January 29, 2016

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street
26th Floor, Box 2319
Toronto, ON M4P 1E4

Dear Ms. Walli,

Re: PowerStream Inc. (Licence ED-2004-0420)
2016 - 2020 Electricity Distribution Rate Application EB-2015-0003
Reply Argument

PowerStream respectfully submits two copies of its Reply Argument which are attached to this letter.

This document has been filed on the Board's Regulatory Electronic Submission System.

Yours truly,

Original signed by Tom Barrett

Tom Barrett
Manager, Rate Applications

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B;

AND IN THE MATTER OF an Application by PowerStream Inc. for an Order approving rates and other service charges for the distribution of electricity for the years 2016 through 2020

REPLY ARGUMENT OF POWERSTREAM INC.

DELIVERED JANUARY 29, 2016

SECTION A - INTRODUCTION AND EXECUTIVE SUMMARY

Introduction

PowerStream Inc. ("PowerStream") is incorporated under the *Ontario Business Corporations Act* (the "OBCA") and is the licensed electricity distributor for eleven municipalities in York Region and Simcoe County including Alliston, Aurora, Barrie, Beeton, Bradford West Gwillimbury, Markham, Penetanguishene, Richmond Hill, Thornton, Tottenham and Vaughan. PowerStream serves about 360,000 customers in those communities, making it the second largest municipally owned distributor in Ontario.

PowerStream is owned by The Corporation of the City of Markham (34.2%), The Corporation of the City of Vaughan (45.3%) and The Corporation of the City of Barrie (20.5%).

On December 15, 2014, PowerStream initiated an advance settlement process with Ontario Energy Board ("OEB", or "Board") Staff and the intervenors of record from its 2013 Cost of Service application. A rate proposal was submitted to the intervenors on February 24, 2015 and this was followed by Interrogatories, a Technical Conference and a Settlement Conference. PowerStream's intention in initiating this process was to attempt to reach agreement with customer representatives on the terms of a five year Custom Incentive Regulation ("Custom IR") distribution rate plan, following a formal application would be made to the Board for approval of the plan. This process ended in early May 2015 with no settlement being reached.

On May 22, 2015, shortly after the conclusion of the advance settlement process, PowerStream filed its 2016 – 2020 Custom IR distribution rate application (the "Application") with the Board. Included in the pre-filed evidence in the Application was the material arising out of the advance settlement process (with the exception of certain material that was the subject of a request for confidential treatment). The material from the advance settlement process included the PowerStream rate proposal; PowerStream's responses to 470 intervenor Interrogatories, and PowerStream's responses to 40 undertakings given during the Technical Conference conducted on April 21, 2015 as part of the advance settlement process.

In Procedural Order No. 1, issued on July 10, 2015, the Board provided for Interrogatories from Board Staff and further Interrogatories from Intervenors, and set dates for a Technical Conference and Settlement Conference. PowerStream filed its responses to those Interrogatories, along with an update to its Application, on August 21, 2015. This update reflected recent Board direction regarding a new default working capital allowance of 7.5%; the requirement that customers be moved to monthly billing as of January 1, 2017; and the transition of Residential distribution rates to a fully fixed monthly charge over a four-year period. In all other respects, the Application was the same as the rate proposal submitted to the Intervenors on February 24, 2015.

In its updated Application, PowerStream sought approval to charge rates effective January 1, 2016 to recover a base revenue requirement of approximately $187.0 million. PowerStream also sought interim approval of the base revenue requirements for 2017 to 2020 of $210.3 million, $221.4 million, $232.0 million and $241.6 million respectively, subject to an annual adjustment and update process.

A Technical Conference was held on September 9, 2015, and PowerStream filed responses to the 14 Undertakings given during that Technical Conference.

A Draft Issues List was created by Board Staff. The parties agreed on all issues with the exception of whether an issue relating to the proposed consolidation among PowerStream, Enersource Hydro Mississauga Inc., Horizon Utilities Corporation, and Hydro One Brampton Networks Inc. announced in April of 2015 should be included in the Issues List. The Board made the question of whether such an issue should be included a Threshold Question and issued its Decision on October 6, 2015. Among the Board's findings in that Decision were that "cost impacts of a potential merger are not relevant to its determination in this proceeding", and that "evidence on potential cost savings due to the merger regardless of substance, is outside the scope of this proceeding."[1]

A Settlement Conference was held from October 19 to 21, 2015. Despite the efforts of the parties, no settlement was reached.

An Oral Hearing was held on November 20, 23 and 26, 2015.

Executive Summary

PowerStream believes that it has a good reputation with the OEB and with intervenors that is the result of being consistently open and transparent. PowerStream also believes that it has historically been innovative in its approaches to rate making. An example is the 2010 and 2011

[1] Decision on Threshold Question and Procedural Order No. 5, Issued October 6, 2015, at p.3 and p.8 - <http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/499249/view/>

Smart Meter cost recovery applications that the Board used as a model for applications by other distributors.

In its 2009 and 2013 Cost of Service rate applications, PowerStream settled all but a few issues. In its 2014 Incremental Capital Module application, a full settlement was reached. In the subject Custom IR rate application, PowerStream had a full oral hearing and this was a first experience for many staff that appeared as witnesses.

In reviewing the Board Staff and Intervenor submissions in this proceeding, PowerStream observes that comments on PowerStream's Application do not appear to fully consider the ample evidence provided supporting PowerStream's need for the significantly increased capital work during the proposed five year Custom IR term along with the increase in rate base for capital additions in 2014 and 2015. These are the main drivers for the requested rate relief. Any deferral of capital projects will result in increased future year spending in order to maintain reliability and customer response times and put at risk PowerStream's ability to continue its efforts to be an efficient distributor.

In its Application, PowerStream was guided by three Custom IR Decisions that the Board had rendered through March 2015, and at the time of this submission there have been four more Decisions. It is PowerStream's view, when considering all of these cases, that its proposed Custom IR plan is compliant with the Board's Renewed Regulatory Framework ("RRFE") for Electricity Distributors. Among other RRFE-related activities:

- PowerStream has provided extensive evidence on its customer engagement activities and has balanced customers concerns with costs and reliability in preparing its Custom IR plan;
- PowerStream has provided reasonable and sufficient evidence on the productivity built into its forecasts; and
- PowerStream has provided benchmarking evidence that supports its Application based on the Board's PEG Predicted Cost model.

In preparing this Custom IR Application and throughout this proceeding, PowerStream has complied with applicable Board requirements. It was guided in its preparation of the Application, and the Rate Proposal that preceded it, by Chapter 2 of the Board's *Filing Requirements for Distribution Rate Applications* (the "Filing Requirements"), although those do not explicitly apply to Custom IR proceedings. It is PowerStream's view that its five year Custom IR plan and 2016 rates should be approved effective January 1, 2016. Rates for 2017 to 2020 should be approved on an interim basis subject to the annual update process.

PowerStream submits that a five year term is appropriate. In their submission, Board Staff indicated that should the Board determine that a five year term is appropriate, an earnings

sharing mechanism should be adopted.[2] PowerStream agrees with this recommendation and would be prepared to accept an earnings sharing mechanism as described in the recent Toronto Hydro Decision, 50:50 sharing with customers with a 100 basis point dead band.[3] Should any concerns remain related to benchmarking and productivity, PowerStream would adopt, as suggested by a number of the intervenors, an Efficiency Adjustment Mechanism similar to that of Horizon Utilities (EB-2014-0002), if so directed by the Board.

PowerStream has been consistent in its evidence that its distribution system must be upgraded in a planned manner to ensure that customers continue to receive reliable service with reasonable bill impacts. PowerStream's asset management practices have been well regarded and accepted in past rate applications, and have been praised by intervenors. The same asset management practices, with ongoing improvements, underpin this Application. PowerStream has supported its capital spending plan with a comprehensive Distribution System Plan ("DSP") in accordance with Chapter 5 of the Board's *Filing Requirements for Electricity Distribution Rate Applications*.

Parties have recommended cuts in PowerStream's proposed capital spending of between 10% and 20% and this appears to be in large part based on their conclusions regarding the PowerStream benchmarking results. Please see Section B, Summary for further discussion of benchmarking results.

PowerStream notes that no party in the proceeding asked for an assessment of what these cuts would mean to system reliability and the impact on customers. PowerStream submits that to base a decision on capital spending on arbitrary cuts or their assessment of the results of benchmarking would be irresponsible.

The reductions in proposed capital spending advocated by the other parties to this proceeding are, in PowerStream's submission, inappropriate. However, PowerStream has considered those submissions, and it has determined that certain reasonable reductions in the 2016 to 2020 capital expenditures set out in the DSP, are feasible. These reductions total $23.2 million, and they are described later in this Reply Argument in Section C, Issue 3.2, Final Comments.

If the Board were to approve PowerStream's proposed capital spending with a reduction of this amount, $23.2 million, PowerStream would require a symmetrical capital variance account for the System Access capital spending considering the significant increased costs given the expected increase in capital required for the York Region Rapid Transit project. The proposed account would be similar to the capital variance account, with no deadband or threshold, approved in the Board's Decision in the Toronto Hydro rate proceeding (EB-2014-0116).

PowerStream has prepared detailed OM&A budgets for all five years of the Custom IR plan. OM&A is a much smaller driver of increased revenue requirement than capital. The average

[2] Board Staff Submission, p. 11
[3] EB-2014-0116

annual increase in OM&A spending from 2016 to 2020 is 2.7% when extraordinary items are excluded.[4] PowerStream has provided ample evidence regarding the cost drivers[5].

PowerStream proposes to update specific service charges on an interim basis pending the Board's Review of Miscellaneous Rates and Charges.[6] This will reduce the revenue requirement to be collected through rates.

PowerStream adopted the class specific methodology to forecast load, customers and connections that underpins this Application. The estimated models are proven theoretically and statistically strong. The forecast results are unbiased, reasonably accurate, and are consistent with the historical consumption trend and customer growth. PowerStream submits that its load and customer forecast results should be accepted as filed.

Following the Board's Decision, PowerStream will prepare a Draft Rate Order that incorporates the Board's latest cost of capital parameters.

[4] Application, Exhibit J Tab 1, p. 2 February 24, 2015
[5] Argument in Chief, p. 18-19, Filed December 14, 2015
[6] EB-2015-0304

SECTION B - RRFE

Summary:

PowerStream submits that it has complied with the Board's requirements for a 5 year Custom IR plan under RRFE and its proposed plan should be approved on this basis.

PowerStream submits that the effective date for its 2016 rates should be January 1, 2016.

PowerStream submits that this is appropriate for the following reasons:

- PowerStream's choice for a Custom IR plan was appropriate and allowable.
- The form of PowerStream's Application is not prescribed. It needs only to meet the requirements set out for Custom IR plans in the RRFE.
- Denial would be a waste of resources and result in even a greater increase in 2017; if needed PowerStream is willing to accept some changes to strengthen its plan.
- Customer engagement was adequate and comparable to what has been done by other distributors who have had Custom IR plans approved.
- PowerStream has provided reasonable evidence that its forecasts contain productivity equal or greater than under the Board's X factor.
- PowerStream's benchmarking efforts are adequate and support PowerStream's application.
- Statements that PowerStream's evidence indicates serious decline in efficiency and cost performance is incorrect. As shown below the change in the basis of accounting from CGAAP to IFRS accounts for $62 million or almost half of the "excess" of forecasted costs over predicted costs of $130 million cited by SEC and others. The remaining is largely explained by the change in capital spending and other factors described in the benchmarking section below.
- PowerStream's proposed performance measuring and outcome reporting is the OEB's scorecard and RRR reporting. This is the most effective and fairest methodology as it applies to all distributors. It addresses the outcomes and the Board is the best party to monitor and address any concerns
- PowerStream has complied with Board requirements and there is no basis for moving the effective date of 2016 rates beyond January 1, 2016.

This is discussed in further detail below.

This section deals with the *Renewed Regulatory Framework for Electricity Distributors* (RRFE) related issues, specifically the Section 2 issues in the Issues List. Some parties structured their submissions following the numbering of issues in the Board's Issues List, while others did not.

PowerStream has structured its reply by general themes around the RRFE. However, in Section C, PowerStream's discussion of its Distribution System Plan (DSP), Operating Maintenance and Administration (OM&A) and other topics is structured to follow the Board's Issues List.

PowerStream's Application Complies with the RRFE

The Board's Decision on the Threshold Question was unequivocal on the scope of this rate proceeding with respect to a possible merger. The Board was clear that this was to be a stand-alone rate proceeding and that cost savings from a potential merger were out of scope.

The disregard for the Board's Decision on the Threshold Question shown by certain intervenors is obvious and disconcerting. Their positions clearly suggest that since they did not get their way in the Threshold Decision their objective is to incorporate possible merger savings into the proceeding in different way. For some intervenors, that way is through the denial of this Application.

Intervenors have signed off on Settlements in other applications in which Custom IR terms were framed and supported similarly to PowerStream's.

The intervenors' selectivity is bothersome. For them it is all about what the Board said in the Enbridge rate case and in the Hydro One Distribution rate case. They conveniently neglect to cite decisions where the Board's pronouncements demonstrate the evolution in its expectations about applications framed as Custom IR. This cannot be helpful to the Board.

There have been seven Custom IR cases completed under RRFE. The first completed rate case was that of Enbridge, in July 2014. Preparation of PowerStream's application had started in 2014, before the issuance of that decision. The next completed rate case was that of Horizon Utilities, with the decision to accept the Settlement Proposal (subject to a small number of Cost Allocation and Rate Design matters that were addressed in an Oral Hearing) in December 2014. At that time PowerStream was starting its Rate Proposal process with intervenors. The next completed case was that of Hydro One Distribution, with the decision issued in March 2015. At that time PowerStream was in the middle of its Rate Proposal process with intervenors. None of the other four Custom IR cases was completed by the time PowerStream filed its formal Application with the Board in May 2015.

Denial of the application is neither an appropriate nor an equitable solution and the Board should dismiss such a recommendation. Rather, the investment in this proceeding should be used by the Board to provide further guidance on its expectations for Custom IR applications under the RRFE, if needed. In the event that the Board accepts some of the parties' arguments that there are deficiencies in the thousands of pages of evidence filed by PowerStream in this Application, or that improvements are warranted in certain elements of the PowerStream Custom IR rate plan, the Board should direct solutions, but it should not deny the Application.

While PowerStream is not proposing an Earnings Sharing Mechanism, an Efficiency Adjustment Mechanism or a Capital Variance Account in its Application, PowerStream is aware that certain parties have proposed them, and PowerStream has provided specific comments on how those might apply to PowerStream.

Some Parties' suggested options are not practical

AMPCO, BOMA, CCC and SEC have recommended that this Application be denied and that PowerStream should remain on IRM for 2016.

PowerStream submits that this position conveys a disregard for the considerable evidence that has been presented in this case, in a year-long process dating back to the initiation of the advance settlement discussions and Rate Proposal initiated by PowerStream in December of 2014, and continuing through the formal application process in the spring of 2015 when an advance settlement could not be reached, which shows the clear need for rebasing to address PowerStream's capital requirements including the increase in rate base during 2014 and 2015 from capital investment. Furthermore, it shows a disregard for the process and the costs involved that are ultimately borne by ratepayers. If this recommendation were to be accepted by the Board it would merely push an increased capital funding shortfall to the next rebasing where the rate impacts would be even greater.

BOMA states that PowerStream has not made a sufficient case for termination of its existing IRM plan. PowerStream observes that this proceeding is BOMA's first time intervening in PowerStream's rate applications. However, the need to fund increased capital spending was addressed in PowerStream's 2014 IRM application (EB-2013- 0166) which included a request for an Incremental Capital Module (ICM). The ICM request was accepted by the intervenors in a Settlement Agreement that was approved by the Board.

Energy Probe and SEC were parties to the Settlement Agreement regarding the 2014 ICM. As part of the settlement with the intervenors, PowerStream accepted a clause that effectively prevented it from applying for additional ICM funding for capital and effectively requires it to use a Cost of Service/ rebasing application to get additional capital funding. It is troubling that these intervenors now suggest that it is inappropriate for PowerStream to put forward a Cost of Service/rebasing application to address these needs. As noted above, further delay in addressing these capital funding requirements will only lead to greater "rate shock" in the next rebasing, a totally undesirable outcome for customers.

The choice of the rate option is with the applicant

A number of intervenors urged the Board to find that PowerStream has not proven that a Custom IR application is the proper rate framework option for PowerStream.

PowerStream disagrees. Here is an excerpt on the topic from the Board's decision in the THESL case (EB-2014-0116, p. 4)

> "The OEB does not decide whether the option chosen by the applicant is the most appropriate. The OEB decides rather whether the proposal contains features that can be relied on to achieve the RRFE objectives."

If aligned with RRFE a Cost of Service approach is appropriate

A number of intervenors refer to the Board decision in the Hydro One Distribution Custom IR proceeding and argue that a Cost of Service approach is not congruent with the RRFE.

Here is what the Board stated in that decision (EB-2013-0416/EB-2014-0247, pg. 8).

> "The OEB does not consider Hydro One's "Custom Cost of Service" application to be sufficiently aligned with the objectives of the RRFE policy to approve the application as presented …" (emphasis added)

On the face of the Board's words, the intervenors' interpretation is selective, at best. The proper interpretation is that a Custom IR application framed as a Cost of Service can be appropriate if it is sufficiently aligned with the objectives of the RRFE. PowerStream submits on the basis of the evidence adduced and its argument, both in-chief and in reply, that its application is sufficiently aligned with RRFE's objectives. For further clarity, the Board's RRFE policy does not exclude a Cost of Service approach. After all, rate setting is still a data driven exercise. PowerStream urges the Board to conclude that PowerStream's application is indeed sufficiently aligned with the objectives of the RRFE.

Customer Engagement

OEB Staff submitted that PowerStream's customer engagement efforts were adequate for its initial DSP. However, it stated that as the preparation of the current DSP did not incorporate customer input into its actual development, improvements should be required for PowerStream's next DSP. OEB Staff stated that is one of the reasons it recommended a three year-term.

Intervenors criticised customer engagement, to varying degrees. Some intervenors went as far as to suggest that the application should be denied as, in their view, it does not meet the customer-centric approach discussed in the RRFE.

A major criticism is that PowerStream should have consulted with its customers before developing the DSP, and therefore PowerStream cannot claim to have represented customer identified consumer preferences in its Application.

PowerStream seeks to understand customer preferences through ongoing Customer Satisfaction Surveys, Customer Focus Groups, Web-based Surveys, and Transactional Surveys (where customers are contacted seven days after interacting with the PowerStream call centre). In 2014, PowerStream achieved an overall customer satisfaction score of 88% and 90.5% in 2015.

The challenge to the criticisms cited with respect to the timing of the consultation regarding the DSP is this: The customer engagement stipulated in the RRFE is an addition to ongoing customer outreach conducted by PowerStream and other distributors. It is specific to the DSP. If PowerStream did not have a draft DSP it could not have anything meaningful upon which to base its consultation with customers.

PowerStream sees the use of a draft DSP as no different from when OEB Staff offer a "strawman" position for purposes of their consultations. There is however one significant difference. OEB Staff is dealing with well-informed industry participants. This clearly was not the case when engaging customers most of whom had little knowledge about the industry other than what they read in the newspaper. Half of residential customers surveyed noted that they are unfamiliar with the industry and which services are provided by PowerStream as opposed to other players (transmission, generation, government, etc.)[7]. PowerStream had to spend significant time educating customers to get them to a basic understanding of PowerStream's role in delivering electricity before being able to gauge their views and preferences on elements of the DSP.

PowerStream's customer engagement on its DSP included an online primer, focus groups, telephone surveys, workshops and key account presentation and feedback sessions. Customer engagement materials and results are included in the Application at Section II, Tab 2, Exhibit G, and Appendices C to F. A great deal of time, effort and resources went into customer engagement.

In section 5.4.2 of the DSP (Section II, Tab 2, Exhibit G) PowerStream discusses the various types of customer engagement that it undertakes in detail.

Based on the varying responses from different customers and customer groups the clear message was that some customers are more concerned with cost, other customers are more concerned with reliability and no one likes not having power.

PowerStream had already made adjustments to the capital and operating budgets underpinning the Application to reduce the impacts to customers. PowerStream only included in the Application what it believed to be necessary operating costs and capital expenditures. PowerStream submits that it has responded to customers and that in the Application it has balanced customers concerns about cost and reliability.

Since the introduction of the RRFE there have been many applications to the Board where customer engagement for the DSP has been reviewed. To PowerStream's knowledge the applicants followed similar timelines for customer engagement and often used the same consultant as PowerStream. Intervenors have signed off on these settlements. OEB Staff who comment on the Settlement Proposals have not suggested to PowerStream's knowledge that the Board should not accept the settlement because of lack of earlier engagement of customers

[7] Rate Proposal, Exhibit G, Tab 2, Appendix F: Customer Consultation Report, p.20

for the DSP. PowerStream does not understand why, in this particular case, intervenors would suggest that PowerStream's Application should be denied as not being customer focused, or OEB Staff would suggest that the Custom IR plan term should be three rather than five years.

As mentioned previously, PowerStream's approach to customer engagement on its DSP and in its rate Application has been similar to that of other distributors. If the issue for OEB Staff and the intervenors who have suggested that the PowerStream Application is not customer-focused is that there are concerns about the way that capital-related customer engagement is being conducted across the distribution sector, then PowerStream respectfully submits that further determination on customers' preferences with respect to being educated/engaged and the best ways to do this would be dealt with more efficiently through an OEB consultation with customers and industry participants than separately and individually by distributors. The denial of the PowerStream Application or the shortening of its Custom IR plan term is not an appropriate approach to what (if there is an issue at all) is a sector-wide issue.

With respect to the outcome of PowerStream's own DSP-related customer engagement process, SEC and BOMA assert that customers showed strong resistance to the size of the proposed increase, and many of the specific spending proposals. PowerStream submits that SEC and BOMA have mischaracterized the results of PowerStream's customer engagement on the DSP.

PowerStream's customer engagement process produced a range of opinions but on the whole, customers perceived PowerStream as being on the right track with its efforts to produce and deliver a capital plan that balanced a need for prudent investment with sensitivity to customer cost.

PowerStream made a significant effort to educate customers on the fact that the first year increase (largest of the five) was a result of the utility having to effectively catch up on its capital requirement from the previous re-basing and that the remaining increases would be more moderate.

BOMA and SEC commented that regional planning failed to engage customers at an appropriate stage. PowerStream submits that either these parties are unfamiliar with the regional planning process or this is simply an attempt to disparage PowerStream's planning processes.

With respect to customer engagement and regional planning, as part of the RRFE development, the OEB convened a consultation process aimed at promoting the cost-effective development of electricity infrastructure through coordinated planning on a regional basis between licensed distributors and transmitters. In 2013, the Regional Planning Process was formally introduced by the OEB. This process outlined the requirements for LDCs, Transmitters and Provincial Entities with respect to integrated electricity planning. On May 13, 2013, the Planning Process Working Group (PPWG), a group of industry representatives convened by the OEB, posted a final version of its *Report to the Board: The Process for Regional Infrastructure Planning in*

Ontario. This report outlined the requirements for LDCs, Transmitters and Provincial Entities with respect to integrated electricity planning. PowerStream has been compliant with the customer engagement elements within the provincial planning policies.

PowerStream has been an active participant in the regional planning process, has worked diligently with the other parties and done its part to implement this new process.

A Local Advisory Committee (LAC) has now been struck for York Region. Applications for membership for the LAC closed June 25, 2015, and two meetings have been held, in September and January respectively. All options for meeting peak capacity will be reviewed, including CDM, distributed generation or other innovative solutions.

PowerStream's customer engagement regarding the timing and scope of its capital requirements was no less than that of other distributors, both in Custom IR and Cost of Service/IRM, yet parties want to use this as the basis for denial. This is inconsistent and unfair and would lead to a larger first year rebasing rate increase.

