*, or from the stand alone *meter*. The *metering data* are evaluated using criteria provided by the *metered market participant*/*metering service provider*, as appropriate, to validate raw *metering data*. *Metering data* that fail validation result in a meter trouble report being issued to the *metering service provider* responsible for that *meter*. Meter trouble reports are discussed in greater detail in Subsection 1.3.4.

Validation tests common to all types of *metering installations* (stand alone, *main/alternate*) appear in Appendix A.1. Data channel assignments for conforming Main/Alternate *meters* appear in Appendix A.2. The *meter* data collection application performs some additional validation tests on *main/alternate* (Appendix A.3) *metering installations.*

"Estimating" refers to the automatic estimations and/or substitutions performed by the *meter* data collection application on *metering data* from single or main *meters* when the following validation errors occur:

- communication errors causing *metering data* gaps; or
- when data from an alternate is substituted for main *metering data* that has failed validation.

These estimates or substitutions replace the data that have failed validation and remain in place until the meter trouble report is resolved (see Subsection 1.3.4**,** "Meter Trouble Reports"). There is no estimation or substitution for alternate. Based on the resolution of the meter trouble report, the automatic estimates may be retained, or replaced by actual *metering data* or edited *metering data*.

After resolving the meter trouble report, the *metering service provider* may propose an adjustment to the estimated value, or to *metering data* that has failed validation; this comprises the "editing" process. The *IESO* must agree to any proposed change prior to editing the *metering data*. Guidelines for editing *metering data* exist for stand-alone *metering installations* (Appendix C.1) and for *main/alternate* Appendix C.2).

Appendix C: Editing Guidelines

C.2 Editing Guidelines for Main/Alternate Installations

Under normal circumstances the *metering service provider* will have carried out a site investigation within two *business day*s of the meter trouble report and have determined the cause of the validation failure. Based on the findings of the *metering service provider* the *IESO* shall manually edit the *metering data* where necessary. The *metering service provider* may request that the *metering data* be adjusted based on the findings on site. The adjustment shall be one or more of (1) a multiplier, (2) an adder/subtractor or (3) an absolute value for each interval affected. The request for an adjustment shall be supported by auditable documentation.

Alternatively, the *metering service provider* may request that the *IESO* prepare an estimate based on the estimating method described in the VEE procedure.

In deciding which method to adopt and the values to be used the overall consideration will be to try and achieve the closest approximation to the actual *energy* delivered or received for the intervals concerned. In the event of any doubt, the *IESO* shall err in favour of the market and *market participants* in general rather than the registered *metered market participant* for the affected *metering installation*.

Missing or Validation Failure of Data from Main Meter

The *IESO* shall accept the data previously substituted if the *metering service provider* confirms that the alternate data is correct.

The *IESO* shall agree with the *metering service provider* an adjustment or estimate as described above if the alternate has also been affected by the failure, despite the data having passed validation.

Missing or Validation Failure of Alternate

The *IESO* shall agree with the *metering service provider* an adjustment or estimate as described above if the main *meter* has also been affected by the failure, despite the data having passed validation.

Metering Data from Both Meters Fails Validation

The *IESO* shall agree with the *metering service provider* an adjustment as described above if the site investigation reveals a more accurate source of data than the estimation procedure. Otherwise, the original estimate shall be retained.

SCHEDULE 'B'

MTR #2388

Meter Trouble Report 002388

State
Closed

Acknowledged On
Oct 22, 2015 7:01 EST

PSS Calc Date
Oct 30, 2015

FSS Calc Date
Nov 16, 2015

Issued Date
Oct 22, 2015 6:17 EST

Closure Date
Dec 18, 2015 10:02 EST

Type
Communication

Meter Installation Details

Meter Installation
100001598 - T2-NOTL-HEC

Facility Name
NIAGARA ON THE LAKE DS

MSP
CRU SOLUTIONS INC (MSP)

MMP
NIAGARA-ON-THE-LAKE HYDRO INC.

Associated Registration Id
N/A

Host MMP

Zone
NIAGARA

Contacts

Name	Phone #	E-mail Address	Role
Tim Curtis	905-468-4235	tcurtis@notlhydro.com	MMP
Joe Klassen	519-485-6038x256	joe.klassen@erthcorp.com	MSP
Mike Geboers	519-485-1820x250	mgeboers@eriethamespower.com	MSP
Mark Bax	519-485-1820x225	mbax@eriethamespower.com	MSP
Mark Bax	519-485-1820x225	mbax@eriethamespower.com	MMP
Hassan Syed	905-468-4235x520	hsyed@notlhydro.com	MMP
Ryan Anderson	519-485-6038x256	ryan.anderson@erthcorp.com	MSP
Jurgen van Dijken	519-485-6038x405	jurgen.vandijken@erthcorp.com	MSP

