August 12, 2013

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto, ON M4P 1E4

via RESS and courier

Dear Ms. Walli:

Re: Staff Report to the Board on Performance Measurement and Continuous Improvement for Electricity Distributors
Submission of the Coalition of Large Distributors
Board File No. EB-2010-0379

On July 4, 2013, the Ontario Energy Board (the "OEB" or the "Board") released a report prepared by Board Staff, entitled *Staff Report to the Board on Performance Measurement and Continuous Improvement for Electricity Distributors* ("Staff Report" or "Report").

The Coalition of Large Distributors ("CLD"), which comprises Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, Hydro Ottawa Limited, PowerStream Inc., Toronto Hydro-Electric System Limited and Veridian Connections Inc., is pleased to participate in this important process and provide its submissions. Some general comments have been provided below, followed by specific comments on proposed Scorecard measures and responses to the topic questions raised in Board Staff's letter of July 4, 2013.

General Comments

The CLD is supportive of the use of metrics in the promotion of achieving outcomes that will benefit existing and future customers. All utilities currently collect and report information to the OEB and many use a variety of internal metrics to monitor progress. The CLD would suggest that the benefits of any new metrics that the Board proposes should clearly outweigh the required work and cost related to collecting new information or data. The CLD would also caution against considering using the Scorecard as a method of utility comparison. While the Board would be able to measure each utility's performance against a common identified set of metrics and identify improvements against a utility's own past performance, different characteristics and operational realities would prevent a meaningful comparison across utilities.

It is not clear to the CLD how the Board intends to use the Scorecard. The Staff Report states that:

> "The Scorecards will help the Board monitor the performance of the electricity distributors. This will involve analyzing, assessing and interpreting both financial

> and other performance information provided to the Board, including the Scorecard. During an incentive regulation plan term, this will help the Board to determine whether any midterm corrective action is needed."[1]

From this statement, it would appear that if a Local Distribution Company ("LDC") were failing to achieve its targets, then the Board would consider some sort of adjustment. This "corrective action" is uncertain. What is also not clear is the potential "incentive" should an LDC be meeting or exceeding its targets. Such incentives might include plans to reduce the filing requirements and/or the level of scrutiny at the next cost of service application for such LDCs.

Board Staff proposes on page 51 of the Staff Report that each LDC should "own" its Scorecard. Does this mean that each LDC can establish certain metrics on its Scorecard, or is Board Staff implying that each LDC owns its data on the Scorecard and needs to manage its business in order to achieve the results identified on the Scorecard? If it is the case that the Scorecard is to be used to manage an LDC's business, then it should be noted that the results from the Scorecard will not be available until as late as Q3 of the following year and it would be problematic to try and adjust operations at that point to improve results in that year. On a related point, the Staff Report goes on to recommend that a distributor should present its final Scorecard to its Board of Directors prior to filing it with the Board. It is not clear what the purpose would be of imposing such a requirement, and there are a variety of legal and practical considerations related to corporate governance that the Board may wish to consider in a broader context before deciding to impose any such requirement.[2] The CLD submits that to the extent that the Board is considering imposing any particular requirements on LDCs' Boards of Directors, that the appropriate forum to address this would be the Board's upcoming consultations regarding corporate governance (as announced in its July 17, 2013 letter accompanying the release of the updates to the rate applications filing requirements).

It is also unclear to the CLD how Board Staff envisions the Scorecard to be implemented in 2014 (as noted on page 49), given that the Staff Report contemplates further consultative activities on at least four of the proposed measures to proceed through to Q3-Q4 2014. It is not clear if Board Staff's proposal envisions a staged implementation of the Scorecard measures, which might create confusion across the industry.