Finally, PowerStream respectfully submits that the Board should be mindful of the responsibilities of PowerStream as the custodians and managers of the distribution system to ensure that the distribution is run in a safe and reliable manner; PowerStream should not be delegating this to customers. Mr. Macdonald's testimony on this point in the context of CIS applies equally here as well:

> "… perhaps it's a bit harsh, but as managers of the utility there are some things that we know we have to do because we know the business, and customers may have differing views. We can't do everything based on customer suggestions or feedback, although it is valuable in many, many areas."[8]

Productivity - PowerStream is Productive

Background:

PowerStream strives to make continuous improvement in how it runs its business with many examples provided in the evidence including having its processes certified as meeting the Gold Level by Excellence Canada. PowerStream's Organizational Effectiveness department assists with initiatives to improve efficiency and increase effectiveness.

From an operational point of view, PowerStream has looked at productivity in terms of its ability to keep rates in the lowest quartile and to earn or exceed the OEB's allowed rate of return during the IRM term while maintaining a high level of customer satisfaction, operational effectiveness and responsiveness to public policy.

[8] Hearing Transcript Volume 1, p. 199

This is PowerStream's first attempt to quantify productivity on an overall revenue requirement basis. PowerStream has used analysis to demonstrate the productivity represented in its forecasts.

Summary of Submissions by OEB Staff and Intervenors:

OEB Staff is of the view that the approach used by PowerStream is very subjective and will not give the same degree of confidence that real productivity savings are being achieved as if a stretch factor were applied. With respect to OM&A savings, OEB Staff express some reservations regarding the net incremental new costs and how those were determined. OEB Staff concludes by saying that it is just suggesting that PowerStream will or will not achieve sufficient productivity savings if PowerStream's approach is accepted.

AMPCO submits that the application lacks a custom productivity factor and a stretch factor and the Board should deny the Custom IR application.

BOMA makes no submissions regarding the productivity analysis but submits that if the Application is not denied then a 1% OM&A escalation factor should be used.

CCC states that its fails to see how PowerStream has incorporated productivity into its 5-year rate plan. CCC then cites the incorrect amount of $2.9 million in productivity saving from the OEB Staff submission and argues that this is small. CCC states that PowerStream's application does not contain an X factor as required by RRFE.

Energy Probe asserts that PowerStream has failed to incorporate any efficiency incentives or externally imposed incentives in its Application and submits that the Board should approve an Efficiency Adjustment Mechanism as it has done for Horizon Utilities and Hydro Ottawa.

SEC makes no direct submission regarding productivity but appears to be suggesting that an X factor is required rather than the approach taken by PowerStream.

SIA submits that the demonstration of productivity savings is flawed in several aspects due to the lack of a stretch factor, and a lack of consideration of further savings and the total level of spending.

VECC claims that PowerStream productivity savings analysis simply labels costs increases as "inevitable" and cost decreases as "productivity gains" and submits that the Board should reject this analysis.

Discussion and PowerStream's Submission:

There are two main points raised in the submissions by OEB Staff and intervenors:

1. Custom IR requires an X-factor, and

2. Criticism of PowerStream's approach and productivity savings analysis.

PowerStream addresses each of these under the correspondingly numbered headings below. However, it is first necessary to correct statements made by OEB Staff and CCC about PowerStream's evidence on productivity.

- **Correction to OEB Staff and CCC Statements about the Evidence – PowerStream's forecasted productivity savings are over 5x those asserted by OEB Staff and CCC.**

Regarding the correction, OEB Staff notes that PowerStream's stated productivity savings for the 2014 to 2020 period of $2.9 million are "very small" when compared to the cumulative service revenue requirement in the same period of over $1.5 billion. CCC echoed this comment.

The total productivity savings over the period 2014 to 2020 are $15.8 million as shown in the table below and which is included on page 12 of the Staff submission, in the row titled "Estimated Productivity Savings", and not $2.9 million as stated on page 14 of the Staff submission in the first paragraph under the heading, Discussion and Submission.

Table F-SEC-6-2: Expected vs. Estimated Productivity Savings ($ Millions)

	2014	2015	2016	2017	2018	2019	2020	Total
OEB Expected Productivity Savings	$0.5	$0.9	$1.4	$1.9	$2.3	$2.8	$3.2	$13.0
Estimated Productivity Savings	$2.5	($0.4)	($0.2)	$1.5	$2.8	$4.1	$5.6	$15.8
Over (under) achieved	$2.0	($1.4)	($1.6)	($0.4)	$0.5	$1.3	$2.4	$2.9

The amount of $2.9 million referred to by Staff represents the amount by which the estimated productivity savings exceed the expected productivity savings of $13.0 million using the OEB assigned productivity factor of 0.3% that has been applicable to PowerStream under IRM. While OEB Staff correctly labelled the $2.9 million amount on page 12 of its submission, it did not do so on page 14 of its submission. Had OEB Staff used the $15.8 million number it would likely not have labelled the savings "very small", as it did.

Regarding the clarification, OEB Staff notes that PowerStream stated in response to an Interrogatory that cable injection was the only program included in the calculation of productivity savings from capital, although the pole reinforcement program had been discussed, but the savings from this program had not been calculated, nor included in the estimated productivity savings. PowerStream notes that the capital spending in this Application reflects the lower cost of using pole reinforcement and customers benefit from using this lower cost alternative.

1. Custom IR requires an X-factor

Parties either indicated that an X-factor formula was a better alternative or that this was required under RRFE. PowerStream respectfully disagrees.

In the RRFE, on page 13, in Table 1, under the column heading Custom IR, the Board described the requirement regarding the rate trend for the proposed Custom IR term as follows:

Distributor-specific rate trend for the plan term to be determined by the Board, informed by: (1) the distributor's forecasts (revenue and costs, inflation, productivity); (2) the Board's inflation and productivity analyses; and (3) benchmarking to assess the reasonableness of the distributor's forecasts

PowerStream submits that it has provided its forecast of revenues and costs, inflation and productivity savings. Its productivity analysis is tied to an external productivity factor - the Board's X factor for Cohort 3 to which PowerStream has been assigned. Furthermore this analysis shows that PowerStream not only achieves the X-factor productivity savings but exceeds them.

PowerStream disagrees with suggestions that the X-factor is a "cure-all" and ensures productivity savings. PowerStream submits that proposals to set OM&A increases based on an IRM factor in a rebasing application are not appropriate. The RRFE offers a choice of rate plans designed to meet the different requirements of distributors. PowerStream has chosen a Custom IR plan because this meets its particular requirements, and its Application provides the evidence needed to support the approval of that approach.

This is illustrated by consideration of OEB Staff's proposal with respect to setting the OM&A portion of revenue requirement. Staff proposes a 2.1% increase in OM&A for 2017 based on 2016 approved OM&A. Using PowerStream's forecasted 2016 OM&A of $96.2 million this translates to an increase of $2.0 million to cover the inflationary increases in OM&A costs in 2017.

PowerStream is in Cohort 3 and has been assigned a target productivity factor under IRM of 0.3% of revenue requirement. Based on PowerStream's proposed 2016 OM&A requirement of $96.2 million, this translates to a productivity target of $0.3 million for 2017 OM&A.

Implicit in the use of the X-factor approach alone is that any new requirements are not considered. In fact OEB Staff proposes that PowerStream should be able to absorb the incremental costs of monthly billing which start in 2017. OEB Staff notes that the forecasted costs are $3.7 million in 2017, $3.8 million in 2018, $3.9 million in 2019, and $4.0 million in 2020.

PowerStream submits that OEB Staff's assertion that costs of this magnitude can be absorbed through productivity measures is not reasonable. OEB Staff's proposal that PowerStream absorb an amount in 2017 of $3.7 million that far exceeds the materiality threshold of $0.8 million and which is in excess of twelve times the Board's productivity target of $0.3 million.

OEB Staff's assertions that these costs are excessive and can be easily mitigated are unfounded as discussed below and in Section C, Issue 3.6. PowerStream's billing processes are already highly automated with bill printing and mailing contracted out to a vendor that specializes in this work. PowerStream actively promotes e-billing to its customers but there has

been a slow adoption rate by PowerStream's customers. PowerStream has incorporated a reduction for increased uptake of e-billing in its estimate of incremental monthly billing costs.

PowerStream reiterates that proposals to set OM&A on an IRM factor in a rebasing application are not appropriate. PowerStream submits that its approach to target and demonstrate productivity savings equal to or greater than those calculated using the Board's X-factor is appropriate.

2. Criticism of PowerStream's approach and productivity savings analysis.

OEB Staff suggested that the selection criteria for OM&A cost drivers to be incorporated in, or excluded from this adjustment is not entirely clear to OEB Staff and appears in any event to contain a significant element of subjectivity. Other parties made similar comments.

VECC asserts that PowerStream has considered cost increases as drivers and cost savings as productivity savings. PowerStream rejects this unfounded allegation. PowerStream provided ample evidence on this process.

PowerStream applied the appropriate rigour in the preparation of its productivity analysis. It analyzed its cost drivers to identify all major impacts resulting from changing requirements. PowerStream ensured that the items identified and excluded any cost impacts already captured by the inflation and growth factors applied in determining the "status quo" OM&A levels.

With respect to certain specific OM&A items, PowerStream submits that:

- The amounts related to vegetation management relate to new program activities not included in the 2013 Board Approved OM&A and thus represent new incremental costs. These new programs are being proposed in response to customer concerns over the impact of the 2013 ice storm and the resulting outages;

- The amounts related to risk management includes costs associated with pre-hiring engineering staff and apprentice programs to ensure appropriate business continuity and succession planning as well as costs related to specialized positions to manage risks[9]; and

- There is nothing subjective about including the new monthly billing costs in the productivity analysis. Monthly billing of Residential customers starting in 2017 adds new costs of $3.7 million in 2017 and these costs are projected to grow to $4.0 million by 2020, as more customers are added and costs increase.

[9] Application, Section III, Tab 1, Schedule 1, p.61, Filed May 22, 2015

Changes of this magnitude cannot be managed by productivity gains alone and cannot be ignored in measuring the productivity savings achieved or built into the forecast. This is why PowerStream has identified and included these items in its productivity analysis.

PowerStream submits that its productivity analyses provide the necessary information for the Board to assess its forecasted costs.

Benchmarking - Benchmarking validates PowerStream's proposals

Summary and Submission:

PowerStream has used the Board's benchmarking model. This is on par with what many other utilities have done in cases where intervenors reached settlements and the Board accepted such. Recommendations to deny PowerStream's application on this basis are unwarranted.

As noted in the OEB Staff submission, PowerStream has gone beyond the Board's PEG Model; PowerStream also presented a peer-to-peer approach which shows that PowerStream's performance compares well to other utilities.

It followed the Board's benchmarking model and has provided detailed explanations regarding the movement in actual/forecasted costs relative to predicted costs. These have been summarized below in the discussion section.

The Board made the following finding in the THESL Decision:

> "The OEB has emphasized in the RRFE and in previous cases the importance of benchmarking. It is an important input to the OEB's assessment of an application, but it is not the sole determining factor in setting rates. In the context of a Custom IR, the OEB will use benchmarking as a tool to inform its decisions, but will not use it as the method by which to determine rates."[10]

PowerStream submits that it has provided appropriate benchmarking evidence to assist the Board in assessing its Custom IR plan.

Submissions by OEB Staff and Intervenors

OEB Staff is in agreement with PowerStream that the peer-to-peer benchmarking studies which it has provided do support the view that its 2014 costs and typical bills are reasonable when compared to the rest of the industry.[11]

OEB Staff expresses concern that PowerStream's actual and forecasted costs are rising relative to predicted costs and whether the explanations provided justify the increases based on their remark that PowerStream's conditions are not atypical of the industry.

[10] THESL EB-2014-0116, p.19
[11] Staff Submission, p. 18

AMPCO submits that PowerStream's benchmarking results show "a decline in efficiency over time" and that an Efficiency Adjustment Mechanism should apply.[12]

BOMA states that[13]: "its benchmarking effort was weak, and, contrary to its claim, did not follow the PEG model to its logical conclusion…" and that: "This analysis suggests that PowerStream's proposed total costs are unreasonable. The Board should reduce its costs to approximately its benchmark value, a reduction of $110 million over five years, in combined capital and OM&A costs."

CCC takes issue with the fact that PowerStream used the Board's Predicted Cost model from PEG and did not undertake any other form of external benchmarking.[14]

Energy Probe suggests that the benchmarking results show declining performance; that PowerStream faces the same cost pressures as other distributors; and that the Board should approve an Efficiency Adjustment Mechanism. [15]

SEC makes a number of claims and submissions on PowerStream's benchmarking:[16]

- SEC asserts that PowerStream did not do benchmarking specific to its circumstances and criticizes PowerStream for its use of the PEG model used by the Board for external benchmarking;
- SEC asserts that PowerStream's benchmarking evidence is flawed because it did not hire an external expert to run the model but used an internal staff member "who is not an econometrician, or even an economist";
- SEC takes Mr. Barrett's testimony out of context and mischaracterizes what was said;
- SEC asserts that the use of the Board model is insufficient. "SEC submits that, absent benchmarking evidence that deals with the specific business conditions and comparables of the Applicant, this is not a Custom IR application under the RRFE, and the Board should not set rates on the basis of Custom IR."
- "The benchmarking PowerStream did do, using the Board's model, showed that PowerStream's cost performance is declining, and at an increasing rate. Further, even using the Board's model, PowerStream was not faithful to the model, and had to revise their numbers during the Oral Hearing."

[12] AMPCO, p. 6
[13] BOMA, p. 29 ff.
[14] CCC, p. 10
[15] Energy Probe, p.9 ff.
[16] SEC, p.18 ff.

- "Further, the results proposed by PowerStream are not credible, and more realistic assumptions show even worse benchmarking results than the poor results from the PowerStream figures."
- That the PEG model confirms that PowerStream does not need to rebase capital for more than 1 year.
- Provides some comparisons to predicted costs from work done for other distributors; and
- In 1.7.13 creates its own unsupported methodology using an assumption regarding increases in predicted costs.

SIA did not comment on benchmarking.

VECC makes the following comments regarding benchmarking:[17]

- "VECC believes that if results for the operational efficiency of the Company and the need of the customers are the most important aspects of a Custom IR application, the lack of benchmarking or performance metrics should be a fact that informs a conclusion that the required framework has not been followed."
- That PowerStream is forecasting that it is becoming less efficient.

There are several common themes in the submissions:

1. Actual and forecasted costs are rising relative to predicted costs/justification.
2. Results mean spending too high /role of benchmarking.
3. Board/PEG Predicted Cost Model is insufficient for benchmarking.

There are a number of comments that are specific to SEC:

4. Benchmarking is not specific to PowerStream's circumstances.
5. Absence of external review invalidates results/results are not credible.
6. Misrepresentation of PowerStream's testimony and evidence.
7. Comment regarding change to reflect IFRS.
8. Comparisons to predicted costs results for other distributors.
9. Predicted cost change assumption and analysis.

[17] VECC Submission, p.8 ff.

PowerStream will address each of these below under the same numbered headings.

1. Actual and forecasted costs arising relative to predicted cost/justification

There is no question that the actual and forecasted costs are rising relative to the predicted costs generated by the Board/PEG Predicted Cost model.

The question that needs to be addressed is whether there are valid reasons for this increase. PowerStream submits that there are valid reasons for this and there is no basis for inferring a decline in PowerStream's performance. There has been considerable evidence provided on this as summarized below.

To properly explain this, it is first necessary to discuss the methodology, then the results and finally the factors that are driving the results.

Methodology

PowerStream's benchmarking analysis carefully followed the PEG methodology and was updated to incorporate the same assumptions used by PEG in conducting similar benchmarking for Oshawa PUC.[18]

PowerStream has used the OEB's econometric total cost model, prepared by PEG (the "Model") to benchmark PowerStream's forecasts of 2016-2020 costs. PEG's econometric benchmarking model is derived from the historical dataset (2002-2012).

The model uses regression techniques to estimate an equation relating levels of output, factor prices and business conditions to costs based on historical data.

In future periods, actual or forecasted business condition values for the specific utility (outputs) are entered into the Model which uses the equation to calculate predicted cost. Predicted cost is then compared to actual costs as per PEG methodology.

To calculate predicted costs, the required business conditions (outputs), underpinning the forecasts were entered into the model:

- Number of Customers
- Delivery Volume
- Peak Demand
- Km of Line

[18] Oshawa PUC, EB-2014-0001

- Labor price inflation (PowerStream used the price forecast used by PEG in preparation of the Cost Benchmarking report for OPUC, EB-2014-0101, issued December 18, 2014 – 2.59% annually)
- Economy wide inflation (PowerStream used the price forecast used by PEG in preparation of the Cost Benchmarking report for OPUC, EB-2014-0101, issued December 18, 2014 – 1.99% annually)
- Construction cost inflation (PowerStream used the price forecast used by PEG in preparation of the Cost Benchmarking report for OPUC, EB-2014-0101, issued December 18, 2014 – 2.58% annually)
- Rate of return allowed by the OEB- locked at 5.96%
- OM&A price is calculated as a weighted average of the logarithmic growth of AWE and GDP IPI price indexes (70% to 30%)
- Capital price is determined as Service Price divided by the OM&A price index (cost of materials)

Actual costs were derived from the OM&A and capital cost underpinning the Application and as per the PEG methodology.

PowerStream's calculations of predicted costs for the forecast period are based on the same formulas that are used by PEG to produce 2012-2014 benchmarking results.

To obtain results for the years 2015 to 2020, forecasts of cost and business conditions were entered into the predicted cost model. The data were taken from the details underpinning the forecasts in the Application and consisted of:

- OM&A cost
- Gross plant additions excluding High Voltage (>50KV) assets
- Construction cost inflation (utilized price forecast used by PEG in preparation of Cost Benchmarking report for OPUC, EB-2014-0101, issued December 18, 2014 – 2.58% annually)
- Rate of return, i.e. weighted cost of capital, locked at 5.96%

Results

Table 1 presents the historical and forecast years' Benchmark and PowerStream's total cost for the period 2010 through 2015 and during the Custom IR period of 2016 to 2020.

Table 1: 2010-2020 Benchmark Cost vs. PowerStream Historic and Projected Cost

Year	Total Cost Benchmark	Total Cost PowerStream	OM&A Cost PowerStream	Capital Cost PowerStream	Three Year AVG Performance
2010	212,560,742	196,831,247	51,332,000	144,762,569	
2011	218,279,691	203,552,559	54,881,977	148,670,582	
2012	216,914,501	218,814,873	72,205,853	146,609,020	-4.60%
2013	219,645,757	225,893,676	77,277,917	148,615,759	-1.10%
2014	229,948,892	242,112,109	81,658,712	160,453,397	2.94%
2015	230,353,141	249,034,488	85,886,506	163,147,981	5.25%
2016	240,043,483	264,462,038	89,140,284	175,321,754	7.55%
2017	251,064,537	280,334,475	94,962,964	185,371,512	9.50%
2018	265,448,491	293,366,106	96,772,869	196,593,237	10.24%
2019	280,878,269	306,453,498	99,023,499	207,429,998	9.91%
2020	296,877,389	319,224,628	101,009,063	218,215,565	8.66%
2016-2020 Average					9.17%

This is the table filed in Undertaking J1.3 with the addition of the column labeled “Three Year AVG Performance” which is calculated in accordance with the methodology used by the Board in assigning distributors to the various cohorts and determining stretch factors.

PowerStream notes that Energy Probe included in their submission a similar table derived from Undertaking J1.3 that presents “Performance Ratio” numbers that were not calculated in accordance with the Board’s methodology in determining cohort assignments.

PowerStream’s benchmarking demonstrates that its forecasted costs remain within the Cohort 3 range of predicted cost for the 2016 to 2020 rate plan term with the exception of 2018.

PowerStream notes that these results are after the addition of monthly billing costs which were not part of PowerStream’s original plan and are an added cost that is beyond PowerStream’s control to avoid. This is discussed next.

Monthly Billing:

The move to monthly billing in 2017 has added significant capital costs of $3 million in 2016 for modifications to PowerStream’s billing system, and increased billing operating costs in 2017 by $3.7 million increasing to $4.0 million by 2020. This is reflected in the updated benchmarking presented in undertaking J1.3 given on November 20, 2015.

In the following table PowerStream adjusted the forecasted OM&A cost presented in J1.3 to remove the incremental OM&A costs attributable to monthly billing. For purposes of this exercise PowerStream has ignored the capital costs related to implementing monthly billing.

Table 2: OM&A Cost Breakdown

		Benchmarking Adjustments		A	B	A - B
Year	OM&A Base Cost PowerStream	HV Cost	LV Cost	OM&A Cost PowerStream	Monthly Billing OM&A Costs	OM&A Cost PowerStream w/o Monthly Billing
2010	51,922,430	-658,825	68,372	**51,331,976**	0	**51,331,976**
2011	55,562,408	-777,708	97,276	**54,881,977**	0	**54,881,977**
2012	72,864,427	-759,771	101,197	**72,205,853**	0	**72,205,853**
2013	77,798,285	-628,813	108,445	**77,277,917**	0	**77,277,917**
2014	79,449,495	-625,420	89,364	**78,913,438**	0	**78,913,438**
2015	86,380,078	-600,000	106,429	**85,886,506**	0	**85,886,506**
2016	89,614,388	-600,000	125,896	**89,140,284**	0	**89,140,284**
2017	95,431,239	-600,000	131,724	**94,962,964**	3,696,095	**91,266,869**
2018	97,239,784	-600,000	133,085	**96,772,869**	3,804,117	**92,968,752**
2019	99,493,194	-600,000	130,305	**99,023,499**	3,913,836	**95,109,663**
2020	101,478,757	-600,000	130,305	**101,009,063**	4,034,899	**96,974,164**

The following table presents PowerStream's historical and forecasted costs before the addition of the incremental OM&A cost related to the mandated switch to monthly billing. There is no difference in OM&A predicted costs.

Table 3: 2010-2020 Benchmark Cost vs. PowerStream Historic and Forecasted Cost

(Excluding incremental Monthly Billing OM&A Costs)

Year	Total Cost Benchmark	Total Cost PowerStream	OM&A Cost PowerStream	Capital Cost PowerStream	Three Year AVG Performance
2010	**212,560,742**	**196,831,247**	51,332,000	144,762,569	
2011	**196,451,722**	**203,552,559**	54,881,977	148,670,582	
2012	**195,223,051**	**218,814,873**	72,205,853	146,609,020	**-4.60%**
2013	**197,681,181**	**225,893,676**	77,277,917	148,615,759	**-1.10%**
2014	**206,954,003**	**242,112,109**	81,658,712	160,453,397	**2.94%**
2015	**207,317,826**	**249,034,488**	85,886,506	163,147,981	**5.25%**
2016	**216,039,135**	**264,462,038**	89,140,284	175,321,754	**7.55%**
2017	**225,958,083**	**276,638,381**	91,266,869	185,371,512	**9.06%**
2018	**238,903,642**	**289,561,988**	92,968,752	196,593,237	**9.36%**
2019	**252,790,443**	**302,539,661**	95,109,663	207,429,998	**8.61%**
2020	**267,189,650**	**315,189,729**	96,974,164	218,215,565	**7.37%**
2016-2020 Average					**8.39%**

This table demonstrates that PowerStream's cost performance can be expected to remain within its current Cohort 3.

Factors Affecting Actual Cost vs. Predicted Costs

PowerStream submits that comments by OEB Staff, Energy Probe and others to the effect that PowerStream faces no significant differences in conditions relative to other Ontario distributors are overly simplistic and inaccurate. There are two prime reasons for this.

First, the PEG Model compares PowerStream's 2014 to 2020 costs to predicted costs based on actual spending for a "typical distributor in Ontario" during the period 2002 to 2012. This is not a criticism of the Model, just the reality that these were the best available data at the time the Model was estimated. PowerStream's capital requirements for 2013 to 2020 are quite different from what was required and done during the 2002 to 2012 period. PowerStream submits that this is true of many other distributors for the reasons discussed in the section below entitled "Impact of Capital Spending".