Meter Error Summary

Meter Error Code	Channels	Starting Trade Date	Ending Trade Date	Main Meter	Alt Meter
27 - Call Not Answered	N/A	Oct 21, 2015	Dec 17, 2015	X	X

Meter Error Details

SCHEDULE 'B'

MTR #2388

27 - Call Not Answered **State:** Resolved

Meter with Errors
[X] Main Meter
[X] Alt Meter

Channels
N/A

Affected Trade Dates
10/21/2015, 10/22/2015, 10/23/2015, 10/24/2015, 10/25/2015, 10/26/2015, 10/27/2015, 10/28/2015, 10/29/2015, 10/30/2015, 11/1/2015, 11/2/2015, 11/3/2015, 11/4/2015, 12/17/2015

Meter Error Line Description
SYSTEM GENERATED COMMUNICATION ERROR

Main Device ID	Main Device Type	Main Phone Num
PCRU0179	ION 8600-V311	19056822337+

Alt Device ID	Alt Device Type	Alt Phone Num
ACRU0191	A1R-L+/A1R-LQ+	19056822337+

Communication History

Main Status	Alt Status	Date
Success	Success	Dec 18, 2015
Failure	Failure	Dec 17, 2015
Failure	Failure	Dec 16, 2015
Failure	Failure	Dec 15, 2015
Failure	Failure	Dec 14, 2015
Failure	Failure	Dec 13, 2015
Failure	Failure	Dec 12, 2015
Success	Failure	Oct 21, 2015

Comments

Posted By	Comments
Dave Carney IESO Specialist Dec 18, 2015 10:02 EST	Communications resolved on both Main and Alt. Actual Main data used from Nov 24 @ 00:01 to Dec 17 @ 24:00. Historical Estimation remains beginning Nov 5 @ 00:01 to Nov 23 @ 24:00. MTR closed.
Mark Bax MSP Dec 18, 2015 7:42 EST	Communication restored. MB.
Deborah Lane IESO Specialist Nov 23, 2015 15:02 EST	Last successful remote interrogation for time period ending Nov 5 @ 01:50. Historical Estimate applied from Nov 5 @ 01:51 to date (Nov 22 @ 24:00) Load transfer to T1 Mp_id 1000031360 confirmed. MSP to submit data file for Mp_id 1000015980 to accommodate load transfer and continue until Maintenance completed and power restored. Please note: Once MSP file submitted, Resolution Status must be submitted as Partially Resolved.
Dave Carney IESO Specialist	MSP required to update "Resolution Status"

SCHEDULE 'B'

MTR #2388

Posted By	Comments
Oct 27, 2015 10:29 EST	
Mark Bax MSP Oct 26, 2015 7:04 EST	Load temporarily transferred to T1, for maintenance. Down until November. MB.

Attachments Summary

Filename	Description	Uploaded By	Role	Uploaded On

SCHEDULE 'C'

APRIL 27, 2016 EMAIL FROM IESO ACCOUNT MANAGER

From: Hanna Smith [mailto:Hanna.Smith@ieso.ca]
Sent: Wednesday, April 27, 2016 3:44 PM
To: Tim Curtis <tcurtis@notlhydro.com>
Subject: RE: NOTL meter data

Hi Tim,

It's quite possible that any issues have been automatically resolved between the preliminary and final data, which is often the case. We will still investigate, however.

In the meantime, the IESO's Metering group has provided some background information on the November issue. The particular meter trouble report is #2388. The comments from the report can be seen in the screenshots below. You can see that the IESO indicated historical estimation was applied to November 5th meter data onward. The comment was posted on November 23rd. According to the settlement calendar, the MSP had until December 2nd to correct the November 5th data before the final settlement data push. The MSP did not take any action, until posting on December 18th that communication to the metering was restored. On that day, meter data for November 23rd had already gone "final". The closing comment confirmed that meter communications were restored on December 18th (supported by the MV-90 call log), therefore IESO used the actual data (zeroes) from November 24th at 01:00 onward, the only data they could edit based on the settlement calendar.

Copied at the bottom of this email is an excerpt of the Market Rules (Chapter 6 Appendices) that cover the responsibilities of metering service providers.