Furthermore, until all of the Scorecard metrics are finalized, it will be difficult for LDCs to fully consider the implications of the Scorecard's implementation on their existing processes and practices and whether any adjustments may be warranted. Accordingly, the Board might consider a "soft" launch of the Scorecard for the first calendar year following the finalization of all the metrics. The "soft launch" could entail the Board collecting all available data in the manner suggested in the Report, while limiting the use or distribution of the resulting Scorecards and not requiring them to be externally posted on the LDCs' or the Board's respective websites. This would also allow LDCs sufficient time to assess the implications of the new metrics and implement or refine the necessary required tracking.

Scorecard Measures

[1] Ontario Energy Board, EB-2010-0379 Staff Report to the Board on Performance Measurement and Continuous Improvement for Electricity Distributors, July 4, 2013, p. 52

[2] For example, LDC Boards of Directors are established within a complex regime of corporate and common law rules and standards (including in some cases, certain statutes such as the *Ontario Business Corporations Act*), This regime may raise questions about the OEB's scope of authority with respect to the imposition of certain corporate governance requirements on LDCs, as well as create practical constraints (e.g. synchronizing OEB requirements and filing deadlines with the timing of the scheduled meetings of Boards of Directors, which are often quarterly).

Results of Distributor Customer Satisfaction Survey

On page 29 of the Staff Report, Board Staff recommends that a distributor customer satisfaction survey be required to, at a minimum, canvass customer satisfaction in a number of key areas, including price. The CLD would note that asking a customer if they are satisfied with the price of their electricity is invariably going to solicit a negative answer related to a number of issues outside of the LDC's control. In the alternative, the CLD would recommend asking questions related to providing good value for the cost of distribution, which is more within the LDC's area of influence.

The CLD supports Board Staff's recommendation that distributors retain the discretion on how to conduct their customer satisfaction survey. However, it would appear that because a yearly value is required on the Scorecard, this surveying must be done on an annual basis. The CLD does have a concern about the cost of conducting the survey on an annual basis. Some members currently perform a survey only every other year as annual surveys are considered too frequent to show marked changes in results and would be more costly to administer. One solution to this could be for all electricity distributors to use the exact same questions for benchmarking purposes and therefore have the option of using the same vendor in order to reduce costs. If a distributor had other company-specific questions for the surveyor, they could pay for those customized surveys separately, and on the frequency of their choice. Another option would be for the OEB to prepare and conduct the annual survey and do representative samples in each LDC area. What is important for the Board to ensure is that any additional costs related to an annual survey are matched by additional benefits.

The CLD would encourage the Board to establish a minimum threshold for the margin of error of the survey. Most LDCs currently use a sample size that provides a confidence level of 95% with a margin of error of +/- 5%.

Public Safety Measure

LDCs have always encouraged the OEB to leave the oversight of safety to the appropriate entity. If the Board determines that a safety metric is appropriate, then the CLD would encourage the Board to adopt a measure of employee safety rather than one of public safety, as there is no ready and reliable performance metric related to public safety. Although the cost to maintain safety, both for employees and for the public, is significant, there are already employee safety metrics which LDCs are required to collect for the Workers Safety Insurance Bureau ("WSIB), such as lost time injury frequency, lost time injury severity or the WSIB performance index. Perhaps a metric such as the relative change in a distributor's WSIB premiums from one year to the next or the relative change in a distributor's Electrical Safety Association audit result(s) from one year to the next could be used. What is important in any safety metric that the Board may choose is that it reflects the degree to which safety is an important driver of costs for utilities.

System Plan Execution Measure

The CLD notes that in Section 5.2.3 the OEB's *Filing Requirements for Electricity Distribution Rate Applications*, issued July 17, 2013, the Board will require distributors to provide as part of their Distribution System Plan ("DSP") information on metrics used to monitor the distribution system planning process. It is unclear to the CLD why Board Staff propose to implement a uniform measure of system plan execution for all distributors, when the DSP Filing Guidelines already provide for establishment and tracking of such metrics, but in a manner that reflects the distributors' individual circumstances and priorities. To that end, the Board may wish to consider

allowing the use of distributor-specific measures for this component of the Scorecard, similar to the proposed approach on the First Contact Resolution measure. However, should the Board wish to proceed with the consultation activities as envisioned in the Staff Report, the CLD would suggest that the information contained in the DSP filings should inform the OEB's choice of a metric for System Plan Execution.