Secondly, though PowerStream faces certain conditions that are either not confronting many other distributors or impact them to a much lesser degree at this time. A large part of PowerStream's service territory lies within the GTA (Greater Toronto Area), just outside Toronto. As Toronto became fully developed or simply too expensive for many people, Markham, Richmond Hill and Vaughan were among the first areas where large subdivisions emerged some decades ago. As a result, PowerStream's sustainment and renewal requirements for these subdivisions and the supporting infrastructure are occurring earlier and to a greater degree than those experienced by many other Ontario distributors. [19]

PowerStream is also required to engage in substantial capital expenditures that are related to mass transit initiatives[20]. This is a condition that would affect few other distributors, particularly during the period covered by the historical data.

The following are specific factors which are causing the shift in actual/forecasted costs versus predicted costs. PowerStream has limited or no control over these. As such the impact of these items does not reflect deteriorating performance. The key factors are the impact of changes in capital spending and the shift to IFRS based accounting from CGAAP and Monthly Billing. These factors are discussed below.

Impact of Capital Spending:

PowerStream's increases in actual and forecasted costs relative to predicted costs correspond closely with its increase in capital spending and, in particular, sustainment spending.

The PEG Model is an econometric model based on statistical regression using selected data from Ontario electricity distributors for the years 2002 to 2012. As a result, the Model bases its

[19] Interrogatory Response, August 24, 2015, II-Energy Probe-13
[20] Application, Section III, Tab 2, G-SEC-15

predicted cost forecast for a "typical distributor in Ontario" on the conditions and spending occurring in the 2002 to 2012 period.

There are several reasons why current capital spending requirements are different for PowerStream and other Ontario distributors than in the 2002 to 2012 period as discussed below.

For a significant part of this period, rates were either based on past historical costs for most utilities or rates were frozen. In the case of PowerStream, during the period 2002 to 2012, its rates were based on current spending requirements for the first time in its 2009 rate application.

Under these constraints, expenditures were not reflective of what needed to be done but what could be done with the limited revenue stream. While this approach may drive some efficiencies, in large part it results in necessary work being deferred until it reaches a critical level and can no longer be delayed.

PowerStream began its asset condition assessment with the assistance of Kinectrics in 2007. By 2008 it had completed assessment of its major assets. The reports by Kinectrics indicated the need for a many fold increase in sustainment capital spending. At the time PowerStream determined that more study was needed to balance system maintenance needs with rate impacts on customers. For 2008 and 2009 PowerStream made modest increases to its capital budget for sustainment capital.

PowerStream conducted detailed studies of its poles and underground cables in the period leading up to its 2013 COS[21]. These studies formed the basis of the significant replacement programs that were approved in that application and in PowerStream's 2014 Incremental Capital module.

OEB Staff and others are partially correct in saying that PowerStream's circumstances are not unique and its operating conditions are typical. PowerStream does face many of the same challenges as other distributors in Ontario. Accordingly, PowerStream's changing business conditions can be compared to its business conditions during the period for the historic data used to derive the predicted cost formula in the Model. Changes in the business conditions will provide insight into how this affects PowerStream's cost performance as measured by the Model.

Capital and OM&A spending and the resulting predicted costs based on 2002 to 2012 actual spending can be expected to be lower than current requirements for the reasons discussed above. There were limited revenues to carry out the necessary work resulting in lower spending and contributing to a growing backlog of work that needed to be done. In the latter part of the period, as distributors began to conduct asset condition studies and improve their asset

[21] PowerStream 2013 Rate Application (EB-2012-0161)

management processes, the extent of this backlog was realized. It is only late in the period that some additional capital spending was approved to address the growing problem.

To base expectations on future on costs extrapolated from this historical period will only serve to perpetuate this problem.

There is another reason why sustainment capital spending in particular can be expected to drive actual/forecasted costs above predicted costs.

The PEG Model does not have a business condition variable that captures the age of assets and the need for replacement capital spending (sustainment); as a result it does not adequately capture the effect of this change.

Capital spending for growth such as the construction of new lines to service additional customers will drive up costs predicted by the model as this type of spending increases certain business condition variables, such as the number of customers and kWh deliveries, which are the main drivers of predicted costs.

Replacement of existing assets that are at or beyond their normal life or in poor condition is required if reliable service to existing customers is to be maintained. This type of spending has little impact on the predicted costs since it is not adequately captured by variables included in the Model. However such spending does increases actual/forecasted costs.

As noted in PowerStream's response to Interrogatory II-EP-13, PEG has stated that the predicted cost model does not have a parameter for the age of the system that would reflect replacement requirements. PEG has listed "age of assets" as a relevant cost driver. In a May, 2013 Report to the OEB, PEG suggested two possible proxies: "accumulated depreciation relative to gross plant value", and "the share of total customers that were added in the last 10 years".[22] In the benchmarking model, PEG uses the latter. The effect of the variable is positive – that is, utilities that have experienced rapid growth recently exhibited higher costs. However, one cannot expect the variable to capture the effects of aging infrastructure on costs.

The need to refurbish or replace facilities is putting upward pressure on costs in a range of infrastructure industries, not just electricity distribution. An earlier, peer-reviewed study of Ontario distribution which incorporated data on age of assets indicated material and statistically significant upward pressures on costs for utilities with aging infrastructure.[23] While the PEG

[22] Empirical Research in Support of Incentive Rate Setting in Ontario: Report to the Ontario Energy Board, May 2013, p. 45.
[23] Yatchew, A., 2000, "Scale Economies in Electricity Distribution: A Semiparametric Analysis", Journal of Applied Econometrics, 15, 187-210. See also, Yatchew, A. 2001: "Incentive Regulation of Distributing Utilities Using Yardstick Competition", Electricity Journal, Jan/Feb, 56-60. In models reported there, the relevant variable was "remaining life of assets".

model captures cost effects of assets recently acquired to serve an expanding customer base, data unavailability precludes it from adequately modeling the effects of aging assets.

Similarly, spending on relocation of plant is not captured by the variables included in the model but it has a material impact on utility costs. This is particularly true of the transit initiatives that are more reflective of the increased density rather than new growth. Even in the case of road widening in anticipation of future growth, it may be years before the new customers appear.

Spending on storm hardening and a higher level of vegetation management increases system performance and reliability. As noted in PowerStream's response to Interrogatory II-EP-13, PEG has stated that the model does not consider system performance and reliability in calculating predicted costs.

PowerStream submits that its level of spending on sustainment, plant relocation for transit initiatives and storm hardening is driven by business conditions that are not adequately reflected in the costs predicted by the PEG Model. PowerStream also notes that the significant work related to transit initiatives is not typical of most Ontario distributors. As noted in its response to II-EP-13, there is a reference to the comments made by PEG in its report that there may be company-specific cost pressures for a portion of the industry that are not captured by the econometric model.

Impact of IFRS:

In 2012, PowerStream adopted IFRS and started to report RRR data to the OEB under modified IFRS (MIFRS). For 2011 and prior, PowerStream's RRR data was reported under CGAAP.

Most utilities have delayed the transition to IFRS to 2012 or beyond; many opting to wait until 2015. The OEB required distributors to adopt IFRS compliant capitalization and depreciation policies effective January 1, 2013. The data used to generate the predicted cost equation in the Model is based on CGAAP accounting with the exception of one or two distributors who may have been on US GAAP which is similar. The data is also prior to the OEB directive to adopt IFRS compliant capitalization and depreciation policies effective January 1, 2013

In other words, the predicted cost equation was estimated on the basis of CGAAP accounting and not IFRS.

The transition from CGAAP to IFRS based accounting can have a material impact on the calculation of Actual Total Costs in the PEG benchmarking model but this change is not reflected in any way in the predicted costs from the Model. This is certainly the case for PowerStream.

The change in actual costs is due to differences in capitalization policies. This reduces capital costs and increases OM&A costs. OM&A and capital costs change by the same but opposite amounts in the accounting records.

Under the PEG methodology the increase in "Actual OM&A" is much greater than the reduction in "Capital Costs". When the "Actual OM&A" and "Capital Costs" are added the "Total Actual Cost" increases – significantly in the case of PowerStream as shown in the table below.

Table 4: Actual Total Cost – IFRS vs. CGAAP

Year	Actual Total Cost - IFRS	Actual Total Cost - CGAAP	IFRS Impact
2012	$218,814,873	$207,287,598	$11,527,275
2013	$225,893,676	$212,559,624	$13,334,051
Total 2012 - 2013	$444,708,549	$419,847,222	$24,861,326
		AVERAGE	$12,430,663

"Actual Total Cost - IFRS" is from undertaking J1.3. "Actual Total Cost - CGAAP" is from the Application, Section II, Tab 1, Exhibit F, Tab 2, Page, Table 1.

These are the results, using the PEG model for the same years with the same actual spending, in one case under IFRS accounting and the other under CGAAP accounting. As shown above the magnitude of the difference is about $12.4 million per year. This represents the same actual performance but measured under IFRS it causes "Total Actual Cost" to rise by $12.4 million. Predicted costs estimated by the model are unchanged**. This results in an increase of $12.4 million in Total Actual Cost relative to Predicted Cost. For a five year period this creates an increase in costs relative to predicted cost of about $62 million.**

PowerStream submits that the change to IFRS based accounting and RRR reporting based on MIFRS is significantly responsible for a rise in its actual costs relative to predicted costs in 2012, 2013 and 2014 and the forecast period 2015 to 2020 as presented in undertaking J1.3 using IFRS.

Monthly Billing:

The switch to monthly billing in 2017 has added significant capital costs in 2016 of $3 million for modifications to our billing system and increased billing operating costs in 2017 by $3.7 million increasing to $4.0 million by 2020. This is discussed above.

New Billing System:

PowerStream's actual and forecasted costs reflect the much needed replacement of a thirty year old billing system with a well-supported modern system from Oracle that can better handle current and future billing requirements, customer expectations and mandated changes.

This is another example of a significant but needed expenditure that increases PowerStream's actual and forecasted costs but is likely not adequately captured in the predicted costs. PowerStream submits that during the historical period of 2002 to 2012, few utilities were making

investments in new billing systems and accordingly this is not adequately reflected in the Model's equation.

2. Results mean spending too high/role of benchmarking

Role of Benchmarking

In the RRFE, the Board concludes that benchmarking models will continue to be used to inform rate setting.

"The empirical work on the electricity distribution sector will inform the rate-adjustment mechanisms under 4th Generation IR and the Annual IR Index, and will inform the Board's review and approval of applications under the Custom IR method."[24] (emphasis added)

This was reaffirmed in the Board's finding in the THESL Decision:

"The OEB has emphasized in the RRFE and in previous cases the importance of benchmarking. It is an important input to the OEB's assessment of an application, but it is not the sole determining factor in setting rates. In the context of a Custom IR, the OEB will use benchmarking as a tool to inform its decisions, but will not use it as the method by which to determine rates."[25] (underlining added)

The purpose of Benchmarking is only to inform, not to be used as an expenditure limit.

For intervenors to suggest that PowerStream's capital operating budgets should be determined on the basis of a benchmarking tool that uses a formula based on what is essentially a sort of average for Ontario utilities during 2002 to 2012 is too simplistic and to do so would be irresponsible.

PowerStream submits that the proper way to set capital and operating budgets is through the processes used by PowerStream and that any changes should be based on the evidence provided on these. Please refer to Section C issues 3.2 and 3.6 for further discussion and comments regarding the capital and operating budgets underpinning the Application.

PowerStream submits that the evidence provided on its capital and operating budgets as well as the explanations below regarding the factors driving actual vs. predicted costs provide evidence that the benchmarking results do not represent a significant decline in cost performance as alleged by SEC and others.

3. Board/PEG Predicted Cost Model is insufficient for benchmarking

[24] *Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach*", October 18, 2012, p. 60
[25] THESL EB-2014-0116, p. 19

The PEG predicted Cost model is the primary tool that the Board has chosen and uses for benchmarking. PowerStream submits that it has provided appropriate benchmarking evidence.

PowerStream submits that it is contradictory for intervenors to on one hand say that this benchmarking tool should be relied upon to effectively set the capital operating budgets and then on the other hand claim that the use of this tool is insufficient for benchmarking.

PowerStream submits that Total Factor Productivity (TFP) benchmarking performed for PowerStream alone would simply highlight the same factors discussed that are driving the changes in actual/forecasted costs relative to predicted costs from the Model; namely that there is a need for capital expenditures in the 2013 to 2020 period that is materially different than during the 2002 to 2012 period used to estimate the equation for predicted costs.

PowerStream notes that in recent rate cases, it appears that the Board and other parties have placed little weight on other benchmarking work and relied on the PEG model.[26]

PowerStream would suggest that based on the issues identified, the Board may wish to have PEG update its model with current data sooner than the planned 2018 update.

4. Benchmarking is not specific to PowerStream's circumstances

PowerStream submits that this SEC assertion is incorrect as this benchmarking is exactly what the PEG model is designed to do. It takes PowerStream's business conditions, i.e. the independent variables (company-specific), environment variables (e.g. inflationary factors), and then uses its equation to calculate predicted costs. These predicted costs are then compared to PowerStream's actual and forecasted costs (company-specific).

5. Absence of external review invalidates results/results are not credible

PowerStream submits that SEC's assertion is unfounded and simply represents an attempt to belittle PowerStream's benchmarking efforts.

SEC offers no evidence of its own to contravene the evidence presented by PowerStream in this regard. It offers only its own assertions. As the Board is well aware, there is no intervenor evidence in this proceeding.

Board staff and intervenors were provided with electronic files of the modeling in April 2015 in response to Interrogatory F-Energy Probe-9 and again in September 2015. Nevertheless SEC has chosen not discuss this or provide any evidence of flaws in the modeling.

PowerStream notes that OEB Staff had no issues with PowerStream's use of the methodology nor is this issue raised by any other party than SEC.

[26] E.g. THESL EB-2014-0116, Hydro Ottawa EB-2016-0004

It is clear that PowerStream's benchmarking as demonstrated above shows that it will remain in the Cohort 3 range of cost performance during the Custom IR term.

SEC is correct that a formal review and report was not filed. PowerStream submits that its thriftiness in that regard does not invalidate the work done.

6. Misrepresentation of PowerStream's testimony and evidence

PowerStream adamantly disagrees with SEC's representation of its testimony and evidence regarding the PEG Predicted Cost model (Model) in which it states:

> *"Mr. Barrett, who did that run of the model, doesn't even think the model is sound, and has many concerns about whether it is useful or valid."*[27]

As discussed above, PowerStream stands behind its use of the Model for benchmarking and the results obtained.

That PowerStream had to delve into the reasons behind the results from the model in no way means that it is not a useful tool. This is no different than any other benchmarking or reference point tool – it highlights where things may be different than expected so that these can be investigated.

PowerStream submits that it has done this investigation and provided the results herein. PowerStream found this methodology useful in understanding the movement of actual and forecasted costs versus predicted costs and believes this information will be helpful to the Board.

7. Comment regarding change to reflect IFRS

Again, PowerStream is concerned that SEC is mischaracterizing the facts in an attempt to have the Board reject the PowerStream Application. SEC states that: "PowerStream was not faithful to the model and had to revise their numbers during the Oral Hearing." This is not correct.

In fact, counsel to SEC requested that PowerStream provide the benchmarking data on an IFRS rather than a CGAAP basis. PowerStream agreed to do so (in Undertaking J1.3) but in no way did PowerStream amend its original evidence.

PowerStream provided a reconciliation of its OM&A costs under MIFRS compared to CGAAP during the advance settlement process with intervenors in April 2015 in Technical Conference Undertaking TCQ-11 and explained how and why it used CGAAP in its benchmarking. This was included in the Application filed in May 2015 in Section IV, Tab 1.

The SEC submission in this regard is an attempt by SEC to mask the real issue – the use of CGAAP versus IFRS. In its evidence PowerStream has explained why it has used CGAAP

[27] SEC Submission p.18, paragraph 1.6.2

costs for its comparison – namely that the model was based on CGAAP data. This is discussed above in item 1 under Impact of IFRS, and by PEG in its November 2013 Final Report to the Board on *Productivity and Benchmarking Research in Support of Incentive Rate Setting in Ontario*, as follows:

> *"PEG also had to adjust its approach to estimating capital additions for some distributors in 2012. For the 2002-2011 period, capital expenditures were estimated each year using differences in each distributor's gross asset value plus an assumed rate of annual asset replacement. These capital expenditures, in turn, entered into the formula used to estimate annual changes in capital input. In 2012, however, this method would have led to implausibly negative estimates of capital expenditures for 15 distributors. One of the main factors contributing to these implausible capital expenditure estimates was the switch to IFRS accounting; eight of the 15 identified distributors adopted IFRS accounting in 2012. For all distributors where using differences in gross plant values would have led to implausibly negative capital expenditures, PEG used the distributors' reported capital additions (from the PBR section of the RRRs) in place of our previous method."*[28]

It is surprising that SEC would suggest that the impact of the change to IFRS is not an issue or should be ignored. In a letter to the Board from SEC dated December 2, 2011 regarding EB-2010-0377, EB-2011-0043 – Renewed Regulatory Framework, at point 29 on page 6, Mr. Shepherd asks:

> "How will the gathering and analysis of time series data be affected by the transition to International Financing Reporting Standards? Has PEG identified or developed any methods of adjusting data to maintain consistency over time in the face of this change?"

Comparisons to predicted costs for other distributors

PowerStream does not see the point of SEC's comparisons with predicted cost trends in benchmarking work done in other rate cases.

Predicted costs are a function of the specific business conditions (i.e. number of customers, delivery volume, peak demand, kilometers of line) for a distributor, price assumptions (e.g. inflation factors) and the equation in the model.

Predicted costs will be different for different distributors because the business conditions are different. Year over year changes in the business conditions will also differ by distributor.

As explained above, PowerStream has provided its benchmarking data in undertaking J1.3 and in an earlier Interrogatory response to F-Energy Probe-9 using the same price assumptions and formula that were used by PEG in the work it did for Oshawa PUC. The only reason that the resulting predicted costs are different is that the business conditions are different.

8. Predicted cost change assumption and analysis

[28] *Productivity and Benchmarking Research in Support of Incentive Rate Setting in Ontario: Final Report to the Ontario Energy Board* (November 2013), p. 29

PowerStream questions the value of the analysis performed by SEC. SEC assumes that predicted costs will change at the same rate year over year ignoring changes in business conditions and price assumptions. This is contrary to the PEG work done for Oshawa and other benchmarking results in cases cited by SEC.

Performance and Outcomes

PowerStream submits that the appropriate measuring and reporting of performance and outcomes should be through the Board's scorecard and RRR annual reporting process. The Board continues to develop its scorecard and there should be a common standard for all distributors.

Interrelationship between CAPEX and OM&A Expenses

Certain intervenors' expectations are that with the higher capital budget, OM&A expenses should be decreasing, not increasing.

Below is an excerpt from the Board's decision in the THESL case[29]

> "While the OEB recognizes that the relationship between capital spending and OM&A is complex, the OEB finds that it is reasonable to expect that there will be some reductions in OM&A costs, particularly those related to maintenance, from the large capital expenditures, over many years, on system renewal, general plant, and system service. New assets should require less maintenance than old assets (at least in the corrective maintenance category) and underground assets should require less maintenance than overhead assets as there is no need for vegetation management, and no issue of animal interference." [PowerStream's emphasis]

PowerStream agrees with the Board's comment that this is a complex relationship and not the simple proposition put forth in some submissions that more capital spending always means that there will be less maintenance of assets.

The wholesale replacement of a particular type of asset over a short time frame will indeed result in lower maintenance costs.

The smart meter program is an example of this, where virtually all meters for Residential and GS<50 kW customers were replaced over a period of four years. In the case of the smart meter program, there was a significant reduction in meter maintenance and reverification costs. It should be noted that this situation is the exception rather than the norm.

[29] THESL EB- 2014-0116, p. 11, http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/511251/view/dec_order_THESL_CustomIR_20151229.PDF

More typical examples are the pole or cable replacement programs. The relationship between capital spending and OM&A depends on the rate of replacement relative to the typical useful life and the condition of these assets.

If assets are replaced at the same rate as the assets are aging and deteriorating then maintenance activity and costs should be stable before the impact of inflation and other factors.

If assets are replaced at a slower rate than the assets are aging and deteriorating then maintenance activity and costs will increase before the impact of inflation and other factors.

If assets are replaced at a faster rate than the assets are aging and deteriorating then maintenance activity and costs will decrease before the impact of inflation and other factors. This is in fact the situation for the smart meters example noted above.

PowerStream's approach to asset replacement is carefully planned and assets are replaced when their condition deteriorates to the point of being very unreliable. In circumstances where the impact on customers is small the assets are run to failure.

Due to the constraints discussed above under Benchmarking (rate freezes, IRM), capital spending in the past has been at a level where the assets have been aging and deteriorating at a faster pace than assets are being replaced. PowerStream's proposed level of capital spending is intended to prevent falling further behind. It is designed to keep maintenance activities from increasing.

PowerStream submits that it is contradictory for intervenors to argue that PowerStream should spend less on sustainment and yet expect maintenance to decrease.

Relativity is the proper measure in changes in rates

Some parties argued that PowerStream's proposed rate relief is counter to the objectives of the RRFE. The magnitude of rate relief is a reflection of the significant increase capital work that is required. The proposition that a significant rate increases implies lack of value to customers is faulty. PowerStream has addressed the issue of value in this section of the reply argument, particularly in the Productivity and Benchmarking areas above and in Section C, Issue 3.2. PowerStream's plan provides value by its carefully planned necessary capital investments to ensure reliability and the use of a Custom IR plan to avoid the need to address an even larger backlog in the future.

Investments in reliability cannot stop

Some intervenors submitted that customers are not getting value because the proposed higher capital spending does not result in improved reliability.

This position is puzzling. Expenditures on reliability do not have to be associated with higher reliability; they can be associated with maintaining reliability, which is largely the case in PowerStream's proposals.

PowerStream's Custom IR plan is in compliance with the objectives of the RRFE

The Board's expectations under the RFFE have been evolving. In its argument, VECC presents a good summary of that evolution and sets out the following points which in VECC's view are currently the most important elements of a Custom IR plan that are relevant to the assessment of the PowerStream's application.

> 1. There must be a need for large and variable historical investments that exceed historical levels to justify the request for the Custom IR option.
>
> 2. There must be comprehensive evidence of costs and revenues over a five year period together with detailed investment plans with the assurance that the risks of variability can be taken on by the distributor during that period without their assumption by ratepayers.
>
> 3. A plan of continuous improvement must be shown that provides for the meeting of key benchmarks and performance metrics that meet customer expectations. These must be company specific and go beyond the formulaic adjustment of rates.
>
> 4. A Custom IR plan must align the goals of maintenance of sustainable operations with the goal of providing needed and expected value for customers. This goal drives the setting of appropriate base case values for O&M and rate base.
>
> 5. Where there has been an inadequate incorporation of these key principles, there may be the necessity for altering the application of the plans to allow for modifications to meet the RRFE principles.

PowerStream finds VECC's assessment reasonable and the list helpful. PowerStream submits that its proposals and supporting evidence do meet the evolving Board expectations.

Regarding element 1, PowerStream's evidence clearly demonstrates the need for increased levels of capital spending particularly in the area of sustainment.

Regarding element 2, PowerStream has prepared detailed capital and operating budgets for the five year Custom IR Term.

Regarding element 3, PowerStream discusses Productivity and Benchmarking above.

Regarding element 4, PowerStream discusses Performance and Outcomes above under this heading.

Regarding point 5, PowerStream proposes below certain refinements should the Board be of the view that refinements are needed to improve Power's proposals in meeting the RRFE principles.

If refinements are needed

PowerStream submits that it has filed a valid plan under RRFE as discussed above.

PowerStream does not agree with OEB Staff that the rate plan be for a 3 year term, nor does it agree with the other proposals by Energy Probe, SIA and VECC to reduce PowerStream's proposed 5 year plan term to a term of one to three years.

Should the Board decide that PowerStream's Custom IR plan needs to be improved, here are PowerStream's comments:

Should the Board decide to accept the OEB Staff proposal for determination of the OM&A portion of revenue requirement, PowerStream submits that the 2.1% escalation for inflation needs to also have a 0.2% increase for the impact of growth on OM&A and an increase for the incremental cost of monthly billing starting in 2017.