Talk with you soon,
Hanna
(905) 855-6104

MTR 002388 (Communication), NIAGARA ON THE LAKE DS, T2-NOTL-HEC (100001598), NIAGARA Follow

Meter Error Lines

Meter Error Code	Channels	Starting Trade Date	Ending Trade Date	Main Meter	Alt Meter
27 - Call Not Answered	N/A	Oct 21, 2015	Dec 17, 2015	✔	✔

that

Comment History

Posted By	Role	Posted On	Comment
Dave Carney	IESO Specialist	Dec 18, 2015 10:02 EST	Communications resolved on both Main and Alt. Actual Main data used from Nov 24 @ 00:01 to Dec 17 @ 24:00. Historical Estimation remains beginning Nov 5 @ 00:01 to Nov 23 @ 24:00. MTR closed.
Mark Bax	MSP	Dec 18, 2015 7:42 EST	Communication restored. MB.
Deborah Lane	IESO Specialist	Nov 23, 2015 15:02 EST	Last successful remote interrogation for time period ending Nov 5 @ 01:50. Historical Estimate applied from Nov 5 @ 01:51 to date (Nov 22 @ 24:00) Load transfer to T1 Mp_id 1000031360 confirmed. MSP to submit data file for Mp_id 1000015980 to accommodate load transfer and continue until Maintenance completed and power restored. Please note: Once MSP file submitted, Resolution Status must be submitted as Partially Resolved.
Dave Carney	IESO Specialist	Oct 27, 2015 10:29 EST	MSP required to update "Resolution Status"
Mark Bax	MSP	Oct 26, 2015 7:04 EST	Load temporarily transferred to T1, for maintenance. Down until November. MB.

1.3 Metering Service Providers

1.3.1 The following activities shall be performed by registered *metering service providers* in accordance with the requirements of this Chapter and with any policy or standard established by the *IESO* pursuant to this Chapter*:*

1.3.1.1 the provision, installation, commissioning, maintenance, repair, replacement, inspection and testing of *metering installations*;

1.3.1.2 the registration of *metering installations* with the *IESO* and the preparation of all *meter point* documentation and other documentation, other than the written confirmation referred to in section 1.3A.1 of Appendix 6.5, required to be submitted in support of the application for registration; and

1.3.1.3 the resolution of trouble calls relating to *metering installations* and *metering data* in accordance with sections 1.3.2.14 and 1.3.2.15 of this Appendix.

1.3.2 Each *metering service provider* shall, in respect of each *metering installation* in respect of which it is the *metering service provider*:

1.3.2.1 conduct routine testing and maintenance of the *metering installation* in accordance with Appendix 6.3;

1.3.2.2 prepare the *meter point* documentation referred to in Appendix 6.5 in accordance with that Appendix, ensure that such *meter point* documentation and all other documentation referred to in section 1.3.1.2 of this Appendix is maintained up to date and provide the *IESO* with any updates to such *meter point* documentation and other documentation, and make such *meter point* documentation available to the *metered market participant* for the *metering installation* upon request;

1.3.2.3 conduct an annual review of all documentation pertaining to the *metering installation*;

1.3.2.4 provide technical assistance at the site of the *metering installation* with respect to access to *metering data* by persons authorized by this Chapter to have such access;

1.3.2.5 provide such support for investigations, audits, tests and the resolution of disputes relating to the *metering installation*, including the provision of complete and accurate documentation, as may be requested by the *IESO*;

1.3.2.6 replace equipment sealed by a person that is an accredited meter verifier within the meaning of the *Electricity and Gas Inspection Act* (Canada) before the expiry of the seal period;

1.3.2.7 ensure, by means of the placement of sufficient seals on test links, fuses and the *meter* box or otherwise in accordance with any policy or standard established by the *IESO* pursuant to this Chapter, that access to the *metering installation* by a person not authorized by this Chapter to have such access can be detected;

1.3.2.8 advise the *IESO* of any error messages or equipment failures detected and repair or replace any failed equipment in accordance with section 11 of this Chapter;

provide *meter* readings to the *IESO* as may be required under this Chapter, under any policy or standard established by the *IESO* pursuant to this Chapter or as may be requested by the *IESO*;

1.3.2.10 maintain such records of all inspections, tests, audits and activities that may affect the collection, security or accuracy of *metering data* contained in, and of any changes made to, the *metering installation* and provide such records to the *IESO* as may be requested by the *IESO* or required pursuant to this Chapter or any policy or standard established by the *IESO* pursuant to this Chapter;

1.3.2.11 maintain all records required to be maintained by owners of *metering installation* pursuant to *federal metering requirements,* whether or not the *metering service provider* is the owner of the *metering installation*;

1.3.2.12 assist with end-to-end testing of the *metering installation* as may be required under this Chapter or any policy or standard established by the *IESO* pursuant to this Chapter;

1.3.2.13 submit to the *IESO* the information required by this Chapter and any policy or standard established by the *IESO* pursuant to this Chapter to be submitted for storage in the *metering registry* or the *metering database* using the software designated by the *IESO,* and in such data format as may be approved by the *IESO,* for such purpose;