Efficiency Assessment (Cohort Ranking I through V)
Econometric Benchmarking
Unit Cost/Peer Group Benchmarking

The CLD is concerned that it is premature to include in the Scorecard a distributor's overall efficiency assessment as reflected in its assigned cohort, the outcomes of the benchmarking assessments, and the unit cost/peer group benchmarking before the finalization of which econometric model is to be used and whether peer groups should be used at all. As the CLD expressed in its June 27, 2013 submission to the Board:

> "The total cost benchmarking can be made less complex by eliminating the peer group approach. It can also be made less complex and more robust by moving away from PEG's translog cost function and instead using PSE's unit cost econometric model."[3]

In addition, it is unclear what the target of the efficiency assessment would be as it is impossible (by definition) for all LDCs to be in the top Cohort.

In the current Renewed Regulatory Framework for Electricity ("RRFE") proposal, the benchmarking will determine the cohort placement and therefore the applicable stretch factor. While it is unclear how the Scorecard may be used to penalize/reward LDCs, the addition of the inclusion of the cohort placement on the Scorecard could double count either poor performance or good performance. This would not appear to be a positive outcome for the process.

Overall Cost Performance

The CLD is concerned that the proposed Scorecard does not include the metric of total cost (whether this be per customer, per kWh delivered, or per circuit km of line) instead of the individual proposed components of Operating, Maintenance & Administration ("OM&A") and Net Plant. One of the major thrusts of the RRFE was the use of Total Cost instead of simply OM&A. The CLD strongly urges removing the OM&A and Net Plant metrics and replacing them with Total Cost per customer, per kWh delivered and per circuit km of line. The Total Cost would be as used in the Benchmarking exercise (i.e., OM&A plus revenue requirement based on capital).

Net Plant Cost

Despite the comments above, if the Board insists on including Net Plant Cost, the CLD would like to confirm that the net plant number to be used is that submitted as part of the RRR filings and as shown in the Electricity Yearbook on line ten of the Balance Sheet, and represents the net capitalized assets at year end. However, again, the CLD recommends that the Board refrain from comparing net plant costs among distributors as these comparisons will be false due to the different capitalization methods.

[3] CLD Submission to the Board, EB-2010-0379, June 27, 2013, p. 13

Existing Service Quality Requirements

1. *The existing service quality requirements (whether as mandatory requirements or as reported indicators) have been in place for a number of years. Do the prescribed performance standards set by the Board for distributors continue to be appropriate? Why? Why not?*

The current service quality metrics tend to be more measures of efficiency vs. effectiveness. For example, it is great to efficiently answer a phone quickly, but if the issue is never resolved it wasn't an effective transaction. A move to effectiveness measures, such as the proposed First Contact Resolution, is seen by the CLD as a positive improvement. Another example of an effectiveness measure is Average Speed of Answer, which identifies timeframes of call volume traffic, thereby allowing for adjustment of scheduling to better handle call volumes.

However, it should be noted that many LDCs do not presently have a robust First Contact Resolution metric and may be limited in the level and sophistication of additional metrics that they may be able to implement without incurring significant costs.

With regard to the existing service quality requirements, the CLD would be in favour of reviewing the existing performance standards, but this would have to be done together with a review of the effectiveness of some of the underlying service quality requirements. For example, the CLD submits that neither the 'Rescheduling a Missed Appointment' metric, nor its 100% target, is useful or appropriate.