OEB Staff proposes that PowerStream should be able to absorb the incremental costs of monthly billing which start in 2017. It notes that PowerStream has forecast these costs as $3.7 million in 2017, $3.8 million in 2018, $3.9 million in 2019, and $4.0 million in 2020.

Staff propose a 2.1% increase on 2016 OM&A. Based on PowerStream's forecasted 2016 OM&A of $96.2 million; this translates to an increase of $2.0 million to cover the inflationary increases in OM&A costs plus incremental OM&A costs of $3.7 million related to monthly billing. This is unreasonable.

PowerStream submits that OEB Staff's assertion that costs of this magnitude can be absorbed through productivity measures is not reasonable. PowerStream is in Cohort 3 and has been assigned a target productivity factor under IRM of 0.3% of revenue requirement. Based on PowerStream's proposed 2016 OM&A requirement of $96.2 million, this translates to a productivity target of $0.3 million for 2017 OM&A. Staff proposal that PowerStream absorb an amount in 2017 of $3.7 million that far exceeds the materiality threshold of $0.8 million and which is in excess of twelve times the Board's productivity target of $0.3 million is not reasonable.

OEB Staff's assertions that these costs are excessive and can be easily mitigated are unfounded. PowerStream's billing processes are already highly automated with bill printing and mailing contracted out to a vendor that specializes in this work. PowerStream actively promotes e-billing to its customers but there has been a slow adoption rate. PowerStream has built-in a reduction for increased uptake of e-billing in its estimate of incremental monthly billing costs.

Should the Board be considering imposing an Efficiency Adjustment Mechanism (EAM), Earning Sharing Mechanism (ESM) and/or a Capital Variance Account (CVA), PowerStream's comments on these items are set out below.

PowerStream submits that if the Board decides upon an EAM, it would be appropriate to use the mechanism approved in the Horizon Custom IR case.[30]

PowerStream submits that if the Board decides upon an ESM, it would be appropriate for it to be similar to the ESM approved by the Board in the case of Toronto Hydro.[31] To be specific, this would be an ESM with a deadband of 1% and a 50:50 sharing of earning above the threshold. In this reply argument PowerStream has proposed adjustments based on the submissions of OEB Staff and other parties. If the Board were to approve these adjustments without major changes, PowerStream does not think that a symmetrical ESM would be required.

PowerStream submits that if the Board decides upon a CVA, it would be inappropriate for this to be done separately for each of the four capital expenditure categories used by the OEB in the Chapter 5 filing requirements for a DSP, as suggested by AMPCO and others. Tracking these categories separately does not allow PowerStream to make appropriate changes in its capital spending over the term, to address changing requirements, without being unfairly penalized by the mechanics of this adjustment.

PowerStream proposes that it would be appropriate to split the CVA into two groups. Group 1 would be the System Access category and should be a symmetrical variance account similar to that approved for THESL. Group 1 is primarily capital work that PowerStream is required to perform and that is driven by others, such as work related to road widening, new development and transit initiatives.

The forecasts for these types of work are based on the information PowerStream can obtain from these other parties. This category of work is subject to variance due to unexpected changes in the plans of these parties. Already PowerStream is getting new information from the Region that the planned work will increase to an extent that materially affects the related work performed by PowerStream.

Due to this type of uncertainty, some parties have suggested that PowerStream's forecasts in this area be reduced significantly. If this were the case, the only fair solution to this situation is a symmetrical CVA.

Group 2 would contain the remaining three categories and need not be symmetrical.

Annual Adjustments and Off-Ramps

[30] Horizon Utilities Corporation EB-2014-0002
[31] Toronto Hydro Electricity System Limited, EB-2014-0116

PowerStream's proposal regarding off-ramps and annual adjustments has evolved over the course of the proceeding to clarify and streamline this process. This is explained in the August 2015 Interrogatory responses to Staff-1, Staff-93 Staff-98 to Staff-100, Energy Probe 7 to 9, and VECC-1. The proposal as adjusted through the course of the proceeding is summarized below.

PowerStream is requesting final rates for 2016 and interim rates for the 2017 to 2020 years subject to the annual adjustments described herein.

PowerStream's proposal is to set the revenue requirement for each year of the Custom IR plan (2016 through 2020). Subsequent years would start with the revenue requirement approved by the Board in this proceeding and would be subject to the annual adjustments accepted by the Board in this proceeding. It is in this context that PowerStream has asked that the rates for 2017 to 2020 be labelled and approved as interim rates. The Rate Order flowing from this proceeding may not need to include the rates beyond the first year as the Board has done in the case of Horizon Utilities' Custom IR proceeding.

There are a number of external items that are difficult to forecast accurately and may change materially. These include the cost of power, taxes, cost of capital, changes in third party costs passed through to customers and accumulation of deferral and variance account balances. These changes can move up or down significantly. Incorporating these changes serves to protect ratepayers and distributors alike.

PowerStream withdraws its request for an adjustment related to inflation in excess of a threshold amount.

PowerStream proposes to accept the Board's usual means to deal with changes outside the normal course of business through deferral and variance accounts, Z-factor applications and the possibility of an off-ramp in the event of returns greater than 300 basis points above or below the Board's permitted ROE. The RRFE confirms that these measures will remain in place under Custom IR.

Effective Date

SEC submits that since it believes that there are flaws in the Application that the Board should deny the request for rates effective January 1, 2016 for a rebasing application. SEC proposes that the effective date of new rates be the month after the Board approves a rate order.

PowerStream submits that there are several flaws in SEC's argument.

Many of the flaws perceived by SEC are related to interpretation of the Board's guidelines for filing of Custom IR applications under RRFE.

PowerStream addresses its compliance with RRFE and Custom IR above.

PowerStream submits that it has filed its Application in compliance with the guidelines in the RRFE and the Board's guidance at the time it was prepared. The Application was filed "on-time" based on the Board's guidelines and promptly after the unsuccessful private settlement process. For the Board to deny an effective date of January 1, 2016 on this basis as is suggested by SEC would be highly inappropriate.

SECTION C – SUBMISSIONS BY ISSUE

As indicated previously, not all Intervenors organized their submissions according to the Board's Issues List.

1.0 CUSTOM APPLICATION

1.1 Has PowerStream responded appropriately to all relevant OEB directions from previous proceedings, including commitments from prior settlement agreements?

Discussion and Submission:

OEB Staff and Energy Probe accepted PowerStream's submission that it has done so. AMPCO, BOMA, CCC, SEC and SIA make no submission on this issue.

VECC uses this issue to discuss RRFE and Custom IR but raises no matters pertaining to OEB directions from previous proceedings, including commitments from prior settlement agreements. PowerStream addresses RRFE and Custom IR in Section B above.

PowerStream submits that it has responded appropriately to all relevant OEB directions from previous proceedings, including commitments from prior settlement agreements.

1.2 What actions should the OEB require PowerStream to take at or near the end of the 5-year rate term (e.g. rebasing, plan assessment, measurement of customer satisfaction)?

Discussion and Submission:

OEB Staff submits that that a three year plan should be approved.

Energy Probe submits that PowerStream be required to perform a lead lag study before its next rebasing application. Energy Probe states that the Board should require PowerStream to file a separate assessment of its plan with a comprehensive review of all variances from plan for both OM&A and capital expenditures.

AMPCO proposes that PowerStream be required to have an external review of its DSP for the next filing.

CCC proposes that PowerStream be required to meet with customers to develop meaningful metrics and reporting requirements.

SEC proposes PowerStream be required to do a study of water billing costs.

BOMA, SIA and VECC make no submissions.

PowerStream submits that its 5 year Custom IR plan should be approved as discussed in Section B above.

PowerStream submits that customer engagement would be better dealt with as a generic matter by the Board.

PowerStream submits that a study of water billing costs is not required for the reasons discussed in issue 3.8.

1.3 Do any of PowerStream's proposed rates require rate smoothing or mitigation?

Discussion and Submission:

OEB Staff submits that PowerStream has met the Board's guidelines and no rate smoothing or mitigation is required.

CCC submits that PowerStream should work with customers to provide flexible payment options and mitigation.

Energy Probe submits that based on the submissions, it feels that PowerStream's proposal will be reduced and no rate smoothing or mitigation will be required. VECC indicates a similar conclusion.

AMPCO, BOMA and SIA made no submissions.

PowerStream submits that its proposed rates are appropriate and do not require smoothing or any further rate mitigation beyond the measures that PowerStream has included in its Application.

2.0 OUTCOMES AND INCENTIVES

For discussion of the issues in this section please see Section B above with the exception of issue 2.5 which is covered with issue 3.2 below.

2.1 Does PowerStream's Custom IR Application promote and incent acceptable outcomes for existing and future customers (including for example, cost control, system reliability, service quality, and bill impacts)?

2.2 Does the Custom IR Application adequately incorporate and reflect the four outcomes identified in the RRFE Report: customer focus, operational effectiveness, public policy responsiveness and financial performance?

2.3 Does the Custom IR Application adequately account for productivity and efficiency gains in its forecasts? Does the Custom IR Application adequately include expectations for productivity and efficiency gains relative to benchmarks that are external to the company (such as the Pacific Economics Group Research, LLC)?

2.4 Does the Custom IR Application adequately provide value to the customer (such as the X-Factor, Y-Factor and a shared earnings mechanism)?

2.5 Does the Application adequately plan and prioritize capital expenditures?

2.6 Is the monitoring and reporting of performance proposed by PowerStream adequate to demonstrate whether the planned outcomes are achieved?

2.7 Are PowerStream's proposed off-ramps and annual adjustments appropriate? Has PowerStream demonstrated adequately its ability and commitment to manage within any rates set via this proceeding, given that actual costs and revenues will vary from those forecast?

3.0 REVENUE REQUIREMENT

3.1 Is the rate base component of the revenue requirement, including the working capital allowance, for 2016 – 2020 as set out in the Custom IR Application appropriate?

Summary of OEB Staff and Intervenor Submissions:

OEB Staff submits that it has no concerns with PowerStream's rate base and working capital level of 7.5% subject to its comments on capital and OM&A.

AMPCO submits that the Board should not approve a land purchase of $3.2 million for a new transformer station, in 2016 opening rate base and that it should be added in 2017 when the new transformer station is in service. CCC supported AMPCO's submission. Energy Probe made a similar submission.

BOMA, SEC, and VECC made no submissions other than those pertaining to issue 3.2 Capital Spending.

Energy Probe submitted the WCA percentage of 7.5% was appropriate. Energy Probe submitted that adjustments be made to the working capital allowance to reduce the OM&A amount used by the allocated depreciation included in OM&A as well as property taxes.

Discussion and Submission:

PowerStream submits that the Board should not approve any changes to its proposed rate base other than those as a result to any changes in the approved capital and OM&A spending and Energy Probe's submission regarding the adjustment to the working capital allowance for depreciation included in OM&A.

PowerStream does not accept the interpretation of used and useful put forward by AMPCO and Energy Probe and supported by CCC. The Board has dealt with this situation in its recent decision in Toronto Hydro's rate proceeding where it stated:

> *The OEB is satisfied based on the evidence presented by Toronto Hydro that it has correctly applied the "used or useful" principle in the Application. Specifically, the OEB has reviewed the evidence related to the Copeland transformer project and is satisfied that Toronto Hydro has properly applied the "used or useful" principle. The OEB will not require that the asset be energized before additions are made to rate base.*[32]

Energy Probe states that OM&A for working capital allowance should be reduced by any depreciation included as this is a non-cash expenditure. PowerStream accepts this proposal.

Energy Probe states that OM&A for working capital allowance should be reduced by the amount of property taxes included in OM&A. This is a cash expense and PowerStream rejects this proposal.

3.2 Are the Distribution System Plan, capital programmes and related expenditures, associated with the revenue requirement for 2016 – 2020, as set out in the Custom IR Application, appropriate and is the rationale for planning and prioritizing appropriate and adequately explained and supported, considering:

- **i. customer feedback and preferences;**
- **ii. productivity and sharing of benefits:**
- **iii. benchmarking of costs;**
- **iv. end-of-life criteria, health index, data governance, and the overall relationship of each planning component;**
- **v. reliability and service quality;**
- **vi. impact on distribution rates;**
- **vii. trade-offs with OM&A spending;**
- **viii. government-mandated obligations; and**
- **ix. the applicant's objectives?**

[32] THESL EB-2014-0116, p. 32

Discussion and Submission:

PowerStream's 5 year Distribution System Plan (DSP) was submitted in compliance with Chapter 5 of the OEB's Filing Requirements. The DSP includes the following:

- a description of the Asset Management Process;
- a description of the coordinated planning and regional planning initiatives;
- a description of customer engagement activities;
- a system capability assessment;
- information for renewable energy generation connections;
- forecasted smart grid development; and
- a five-year capital expenditure plan.

The common themes in intervenors' arguments seeking significant reductions in capital spending over the 2016-2020 period are:

1. A history of underspending by PowerStream;
2. No independent third party review of the DS Plan was performed;
3. The quantities proposed exceed the ACA results for pole replacements and switchgear;
4. The pacing is not reasonable;
5. Use of Contract resources was not reflected in estimates;
6. The budgets are overestimated;
7. Customer engagement was inadequate;
8. Spending in General Plant is not needed due to the merger; and
9. The rear lot remediation program was not well justified.

Each theme is discussed below. Following the discussion of the ninth theme, PowerStream will address certain additional matters of concern to OEB Staff and/or particular parties.

1. <u>Historical Underspending</u>

- **Submissions of the Intervenors:**

AMPCO and SEC submitted that PowerStream has underspent on the delivery of its capital programs between 2011 and 2013, specifically 9%, 6% and 16% respectively. The table that

AMPCO and SEC provided also indicates that in 2014 PowerStream spent 101%, and that in 2015 YTD, were well below spending.

- **PowerStream's Reply:**

The presentation of the material provided by AMPCO and SEC does not give a full and accurate view of budget execution, particularly in light PowerStream's response to I-Staff-4, page 7 of 12, line 15 (Section B, Tab 1, Schedule 1) where PowerStream confirmed that the forecasted year end budget would be met for 2015.

If the Board considers the 2015 forecast on aggregate, over the past 5 years 2011-2015, PowerStream was underspent by 5.5%. If the outlier year of 2013 is removed, on aggregate, PowerStream was only underspent by 1.9%. The poor performance in 2013 was the result of road authority projects not materializing and delays with the CIS system. These were anomalies in the delivery of the capital budget.

If the Board considers the 2015 forecast, what is most relevant and significant is that PowerStream has, in both 2014 and 2015, fully delivered on its capital plans. Given the complexities of delivering the capital budget this is a significant accomplishment that clearly demonstrates that PowerStream is committed to the execution of the capital budget. PowerStream is confident that future years' capital programs will be fully delivered.

2. Third Party Review

- **Submissions of the Intervenors:**

AMPCO stated that the RRFE indicates that the Board sees merit in receiving the evidence of third party experts in relation to the review of plans, and that this assessment would have been useful in assessing the level, timing and prioritizing of the work. SIA stated the pace of investments in a number of areas has not been independently verified.

- **PowerStream's Reply:**

PowerStream, in its DS Plan, identified a number of third party vendors that were used to underpin its asset management plans. Key third parties included Kinectrics, Copperleaf and CIMA.

a) Kinectrics

Kinectrics formulated the initial ACA models. PowerStream subsequently expanded the number of models by applying them against additional assets.

In the Board's Decision and Order in Toronto Hydro's 2015 Custom IR distribution rate application (EB-2014-0116), pages 24 and 25, the Board stated that:

> "Toronto Hydro should include more emphasis on asset condition in the assessment of when a steady state of asset renewal should be achieved."

The Kinectrics models consider asset replacement on the basis of econometric analysis and are not condition based. The results of these models suggested much higher spending levels than those proposed by PowerStream's condition based prioritization. PowerStream's recommended renewal is based on condition data, and only replaces the worst assets. This results in assets not being replaced before they are needed to be replaced. PowerStream believes that a condition based approach is preferable, and supports the Board's decision noted above for Toronto Hydro.

Given the condition based approach, a refreshed review by Kinectrics was not performed. Although a review may be preferred, PowerStream suggests that the Board also expects prudent decision making and effective use of customers' monies. PowerStream received a quote to perform a review in 2013 and it was over $100k. It is PowerStream's opinion that a third party review for the purposes of this Application would have added similar significant costs, if not greater, and the value received would not have justified the costs.

Finally, PowerStream notes that in its 2014 rate adjustment application (EB-2013-0166), which included an Incremental Capital Module, counsel to SEC spoke quite favourably about PowerStream's filed ACA report at the Technical Conference:

> "MR. SHEPHERD: In the absence of other intervenors, I think I will.
>
> I have questions on the interrogatory responses itself and a few questions on the asset condition assessment technical report - which I should tell you, by the way, you know, in my job I have to read a lot of these. This is far and away the best asset condition report I have -- asset condition assessment I've ever seen. This is amazing, really good stuff. That having been said, I'm still going to ask questions on it. I don't necessarily agree with all of it, but, man, it's good."[33]

b) Copperleaf

Copperleaf provided expertise in prioritization and optimization and for benefit and risk scoring. Their expertise and industry best practices were relied upon by PowerStream in developing its prioritization and optimization system.

PowerStream makes additional submissions regarding optimization and prioritization under "Other Issues", below.

[33] EB-2013-0166, Tr. Vol. Technical Conference, at p. 2-3 - http://www.rds.ontarioenergyboard.ca/webdrawer/webdrawer.dll/webdrawer/rec/421323/view/

c) CIMA

CIMA was retained after the 2013 ice storm to review climate change and North American practices for storm hardening, and to recommend solutions for hardening the distribution system against severe storms.

CIMA provided the report, and had many recommendations, of which PowerStream selected four. This independent third party review on one aspect of the DS Plan was used in formulating strategies for the assets most affected by severe storms. Information relating to storm hardening can be found under Theme 9, below.

PowerStream believes it made a prudent decision not to do a more formal independent third party review. PowerStream also submits that although a full formal review was not included, the rate setting process contains appropriate third party reviews, commencing with the customer engagement process, the discovery process with Intervenors and Board staff and third party reviews by experts hired by the Board.

3. Excessive Quantities

- **Submissions of Board Staff and the Intervenors:**

OEB Staff noted that PowerStream justified replacement/Injection cable volumes in the Cable Remediation Report and as such are not questioning the proposed quantities. However, OEB Staff submits that an annual pole replacement level of 400 is too high and a replacement rate of 300 poles/year is more reasonable.

AMPCO takes exception to the quantities of poles and switchgear. SEC takes exception to the quantities of poles and switchgear.

- **PowerStream's Reply**

a) Poles

i) OEB Staff noted that PowerStream has confirmed its annual pole replacement target does not take into account poles that are replaced as a result of other programs such as replacements due to road work requirements or the Rear-Lot Remediation program which would support the view that PowerStream's proposed replacement level is too high.

PowerStream respectfully submits that this conclusion by OEB Staff is inaccurate.

PowerStream does not need to take into account poles that are replaced as a result of other projects/programs nor should it. The pole replacement program only targets condition based poles that are found deficient through pole testing and inspection. Other programs and

projects replace poles as a result of other factors (such as relocation for a road works or growth projects). PowerStream reviews all proposed line projects to screen between the pole replacement program and the various other line projects so that duplication does not occur. The number of poles PowerStream proposed is correct.

ii) AMPCO stated that a scan of the evidence identified other programs under System Service and System Access where PowerStream is proposing pole work that includes the replacement.

PowerStream submits that many of the projects which AMPCO listed are growth related projects and the work is for the installation of new poles. In these projects no poles are being replaced. Where poles are being replaced in AMPCO's project listing the poles are being replaced prior to end-of-life. Although replacing a pole before end-of-life is not preferred, the replacements need to occur to achieve the outcomes required.

iii) OEB Staff noted that part of the Rear-Lot program PowerStream is estimating replacing 177 poles in the 2015-2020 period.

This is factually incorrect. PowerStream clearly described that the rear-lot program involves the removal of the overhead system and the installation of a new underground system. The 177 poles are to be removed, not replaced.

iv) OEB Staff notes that PowerStream tested 10,827 poles in 2014 and identified 370 poles (Code A and B) considered for replacement. It was stated that the results of the testing could be extrapolated to the entire population of 38,070 wood poles. OEB Staff then assumes that 1,301 poles will be expected to be coded A and B in total, averaging only 260 poles a year within a five year period.

PowerStream notes that with respect to the testing quantities and results, the extrapolation cannot and should not be applied to the entire pole population. The extrapolation assumes that this one year sample data represents uniformity of pole age and condition across all of the service territory. In reality, this can vary across the system based on the age of installation of developments, road works, new servicing and local conditions.

Poles that have been tested and are less than 60% strength must be changed due to a compliance issue with Regulation 22/04 and CSA standards.

If PowerStream were in fact to only replace 300 poles per year as suggested, with over 38,000 poles in the system that would mean an average age of 125 years for each pole. The useful life of a pole is 45 years which indicates the PowerStream should be replacing 840 poles per year. Clearly 400 poles may in fact be understated.

PowerStream believes that 400 is still a valid average based on the 370 found in 2014, the regulatory compliance requirements, and the end of life volume. Reducing the pole number to 300 will create a safety and non-compliance situation. PowerStream treats the possibility of pole failures as a very high and serious risk. Pole failures, although infrequent, can and do have catastrophic consequences.

b) Switchgear

i) AMPCO notes that PowerStream proposes to replace 211 switchgear under the planned program, and 222 switchgear under the reactive program for a total of 433 replacements from 2015 to 2020, while the ACA indicates 0 in poor condition and 180 in poor condition. SEC indicates that 381 will be replaced between 2016 and 2020. AMPCO is also concerned that the reactive switchgear quantity should be based on historical amounts.

As noted in the evidence, PowerStream performs inspection and maintenance on switchgear units to determine switchgear condition on an annual basis.

PowerStream has over 1,200 air insulated switchgears. They have open air construction for venting. Due to this design, dirt and contamination enter the switching compartments and over time, these contaminants build up on the insulators and on the barriers separating the different phases. The deterioration of the switchgear is typically quite rapid. For example, in PowerStream's 2014 ICM application, PowerStream noted the number of switchgear units with a "poor" health index was 86 units in 2013. At the end of 2014, the total switchgear identified in poor condition is 180. That is a difference of 94 units in a very short time frame, and this is in addition to units that were replaced either planned or reactively.

To view the proposed quantities from a predictive perspective, PowerStream's decision to replace 31 switchgears in a proactive basis and 37 in a reactive basis stems from the ACA failure model. The failure model predicts the failure rate based on the condition and age. This is shown below and is from the asset condition assessment report, included as an IR response to II-Staff -71, Appendix 71, page 30 of 61.

Year	Projected Failures
2016	65
2017	70
2018	76
2019	82
2020	88
Total Units	**381**

PowerStream's plan calls for a total planned and reactive replacement of 365 units from 2016-2020. This is below the 381 units identified through the ACA failure model as shown in the above table.

With respect to reactive quantities, the reactive switchgear historical spending and proposed forecasts are consistent. This is demonstrated in the table below, particularly if one takes into consideration 2013 to 2015. PowerStream confirmed (response to I-Staff-4, page 7 of 12, line 15, Section B, Tab 1, Schedule 1) that the forecasted year end budget would be met for 2015. The table is an excerpt of one line item from the DS Plan, Section 5.3.3, Table 3.

	Actuals				Proposed					
	2011	2012	2013	2014	**2015**	2016	2017	2018	2019	2020
e) Switchgears - Unscheduled Replacement of Failed (end of useful Life) Distribution Equipment		$1,381,861.00	$1,663,004.00	$1,495,974.00	$1,420,148.09	$1,431,383.51	$1,420,147.96	$1,421,218.32	$1,400,444.11	$1,140,858.02

PowerStream submits that the analysis PowerStream has completed on all of its programs is highly mature given the number of years and depth of analysis that has been performed with regard to assessing asset replacements. PowerStream believes that the Board desires to have distributors perform strong analysis on replacement requirements. PowerStream has done exactly that. It would be entirely disappointing if the Board did not give weight to the rigorous analysis that went into determining the replacement rates for poles and switchgear.