1.3.2.14 establish, maintain and operate a trouble call service and acknowledge receipt of each trouble call issued by the *IESO* by 3:00 pm on the next *business day* following the date of issuance of the trouble call;

1.3.2.15 promptly respond to all trouble calls issued by the *IESO*;

1.3.2.16 attend to the repair or replacement of a *metering installation* within the time prescribed in section 11 of this Chapter;

1.3.2.17 maintain and implement effective procedures to ensure that *metering data* is not compromised during the maintenance, repair, replacement, inspection or testing of the *metering installation* or during the retrieval or storage of *metering data* or the transfer of the *metering data* to the communication interface with the *metering database*;

1.3.2.18 ensure that information submitted to the *IESO* in support of a request for an adjustment to *metering data* is correct, accurate and auditable;

1.3.2.19 ensure that all portable testing equipment is fit for its intended purpose and calibrated with devices traceable to federal measurement standards so as to create an audit trail for calibration;

1.3.2.20 establish procedures for the transfer of *metering data* to the *metering database* when the *metering data* cannot be made available to the *IESO* by means of remote access;

1.3.2.21 maintain spare stock sufficient to repair or replace failed *metering installations* within the time limits specified in section 11 of this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter;

1.3.2.22 obtain the prior approval of the *IESO* prior to carrying out procedures or effecting any changes to the equipment, parameters or settings of a *metering installation* that may affect the collection, security or accuracy of any *metering data* stored in the *metering installation*;

1.3.2.23 ensure that each *metering installation* is sealed with uniquely numbered seals and maintain a register of such numbers;

1.3.2.24 implement appropriate recovery processes to enable the recovery of any lost or destroyed records that are required to be kept pursuant to this Chapter and any policy or standard established by the *IESO* pursuant to this Chapter;

1.3.2.25 attend any post-registration familiarization and competency updating or upgrading sessions as may be required by the *IESO*;

1.3.2.26 handle *meters* in accordance with the requirements of the accredited meter verifier, within the meaning of the *Electricity and Gas Inspection Act* (Canada), that sealed the *meters;* and

1.3.2.27 ensure that the *metering installation* is suitable for the range of operating conditions to which it will be exposed and that all equipment within the *metering installation* operates within the limits established for such equipment in this Chapter and in any policy or standard established by the *IESO* pursuant to this Chapter.

SCHEDULE 'D'

MTR #4159

Meter Trouble Report 004159

State
Closed

Acknowledged On
Mar 14, 2016 6:35 EST

PSS Calc Date
Mar 22, 2016

FSS Calc Date
Apr 7, 2016

Issued Date
Mar 14, 2016 6:15 EST

Closure Date
Apr 8, 2016 13:28 EST

Type
Communication

Meter Installation Details

Meter Installation
100000418 - NOTL-MTS1-T1

Facility Name
NIAGARA ON THE LAKE MTS 1

MSP
CRU SOLUTIONS INC (MSP)

MMP
NIAGARA-ON-THE-LAKE HYDRO INC.

Associated Registration Id
N/A

Host MMP

Zone
NIAGARA

Contacts

Name	Phone #	E-mail Address	Role
Tim Curtis	905-468-4235	tcurtis@notlhydro.com	MMP
Joe Klassen	519-485-6038x256	joe.klassen@erthcorp.com	MSP
Mike Geboers	519-485-1820x250	mgeboers@eriethamespower.com	MSP
Mark Bax	519-485-1820x225	mbax@eriethamespower.com	MSP
Mark Bax	519-485-1820x225	mbax@eriethamespower.com	MMP
Hassan Syed	905-468-4235x520	hsyed@notlhydro.com	MMP
Ryan Anderson	519-485-6038x256	ryan.anderson@erthcorp.com	MSP
Jurgen van Dijken	519-485-6038x405	jurgen.vandijken@erthcorp.com	MSP

Meter Error Summary

Meter Error Code	Channels	Starting Trade Date	Ending Trade Date	Main Meter	Alt Meter
27 - Call Not Answered	N/A	Mar 11, 2016	Apr 2, 2016	X	X

Meter Error Details

SCHEDULE 'D'

MTR #4159

27 - Call Not Answered **State:** Resolved

Meter with Errors
[X] Main Meter
[X] Alt Meter

Channels
N/A

Affected Trade Dates
3/11/2016, 3/12/2016, 3/13/2016, 3/14/2016, 3/15/2016, 3/16/2016, 3/17/2016, 3/18/2016, 3/19/2016, 3/20/2016, 3/21/2016, 3/22/2016, 3/23/2016, 3/24/2016, 4/2/2016