Customer Satisfaction Surveys

2. *If Board staff's recommended approach were implemented:*
    a. *How might the sharing of information amongst distributors be facilitated to encourage "good survey practices"?*

Sharing of information amongst distributors regarding "good survey practices" could be facilitated by posting a summary of the survey methods and results on the Board's website. In addition, the Board could encourage and facilitate dialogue among distributors.

    b. *How would the Board know that a distributor's survey has been designed and implemented following "good survey practices"?*

If a distributor is using a reputable firm to conduct their survey, then the Board should be able to feel confident that the survey has been designed and implemented following "good survey practices", as this should be part of the selection process. In addition, distributors should have their survey provider describe how they fulfill this requirement.

3. *The Staff Report notes that the results of locally undertaken customer satisfaction surveys may not be readily comparable across distributors. What are the implications, if any, of customer satisfaction surveys not being comparable across distributors?*

The CLD believes that the most important factor is for a utility to be able to show how it is improving against itself and making customer experience improvements, rather than how it is

performing against others (as all utilities have different states of distribution systems, billing systems, etc.).

4. *To help the Board understand distributors' existing practices, the Board asks all distributors to provide with their written comments an overview of how they conduct their customer satisfaction surveys.*

Please see Appendix A for CLD information on existing practices with respect to customer satisfaction surveys.

First Contact Resolution

5. *If Board staff's recommended approach were implemented, how might the sharing of information amongst distributors be facilitated to encourage the pursuit of "best practices" in relation to 1st Contact Resolution?*

Sharing of information amongst distributors regarding "best practices" in relation to First Contact Resolution ("FCR") could be facilitated by posting a summary of the survey methods and results on the Board's website. In addition, the Board could encourage and facilitate dialogue among distributors on this metric.

6. *To help the Board understand distributors' existing practices, the Board asks distributors that currently measure 1st Contact Resolution to provide an overview of their approach in their written comments.*

Please see Appendix B for CLD information on current FCR measures.

Billing Accuracy

7. *To help the Board understand distributors' existing practices, the Board asks distributors that currently measure Billing Accuracy to provide an overview of their approach in their written comments.*

Please see Appendix C for CLD information on current Billing Accuracy measures.

Regulatory Return on Equity

8. *Should the Board's allowed ROE be included as a "target" on the Scorecard? Why?*

No, the Board's allowed ROE should not be included as a "target" on the Scorecard. Including it as a target would imply that is the optimum ROE, when in fact utilities are allowed, if not encouraged, to improve on their allowed ROE during Incentive Regulation Mechanism years. In fact, the Board stated in Toronto Hydro's Decision (EB-2012-0064) the following:

> "A fundamental tenet of incentive regulation is that base year rates are adjusted by a simple mechanistic formula that takes into account inflation, productivity,

and a stretch factor. In order to maintain, or even exceed, its allowed rate of return, a distributor is incented to implement efficiency improvements."[4]

If the Board's allowed ROE is to be shown on the Scorecard, it should be only for information purposes.

a. *If the Board's allowed ROE were included on the Scorecard, which value would be appropriate: the recent value determined by the Board in its annual Cost of Capital Parameter Update (e.g., in the illustration of Board staff's recommended Scorecard, this would be the value for 2011); or the value of the ROE that is embedded in the distributor's base rates? Please provide a rationale for your response.*

If the Board's allowed ROE is to be shown on the Scorecard for informational purposes only then the most appropriate value would be the ROE that is embedded in the distributor's base rates, as this is the ROE that the distributor has had approved by the Board.

The Scorecard

9. *The Scorecard has to be relevant and meaningful to all, including consumers. How might the results presented on Board staff's recommended Scorecard be summarized in a manner that might be most easily understood by consumers?*

One possibility would be to employ an A+, A, A-, B+, B, B-, etc. approach as used by UtilityPULSE/Simul as per the following example:

Category	Sample LDC	Ontario
Customer Care	**B+**	**B+**
Price and Value	B	B
Customer Service	A	A
Company Image	**A**	**A**
Company Leadership	A	A
Corporate Stewardship	A	A
Management Operations	**A**	**A**
Operational Effectiveness	A	A
Power Quality and Reliability	A+	A
OVERALL	**A**	**A**

The determination of the value for Ontario could be developed by the Board based on all LDC Scorecards and would represent the province-wide average grade. However, even such a grading system would be problematic for at least some of the proposed measures, such as Net Plant per customer, where low-density / large territory LDCs would necessarily look worse than many others, unless they are graded against internal improvement.