4. Unreasonable Pacing

- **Submissions of the Intervenors:**

In PowerStream's argument in chief, it was acknowledged that spending was increasing by 39% for the 2015-2020 period compared to the 2011-2014 period.

SIA stated "that the overall pace of capital investment is unjustifiably aggressive".

- **PowerStream's Reply:**

While PowerStream has acknowledged the percentage increase in spending in the 2015-2020 period compared to the 2011-2014 period, what is of primary importance are the reasons for this.

PowerStream was formed by the merger of several utilities. PowerStream's first asset management plan was initiated in 2007 for transformer station assets. PowerStream commenced the creation of its asset management plan for the distribution system in 2010 and started to implement and increase its asset renewal from year 2010. The current level of investments for two major categories cables and poles reached a steady state in 2012. Over the years PowerStream has been developing asset condition assessment processes and adding assets to the renewal program, such as Mini-Rupter switch replacements, automated switch replacements and station switchgear replacements. Fundamentally, there has been no change to how PowerStream has selected timing for asset replacement and the plan is consistent with what was presented, and approved, in the 2013 COS and 2014 ICM. PowerStream has continued to improve its methods for acquiring data to determine optimal asset replacement candidates within in the ACA program.

PowerStream's pacing is shown to be consistent during the last three years of the plan (2018-2020). It should be noted that the first two years of the plan (2016-2017) are higher due to very specific projects. There are projects in System Service related to the new Vaughan TS#4, and the General Plant category has projects related to CIS and Workforce Management.

PowerStream submits that the pacing is appropriate.

5. Contract Resources

- **Submissions of OEB Staff and the Intervenors:**

OEB Staff express concerns that PowerStream's budgeting process does not include a detailed labour resource mix required to execute its planned capital program. At the hearing, PowerStream stated that in developing its capital expenditure estimates, it has assumed that the capital work will be completed by internal labour resources, even though some of the work will eventually be done by external resource. Further, PowerStream stated that the execution of programs by external labour resources is 3% lower compared to internal labour resources. Given the above evidence, staff is concerned that the expenditures related to programs that rely on blended labour resources may be overstated

AMPCO highlights that the proportion of the capital plan to be carried out using contractors is between 46% and 55%, and as such, expects a corresponding reduction of $10 million in the capital budget.

- **PowerStream's Reply:**

PowerStream needs to clarify the basis that underpins the calculations as there are definite material flaws in these arguments. AMPCO's 3% savings was derived from the IR response to IV-SEC-14 (Section B, Tab, Schedule 5, page 2 of 2). The contractor 3% savings applies only to **lines projects** that use the **overhead** contractor to be used in lieu of PowerStream lines crews. Further, the 3% only applies to the **labour** component of these projects. Many projects

in the capital budget are not line projects, overhead projects nor have a mainly labour component and therefore would not be subject to a 3% reduction as mistakenly calculated by AMPCO. Examples of these projects include: underground projects, transformer station construction projects, metering projects, and cyber security projects, among others. This was discussed in Oral Hearing, Volume 2, page 109.

PowerStream submits that if the applicable 3% savings are applied to **labour** costs only for **lines projects,** that the **overhead** contractor will perform, the amount of savings would only be $1.2M in total for the 2016-2020 plan. This addresses both AMPCO and Board Staff concerns.

6. Overestimated Budgets

- **Submissions of OEB Staff and the Intervenors:**

OEB Staff expressed certain concerns with the system renewal budget related to new connections and subdivisions, the proposed underground cable remediation program, the proposed pole replacement program, rear lot remediation program, the ICON F program and major IT projects.

AMPCO expressed certain concerns with reactive capital, mini-rupter switches, storm damage, new commercial subdivisions, facilities emergency work, unscheduled LIS replacement and unforeseen projects initiated by the customer.

SEC expressed concerns with commercial and subdivision development as well as the work order metric which indicates that PowerStream overestimates the cost to do the capital work.

- **PowerStream's Reply:**

PowerStream has organized its reply to these matters by category of expenditure.

a) New Connections and Subdivisions

i) OEB Staff expressed certain concerns that given slowing growth, the difficulty with forecasting, and the lack of reliable leading indicators that the budget for the 2015-2020 period may be overstated. AMPCO and SEC agree with OEB Staff.

PowerStream acknowledges that it is difficult to forecast new Commercial Subdivisions as there are no reliable leading indicators. It should be noted that this statement applies only to Commercial Subdivisions as stated in the response to II-2-Staff-86. PowerStream has forecasted Commercial Subdivisions at $1.6 million per year each year from 2015 to 2020. PowerStream confirmed (response to I-Staff-4, page 7 of 12, line 15, Section B, Tab 1, Schedule 1) that the forecasted year end budget would be met for 2015. PowerStream cannot accept using the proposed 2013-2014 actual spending and incorporating a 2.1% inflation index

as the proposed forecast for the 2016-2020 periods. Large known upcoming developments such as the Vaughan Metropolitan Centre and the Langstaff Gateway developments are strong indicators to PowerStream that its forecast is in line with commercial developments in its service territory.

New Residential Subdivisions are forecasted with much more certainty. The Region of York, Simcoe County and the municipalities in PowerStream's service territory convert populations' statistics into housing statistics per year. Historical information is a strong lagging indicator for this sector as well. Combining this information with discussions with Developers, PowerStream forecasts have been very accurate, with respect to the number of lots issued and constructed. Growth in new residential subdivisions within PowerStream's service territory is not slowing down as OEB Staff has indicated. As indicated on Appendix A of the DS Plan, Investment summaries 101887 and 101906, PowerStream forecasted 4,400 lots for 2015. PowerStream confirmed (response to I-Staff-4, page 7 of 12, line 15, Section B, Tab 1, Schedule 1) that the forecasted year end budget would be met for 2015.

PowerStream recognizes how one may use the numbers from 2013 and 2014 and argue for lower amounts than proposed by PowerStream. The lower amounts were a result of PowerStream no longer being able to collect upstream charges per Board Decision EB-2009-0077, page 8, and timing differences of capital contributions as discussed in the Technical Conference on September 9, 2015 on page 108. Both issues resulted in lower spending.

PowerStream cannot accept using the proposed 2013-2014 actual spending and incorporating a 2.1% inflation index as the proposed forecast for the 2016-2020 periods for the reasons stated above.

To ensure clarity, the capital spending program titled "New Connections and Subdivisions" is comprised of the following categories:

- Residential Service Upgrades (Investment Summary # 101872 & 101873)
- Secondary Service Laterals (Investment Summary # 101892 & 101914)
- New Commercial Subdivisions (Investment Summary # 101896 & 101911)
- New Residential Subdivisions (Investment Summary # 101887 & 101906)
- Industrial Commercial & Institutional Connections (No Investment Summary Filed)

It is very important to note that it appears that OEB Staff, in its calculations, has failed to acknowledge the spending levels in the area of Secondary Service Laterals when they proposed reductions in their summary table on page 26 of their argument. As indicated in Appendix A, Investment Summary Reports 101892 and 101914, these monies are material (e.g. 2016 total secondary service laterals is $2,173,796) and definitely need to be included and should in no way be left out.

PowerStream submits that it has not overstated the proposed budget for New Connections and Subdivisions as OEB Staff has suggested due to the above reasons.

b) Cable Replacement Program

i) OEB Staff were primarily concerned that cable unit costs vary significantly between different parts of the application. OEB Staff has used the unit cost numbers provided at the oral hearing which provide an average cable replacement unit cost of $524/m in 2016-2020, compared to historical average costs of $265/m in 2011-2014, which represents a 98% increase in unit costs.

ii) OEB Staff submitted that there was no meaningful explanation provided by PowerStream for the cable replacement unit cost increase. Using a historical average unit cost as a base with 2.1% inflation rate and 22% adjustment for the "left behind" cables, which OEB Staff would view as reasonable adjustments, would result in a reduction of the costs of the cable replacement program of $25.6M.

PowerStream recognizes that the increase in costs were based on the costs from 2013. PowerStream has reviewed the contributors to the cost increases. PowerStream believes that it can be more efficient in the delivery of cable remediation and can reduce its budget in this item by $15.6 million over the 5 year plan horizon.

c) Pole Replacement Program

i) OEB Staff is concerned that PowerStream has provided insufficient justification for increased pole replacement rate, and that PowerStream did not take into account poles that are replaced under other programs. AMPCO shares these concerns.

The quantities for pole replacements are covered under Theme 3 above. With respect to the budget, PowerStream submitted during the oral hearing, Undertaking J2.10, that the optimization process altered the annual numbers. Based on the 2015 budget, and an inflationary escalator, PowerStream could reduce the pole remediation budget by $2.3 million.

d) Rear Lot Supply Remediation Program

i) OEB Staff is concerned with the approach used to estimate the expenditures for the rear lot remediation program. AMPCO is concerned on multiple issues and believes that further analysis is required. Other parties concur with this position.

This is discussed under Theme 9.

e) Residential Meter "ICON F" Meter Replacement Program

i) While OEB Staff supports PowerStream being proactive in dealing with security issues of this kind, it submitted that this program should be reviewed again in the next DSP filing.

PowerStream submits that the importance of secure assets and the timely replacement of the meters (which are in line that assets' depreciation curve) makes this a prudent and necessary expenditure. PowerStream also submits that now that PowerStream is aware of the issue, a proactive approach for replacement is necessary. These costs cannot be cut in the 2016-2020 period and urges the Board to find that the ICON F plan as proposed by PowerStream is appropriate.

f) Major IT Projects

i) OEB Staff notes that IT related projects are typically intended to automate business processes that in return help to improve productivity and bring hard financial benefits to the company that will be eventually passed to the consumers. OEB Staff is concerned that while proposing significant investments in major IT systems, PowerStream has not completed an appropriate financial evaluation of the projects, e.g. using a Net Present Value analysis, and if these projects will ultimately deliver value for money to customers. OEB Staff notes that a major contributor to the program is CIS Modifications, explained as hardware and software upgrades required to keep the newly installed CIS going after the go-live date. The CIS Modification project alone is worth of $19.5M in 2016-2020 which is incremental to the $42M already invested, or an increase in the total CIS cost of 46%.

PowerStream proposes to invest $19.6M between 2016 and 2020 to enhance and maintain its Customer Information system. Spending can be categorized into three areas as shown in the following breakdown and explanation of the investments.

- Post go-live requirements - $5.4M

The Oracle Customer Care and Billing (CC&B) system is designed to meet the needs of utilities and is modeled on the best practices of major utilities around the world. As with most new system implementations, there will be gaps between how the new and legacy systems achieve specific business functions. Filling the gaps is particularly challenging when migrating from a highly customized 30 year old system and usually requires a combination of changes to business processes/functions and modifications to the software application.

During the implementation, approximately 1,600 business functions were identified and analyzed. Using a rigorous priority ranking approach, approximately 280 functions which either

had manual work-arounds or could otherwise be accommodated without impacting the customer, were deferred. Below are some examples of key functions which are planned between 2016 and 2020:

- The requirement to store accurate meter location information for meters not associated with a specific customer premise (e.g., wholesale metering and boundary meters for PowerStream). This will require a special data field(s) and the ability to override certain mandatory fields to avoid entering "dummy data" for non-premise metering.
- Ability to maintain a mailing address on file (if different from service address) per Canada Post Accuracy Standards. All addresses used for mailing purposes must meet both Canada Post Standards for domestic, US, and international purposes. Should also be able to set up a future dated Mailing Address (example forwarding address for when a customer is moving). Controls should be in place to ensure mailing addresses meet standards. Street Sweeper is a required interface to facilitate the retention of a mailing address that is different than the Service Address. Having correct and accurate mailing information will facilitate timely communication with PowerStream customers.
- Non Billed Budget (NBB) Reconciliation base CC&B only allows for one of three options (Spread, Exclude, Added to First Payment) for all accounts which under the OEB requirements would mean that PowerStream would not be compliant for customers who are in a credit balance at the time of reconciliation. In order to correct this issue PowerStream suggests the following solution: The rule for debit balances at reconciliation is PowerStream will spread the balance over the next year's payments. The rule for credit balances at reconciliation is that PowerStream will refund the total credit through the customer's bank account.
- The ability to permanently and/or temporarily stop a late payment charge from being applied to an account. This will enable PowerStream to deal with exceptions, thereby improving service levels to customers while reducing the number of calls and complaints.

- Regulatory requirements and enhancements - $9.2M

The amount is an estimate based on historical effort and the costs of CC&B consultants to do modifications. This is in anticipation of regulatory changes such as the recent Ontario Electricity Support Program project. The budget also factors in the rapidly changing electricity

distribution business in Ontario, which may require changes to PowerStream's business model and/or billing model.

All projects which require changes to the CC&B application follow the industry standard Software Development Lifecycle (SDLC) methodology. This methodology is required to maintain system stability and reliability. Projects also require detailed analysis, design and system testing prior to implementation in PowerStream's production environment.

- Major System Upgrade - $5M

One of the first milestones of the new CIS implementation project was the installation of hardware and software in 2012. At that time the current version of the CC&B application was 2.3.1. Oracle has since released version 2.4 in 2013 and version 2.5 in 2015. Oracle plans to end Support for version 2.3 in June of 2018. For the system to continue to be supported by Oracle, it will be necessary to upgrade to the newer version.

The cost for the upgrade will include external professional & technical services, internal staff and training. There will also be costs associated with procurement and installation of hardware and ancillary software. The cost of the core CC&B software application is covered under PowerStream's annual maintenance agreement with Oracle and is not included in this budget estimate.

For the reasons above, PowerStream submits that the proposed spending for the CC&B system is reasonable. It is acknowledged that these are significant costs, however, as pointed out, the CC&B system is highly complicated, it is the largest and most important IT system for the Company, with a significant number of interfaces to other systems. A system such as this requires significant expenditures to ensure its appropriate upkeep.

ii) AMPCO staff expressed concern on spending required for the CIS monthly billing, stating that PowerStream should have anticipated this and the cost should have been included in the original design.

- Monthly Billing Changes- $3M

It has been PowerStream's long-time practice to bill Residential customers on a bi-monthly basis. This was the practice when PowerStream developed the business requirements for the CIS project. The CIS replacement was a very complex project. Changes to existing business procedures were made only where absolutely necessary.

The possibility of a monthly billing requirement surfaced late in the implementation phase of the CIS project. An assessment to change bi-monthly to monthly billing was conducted. It was estimated that changing to monthly billing would add 6 – 12 months to the implementation timeline and require revisiting the 22 interfaces, assess the hardware, software, negotiate new contracts with our 3rd party vendors such as Kubra for bill print, etc. It was estimated that this

could add costs of $7M to the project. PowerStream decided to continue working on the original planned basis. This cost is high because it would involve stretching out the project at a time when there was a large project team.

In 2015, the OEB mandated that distributors start to bill Residential customers on a monthly basis as of January 1, 2017.

PowerStream has estimated that the changes to implement monthly billing in 2016 to be $3M. This cost is much lower than the earlier estimate as a much smaller project team will need to be involved at this stage.

There are no costs for additional CC&B software or modules. These costs are for configuration changes, additional server capacity to handle the almost doubling of the data, changes to the many interfacing systems including our website where customers access their billing information, reprogramming/configuration of business processes around equal billing and e-billing as well updating of reports.

Other IT Projects

i) OEB Staff considers the proposed spending to have inadequate analysis to deliver value to the customer.

Project Summary reports, included in Appendix A of the DS Plan, contained information with respect to information technology projects. These summary reports were generated for all capital projects exceeding the materiality threshold dollar amount.

In this case, the transfer of information to the C55 system, to generate the investment summary forms that were included as part of the DS Plan, appears to have been insufficient to adequately convey the total research and justifications that underlie these summaries for OEB Staff. PowerStream assures the Board that these projects are well justified, prudent expenditures.

These projects remain necessary to provide adequate functionality for all business units within the corporation and are an important piece to allow PowerStream to continue to work towards improving efficiencies of the Company

g) Storm Damage

i) AMPCO is concerned with the amounts included given the historical actuals and that even though PowerStream is proposing to undertake significant storm hardening investments it is not proposing a decrease to the budget.

While a major weather event on the scale of the 2013 Ice Storm is expected to occur once every 14 years, distribution systems can still be impacted by storms on a smaller scale. PowerStream expressed in evidence at the oral hearing transcripts, Volume 3, page 93, that its

distribution system has been impacted by a significant weather system at least once each year for the past several years - in 2011 by a tornado, in 2012 by Tropical Storm Sandy, in 2013 flooding in the GTA areas and the ice storm, in 2014 a microburst on Warden Avenue that knocked down 14 poles and in 2015 unique weather patterns that led to pole fires.

The diverse annual storm events from these significant weather patterns are disruptive to the distribution system, and these are contributing to determining appropriate budget levels. Additionally, it will take time for the effects of hardening the distribution to occur once the program is put in place.

The trend over the past five years is that Capital expenditures due to weather events have steadily increased each year. The table below, which is an excerpt of one line item from the DS Plan, Section 5.3.3, Table 3, shows the average historical and forecast amounts for the period 2015 through 2020. PowerStream confirmed (response to I-Staff-4, page 7 of 12, line 15, Section B, Tab 1, Schedule 1) that the forecasted year end budget would be met for 2015. PowerStream's average annual forecast spend for storm activity for the period 2016-2020 is actually less than the average annual expenditure for the period 2014-2015.

PowerStream submits that its Storm forecasts are appropriate and in line with historical trends, and it would not be advisable to reduce these budgets.

	Actuals				Proposed					
	2011	2012	2013	2014	**2015**	2016	2017	2018	2019	2020
d) Storm damage - Replacement of distribution equipment due to storm.	$428,418.00	$482,911.00	$767,149.00	$1,160,050.00	$999,784.75	$1,000,232.43	$1,005,602.71	$1,005,624.45	$1,010,352.34	$1,010,159.38

h) Unscheduled Replacements – LIS

i) AMPCO is concerned with the amounts included given the historical actuals.

The table below, which is an excerpt of one line item from the DS Plan, Section 5.3.3, Table 3, shows the average historical and forecast amounts for the period 2015 through 2020.

	Actuals				Proposed					
	2011	2012	2013	2014	**2015**	2016	2017	2018	2019	2020
a) LIS - Unscheduled Replacement of Failed (end of useful Life) Distribution Equipment		$334,123.00	$51,210.00	$125,384.00	$350,776.00	$346,168.00	$331,291.00	$321,119.00	$276,190.00	$275,612.00

PowerStream's average annual expenditure on reactive LIS replacement for the period 2012-2015 is $200k, while the average annual forecast for the period 2016-2020 is $310k. PowerStream acknowledges that, in view of the difference between historical and forecast average expenditures, there is room to reduce its forecasts. However, it should be noted that there is an increasing trend in expenditures over the past 3 years.

PowerStream submits that an average annual reduction of $75,000 to its forecasts in this category would be appropriate. A reduction of $190,000, as suggested by AMPCO, would reduce forecasts to a level far below actual historical expenditures. PowerStream submits that AMPCO's suggestion would not be a prudent or fair approach.

i) Unforeseen Projects Initiated by Customers

i) AMPCO has stated that for Unforeseen Projects Initiated by Customer the historical average is $623,259, and that PowerStream budgets $786,802 in 2016 increasing annually to $1,414,541. AMPCO submitted that the historical average should be the budget.

PowerStream has reviewed this budget item, and has determined that there was an error in the forecast within the DS Plan. This error results in capital reductions as follows:

- 2016: $401,726
- 2017: $525,071
- 2018: $655,844
- 2019: $810,013
- 2020: $946,475 (5 year total $3.3M)

7. Inadequate Customer Engagement

- **Submissions of the Intervenors:**

BOMA, SEC and AMPCO submitted that there was inadequate customer engagement.

- **PowerStream's Reply:**

Please refer to Issue 2.2 for the discussion on Customer Focus.

8. General Plant Spending

PowerStream will address submissions on General Plant spending according to the type of General Plant expenditure.

a) Major IT Projects

i) OEB Staff only had submissions for this category on major IT projects.

Expenditures on major IT projects are addressed under Theme 6, above.

b) Support for IT Projects, outcomes for customers; and the CIS system

i) AMPCO is concerned that some of the IT projects are not well supported in the evidence and lack clear outcomes for customers. AMPCO and SEC are concerned with the CIS system.

These matters are also covered under Theme 6, above.

c) Emergency Work Required for Facilities

i) AMPCO is also concerned with the spending for emergency work required for facilities, and their increase from historical values.

As noted in the DS Plan, Section 5.4.5, page 31, PowerStream stated that the capital budget requirements are increasing. Although the facilities are relatively new, modest expenditures are still required each year as the facilities are starting to age. PowerStream submits that the budget is appropriate.

9. Rear Lot Remediation Program

- **Submissions of Board Staff and the Intervenors:**

OEB Staff is concerned with the approach used to estimate the expenditures for the rear lot remediation program. OEB Staff's view is cost estimates for a program of this magnitude should be based on detailed analysis and design specifications. OEB Staff are concerned that PowerStream did not provide any evidence that analyzed the contribution of the rear lot infrastructure to the power outage impact of the ice storm.

OEB Staff also notes that the asset condition evidence contradicts PowerStream's assertion that many of the rear-lot assets are at end-of-life.

AMPCO is concerned with the program and believes that further analysis is required. Other parties concur with this position.

- **PowerStream's Reply:**

PowerStream submits that customers being supplied through rear lot construction are not unique to PowerStream. There are several utilities that have rear lot supplies and have implemented multi-year program to remediate these supplies. Toronto Hydro has in fact been remediating rear lots for the last 10 years and received approval to continue doing so in the

Board's recent Decision in Toronto Hydro's 2015-19 Custom IR application (EB-2012-0064), at page 30.

PowerStream has always been cognizant of the issues associated with rear lot supplies. Based on the need for asset remediation, PowerStream commenced its first review investigating the options in 2012. The first report was written in late 2012, submitted as Appendix Staff 45.1, which recommended options to consider in terms of remediation when the rear lot assets come to end-of-life. PowerStream's report identified various options to deal with rear lot supplies. The Hybrid option was preferred due to the cost considerations in which the primary supply was preferred to be moved to the front yard and buried underground while the secondary supply was to remain in the back.

As indicated in the transcript of the oral hearing, Volume 3, (page 55) PowerStream had plans in its budgets for rear lot remediation, albeit at a lower amount of $3.8M per year. This funding was for end of life asset renewal using the hybrid approach. The increase to $6.0M per year was a direct result of the December 2013 ice storm. PowerStream considered the effects the storm had on all facilities and considered what those effects to customers would have been in a hybrid option. The conclusion was customers would have experienced similar outage conditions in the hybrid option as they would with the existing rear lot supply. This conclusion is based on the nature of the damage (the secondary supply will remain in the rear and remain vulnerable to extreme weather conditions). The hybrid option was deemed to be a less than optimal solution.

There was considerable concern raised through customers and municipalities with respect to the duration of outages for the worst affected customers. This was also a factor in leaning toward the full underground option.

With respect to reliability, the latest Five Year Work Reliability Work Plan estimated the rear lot remediation program savings in the range of 100,000 – 200,000 CMIs (Customer Minutes of Interruption) for normal days, not MED (Major Event Days) days. In a storm event, the CMI could be very high depending on the type and severity of the damage. PowerStream submits that it is misleading to apply the $1/CMI value used in the prioritization tool as this does not consist of both the frequency cost and duration as explained in Other Issues below. A rear lot outage not only affects the residential customer but affects customers who are outside the rear lot subdivisions due to the distribution system configuration.

The typical rear lot value to the customer has been provided within undertaking J3.3 from the Oral Hearing. PowerStream disagrees that the value benefits should only be quantified in terms of CMI. There are several other benefits of the projects which include (for example) public safety, worker safety and environmental risk, which are further explained in the Copperleaf Value function document, Appendix Staff 51a.

It is important to recognize that the reliability impact of the ice storm was significant to rear lot customers. These customers experienced significantly higher outage durations than non-rear lot customers.