Meter Error Line Description
SYSTEM GENERATED COMMUNICATION ERROR

Main Device ID	Main Device Type	Main Phone Num
PCRU0078	ION 8600-V321	19056824152

Alt Device ID	Alt Device Type	Alt Phone Num
SCRU0026	SENTINEL	,19056824152+

Communication History

Main Status	Alt Status	Date
Success	Success	Apr 8, 2016
Success	Success	Apr 7, 2016
Success	Success	Apr 6, 2016
Success	Success	Apr 5, 2016
Success	Success	Apr 4, 2016
Success	Success	Apr 3, 2016
Failure	Success	Apr 2, 2016
Success	Failure	Mar 11, 2016

Comments

Posted By	Comments
Dan Alexandru IESO Specialist Apr 8, 2016 13:27 EST	Communication has been restored. Last RI for Main meter 2016/04/08 00:30. MTR closed.
Mark Bax MSP Apr 7, 2016 11:36 EST	Load was transferred to NOTL DS, DP ID# 100289. MB.
Patricia Hillis IESO Specialist Apr 4, 2016 12:29 EST	*Note: Data for Trade Date March 10th goes FINAL on April 7th* IESO historical estimate applied @ 2016/03/10 00:31-2016/03/11 24:00*. (MSP data files attached start at 2016/03/12 00:01/2016/03/24 00:01). MP ID(s) requested, if load transferred. MTR returned.
Patricia Hillis IESO Specialist Apr 4, 2016 12:24 EST	Communication restored. Load returned as of March 31st.
Patricia Hillis IESO Specialist	MSP data file E7572438.603 @ 2016/03/12 00:01-2016/03/23 24:00 used to replace IESO historical estimate. Note* IESO historical estimate

SCHEDULE 'D'

MTR #4159

Posted By	Comments
Mar 24, 2016 13:03 EST	applied @ 2016/03/10 00:30-2016/03/11 24:00*. Please provide MP ID if load transferred. MTR returned.
Mark Bax MSP Mar 24, 2016 6:29 EST	hhf zero file attached for billing. MB.
Patricia Hillis IESO Specialist Mar 15, 2016 13:03 EST	Main last RI @ 2016/03/10 00:30. Alt last RI @ 2016/03/10 01:15. IESO historical estimate applied @ 2016/03/10 00:31 onwards. MTR returned.
Mark Bax MSP Mar 15, 2016 12:50 EST	Meterpoint is down for the month of March = zero load. I will attached zero billing files each week, until load is restored. MB.

Attachments Summary

Filename	Description	Uploaded By	Role	Uploaded On
zero file attached for billing. MB.	zero file attached for billing. MB.	Mark Bax	MSP	Mar 24, 2016 6:30 EST
Main meter zero file attached for billing. MB.	Main meter zero file attached for billing. MB.	Mark Bax	MSP	Apr 4, 2016 8:07 EST

SCHEDULE 'E'

MAY 2, 2016 EMAIL FROM IESO ACCOUNT MANAGER

From: Hanna Smith
Sent: Monday, May 2, 2016 4:36 PM
To: Tim Curtis; Hassan Syed
Subject: Update

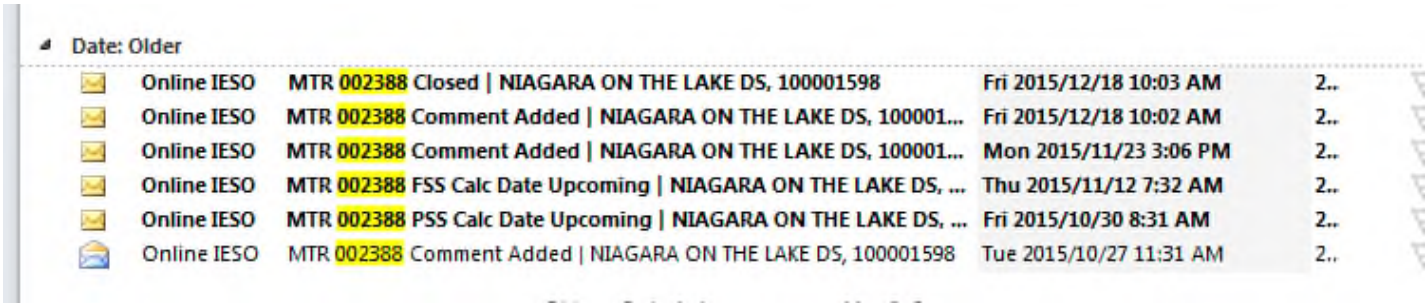
Hello Tim and Hassan,

This morning Richard Zaworski, the IESO's Manager of Meter Data Management, and I spoke with Mark Bax and a number of his colleagues at CRU Solutions. I understand they'll be meeting with you later this week. Richard explained that he reviewed the market rules and confirmed that there are currently no provisions that would allow the IESO to retroactively process an adjustment in this case.