[4] Toronto Hydro-Electric System Limited, Partial Decision and Order, EB-2012-0064, April 2, 2013, p. 10

Similar issues would be encountered with reliability metrics, i.e., the SAIDI/SAIFI targets. It is appropriate to measure internal changes in reliability, however, it is not acceptable for the worst performing distributors to be targeting future reliability performance merely to stay within the historical three year range. Instead they should be targeting improvements year over year, and, at least, no deterioration in performance. Consistent with the comments above, an additional metric to complement the reporting of a distributor's SAIDI and SAIFI values each year, would be a comparison of each distributor's values against the Ontario average values for reliability. Taken together, these two metrics would accurately report on the reliability of distributors both on an absolute basis as well as on a relative basis.

Optional Performance Metrics

The CLD would also like to address the concept of "optional performance metrics". There are several functions and services that some distributors provide which increase costs but are valuable to customers, and in some cases, absolutely expected by customers. These include 24/7 control room operations, 24/7 trouble truck response capability, website services such as electronic billing and payments, automatic payments, credit card payments, and other self-serve options, such as arrangements of moving in or moving out, etc.

The CLD submits that customers would be very interested to know which of these additional or optional services are provided by their distributors, and thus it would be useful to see these posted on the Scorecard. The OEB would likely see value in knowing at a glance which optional and desirable services are provided when making comparisons among distributors.

Thus, it is recommended that a table of the services listed above (and others as appropriate) be added to the Scorecard, enabling the distributor to simply tick or toggle a yes or no box alongside each service.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

Original signed by:

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Appendix A – Customer Service Survey

Enersource

Enersource used to conduct a Customer Service Survey every year for about 12 years ongoing, and then, in 2010, moved to every two years due to cost and due to the fact that the information was not changing or varying from year to year with an annual survey. Thus, Enersource has conducted customer surveys in both 2012 and 2010.

Enersource has retained UtilityPULSE/Simul Corp. to conduct these surveys, and believes that it provides this service to many CLD members and other distributors (both electricity and gas) in Ontario. This company does conduct surveys in all CLD territories but not necessarily on behalf of a CLD client. The respondents are selected on a random basis and are mostly residential. There are set questions for consistency in year-over-year comparisons, for the purpose of benchmarking.

Enersource has been able to add questions when needed. For example, the last survey also included questions about the distributor's new brand, and any awareness of it. Enersource has also asked about e-billing, as a new series of questions. It has also asked other questions to help in the development of the CDM campaigns, trying to discover customer preferences, attitudes toward TOU, and online services for customers. The responses help Enersource to focus efforts on most effective approaches to all of these customer services, whereby the distributor will double its efforts on approaches that prove to be working well, and scale back on those that are not.

Horizon Utilities

Over the past decade, Horizon Utilities has conducted annual customer experience surveys through UtilityPULSE/Simul Corp. in order to gauge customer satisfaction. The surveys have consistent components to determine results to an established baseline as well as probing into new areas of customer impact such as Smart Meters, e-billing, or conservation and demand management knowledge and initiatives.

In 2012 Horizon Utilities began the use of transaction surveys in the Customer Care Centre to measure the customer experience in real-time.

Horizon Utilities has also solicited customer feedback on certain topics via web and telephone surveys.