The average age of the rear lot assets is 46 years and there are assets that are over 62 years of age in the rear lot areas (II-2-Staff 45, Appendix 45.3, page 10). Although the condition evidence for rear lot shows that the assets are in "Good" condition, this only applies to poles. There are other assets in the rear lot areas (conductors, switches, transformers) which are at end of life. PowerStream's program is spread out over a 15 year period and it is only targeting areas which are at end of life. The immediate replacement candidates for rear lot conversion are all justified over the five year period based on asset age and condition. PowerStream notes that as time passes, these assets will further deteriorate.

PowerStream acknowledges that further costing information is required to improve the longer term spending forecast of this program, however, PowerStream submits that due to the specialized nature of the rear lot program, actual experience is necessary to improve the longer term spending forecast of this program. In addition, PowerStream believes that the proposed expenditures may in fact not be sufficient.

For the reasons stated above it would not be prudent to remove this program. Many of the rear lot areas are at end-of-life and the proposed program is aligned with replacing those assets. Full underground in front of the homes is the best option to maintain safety for customers and line staff. Full underground will result in significantly improved reliability for customers serviced by rear lots in the event of another ice storm.

Other Matters of Concern to OEB Staff and/or specific parties:

a) Capital Budgeting Approach - Project Prioritization Process

In the paragraphs below, PowerStream has set out the OEB Staff or Intervenor concern, followed by the PowerStream response.

i) OEB Staff identified three concerns in this area: the use of Hard Financial Benefits; the Value Function used in the optimization process; and the calculation of reliability cost and risk values. More particularly, OEB Staff were concerned that the value scores are simply used to compare projects within the prioritization program and do not reflect a project's net value to the company and customers.

PowerStream installed the Copperleaf system for its inaugural year the same year that the DS Plan was being prepared, and in time for its first multi-year optimization. The completion of risk and benefit analysis on a comparable monetary basis was a new process and staff were required to learn and enter data and analysis in a very short time. It was decided that for the first year of this project, until a better understanding of the software application was

experienced, that the estimated competitive savings were untested and would not have to be directly be removed from budgets. This requirement would transpire in later stages. In 2015, PowerStream adjusted the methodology to have three financial benefits recognized, namely: expected reduction benefit type (measures a tangible reduction that can be applied to future budget), an avoided cost benefit type (measures the potential expenditures that would be avoided as a result of the project) or an efficiency benefit type (measures productivity improvements). The development and improvement of the application of the C55 system is ongoing.

ii) OEB Staff were concerned that the overall project portfolio is based on a capital threshold set through managerial decision.

PowerStream's project portfolio is not based on a capital threshold set through managerial decision. As described in its response to Interrogatory C-CCC-22, PowerStream's capital threshold is developed in parallel with the OM&A budget. Overall budget targets are set for operating and capital expenditures based on a top down approach considering corporate strategy, business needs and financial impact. This sets a threshold that accommodates, to the extent possible, the needs of the business units while balancing the needs of the organization.

PowerStream submits that considering business needs with financial impact is prudent.

iii) OEB Staff expressed concern with the reliability cost formula that is used in the prioritization process.

PowerStream uses the following formula to calculate reliability cost:

reliabilityCost = cmiCost*0.89 + (frequencyCost + durationCost)*0.11

Given that the cmiCost is based on mixed load, OEB Staff was not clear as to why it is weighted by only the residential customer count.

The weighting of 89% on customer costs (cmiCost) versus 11% on load costs (frequencyCost + durationCost) was based on discussions with Copperleaf. PowerStream would like to remind the Board that Copperleaf has considerable experience in deriving appropriate weightings. The split was derived to allow both industrial/commercial (ICI) and residential projects to compete for capital dollars. This needed to be done because the ratio to loads versus customer numbers are opposite between ICI and residential areas (large loads, one customer for ICI, small loads, many customers for residential).

If costs for these two loads were taken at par, the load costs could be dominated by ICI customers due to the fact that they represent 68% of the load (vs 32% for residential).

A blended approach was adopted to weight each cost based on PowerStream's customer breakdown (89% residential vs 11% ICI). This weighting allows residential and ICI reliability interests to compete.

The 5% represents both increased maintenance costs as well as the probability that a secondary failure will occur. This value was acquired from Copperleaf.

iv) OEB Staff also observed that the risk matrix is very sensitive to the probability and consequence values and a small increase in either can increase the value score significantly, thereby affecting the prioritization results.

PowerStream acknowledges this interpretation, but submits that if a consistent approach to answer these occurs, and this approach is assisted through quality control, that the impact is minimal.

v) OEB Staff also notes that some of the input parameters in the optimization program are defined and are not based on analysis. For example, the Technological Innovation benefit was assigned a value of $1,000 for each of the years it applies to.

One of PowerStream's corporate objectives is to encourage technological innovation. It is believed that with technological innovation, PowerStream over time will be able to realize efficiency benefits. The value of $1,000 was designed to reflect that goal.

PowerStream submits that the project prioritization process, value and risk scores are appropriate. PowerStream would like to remind the Board that the scoring process and use of C55 is a tool which only assists PowerStream to determine the best project portfolio and does not definitively give the final answer. PowerStream's senior staff thoroughly reviewed the proposed project list to ensure each and every project proposed was a prudent project to proceed with.

b) Resource Plan

i) OEB Staff is also concerned that PowerStream's capital plan lacks incentives for contractors to be more productive.

While PowerStream has not specifically mentioned strategies that incent contractor productivity, this does not mean that they do not exist. In addition to the ongoing competitive bidding procedures, meetings with in-house contractors are held to look for ways to become more efficient, as stated in the oral hearing transcript Volume 3, page 10.

PowerStream is committed to going to market regularly to ensure best price bids for work are obtained.

c) Tie to OM&A Reductions

i) BOMA was concerned that PowerStream did not aggregate and show explicit reductions to the OM&A budget, nor were regimes put in place to measure them.

Refer to Part B, **Interrelationship between CAPEX and OM&A Expenses**

d) System Service

i) AMPCO is concerned with a mobile unit substation and a land purchase for a transformer station, both in 2020.

PowerStream agrees that there is greater uncertainty the farther out in the plan that expenditures are forecasted. PowerStream could consider deferring the mobile station for a year.

The land purchase, however, is for a transformer station for the forecasted growth in the Markham and Richmond Hill area and has been identified as the near term project need in the York Region IRRP lead by IESO.

Final Comments on Issue 3.2

OEB Staff submitted that their methodological concerns, taken in conjunction with the specific cuts proposed in the table below, would provide further justification for the overall cut proposed by OEB Staff in PowerStream's 2016 to 2020 capital expenditures. OEB Staff proposed stated expenditures to be reduced by 15% of the total capital DSP 2016-2020 spending, or the equivalent of approximately $97 million total in 2016-2020 and an average of $19 million per year. However, the table that underpinned this amount provided shows an actual total reduction of 18% of the total DSP 2016-2020 capital spending, or the equivalent of approximately $117.4 million total in 2016-2020 and an average of $23.4 million per year.

AMPCO submitted detailed analysis to support specific cuts proposed, and these are also summarized in the table below. Other parties recommended a non-specific detailed listing of their proposed reduction.

PowerStream submits that the DS Plan is reasonable, necessary and achievable and can be delivered as initially submitted.

PowerStream has calculated realistic reductions to the DS Plan's 2016 to 2020 capital expenditures as shown in the table below based on the corrections provided by PowerStream with respect to the nine themes and other issues of concern discussed above.

Also included in the table below is one addition. As discussed in the Technical Conference transcript from September 9, 2015 commencing on page 110, line 22, an additional $20 million

is required for Road Authority to accommodate significant work required for York Region Rapid Transit (YRRT) project on Yonge Street and Highway #7.

#	Capital Spending Program	OEB Staff Potential Reduction 2016-2020	AMPCO Potential Reduction 2016-2020	PowerStream Potential Reduction 2016-2020
1	New Connections and Subdivisions	-$28.30	-$32.10	$0.00
2	Cable Replacement Program	-$25.60		-$15.60
3	Pole Replacement Program	-$9.00	-$18.90	-$2.30
4	Rear Lot Supply Remediation Program (storm hardening)	-$30.00	-$30.00	$0.00
5	Residential Meter ICON F Meter Replacement Program	-$8.70		$0.00
6	Major IT Projects (including CIS)	-$15.80	-$11.99	$0.00
7	Switchgear Replacement Program		-$2.00	$0.00
8	Mini-Rupter Replacement Program		-$2.00	$0.00
9	Emergency Work for facilities		-$1.36	$0.00
10	Unscheduled replacement - LIS		-$0.95	-$0.38
11	Unforseen project by Customers		-$3.82	-$3.30
12	Storm Damage		-$1.50	$0.00
13	Mobile Unit Station		-$0.44	-$0.44
14	MTS#5 Land		-$0.24	$0.00
15	General Plant		-$13.90	$0.00
16	Overestimation (contract labour)		-$10.10	-$1.20
17	Monthly Billing			$0.00
	TOTAL REDUCTIONS	-$117.40	-$129.30	-$23.22
	ADDITION: YRRT Road Authority	$0.00	$0.00	$20.00
	NET REDUCTION	**-$117.40**	**-$129.30**	**-$3.22**
	all dollars in millions			

If the Board does not reduce the capital as initially proposed in the Application, PowerStream can manage the increased costs for the YRRT within the proposed capital spending amounts and accept a single asymmetrical variance account for the entire DS Plan.

If the Board does reduce the capital from what was initially proposed, it would not be appropriate to do so without considering the significant increased costs for the YRRT project. If a reduction is required, PowerStream believes that asymmetrical variance accounts can only apply to System Renewal, System Service and General Plant. Any variance account for System Access must be symmetrical as it would be unfair for PowerStream to cover the risk of

increased costs in this uncontrollable category particularly while the YRRT project is being completed. If the Board does reduce the capital from what was initially proposed, it would not be appropriate to do so without considering the significant increased costs for the YRRT project. If a reduction is required, PowerStream believes that asymmetrical variance accounts can only apply to System Renewal, System Service and General Plant. Any variance account for System Access must be symmetrical as it would be unfair for PowerStream to cover the risk of increased costs in this uncontrollable category particularly while the YRRT project is being completed.

PowerStream submits that any cuts to the 2015-2016 DS Plan above and beyond that indicated in the table above will put both PowerStream's system at risk and PowerStream's efforts to become more efficient in its operations at risk. PowerStream has spent significant efforts in the last number of years to analyze and build a comprehensive plan to ensure prudent and appropriate projects are completed both for the distribution system, general plant and information technology. PowerStream's distribution assets continue to age. Any deferral of distribution system projects will result in increased pressure in future years for spending in order to maintain reliability, with the related rate shock that the increased revenue requirement to address the buildup of capital needs would entail. Software continues to change and new opportunities arise to capture efficiencies resulting from those opportunities. Any deferral of information technology projects will result in PowerStream not being able to continue in its efforts to be a leading and efficient distribution company.

3.3 Is the capital structure and cost of capital component of the revenue requirement for 2016 – 2020 as set out in the Application appropriate?

Discussion and Submission:

In its Application, PowerStream proposed a deemed capital structure in accordance with the Board's policy.

With respect to cost rates for each component of the capital structure, PowerStream proposed that the interest rate for short-term debt and Return on Equity for 2016 match the parameters as set by the Board in its October 15, 2015 letter on cost of capital parameters, and further proposed that those rates be updated as part of annual adjustments during the Custom IR period. No party expressed concern with respect to the method followed by PowerStream or its proposals.

PowerStream also proposed that the long-term debt rate be adjusted annually, based on the OEB methodology, and the actual cost of the issued debt.

OEB Staff did not identify any issues with PowerStream's proposal and submitted that "the capital structure and cost of capital component of the revenue requirement for 2016-2020 as set in the application is appropriate".

With respect to the cost of long-term debt, an issue was raised by Energy Probe, supported by SEC and CCC.

The issue relates to the cost of forecasted new debt. The proposal by PowerStream is to use the Board's deemed long-term debt rate for the new debt for 2016 and subsequent years for purposes of calculating the weighted average cost of debt, subject to annual updates.

Energy Probe suggested that the cost of forecasted long term debt be included at market rates rather than the Board's deemed rate. For 2016, Energy Probe recommended that a market rate for 10 year bond (2.7%) be used rather than the current deemed long-term rate of 4.54%.

The issue arose because of a drafting error on PowerStream's part. The words "bond" and "10 years" term in the Ex K-1-2, in table for 2016, referenced by Energy Probe were typographical errors (as evidenced by the correct use of "TBD" term and "new debt" in the tables for the consequent years.) PowerStream has not forecasted to issue 10 year bond in 2016. PowerStream apologizes for this drafting oversight

The difference between the long-term deemed rate and the market rate for long-term debt (30 year bonds) is not significant, and it has been estimated that the market rates, being currently at the low end, would increase. Currently the all-in rates for 30 year bonds are slightly below the OEB long-term deemed rate of 4.54%. Rather, the difference is between 10 year and the 30 year rates.

In the current low interest rate environment it would be prudent for utilities to consider longer term bond issues of 30 years or longer, to match the life of its assets and to fix the current low interest rate for a longer period of time. Fixing this debt rate to a longer term (30 years or more) benefits ratepayers and therefore it would not be advantageous to limit PowerStream to only consider a 10 year debt term. As Energy Probe notes, in 2014 PowerStream indeed issued Series B debentures of $150M for ten years. This was done for the sole purpose of diversification of PowerStream's portfolio, since Series A debentures of $200M, had been previously issued for 30 years and will mature in 2042.

PowerStream submits that using a long-term deemed rate for the forecasted portion of long-term debt is not inconsistent with the Board policy, and is more appropriate in this case than using market rates, suggested by intervenors. A market rate approach would add regulatory complexities to the annual adjustment process. The annual adjustment process would not be mechanical since it would have to involve a forecast with supporting evidence and therefore adjudication. This would prolong the time between filing and implementation of the new rates. It would also add costs negating savings, if any, from adopting the market rate approach.

3.4 Is the depreciation component of the revenue requirement for 2016 – 2020 as set out in the Application appropriate?

Discussion and Submission

OEB Staff submits that depreciation is appropriate subject to any adjustments made by the Board to the capital program.

Energy Probe submits that the use of half-year depreciation in the year an asset goes into service ("half-year rule") for forecasted additions is inappropriate.

AMPCO, BOMA, CCC, SEC, SIA and VECC made no submissions in this regard.

As Energy Probe notes, the issue of the half-year rule went to hearing in PowerStream's 2013 Cost of Service application (EB-2012-0161) and the Board approved PowerStream's use of the half-year rule for forecast in-service additions as being in accordance with Board policy. The argument put forward Energy Probe is no different than that decided upon by the Board in that case.

Furthermore PowerStream submits that Energy Probe's assertion that the information in J-Energy Probe-40 supports the Energy Probe argument is erroneous. It assumes that rate payers have paid in rates for all of the depreciation on the actual assets in-service during the IRM period which is clearly not the case.

Rate increases during IRM did not provide adequate funding for depreciation and return on these assets. This is evidenced by the significant increase in capital funding on rebasing in 2016 on 2014 and 2015 capital additions to rate base. PowerStream notes that there is no inclusion in this Application or does it have any means of recovering the shortfall in depreciation and return on its capital investments in 2014 and 2015.

PowerStream submits that the approach to depreciation proposed in the Application is appropriate.

3.5 Is the taxes / PILs component of the revenue requirement for 2016 – 2020 as set out in the Application appropriate?

Discussion and Submission

OEB Staff and Energy Probe submit that taxes/PILs are appropriate subject to any adjustments made by the Board to other areas.

AMPCO, BOMA, CCC, SEC, SIA and VECC made no submissions.

PowerStream submits that the taxes/PILs component of the revenue requirement for 2016 – 2020 as proposed in the Application is appropriate.

3.6 Are the OM&A programmes and related components of the revenue requirement for 2016 – 2020 as set out in the Custom IR Application appropriate and is the rationale for planning choices appropriate and adequately explained and supported considering:

i. **customer feedback and preferences;**
ii. **productivity and sharing of benefits**
iii. **benchmarking of costs;**
iv. **reliability and service quality;**
v. **impact on distribution rates;**
vi. **trade-offs with capital spending;**
vii. **government-mandated obligations; and**
viii. **the applicant's objectives?**

Background:

PowerStream has throughout its evidence discussed how its OM&A component of its revenue requirement is appropriate giving consideration to the eight measures listed above.

In this section PowerStream replies to the general and specific criticisms by parties that its proposed OM&A is not appropriate.

The table[34] below shows PowerStream's proposed OM&A for each year in the 2016-2020 period and also shows the drivers for the changes in OM&A.

[34] Application, Exhibit J Tab 1, p. 2 February 24, 2015 modified to include monthly billing.

Total OM&A ($000's)	2013 Actual	2014 Actual	2015 Bridge Year	2016 Test Year	2017 Test Year	2018 Test Year	2019 Test Year	2020 Test Year	2013 Actuals to 2015 Bridge Year	2016 to 2020 Test Years
Opening Balance *	**82,941**	**80,849**	**85,454**	**92,558**	**96,216**	**101,808**	**103,724**	**106,109**	**82,941**	**92,558**
Compensation	(204)	538	2,508	1,136	267	745	787	901	2,842	3,837
Asset Management	(922)	1,949	579	472	578	364	416	369	1,605	2,199
Risk Management	(109)	330	757	518	485	(36)	138	(103)	978	1,002
Grow th	(73)	59	144	369	140	232	87	106	131	935
Customer Expectation	95	754	(248)	58	25	25	25	25	602	158
Compliance	(361)	262	185	132	18	18	18	19	86	205
Other	(2,390)	929	1,464	482	15	110	265	139	4	1,011
Closing Balance- Business as usual	**78,977**	**85,670**	**90,844**	**95,724**	**97,745**	**103,267**	**105,461**	**107,564**	**89,188**	**101,904**
Year over year ($)		**6,693**	**5,173**	**4,881**	**2,021**	**5,522**	**2,194**	**2,103**	**Note 1**	**Note 2**
Year over year (%)		**8.5%**	**6.0%**	**5.4%**	**2.1%**	**5.6%**	**2.1%**	**2.0%**		
Extra-ordinary items										
Vegetation Management	1,872	(1,565)	403	614	526	531	536	542	710	2,749
CIS Implementation	-	1,349	1,310	(122)	(158)	(182)	1	1	2,659	(460)
Monthly billing					3,696	108	110	121	-	4,035
Closing Balance- Business with Extra-ordinary items	**80,849**	**85,454**	**92,558**	**96,216**	**101,808**	**103,724**	**106,109**	**108,228**	**92,558**	**108,228**
Year over year ($)		**4,605**	**7,104**	**3,659**	**5,592**	**1,916**	**2,385**	**2,120**		
Year over year (%)		**5.7%**	**8.3%**	**4.0%**	**5.8%**	**1.9%**	**2.3%**	**2.0%**		

* The opening balance for the 2013 actual is 2013 OEB approved plus the inclusion of the joint services expenses that w ere not included in the 2013 OEB approved.

Note 1: The change from 2013 to 2015 is 2% per year

Note 2: The average increase from 2016 to 2020 excluding the extra-ordinary items is 2.7% per year

Each party's specific recommendations regarding the appropriate OM&A are made depending on their stand with respect to a rate term replacing the proposed 5-year rate plan. It is impractical to deal with the varied positions on the topic. Consequently, PowerStream responds to key themes that are ascertainable from parties' submissions.

- **Theme: Use 2014 as the base**

One theme in some of the submissions is that the proposed OM&A costs are too high and that the 2016 costs should be reduced to the 2014 level with some inflation factor adjustment.

PowerStream submits that using 2014 as a base to calculate OM&A costs for 2016 is not representative of the level of OM&A required to support PowerStream's current operations. Reducing OM&A to the 2014 level does not take into account the cost drivers that PowerStream has discussed extensively in its evidence. Specifically one of the key drivers for the increase in

2014 and 2015 is the implementation of the new Customer Information System which contributed an increase of 7.7% in 2014 and 2015, the details of which are summarized below.

- There is a 3.1% increase in relation to CIS for 2014 and 2015. In 2014 this increase relates to one-time training costs for staff to become familiar with the new software in order to be able to handle customer enquiries when the system became live. The significant cost increases in 2015 relate to the software maintenance contract entered into in 2015, this included help desk support which would be used to fix problems immediately thus not affecting our service to our customers. As noted in the Application this maintenance contract was subject to a due diligence process including a pricing proposal.[35]

- There was also an increase of 4.6% in compensation costs related to staff returning from the CIS project in 2015. Staff were previously capitalized and once the project went live their compensation costs returned to OM&A which was a driver for an increase in 2015.[36]

Further as PowerStream noted throughout its evidence, it has a detailed annual OM&A expense planning process that involves a "top down" and "bottom up" approach which was used for 2016 to 2020 forecast period. Business units consider corporate, divisional and business needs when developing their individual budgets. These factors are evaluated against the historical activity and it is determined whether the historical volume or cost levels are relevant to the future budget costs. Individual business areas assess changes in costs based on business specific drivers that impact their area (i.e. new contracts, price escalation factors, changes in business operations).

- **Theme: OM&A does not reflect enough productivity**

Another theme in some of the submissions is that the OM&A does not reflect enough productivity.

Parties' claims are plainly wrong in light of the evidence adduced. PowerStream discusses productivity in Section B, above. To further comment specifically with regard to OM&A, included in the 2016 to 2020 OM&A budget are, for example, efficiency savings built in related to the new CIS system - the new CIS will enable the Customer Service department to provide more value to customers without increasing headcount.[37] This is only one example of how productivity savings have been built into OM&A. Further, it was noted in the Oral Hearing that there are hard savings built into the OM&A budget[38].

[35] Rate proposal, Exhibit J, Tab 1
[36] Technical conference undertaking, p. 2, Filed September 11, 2015
[37] Application, Exhibit F, Tab 1, p. 9, February 24, 2015
[38] Oral Hearing, Volume 1, p. 175

MR. RUBENSTEIN: Is there something else I don't see that there's another set of embedded savings?

MS. CLARK: Yes. There are things we haven't discussed that we inherently built into our budget. So things like -- if we have capital project, for example, like one of the projects I could talk to is an upgrade of our PowerStream operations cyber and security.

As a result of that, we are saving almost $388,000 over the period of '16 to '20 that we have already built into our budget as hard savings. That's an example of one area that we've just built-in as OM&A savings.

And there's others, too, but that's just an example.

PowerStream has a number of hard savings from capital projects that have been built into the current OM&A budget, which is enabling PowerStream to be more efficient in the future by implementing these projects. PowerStream has also included productivity savings within the OM&A budget, and is striving to be more efficient as capital and OM&A projects are completed.

- **Theme: Vegetation management costs are too high**

Another theme in some of the submissions is that the vegetation management costs are too high. Notably however, SIA supported the increased spending for vegetation management, given the impact on outages.

PowerStream proposed an intensified vegetation management program for the forecast period 2016 through 2020, with a corresponding increase in costs. The reasons for this program intensification were fulsomely described in evidence. In summary, PowerStream intends to commence a "blue skying" approach to tree trimming; implement a hazard tree removal program, and undertake vegetation management around PowerStream-owned secondary wires on customer property.

In its evidence PowerStream described in detail the benefits of the increased vegetation management program, namely, mitigating the impact of severe storms on the distribution system. This would lead to reduced outages and outage times experienced by customers during significant weather events. PowerStream cited the example of the December 2013 Ice Storm, which caused significant tree-related damage in heavily treed and rear-lot distribution areas. As a result of damage to the distribution system, 90,000 customers were without power in the aftermath of the storm. It took several days for power to be restored to all customers.

In Interrogatory II-2-Staff-53, Board Staff explored the cost-benefit aspect of PowerStream's proposed vegetation management expenditures. PowerStream was asked to indicate expected reliability savings and resultant Customer Interruption Cost savings from its proposed vegetation management activities. The results of the cost-benefit analysis are reproduced below:

Year	Forecast Cumulative year over year SAIDI improvement (Minutes)	Forecast CMI savings	Forecast Customer Interruption Cost savings (Millions 0f $)	Vegetation Management Budget (Millions of $)	Cost/Benefit Ratio
2016	-	-	-	2.581	-
2017	0.28	100,800	7.06	3.106	0.44
2018	0.55	198,000	13.86	3.637	0.26
2019	0.82	295,200	20.66	4.174	0.20
2020	1.10	396,000	27.72	4.716	0.17

These results clearly demonstrate that the forecasted incremental costs will result in a net benefit to customers, since the cost-to-benefit ratio is less than 1. In fact, by 2020 the expected benefits will outweigh the costs by a factor of 5.88. The data in this table was derived in response to questions from Board staff, using a methodology put forward by Board staff. In stating that there will be limited value provided to customers in terms of improved reliability, Board staff overlooked this critical evidence that clearly demonstrates that there will be net benefit to customers from the increased vegetation management activity. As noted, SIA recognised the value to customers of avoiding lengthy outages.