If you disagree with the market rules or how they apply in this case, a good option might be to retain legal advice from somebody who has some familiarity with the market rules and settlement process.

Regardless of how you decide to proceed, knowing if and when the issue occurred beyond November 2015 and having an accurate as possible number for the financial impacts would be beneficial. Shawna has a good understanding of how the issue appears in your totalized meter data (TMD) reports. We went over where to find the TMD reports from May 2014 to February 2016 that IESO IT recently pushed to NOTL Hydro's confidential Reports site. The analysis from November that we went over is attached.

Hassan, the IESO's metering group confirmed that you have access to the meter trouble report (MTR) system in Online IESO and that you can view all of the MTRs that pertain to NOTL Hydro. Record of the MTR comments that we went over last week would have been sent to you by email. For ease of reference, the emails relating to the MTR in question would have appeared on the following dates and times:



Date: Older			
Online IESO	MTR 002388 Closed | NIAGARA ON THE LAKE DS, 100001598	Fri 2015/12/18 10:03 AM	2..
Online IESO	MTR 002388 Comment Added | NIAGARA ON THE LAKE DS, 100001...	Fri 2015/12/18 10:02 AM	2..
Online IESO	MTR 002388 Comment Added | NIAGARA ON THE LAKE DS, 100001...	Mon 2015/11/23 3:06 PM	2..
Online IESO	MTR 002388 FSS Calc Date Upcoming | NIAGARA ON THE LAKE DS, ...	Thu 2015/11/12 7:32 AM	2..
Online IESO	MTR 002388 PSS Calc Date Upcoming | NIAGARA ON THE LAKE DS, ...	Fri 2015/10/30 8:31 AM	2..
Online IESO	MTR 002388 Comment Added | NIAGARA ON THE LAKE DS, 100001598	Tue 2015/10/27 11:31 AM	2..

Please let me know if you would like further info.

Best regards,
Hanna
(905) 855-6104

SCHEDULE 'F'

Niagara-on-the-Lake Hydro inc.
IESO Over-charges
November, 2015 - March, 2016

WORKSHEET CALCULATION OF DISPUTED AMOUNTS

Month	IESO kwh	Recalculated kwh	Over-charged kwh	IESO Invoice	Recalculated Invoice	Balance Owed	HST	Recalculated HST	HST Owed	Total
November 2015	16,548,155	13,237,156	3,310,999	$ 2,016,517.24	$ 1,556,140.07	$ 460,377.17	$ 281,011.07	$ 221,162.11	$ 59,848.96	$ 520,226.13
March 2016	16,320,289	15,157,891	1,162,398	$ 2,120,094.54	$ 1,980,287.60	$ 139,806.94	$ 275,863.70	$ 257,483.02	$ 18,380.68	$ 158,187.62
Total			4,473,397			$ 600,184.10			$ 78,229.64	$ 678,413.74