Hydro Ottawa

Hydro Ottawa has conducted the following surveys to measure customer satisfaction as a part of their focus on continuous Customer Service improvement:

i. Annual Customer Satisfaction Survey – have conducted an annual Customer Satisfaction survey since 2004 (UtilityPULSE/Simul Survey).
ii. Monthly Call Centre Transactional Survey – have been using this tool since 2007. Customers calling the call centre on a Tuesday or Wednesday during a random week are called back that Thursday evening using an automated system (TouchLogic). Reports are provided to Hydro Ottawa on the Friday morning. Six questions are asked, including: Reason for the Call, Satisfaction with - Speed of Call Answer, Courtesy, Knowledge, Did we resolve the issue on the first call i.e.,

press 1 for yes and 2 for no (First Call Resolution) and overall Satisfaction with the call. We generally place about 1,500 phone calls with about a 10% participation rate (i.e. 150 data points per month). We have seen ongoing year over year improvement in our performance.

iii. We have recently conducted the most extensive marketing research we have ever undertaken to help us determine our customer personas so that we have a better understanding of the products and services that they desire and how we would best communicate with them.

PowerStream

PowerStream conducts several types of customer satisfaction surveys on an annual basis using external agencies specializing in customer surveys.

Over the last several years, PowerStream has conducted studies including UtilityPULSE/Simul Corp's quantitative customer surveys with residential and business customers, focus groups with residential and business customers and in-depth interviews with large key account customers. The studies aim at establishing PowerStream's customer satisfaction scores and identifying attitudes and perceptions of customers as related to level of service, strengths and weaknesses and to help identify potential areas of improvement.

The UtilityPULSE/Simul Corp study in particular provides a comparison point among provincial, national and organizational results. This year, PowerStream is expanding its survey methodology to include transactional and online surveys. The transactional surveys will be conducted over the telephone and will reach out to customers that have recently contacted PowerStream, in order to obtain feedback on the quality of service provided. The online surveys will reach out to residential and business customers and get information on customer perceptions and general satisfaction levels with PowerStream.

PowerStream will continue to use multiple sources and blended application of the results approach.

Toronto Hydro

Over the past decade, Toronto Hydro has both conducted and participated in numerous customer experience surveys in order to gauge customer satisfaction. Toronto Hydro employs third party agencies for market research and conducts smaller scale surveys in house. Methods used for transaction, brand and reputation surveys include telephone, Integrated Voice Response (IVR) online, face-to-face, panel, web-based and focus groups. Toronto Hydro also participates in utility benchmarking surveys (UtilityPULSE/Simul Corp and Canadian Electricity Association).

Veridian

Veridian's annual satisfaction survey is a product of UtilityPULSE/Simul Corp. They offer an extensive annual telephone survey to assess customer satisfaction in a number of areas including customer care, company image and management operations. They typically carry out the survey for between 10 and 15 Ontario distributors and, at the same time, poll a separate group of 1,000 randomly selected utility customers from across Ontario to establish a provincial benchmark against which each participating utility can measure its performance. The survey is carried out in the spring of each year.

While the survey covers many topic areas, the measure currently used for the purpose of our corporate scorecard is the percentage of customers that report that they are either 'very or fairly' satisfied with their electricity distributor, in response to an end-of-interview question. This is compared to the results from the same question posed to participants in the provincial benchmark group.

Appendix B – 1st Contact Resolution

Enersource

Enersource does not measure, report nor benchmark First Contact Resolution ("FCR"). It has a general approach to resolve a customer's problem to the best of their ability, preferably with the first person who is contacted.

Horizon Utilities

Horizon Utilities does not measure FCR.

Hydro Ottawa

Please see the information provided under Hydro Ottawa's Monthly Call Centre Transactional Survey provided above.

PowerStream

Power Stream does not measure FCR.

Toronto Hydro

Toronto Hydro uses a combination of customer survey results and a software tool (Upstream Works) to measure FCR. Surveys are used to validate internal software results.