Despite the evidence provided by PowerStream, Board staff also stated that the move from a 3-year cycle to a 2-year cycle for rear-lot feeders was not sufficiently justified. Board staff did not explain how they arrived at this conclusion, apart from a passing comment that neither the Navigant study nor the CIMA study recommended shortening the 3-year cycle for rear lots. However, in making decisions about managing its system, a distribution utility cannot be limited solely to recommendations arising from external studies. The decision to move to a 2-year cycle for rear lots arose from an internal PowerStream review, which in turn was a result of a Navigant report recommendation that PowerStream review its vegetation management practices. In its internal review, PowerStream recognised the vulnerability of rear-lot areas to vegetation-related outages because of the difficulty of equipment access and obtaining sufficient clearances to support a 3-year cycle. The implementation of a 2-year cycle in rear-lots was a prudent response to a weakness on the PowerStream system, and good utility practice requires that such weaknesses be addressed. The 2-year cycle will provide improved service delivery to customers in rear-lot areas.

Board staff also referred to other recommendations in the Navigant report, namely, identifying areas with significant tree coverage to assess vulnerabilities and augment the tree-trimming program; co-ordinating with municipalities to avoid tree-planting near power lines; and encouraging customers to proactively perform tree-trimming on their properties. Board staff implied that these are alternative, potentially cheaper options to the vegetation management program proposed by PowerStream. However, Board Staff has misinterpreted the Navigant report in this regard. These activities were not put forward as individual alternatives, but as a

collective package of recommendations for how PowerStream's vegetation management program could be enhanced. In accordance with the Navigant recommendation, PowerStream assessed its system to identify vulnerabilities and is proposing measures to address said weaknesses.

The issue of PowerStream trimming trees around secondary wires on customer properties, which arose from the CIMA report, is one that attracted comment from Board Staff and intervenors. In their submission, AMPCO asked why PowerStream is proposing to clear lines on customer property, which the Navigant report suggested that customers do. However, AMPCO and Board Staff have overlooked the fact that, for safety and regulatory reasons, PowerStream still has to perform tree trimming on trees and foliage that are within proximity of power lines. It is the responsibility of an electrical distributor to ensure that trees and vegetation are maintained at appropriate clearances from its lines. PowerStream proposes to augment its vegetation management program by placing more emphasis on clearing PowerStream-owned secondary wires on customer property. While PowerStream does engage customers in appropriate vegetation practices, such as planting low-growth trees in the vicinity of power lines, ultimately the maintenance of adequate clearances is a PowerStream responsibility.

AMPCO stated that during the Oral Hearing PowerStream said that it was difficult to gauge the impact of the ice storm if the proposed vegetation management activities had been in place. However, AMPCO did not mention that PowerStream went on to say that, had the proposed vegetation management activities been in place prior to December 2013, then the impacts of the ice storm would have been much less severe and customers would have benefited accordingly[39].

In its submission, Board staff recommended that PowerStream's proposed increases in vegetation management costs be disallowed and that vegetation management cost recovery be maintained at the 2014 level of $1.7 million. The consequence of Board staff and intervenor recommendations would be no mitigation of the impact of severe weather patterns on vegetation damage to PowerStream's distribution system. In addition, returning to 2014 levels would undo the work that PowerStream is undertaking to improve service to customers located in rear-lot areas. PowerStream submits that the incremental costs of its vegetation management program are prudent and will result in benefits to customers. This was proven on an econometric basis in evidence. Moreover, the 2-year cycle in rear-lot areas is a prudent response to an identified weakness, and will also result in benefit to customers.

- **Theme: Monthly Billing costs are too high**

Another theme in some submissions is that billing costs for OM&A are too high, especially in relation to postage.

[39] Oral Hearing, Volume 1

These costs are broken down as follows[40]:

Monthly Billing Summary of Incremental OM&A Costs ($thousands)				
	2017	2018	2019	2020
Labour	$ 1,138	$ 1,161	$ 1,187	$ 1,214
Bill printing and processing	$ 853	$ 865	$ 878	$ 891
Postage	$ 2,090	$ 2,184	$ 2,277	$ 2,380
Payment processing fees	$ 153	$ 155	$ 156	$ 158
Total cost	**$ 4,233**	**$ 4,365**	**$ 4,498**	**$ 4,643**
Less offsets				
E-billing	$ (184)	$ (204)	$ (224)	$ (244)
Bad debts reduction	$ (353)	$ (357)	$ (360)	$ (364)
Total offsets	**$ (537)**	**$ (561)**	**$ (584)**	**$ (608)**
Net Incremental OM&A costs	**$ 3,696**	**$ 3,804**	**$ 3,914**	**$ 4,035**

PowerStream constructed a bottom up budget for each category to determine the funds that would be needed in order to execute monthly billing in accordance with Board direction. The postage amount will be doubled with monthly billing. This, as well as the fact that current postage rates have significantly increased in recent years, are the contributors to the high postage costs.

- **Theme: OM&A in general is high**

Another theme pursued by some parties is that PowerStream's OM&A in general is too high. This is not correct. As shown in the two tables below, PowerStream's OM&A per customer is ranked as the 13th lowest compared to other distributors[41] and is remaining steady or decreasing over the Custom IR period when extraordinary cost drivers are removed even though customer growth is increasing at a rate of 1.7% per year. This steady and declining OM&A per customer supports PowerStream's submission that it has included productivity savings within OM&A and illustrates PowerStream's ability to manage costs.

[40] Interrogatory Responses, Section A, Tab 1, Schedule 1, p. 2, Filed August 21, 2015
[41] Application, Section III, Tab 1, Schedule 1, p. 115, filed May 22, 2015.

OM&A per Customer from 2013 Yearbook (Excluding Hydro One Networks Inc. and Toronto Hydro)

	OM&A Per Customer	OM&A Rank
PowerStream	$ 234.2	13
Average	$ 313.6	74.70%
Median	$ 276.3	84.80%

Note: % represent PowerStream's cost as a % of the average and mean cost respectively

Customer per OM&A with extra-ordinary cost drivers removed

	2016 Test Year	2017 Test Year	2018 Test Year	2019 Test Year	2020 Test Year
Customers	**368,663**	**374,990**	**381,372**	**387,845**	**394,508**
Total Recoverable OM&A from	**$ 96,216**	**$ 101,808**	**$ 103,724**	**$ 106,109**	**$ 108,228**
Monthly Billing		**$ 3,696**	**$ 3,804**	**$ 3,913**	**$ 4,034**
Vegetation management	**$ 2,694**	**$ 3,200**	**$ 3,731**	**$ 4,267**	**$ 4,809**
CIS	**$ 3,072**	**$ 2,921**	**$ 2,743**	**$ 2,749**	**$ 2,756**
OM&A without extraordinary items	**$ 90,450**	**$ 91,991**	**$ 93,446**	**$ 95,180**	**$ 96,629**
Revised OM&A per customer	**$ 245.35**	**$ 245.32**	**$ 245.03**	**$ 245.41**	**$ 244.94**

The largest contributor to the increases in OM&A for 2014 and 2015 relates to the CIS project, which includes the one-time training costs, the maintenance agreement and the staff returning from the project. This project was done in order to better serve PowerStream's customers. This increase drives eventual efficiency benefits incurred throughout 2016 to 2020 as evidenced by the OM&A per customer decreasing by 2020.

On the face of PowerStream's evidence on cost drivers, particularly that of extraordinary costs (Vegetation Management, CIS Costs, Monthly Billing and customer growth) it is unreasonable and unsupportable for parties to recommend increases in OM&A that are tied to inflation or less.

Despite this, should the Board decide to use an inflationary factor rather than accepting PowerStream's OM&A budgets as filed, PowerStream urges the Board to use the 2016 OM&A budget as base, which takes into consideration extraordinary items; and to include for future years a growth factor of 0.2%[42] which reflects the impact of customer growth on OM&A on top of the inflationary factor.

3.7 Is the compensation strategy for 2016 – 2020 appropriate and does it result in reasonable compensation costs?

PowerStream filed considerable evidence with regard to its compensation strategy and compensation costs.[43] PowerStream's submissions on compensation, below, focus on vacancies and compensation cost increases.

- **Vacancies**

PowerStream assumed an FTE vacancy rate of 6.6 in calculating its forecast budget. VECC and AMPCO argue that this is too low based on history. VECC suggested that the FTE vacancy rate is 12 and AMPCO noted that it was 9.3 using an average FTE vacancy rate of 13.7 multiplied by 68% which it noted was the percentage of compensation costs that relate to OM&A.

The intervenor's calculation of vacancy rates is incorrect.

In response to Interrogatory II-SEC-9[44], PowerStream included its historical vacancy rate from 2011 to 2015 which is a combined vacancy rate for capital and OM&A costs. This is summarized below:

[42] Application, Section III, Tab 1, Schedule 1, p. 83, Filed May 22, 2015
[43] Application, Section VI, Tab 33, Schedule 1, p. 7, Filed May 22, 2015 and IR J-CCC-56,J-Energy Probe-36, J-SEC-35, Filed May 22, 2015 and II-SEC-9, II-SIA-4, II-VECC-3 Filed August 21, 2015
[44] Interrogatory response, Section B, Tab 2, Schedule 5, p. 8, Filed August 21, 2015

	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 (Jan-Jun) Actual
Total FTE Vacancy Rate	3	11	17	13	8

The average of the above vacancy rate is 11 FTE from 2011 to 2014, not 12 FTE or 13.7 FTE as used in the intervenors' calculation. This vacancy rate includes employee costs for OM&A and Capital. The vacancy rate for capital costs should be excluded as these amounts are capitalized into capital projects and do not affect the total OM&A costs. Therefore in order to determine the vacancy rate that pertains to just OM&A, the capital vacancy rate needs to be separated out. This is done by applying the percentage of compensation costs that relate to OM&A. As noted in response to Interrogatory J-Energy-Probe-36[45], the OM&A portion of compensation costs is 67% for the period of 2016 to 2020, and not 68% as noted by the intervenors. Therefore, in order to calculate the FTE vacancy rate for OM&A, only 67% is applied to 11 FTE, which produces a vacancy rate of 7.4 FTE. PowerStream has currently included a vacancy rate of 6.6 FTE for 2016 to 2020 OM&A compensation costs. PowerStream's vacancy rate included in the OM&A costs is lower by 0.8 FTE as it is expected that a number of new hires will occur in 2016 which will reduce the vacancy rate that PowerStream is currently experiencing.

In light of the foregoing, PowerStream submits that the vacancy rate PowerStream has included in its Application is fully supportable, and should be approved by the Board.

- **Compensation cost increase**

OEB Staff notes that PowerStream's proposed compensation costs increase by 14.7% or 3% per year over the Custom IR period, and argues that the rate of 2% per year should be imposed in order to keep compensation costs low.

As noted in the application, the inflation rate that PowerStream uses for compensation is approximately 3%[46]. This is not a significant increase and as a result PowerStream believes that compensation should not be reduced as the increase is reasonable.

3.8 Are the proposed other operating revenues for 2016 – 2020 appropriate?

[45] Application, Section III, Tab 1, Schedule 1, p. 287, Filed May 22, 2015
[46] Application, Section III, Tab 1, Schedule 1, Attachment to C-CCC-21.

Other operating revenue, as noted in the Application,[47] is defined as sources of utility revenue other than Distribution Revenue. With the exception of other income and deductions, the amounts are budgeted using the average of the previous three years. Other income and deductions includes PowerStream's joint service agreement revenue, cost recovery and markup, on services that PowerStream provides to its related companies.

Certain intervenors made recommendations in the following matters

- Gain on Disposition (Account 4355)
- Water Billing
- Deemed rental/lease for Barrie building

PowerStream will deal with each of these categories separately below.

- **Gain on Disposition**

As shown in the table below[48], PowerStream is not expecting any gain on disposition in the 2016-2020 period and therefore has not included any amounts on account of gains on disposition in its Application.

USoA #	USoA Description	2013 Board-Approved*	2013 Actuals	2014 Actuals	Bridge Year[3]	TEST YEAR 1	TEST YEAR 2	TEST YEAR 3	TEST YEAR 4	TEST YEAR 5
					As at June 2015	2016	2017	2018	2019	2020
	Reporting Basis	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**	**MIFRS**
4355	Gain on Disposition of Utility and Other Property	-	75,771	46,182	115,171	-	-	-	-	-

Energy Probe and VECC noted that PowerStream has had actual revenue in both 2013 and 2014 and that for the first six months of 2015, PowerStream shows a gain of $115,171. They suggest that the Board should increase the forecast to $230,000 for each year. This amount is the annualization of the June 2015 amount by doubling it. SEC stated that it agrees with VECC and Energy Probe. As noted in I-Energy Probe-28 Interrogatory[49] the 2013 and 2014 historical balances relate to the sale of vehicles. Prior to 2013, PowerStream did not record a material gain on sale from the sale of vehicles.

With regard to the June 2015 balance, this item was discussed in the Oral Hearing and it was noted that this balance relates to a sale of land[50]. The sale of land that occurred in 2015 was a one-off sale. This has been one of the first sales of land to occur in the last 5 years; it is not expected to re-occur in the 2016 to 2020 period.

[47] Application, Exhibit I, Tab 1,February 24, 2015
[48] Rate proposal, Exhibit 1, Tab 1, p. 4, February 24, 2015, updated to include June 2015 balance from Interrogatory response Section B, Tab Schedule 5, p. 6, filed August 21, 2015
[49] Application, Section III, Tab 1, Schedule 1, p. 249, May 22, 2015
[50] Oral hearing Transcript Volume 2, p. 59

The Board should note that the amounts at issue are a small fraction of PowerStream's materiality threshold level of $0.8 million.

For all of the above reasons, the Board should neither deem the $230,000 amount recommended by intervenors nor any amount on account of gains on disposition.

- **Water Billing**

PowerStream provides water billing services to the City of Vaughan and the City of Markham. The services performed include meter reading, preparation and reviewing of bills, distribution of bills to customers, payment processing, collection activities, customer inquiry activities, reporting and service order processing.[51] PowerStream charges a 7.3% mark up on the cost of the service and an inflation factor of 3% per year per year is used[52].

SEC, VECC, Energy Probe and CCC made a number or arguments and recommendations on this topic. The totality and effect of the recommendations is that the water billing service fees that are charged to the City of Vaughan and City of Markham should be increased to cover a portion of the cost of the new Customer Information System, a fully allocated costing study should be undertaken, and any difference between the costs and the allocation study should be included in a variance account. PowerStream respectfully disagrees.

With respect to functionality, the replacement was needed to provide updated electricity billing functionality by replacing a 30 year old legacy system. PowerStream explained several times that there was no added functionality driven by or for water billing. It was explained in Interrogatory responses[53] and in oral testimony. Below is an excerpt from the oral testimony.[54]

> *MR. JANIGAN: … I would think to verify the data, keep information on the water-billing customer, their payments, wouldn't doing all those things cost more if you didn't have to do them?*
>
> *MR. MACDONALD: Well, we were doing them already in the old system. So they're just -- the interface was moved over to the new Oracle system. Ms. Clark mentioned this. We were replacing a 30-year-old CIS system, and it was done for PowerStream for our electric customers. And there was no added functionality for our two water-billing clients.*
>
> *MR. JANIGAN: Presumably, though, the new system to accommodate the old functionality was more expensive than if it didn't have to accommodate the old functionality. Would you agree with me?*
>
> *MR. MACDONALD: No, I don't think I do.*

[51] Interrogatory response, Section B, Tab 3, Schedule 3, p. 2, Filed August 21, 2015
[52] Application, Section III, Tab 1, Schedule 1, p. 259, Files May 22, 2015
[53] Interrogatory response, Section B, Tab 2, Schedule 7, p. 4, Filed August 21, 2015
[54] Oral Hearing Transcript, Volume 2, p. 64-65

There are no grounds for increasing the fees associated with the water billing services on the basis of added functionality. There is no added functionality for water customers. The intervenors' recommendations are built on the wrong premise.

Moreover, increasing fees either on the basis of perceived added functionality over and above the scheduled increases in fees by 3.0% would be a very risky proposition for PowerStream's electricity customers, the very customers these intervenors represent. As PowerStream explained during the proceeding, if the fees are increased, the City of Vaughan and the City of Markham could bring the water billing internally and PowerStream would lose $3.1M to $3.5M of other revenue associated with providing these services. This has already happened in recent years as mentioned in the Oral Hearing[55]:

> *MR. JANIGAN: Okay. Now, you don't provide water-billing services to all the municipalities which you serve. For example, you don't provide Barrie with that service; is that correct?*
>
> *MR. MACDONALD: Well, we did provide Barrie with water-billing services up to three or four years ago, but they decided to leave PowerStream and go on their own.*
>
> *MR. JANIGAN: So --*
>
> *MR. MACDONALD: And similarly, we did water billing for -- we serve the community of Bradford, and the same thing happened. They -- more recently they decided to go leave PowerStream and do their own water billing.*

As a result, increasing fees any further than what has already been done puts the entire other revenue amount related to water billing at substantial risk. PowerStream's revenue requirement reflects certain revenue from water billing at the assumed fees as an offset. With higher water billing charges, the revenue offsets used can no longer be assumed as being achievable and the revenue requirement for ratepayers would increase.

The intervenors recommend that a fully allocated cost study should be performed, stating that this is required by the Affiliate Relationship Code, and a variance account be used to track the differences between the costs in the study and actual fees.

This is the excerpt from the Affiliate Relationship Code where intervenors ground their suggestion.

> *"Where a reasonably competitive market exists for a service, product, resource or use of asset, a utility shall charge no less than the greater of (i) the market price of the service, product, resource or use of asset and (ii) the utility's fully-allocated cost to provide service, product, resource or use of asset, when selling that service, product, resource or use of asset to an affiliate."*[56]

[55] Oral Hearing Transcript, Volume 2, p. 67
[56] Affiliate Relationship Code, 2.3.3.6

However, the Affiliate Relationship Code defines an affiliate per the Business Corporations Act, which notes that

> *"one body corporate shall be deemed to be affiliated with another body corporate if, but only if, one of them is the subsidiary of the other or both are subsidiaries of the same body corporate or each of them is controlled by the same person."* [57]

For PowerStream, as the City of Vaughan and City of Markham are not subsidiaries of PowerStream nor are any of the entities controlled by the same person as not one shareholder owns more than 50% of PowerStream, the City of Vaughan and City of Markham are not affiliates under the Affiliate Relationship Code and, accordingly, the requirements asserted by the Intervenors do not apply. PowerStream respectfully submits that the Board should approve PowerStream's proposed revenue amounts related to water billing.

- **Barrie Lease**

Energy Probe and VECC suggested that $63,000 per year be deemed by way of rental/lease revenue for the renovated Barrie building.

In its response to Interrogatory III-VECC-26 on the topic, PowerStream noted that no firm plans had been made as for the use of the renovated building as PowerStream has to determine that the space is not required to support its own business operations, and that any potential lease would not be acted upon prior to 2017. In these respects, nothing has changed from the time that evidence was given. Further the Board should note that this is a small fraction of PowerStream's materiality threshold level of $0.8 Million. For these reasons the Board should not accept the suggestion to deem any revenue in respect of the Barrie building.

4.0 Rate Design

Load Forecast Summary

PowerStream submits that its proposed class specific forecasting methodology is appropriate, and the forecast results do not understate customers and load growth.

The estimated class specific load regression models are proven theoretically sound and statistically strong. The model-based forecast results are only adjusted for incremental future CDM impact. The load forecast results reflect and are consistent with the historical consumption trend.

The customers/connections regression models correlate historical customer growth to population growth, an industry standard approach widely used by other LDCs' most recent rate

[57] *R.S.O. 1990, c. B.16, s. 1 (4).*

proceedings. The estimated regression models are robust and track historical customers and connections very well. The models produce accurate customers forecast that is unbiased as it is tied to an independent population projection.

Given the regression model's performance, PowerStream submits that the class specific forecasting approach to load, customers and connections is appropriate, and there is absolutely nothing anomalous. The OEB should accept PowerStream's proposed class specific forecasting results as filed.

4.1 Is the load forecast, including the application of CDM savings and setting of the savings references for the LRAMVA appropriate?

Background

PowerStream adopted class specific forecasting methodology in its current Custom IR proceeding. Individual rate class regression models are developed to forecast load and customers/connections that underpin this Application. Model-based load forecasts are then adjusted for future CDM impacts.

VECC and Energy Probe support PowerStream's use of individual rate class models to forecast future load and customers/connections by rate class. Only OEB Staff discussed the company's load forecast methodology. There are no concerns expressed on the methodology from other intervenors.

OEB Staff submitted that given the growth in customers and connections forecast by PowerStream, the persistent decline in consumption and demand forecast by PowerStream over the test period appears to be "somewhat anomalous" and because of that the Board should use PowerStream's 2015 actual load rather than the forecast for rate-setting purposes in 2016 and consider modest increases in the forecast in subsequent years. These and other comments by OEB Staff are addressed below.

OEB Staff also stated that it considers the anomalous nature of PowerStream's load forecast as being another justification for the OEB to only approve the Application for three years. This will be addressed at the end of the section.

a) Model Estimation Range

PowerStream estimates regression forecast models with historical monthly billing data. The billing data covers the period January 2008 through December 2014 providing 84 monthly observations over a seven year period. OEB Staff commented that "It would be preferable, for

multi-year applications such as Custom IR for utilities to use as long a historical series as is possible."[58]

PowerStream did just that. PowerStream and the former Barrie Hydro merged in 2009. The two utilities' historical data prior to 2008 was not defined in a similar manner and as result could not be used to estimate monthly sales regression models. OEB Staff rightly pointed out in their submission that "structural changes or data availability and quality must also be taken into account and may reduce the length of historical data to be used." [59]

PowerStream submits that the historical data range applied in its regression models is appropriate, sufficient and representative of customers' consumption pattern. The estimation data set includes 84 observations over a seven year period. There are more than enough observations to estimate strong statistically forecast models. PowerStream provided live Excel evidence including all historical data used in the regression models[60]. PowerStream also provided detailed evidence on the resulting Model statistics[61]. There have been no issues expressed by OEB Staff about the historical data and resulting model statistics during the Interrogatory or Technical Conference.

Same number of years of historical data was used by Horizon Utilities Corporation in its 2015 – 2019 Custom IR rate proceeding and approved by the Board on February 12, 2015 (EB-2014-0002).

b) Use of Binary Variables

OEB Staff commented on the use of binary variables in the forecast models. It is unclear what OEB Staff is concerned about as OEB Staff's own argument implies that it is appropriate to use binary variables[62]. The one issue is that OEB Staff wanted more of a reason as to why specific binary variables are included in some of the regression models.

PowerStream submits that it uses the binary variables with caution and only includes a limited number of binary variables as necessary. Binary variables are often used to reduce the impact of outliers (a specific month in a year in the estimation data set) on the estimated model coefficients. Binary variables are also used to account for seasonal billing patterns (such as binary variable for a specific month) that are not due to changes in weather, economic conditions, or price. For example, in the residential load forecast regression model, December was used as one of the monthly binaries to capture year - end accounting adjustment.