Charge Type Number	Equation	Charge Type Name	NOTL - AQEW (MW)		NOTL - Embedded Generation (MW)	Market Consumption (MW)	Our Share / Market	Market Cost	Rate	NOTL's Cost	Invoiced Amount	Adjustment		
101	HOURLY	NET ENERGY MARKET SETTLEMENT FOR NON-DISPATCHABLE LOAD	16,548.155	13,237.156	N/A	N/A					$ 178,879.32		$ 143,088.67	
102		TR CLEARING ACCOUNT CREDIT									$ (130,668.75)		$ (104,524.20)	
142		REGULATED PRICE PLAN SETTLEMENT AMOUNT									$ (292,554.75)		$ (292,554.75)	
148	Pro Rata	CLASS B GLOBAL ADJUSTMENT SETTLEMENT AMOUNT	16,548.155	13,237.156	58.00		0.001691190		N/A	$ -	$ 2,170,154.29		$ 1,735,944.03	
150	HOURLY	NET ENERGY MARKET SETTLEMENT UPLIFT									$ 4,557.14		$ 3,645.34	
155	HOURLY	CONGESTION MANAGEMENT SETTLEMENT UPLIFT									$ 7,270.07		$ 5,815.45	
169	Pro Rata	STATION SERVICE REIMBURSEMENT DEBIT	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ 212.32		$ 169.84	
183	Pro Rata	GENERATION COST GUARANTEE RECOVERY DEBIT	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ 2,625.81		$ 2,100.43	
186	Pro Rata	INTERTIE FAILURE CHARGE REBATE	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ (83.58)		$ (66.86)	
250	HOURLY	10-MINUTE SPINNING MARKET RESERVE HOURLY UPLIFT									$ 1,153.93		$ 923.05	
252	HOURLY	10-MINUTE NON-SPINNING MARKET RESERVE HOURLY UPLIFT									$ 1,003.25		$ 802.52	
254	HOURLY	30-MINUTE OPERATING RESERVE MARKET HOURLY UPLIFT									$ 311.49		$ 249.17	
450	Pro Rata	BLACK START CAPABILITY SETTLEMENT DEBIT	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ 166.54		$ 133.22	
451	HOURLY	HOURLY REACTIVE SUPPORT AND VOLTAGE CONTROL SETTLEMENT DEBIT									$ 1,663.41		$ 1,330.59	
452	Pro Rata	MONTHLY REACTIVE SUPPORT AND VOLTAGE CONTROL SETTLEMENT DEBIT	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ 351.86		$ 281.46	
454	Pro Rata	REGULATION SERVICE SETTLEMENT DEBIT	16,548.155	13,237.156	N/A		0.001206229		N/A	$ -	$ 3,833.95		$ 3,066.84	
650		NETWORK SERVICE CHARGE (Hydro One Delivery Point)									$ 128,535.12		$ 128,535.12	
651		LINE CONNECTION SERVICE CHARGE (Hydro One Delivery Point)									$ 31,721.96		$ 31,721.96	
753	Rate	RURAL RATE SETTLEMENT CHARGE	16,548.155	13,237.156	N/A	N/A	N/A	N/A	$1.30	$ 21,512.60	$ 22,871.60		$ 17,208.30	
754	Rate	OPA ADMINISTRATION CHARGE	16,548.155	13,237.156	N/A	N/A	N/A	N/A	$0.44	$ 7,264.64	$ 7,723.56		$ 5,811.11	
1351		CAPACITY BASED RECOVERY AMOUNT FOR CLASS B LOADS									$ 5,999.26		$ 4,798.91	
1410		RENEWABLE ENERGY STANDARD OFFER PROGRAM SETTLEMENT AMOUNT									$ 132,028.92		$ 132,028.92	
1412		FEED-IN TARIFF PROGRAM SETTLEMENT AMOUNT									$ (138,474.28)		$ (138,474.28)	
1463		RENEWABLE GENERATION CONNECTION - MONTHLY COMPENSATION AMOUNT SETTLEMENT DEBIT									$ 102.21		$ 81.76	
1550	DAILY	DAY-AHEAD PRODUCTION COST GUARANTEE RECOVERY DEBIT									$ 59.48		$ 47.58	
1650		FORECASTING SERVICEBALANCING AMOUNT									$ 81.35		$ 65.07	
9980		SMART METERING CHARGE									$ 6,700.36		$ 6,700.36	
9990	Rate	IESO ADMINISTRATION CHARGE	16,548.155	13,237.156	N/A	N/A	N/A	N/A	$0.80	$ 13,288.17	$ 15,398.34		$ 12,317.40	
9992		ONTARIO CLEAN ENERGY BENEFIT (-10%) PROGRAM SETTLEMENT AMOUNT									$ (145,106.94)		$ (145,106.94)	
											$ 2,016,517.24		$ 1,556,140.07	$ 460,377.17
900		GST/HST CREDIT									$ (85,806.28)		$ (69,630.61)	
950		GST/HST DEBIT									$ 366,817.35		$ 290,792.72	
											$ 2,297,528.31		$ 1,777,302.18	

AMOUNTS THAT WILL NOT CHANGE WITH AQEW

GST CALCULATION - Add all charges, excluding 900, 950, and 9992, and multiply by 0.13 $ 281,011.14