Internal Software Measurement:

- The software measures the FCR window – the period of time within which FCR is determined. If a customer calls back regarding the same issue within a 21 day window then the call does not meet FCR requirements.
- Reports are generated by call type and percentage of calls in each category that meet the FCR window requirement
- The Tool also calculates "Agent Solve Rate" – percentage of calls that an agent resolves in one call

Survey:

- An outbound IVR Customer Satisfaction surveys is run 3 times per week. Surveys include an FCR question and are based on calls from the previous day.

Veridian

In addition to the categorization and analysis of incoming calls by call type, the Customer Care and Prudential and Credit departments monitor the percent of customer calls for which the customer's issue is resolved without a need for a repeat phone call. This is done by running monthly database queries using the following formula:

$$\text{Percent First Call Resolution} = \frac{\text{No. of customer contacts without repeat calls on the same issue over 30 days}}{\text{Total no. of customer contacts}}$$

Overall, the percentage of customer calls typically resolved without the need for a repeat call varies between 80% and 90%. However, as might be expected, the rate is higher than the average within Customer Care and lower within Prudential and Credit (due to a typical need for repeat calls related to bill payment issues).

Appendix C – Billing Accuracy

Enersource

Enersource currently relies on:

1. Accuracy of Bills (Errors / Cancellations and Rebills within a percentage)
   Absolute Billing Errors (Percentage Total Value of Bills excl. HST) <0.10%

2. Accuracy of Meter Reads (Percentage of Actual Reads vs. Estimated)
   a) Meter Read accuracy (> 98.5% reads obtained are actual reads) and Meter Read timeliness of Validation, Editing and Estimation of Meter Data (> 96% within the billing window) (Includes MAS, PrimeRead) – Residential and GS<50
   b) Meter Read accuracy (> 98% reads obtained are actual reads) and Meter Read timeliness of Validation, Editing and Estimation of Meter Data (> 90% within the billing window) (Includes MAS, Non-MIST Demand Reads) – GS>50
   c) Accuracy of MIST meter data > 99%

3. Timeliness of Bills Delivered
   a) Billing Timeliness (Late Billing <120 days) Residential and GS
   b) Ensure accuracy and timely billing of MIST customers, complete >= 99% of MIST billing during first four business days of the month

Horizon Utilities

Horizon Utilities monitors a number of meter reading and billing control points which include:

- The percentages of reads obtained daily through the AMI system as compared to the number of expected reads
- The percentage of intervals estimated in the billing period
- Management of estimated meters where consecutive estimated reads are made
- The ratio of cancelled / re-issued billed

Hydro Ottawa

Hydro Ottawa uses the Mearie Group Utility Performance Annual Survey. This report provides a billing accuracy ratio which is defined as: percentage of bills cancelled and re-issued. This ratio shows the number of customer bills that had to be cancelled or re-issued for any reason. They report on this ratio on a monthly basis internally.

PowerStream

PowerStream has adopted the approach of measuring billing accuracy by tallying the number of cancelled bills in a month as a percentage of the total bills issued that same month.

Toronto Hydro

Toronto Hydro's approach to measure billing accuracy is to monitor short interval controls which include:

- The completion of Validation, Editing and Estimation of Meter Data within the billing window
- The measurement of the percentage of actual meter readings versus the planned number of meter readings
- The determination of the percentage of estimated bills
- Management of Estimated Meters – a process to obtain actual readings for all accounts with three consecutive estimates) Error management (quality assurance processes to identify and resolve billing errors)
- Error Management – a quality assurance process to identify and resolve billing errors.

Veridian

Veridian uses three primary metrics to monitor the timeliness and accuracy of the billing function. They are:

Billing accuracy – measured by comparing the number of adjusted bills to the total number of bills issued.

Billing timeliness – measured by monitoring the percentage of all bills that are issued within one business day (+/-) of the scheduled delivery date.

Final bill timeliness – measured by monitoring the elapsed number of days between a final meter reading and the issuance of a final bill/payment.