Charge Type Number	Equation	Charge Type Name	NOTL - AQEW (MW)		NOTL - Embedded Generation (MW)	Market Consumption (MW)	Our Share / Market	Market Cost	Rate	NOTL's Cost	Invoiced Amount	Adjustment		
101	HOURLY	NET ENERGY MARKET SETTLEMENT FOR NON-DISPATCHABLE LOAD	16,320	15,157.891	N/A	N/A					$ 97,541.28		$ 90,593.99	
142		REGULATED PRICE PLAN SETTLEMENT AMOUNT									$ (11,936.83)		$ (11,936.83)	
148	Pro Rata	CLASS B GLOBAL ADJUSTMENT SETTLEMENT AMOUNT	16,320.289	15,157.891	58.00		0.001691190		N/A	$ -	$ 1,755,444.07		$ 1,630,414.13	
150	HOURLY	NET ENERGY MARKET SETTLEMENT UPLIFT									$ 2,043.13		$ 1,726.03	
155	HOURLY	CONGESTION MANAGEMENT SETTLEMENT UPLIFT									$ 6,609.87		$ 5,583.99	
169	Pro Rata	STATION SERVICE REIMBURSEMENT DEBIT	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ 143.08		$ 132.89	
183	Pro Rata	GENERATION COST GUARANTEE RECOVERY DEBIT	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ 3,313.74		$ 3,077.72	
186	Pro Rata	INTERTIE FAILURE CHARGE REBATE	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ (32.03)		$ (29.75)	
250	HOURLY	10-MINUTE SPINNING MARKET RESERVE HOURLY UPLIFT									$ 1,767.49		$ 1,493.17	
252	HOURLY	10-MINUTE NON-SPINNING MARKET RESERVE HOURLY UPLIFT									$ 1,757.67		$ 1,484.87	
254	HOURLY	30-MINUTE OPERATING RESERVE MARKET HOURLY UPLIFT									$ 362.00		$ 305.82	
450	Pro Rata	BLACK START CAPABILITY SETTLEMENT DEBIT	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ 178.05		$ 165.37	
451	HOURLY	HOURLY REACTIVE SUPPORT AND VOLTAGE CONTROL SETTLEMENT DEBIT									$ 973.10		$ 822.07	
452	Pro Rata	MONTHLY REACTIVE SUPPORT AND VOLTAGE CONTROL SETTLEMENT DEBIT	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ 282.72		$ 262.58	
454	Pro Rata	REGULATION SERVICE SETTLEMENT DEBIT	16,320.289	15,157.891	N/A		0.001206229		N/A	$ -	$ 5,188.65		$ 4,819.09	
650		NETWORK SERVICE CHARGE (Hydro One Delivery Point)									$ 189,240.30		$ 189,240.30	
651		LINE CONNECTION SERVICE CHARGE (Hydro One Delivery Point)									$ 48,775.68		$ 48,775.68	
753	Rate	RURAL RATE SETTLEMENT CHARGE	16,320.289	15,157.891	N/A	N/A	N/A	N/A	$ 1.30	$ 21,216.38	$ 21,216.37		$ 19,705.26	
754	Rate	OPA ADMINISTRATION CHARGE	16,320.289	15,157.891	N/A	N/A	N/A	N/A	$ 0.44	$ 7,164.61	$ 7,164.61		$ 6,654.31	
1351		CAPACITY BASED RECOVERY AMOUNT FOR CLASS B LOADS									$ 4,665.77		$ 3,941.63	
1410		RENEWABLE ENERGY STANDARD OFFER PROGRAM SETTLEMENT AMOUNT									$ (0.04)		$ (0.04)	
1412		FEED-IN TARIFF PROGRAM SETTLEMENT AMOUNT									$ (51,512.24)		$ (51,512.24)	
1420		ONTARIO ELECTRICITY SUPPORT PROGRAM SETTLEMENT AMOUNT									$ (1,587.03)		$ (1,587.03)	
1470		ONTARIO ELECTRICITYSUPPORT PROGRAM BALANCING AMOUNT	16,320.289	15,157.891					$ 1.10		$ 18,200.92		$ 16,904.58	
1463		RENEWABLE GENERATION CONNECTION - MONTHLY COMPENSATION AMOUNT SETTLEMENT DEBIT									$ 63.90		$ 53.98	
1550	DAILY	DAY-AHEAD PRODUCTION COST GUARANTEE RECOVERY DEBIT									$ 498.33		$ 420.99	
1650		FORECASTING SERVICEBALANCING AMOUNT									$ 68.38		$ 57.77	
9920		ADJUSTMENT ACCOUNT CREDIT									$ (0.81)		$ (0.81)	
9980		SMART METERING CHARGE									$ 6,728.73		$ 6,728.73	
9990	Rate	IESO ADMINISTRATION CHARGE	16,320.289	15,157.891	N/A	N/A	N/A	N/A	$ 0.80	$ 13,105.19	$ 13,286.67		$ 12,340.34	
9992		ONTARIO CLEAN ENERGY BENEFIT (-10%) PROGRAM SETTLEMENT AMOUNT									$ (350.99)		$ (350.99)	
											$ 2,120,094.54		$ 1,980,287.60	$ 139,806.94
900		GST/HST CREDIT									$ (24,910.06)			
950		GST/HST DEBIT									$ 300,773.76		$ 257,483.02	
											$ 2,395,958.24		$ 2,237,770.62	

AMOUNTS THAT WILL NOT CHANGE WITH AQEW

GST CALCULATION - Add all charges, excluding 900, 950, and 9992, and multiply by 0.13 $ 275,657.92