[58] OEB Staff Submission, p. 54
[59] OEB Staff Submission, p. 54
[60] Application, Section III, Tab 2, H-Energy Probe-21, Appendix A; and H-Energy Probe -25, Appendix A, filed May 22, 2015
[61] Application, Section II, Tab 2, Exhibit H, Tab 1; and Supplementary, Exhibit H, Tab 3, filed February 24, 2015
[62] OEB Staff's Submission, p. 54

PowerStream submits that the use of binary variables in the forecast models is appropriate and that the OEB should accept them as filed.

c) Use of Toronto CMA Economic Data

The load and customer forecast models are based on Toronto CMA ("Census Metropolitan Areas") economic data provided by the Conference Board of Canada. OEB Staff argues that relying on Toronto CMA economic data likely understates the growth in Power Stream's service area. OEB Staff suggests that the sum of Toronto and Barrie economic data better represents the service area. PowerStream disagrees. PowerStream uses the Toronto CMA data as it is the economic activity in Toronto that drives the economic activity in PowerStream's service area.

The correlation between the Toronto CMA economic growth and PowerStream's service area growth is strong. The statistical correlation between PowerStream's residential customer growth and Toronto CMA population growth is nearly perfect. The correlation coefficient is 0.999 where 1.0 is a perfect correlation[63].

Any difference between customer and economic growth in PowerStream's service area with that of the Toronto CMA will be captured by the estimated customer and sales regression models. Customer growth in the PowerStream service area has been growing slightly faster than Toronto CMA population. The customer forecast model captures this relationship. The model estimated population elasticity (which gives the percent change in customers given the percent change in Toronto CMA) is 1.04 – a one percent change in Toronto CMA population translates into a 1.04% change in the number of customers. The model predicts slightly stronger customer growth in the PowerStream service area than the population projection for Toronto CMA. As pointed out above the correlation between Toronto's CMA population estimates and PowerStream customers is nearly perfect.

OEB Staff argues that combining the Toronto CMA economics with Barrie CMA economics will generate a more reasonable forecast. PowerStream tested this argument, by re-estimating the forecast models using the combined Toronto/Barrie economic data. Table 1 compares the load forecast. There is no significant difference on load forecast by using the Toronto CMA alone or using the combined Toronto/Barrie economic data series.

[63] Application, Section II, Exhibit H, Tab 3, p. 1, filed February 24, 2015

Table 1 – Load Forecast– Toronto CMA[64] vs. Toronto CMA and Barrie CMA (GWh)

Year	Toronto CMA	Toronto and Barrie CMA	Difference	% Difference
2015	8,474	8,473	0.67	0.01%
2016	8,469	8,468	0.89	0.01%
2017	8,425	8,424	1.04	0.01%
2018	8,393	8,392	0.97	0.01%
2019	8,365	8,364	0.89	0.01%
2020	8,365	8,364	1.00	0.01%
2015-2020 Average				0.01%

Table 2 shows a similar comparison for residential customer counts forecast. There is no significant difference on customer counts forecast by using the Toronto CMA alone or using the combined Toronto/Barrie economic data series.

Table 2 – Customers Forecast – Toronto CMA[65] vs. Toronto CMA and Barrie CMA

Year	Toronto CMA	Toronto and Barrie CMA	Difference	% Difference
2015	362,085	362,084	1	0.00%
2016	368,256	368,262	- 6	0.00%
2017	374,547	374,539	8	0.00%
2018	380,902	380,876	26	0.01%
2019	387,398	387,347	51	0.01%
2020	394,082	394,000	82	0.02%
2015-2020 Average				0.01%

OEB Staff's argument of "Reliance on Toronto CMA data has likely understated the growth in customers and electricity consumption and demand" [66] cannot be substantiated. PowerStream submits that it's forecasting models, based on the Toronto CMA, have appropriately captured the growth in customers and electricity consumption and demand.

d) Incorporating CDM Forecast

PowerStream adjusted the load forecast results for future CDM savings. The impacts of past CDM savings were already embedded and reflected in the actual historical sales data used in estimating the load forecast models; the model implicitly assumes that past savings will persist

[64] Interrogatory Responses, Section A, Tab 1, Schedule 1, p. 6, Table A-6, filed August 21, 2015
[65] Source data from Interrogatory Responses, Section B, Tab 2, Schedule 4, p. 16, II-Energy Probe -16, filed August 21, 2015 ; and Technical Conference, Undertakings JTC 1.6, p. 9, filed September 11, 2015.
[66] OEB Staff Submission, p. 56

through the forecast period. The forecast is then only adjusted for future, incremental, new CDM program savings that are not included in the forecasted model.

Intervenors have no concerns with this approach. It is also widely used by a number of utilities. Hydro Ottawa, for instance, has used the same approach in its most recent rate filing proceeding.

The other approach used in the LDC community is a "CDM Gross" based forecast, whereby the past CDM savings are added back to "gross up" the historical data set; the regression model estimates the forecast based on the new reconstituted data series; and the forecasting results are then adjusted with all past and future CDM savings. PowerStream evaluated this approach; the variance between the two approaches is averaged at 0.24% for the test period.

OEB Staff, however, engaged in a rather lengthy discussion about how the estimated model understates the impact of population and economic activity and overstates the impact of historical and future CDM on the forecast. There is, however, no evidence before the Board that this is the case. PowerStream disagrees with the OEB Staff's submission, and respectfully requests that the Board approve PowerStream's approach to CDM savings.

e) Forecast Consistency

OEB Staff argues that there is an anomaly between customer/connection growth forecast and decline in energy consumption over the test period[67]. PowerStream disagrees and submits that there is no anomaly.

PowerStream submits that OEB Staff fail to recognize that customer average use has been declining at a relatively strong rate. Since 2010 customer growth has been averaging approximately 2.1% per year, while average use has been declining approximately 1.9% per year. As result PowerStream's load has been virtually flat. This analysis is shown in Table 3[68].

There are a number of factors that have contributed and can be expected to contribute to this trend in the future including a shift to smaller home sizes (i.e., higher share of multi-family homes), new end-use standards (such as the new lighting standards) and continued general improvement in end-use and building shell efficiency. CDM also contributes to the decline in customer usage.

[67] OEB Staff Submission, p. 58
[68] Source data from Application, Section VI, Tab 13, Schedule 1, p. 1, Table 2, filed May 22, 2015

Table 3 – Actual Average Use Impact per Annum – 2010-2014

Description	2010	2011	2012	2013	2014	2010 -2014 Average % change
Actual Load	8,335	8,395	8,468	8,438	8,383	
% change		0.7%	0.9%	-0.4%	-0.6%	0.1%
Total Customer Counts	328,589	335,935	343,344	349,797	356,461	
% change		2.24%	2.21%	1.88%	1.91%	2.1%
Average Use	**25,365**	**24,989**	**24,663**	**24,121**	**23,518**	**-1.9%**

For the test period, OEB Staff states that "In aggregate, customers/connections increases by about 1.8% per year, while aggregate consumption decreases by about 0.40% (geometric mean). This implies that the CDM impact is about -2.2% per annum in aggregate."[69]

This statement is not accurate. Table 4 shows that based on data from PowerStream's evidence[70], the annual customer growth averaged 1.7% over the test years. The load forecast was increasing at an average of 0.8% before the new CDM adjustment, but declining at -0.3% on average after the new CDM adjustment.

This implies that the average use is declining at -0.9% on average before the new CDM adjustment, and -2.0% after the new CDM adjustment. Efficiency improvements resulting from natural occurring replacement of less efficient appliances, increasing appliance efficiency standards, and improving housing and building efficiency, continue to drive the decline of average use, in addition to the CDM mandate.

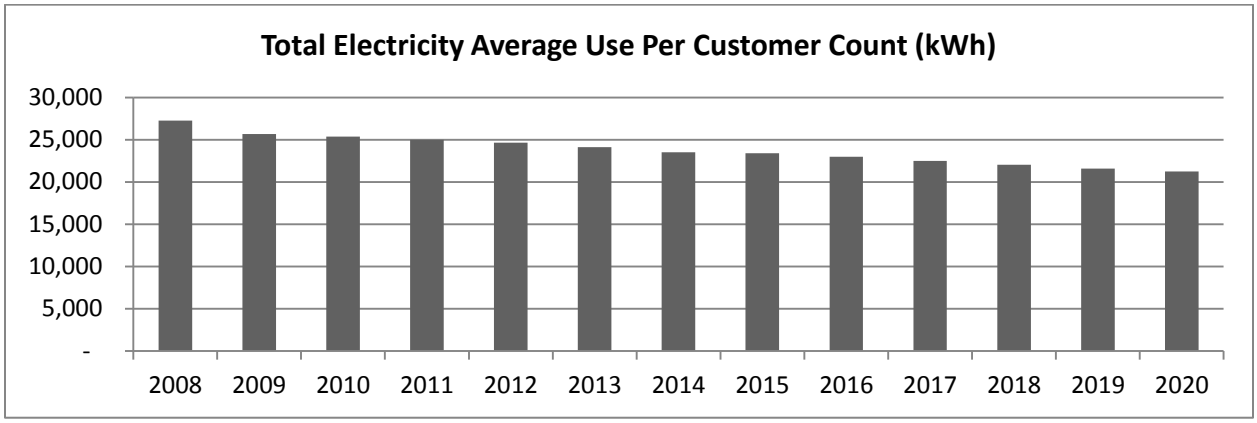
Table 4 – Average Use Impact per Annum – Test Years

Description	2015 Fcst	2016	2017	2018	2019	2020	2016-2020 Average % change
Load Forecast before New CDM Adjustment	8,500	8,554	8,583	8,641	8,721	8,829	
% change		0.6%	0.3%	0.7%	0.9%	1.2%	0.8%
Load Forecast after New CDM Adjustment	8,474	8,469	8,425	8,393	8,365	8,365	
% change		-0.1%	-0.5%	-0.4%	-0.3%	0.0%	-0.3%
Customer Counts Forecast	362,085	368,256	374,547	380,902	387,398	394,082	
% change		1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Average Use before New CDM Adjustment	**23,475**	**23,228**	**22,914**	**22,686**	**22,513**	**22,405**	**-0.9%**
Average Use after New CDM Adjustment	**23,403**	**22,998**	**22,493**	**22,035**	**21,593**	**21,226**	**-2.0%**

Figure 1 graphically presents the annual average use per customer for both historical and test years.

[69] OEB Staff Submission, p. 57-58
[70] Source Data from Interrogatory Responses, Section A, Tab1, Schedule 1, p. 6, Table A-6, filed August 21, 2015; and Technical Conference, Undertakings JTC 1.6, p. 9, filed September 11, 2015.

Figure 1 – Historical and Forecast Annual Average Use per Customer (kWh)



PowerStream submits that there is no anomaly. The forecast future average use is consistent with the historical trend. The forecast consumption for the next five years is very consistent with the load growth over the past five years. PowerStream expects current efficiency trends to continue to improve resulting in load forecasts that look like sales growth over the last five years.

Final Comments on Issue 4.1

Based on the above discussion, PowerStream submits that its load and customer/connection forecasts do not understate sales and customer growth. The forecast method, data input, estimated models, assumptions, and results have all been presented in the rate filing evidence There were no significant issues raised by the OEB Staff in this regard during Interrogatories, or at the Technical Conference or Oral Hearing.

PowerStream's proposed load and customers forecast models are statistically strong and track historical load and customer counts very well. As shown in PowerStream's evidence, the load forecast models provide weather normalized actuals[71] with less than 0.06% difference on average as compared to historical actual load[72]. As shown in Table 5[73], the customer forecast models provide predicted values with approximately 0.02% difference on average as compared to historical actual customer counts. The variances from both the weather-normalized load and predicted customers are well within the margin of error for this type of regression modelling.

[71] Source data from Application, Section VI, Tab 13, Schedule 1, p. 1, Table 2 , filed May 22, 2015
[72] Source data from Application, Section VI, Tab 13, Schedule 1, p. 1, Table 1 , filed May 22, 2015
[73] Application, Section II, Exhibit H, Tab 3, p. 2, Table 3, filed May 22, 2015

Table 5 - Comparison – Actual and Predicated Customer Counts

	Customer Counts			Connections		
Year	Actual	Predicted	Var %	Actual	Predicted	Var %
2011	335,935	335,809	-0.04%	80,969	81,080	0.14%
2012	343,344	343,361	0.00%	82,520	82,666	0.18%
2013	349,797	349,422	-0.11%	84,418	84,455	0.04%
2014	356,461	356,633	0.05%	85,990	85,867	-0.14%

As noted above, OEB Staff stated that it considers the anomalous nature of PowerStream's load forecast as being another justification for the OEB to only approve the Application for three years. However, on the basis of PowerStream's reply to OEB Staff's analysis and arguments, there is absolutely nothing anomalous. PowerStream submits that OEB should accept its load and customers/connections forecast as filed.

4.2 Are the proposed billing determinants appropriate?

Residential Customer Counts

VECC and Energy Probe support PowerStream's use of individual rate class models to forecast future customers/connections by rate class. VECC's only concern is the residential customers forecast, derived from the regression model.

VECC is concerned that the average forecasted growth (1.99%) over 2015–2020 from the regression model result, prior to the condominium sub-metering adjustments, is less than that of the historical growth (2.2%) for the period 2008-2014, given the average population growth from Conference Board of Canada at 1.60% over 2008-2014 and 1.76% over 2015-2020.

VECC therefore argues that the historic growth rate of 2.2% from 2008-2014 should be used for Residential customer forecast for 2015 – 2020. Energy Probe and SEC agreed to VECC's submission. There are no submissions from other intervenors.

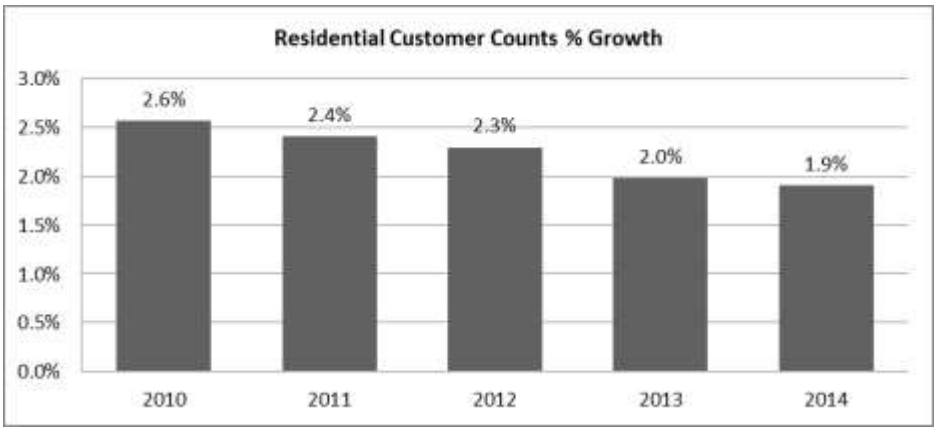
PowerStream objects to VECC's submission for the reasons outlined below.

1. PowerStream has been experiencing reduced growth trend in Residential customer counts. There is a clear reduction in annual growth rate in Residential customers, starting 2010 as shown in TC#28-1[74], and reproduced below in Figure 1 Historical Residential Customer Counts % Growth.

[74] Application, Section IV, Tab 1, p. 45, Undertaking 28-1, filed May 22, 2015

The reduced growth trend has become more evident – on average, approximately 0.2% reduction on annual growth rate starting 2011.

Figure 1 – Historical Residential Customer Counts % Growth



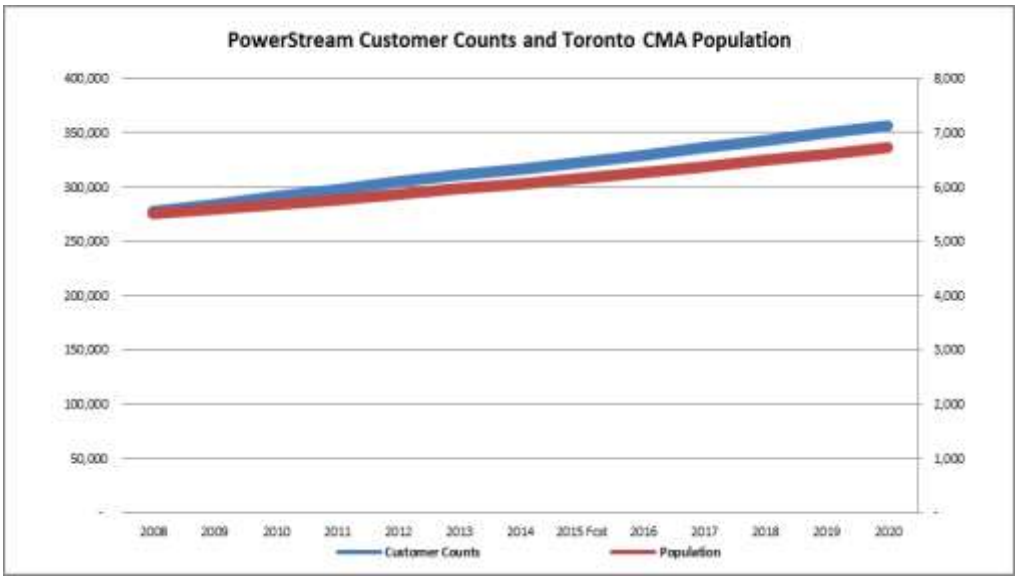
There is no reason to assume that future customer growth for the test years will be the average of the last 7 years (2008 to 2014). Using this logic one could argue to use an average over any arbitrary historical period to forecast future growth.

2. PowerStream's Residential customer forecast is based on a regression model that correlates historical customer growth to population growth, an industry standard approach widely used by other LDCs most recently in rate proceedings such as Horizon Utilities Corporation (EB-2014-0002) and Hydro Ottawa Limited (EB-2015-0004). The model is theoretically sound and statistically strong.

   The good model fit is a result of the strong link between customer growth and regional population growth - the correlation between customers and population is 0.99 (1.00 is a perfect correlation).[75] The elasticity of population against Residential customer counts is 1.04, meaning a 1% increase in the population causes a 1.04% increase in Residential customer counts. The historical and forecast customer counts and Toronto CMA population are graphed in Figure 2[76].

[75] Application, Section II, Exhibit H, Tab 3, p. 1, filed February 24, 2015
[76] Source data from Application, Section III, Tab 2, H-Energy Probe-25, Appendix A filed May 22, 2015; and Technical Conference Undertaking JTC 1.6 filed September 11, 2015

Figure 2 – PowerStream's Customer Counts and Toronto CMA Population



The model's statistics were well documented in the filed evidence[77]. The proposed Residential customer forecast regression model is statically strong and produces unbiased forecast results, with an average growth rate of 2.01% over the rate plan years 2016 – 2020[78].

3. Using VECC's submission of average growth rate of 2.2% (2008-2014) as a constant/flat growth rate to forecast customer counts for the rate plan term would not reflect the reduced annual growth trend, especially taking into account the actual growth rate of 1.98% in 2013 and1.91% in 2014.

   It indeed creates an artificial bump in customer growth rate, at an average of 2.2% per annum, over 2016 - 2020. This doesn't reflect PowerStream's actual reduced growth trend in Residential customers, but resulting in additional false 4,593 Residential customer counts by 2020, as compared to the proposed Residential customer forecast.

As a result, PowerStream submits that its proposed Residential regression model is robust and produces a reasonably accurate customer forecast that is unbiased as it is tied to an independent population projection. As such, PowerStream submits that the OEB should reject VECC's recommendation.

[77] Application, Section II, Tab 2, Supplementary, Exhibit H, Tab 3, filed February 24, 2015
[78] Application, Section IV, Tab1,p. 45, Undertaking 28-1, filed May 22, 2015

Street Lighting Volume

VECC notes that the forecast Street Lighting volume, prior to the LED adjustment, is flat while the forecast connections and historical connections and volume has been increasing. VECC therefore argues that the forecast Street Lighting volume should be based on the forecast Street Lighting connections and historical average annual usage per connection over the 2012 – 2014 period[79].Energy Probe and SEC agreed to VECC's submission. There are no submissions from other intervenors.

PowerStream disagrees for the reasons set out below.

1. VECC makes the inappropriate assumption that the historical growth of connections and volume will necessarily result in overall increase in future Street Lighting load. This is not necessarily correct; it depends on the rate at which the existing consumption is changing.

   The average annual usage per Street Lighting connection has been declining on average at -2.4% since 2012[80], although the growth of number of connections was averaged at 2.0% historically. This implies that the average annual usage per connection has been declining faster than the growth in the number of connections.

   This is as a result of the already implemented LED technology - by December 2014, 12% of the total PowerStream's Street Lights were already LED lights[81]. The implemented LED technology drives down the existing average annual usage per connection.

   The forecast load for Street Lighting, prior to the new incremental LED adjustment for the test years (2016 – 2020), reflects the reduced consumption per connection and remains relative flat.

2. VECC raised a concern that the Street Lighting regression model does not include any economic or population variables.

   This is in fact true as economic variables are statistically insignificant in the Street Lighting regression model. There is no strong statistical correlation between Street Lighting load and economic variables such as GDP, price, per capita income, population, etc.

3. The Street Lighting model is statistically sound and produces reasonably accurate volume forecast for the plan years. The forecast average annual usage per Street

[79] VECC Final Submissions: EB-2015-0003, p. 30 - 31
[80] Source data from Application, Section IV, Tab 2, TCQ-28-2, Appendix A, filed May 22, 2015
[81] Application, Section III, Tab 1, Schedule 1, p. 239, H-VECC-25 b), filed May 22, 2015

Lighting connection is averaged at 651 kWh for 2016 – 2020[82], not 628 kWh as referenced by VECC[83] in its submission.

PowerStream submits that its proposed Street Lighting model is robust and produces reasonably unbiased volume forecasts. As such, the OEB should reject VECC's submission.

4.3 Are the inputs to the cost allocation model appropriate? and,

4.4 Are the costs appropriately allocated?

Discussion and Submission

OEB Staff submitted "that PowerStream's inputs to the cost allocation models are appropriate and that the costs are appropriately allocated."[84] AMPCO, BOMA, CCC, SEC and SIA have made no submissions on Issue 4.4. Energy Probe supports VECC's submissions.

VECC expressed concerns[85] regarding the inputs used to the cost allocation model with respect to the revenue at the current rates in the second to fifth years. VECC submitted that the appropriate approach for the 2017 cost allocation is to use the 2016 proposed rates for the purposes of determining the 2017 revenue at the current rates. Similarly, for the 2018 – use 2017, and so on. Energy Probe supported the VECC's submission on this issue[86].

Under PowerStream methodology, the determination of revenue at the current rates as input to the Cost Allocation models for 2016-2020 for the purposes of determining the status quo revenue to cost ratios is based on the 2015 Board-approved rates. This means that for each year from 2016 to 2020, revenue at the current rates is calculated as the product of 2015 Board-approved rates times PowerStream's forecasted billing quantities.

This methodology was based on the *Chapter 2 Filing Requirements for Electricity Distribution Rate Applications - 2014 Edition for 2015 Rates Applications (Section 2.10.3),* which requires distributors to update the revenue-to-cost ratios that would result from the most recent approved distribution rates and the distributor's forecast of billing quantities in the test year.

PowerStream addressed this concern in its response to Undertaking J3.10[87]. For the purposes of answering that undertaking, PowerStream recalculated revenue-to-cost ratios for 2017 to 2020 using the rates from the preceding year, i.e. 2016 proposed rates for the 2017 Cost

[82] Technical Conference, Undertakings JTC 1.7, p. 10, filed September 11,2015
[83] VECC Final Submissions: EB-2015-0003, p. 31
[84] OEB Staff Submission, p. 59
[85] VECC Submission, p. 32
[86] Energy Probe Submission, p. 24
[87] Oral Hearing Undertakings, November 30, 2015, p.1

Allocation, 2017 proposed rates for the 2018 Cost Allocation and so forth. As part of the response, the revised status quo and proposed revenue-to-cost ratios were presented.

PowerStream submits that either approach is acceptable.

4.5 Are the revenue-to-cost ratios for all rate classes over the 2016 – 2020 period appropriate?

Discussion and Submission

OEB Staff submitted that PowerStream's inputs to the cost allocation models are appropriate and that the costs are appropriately allocated. OEB Staff did not recommend any changes to the revenue-to-cost ratios. However, OEB Staff was concerned about the different trends in ratios when the smaller customer class ratios generally increasing while the larger class customer ratios are decreasing.

PowerStream would like to note that in its reference to PowerStream's proposed revenue-to-cost ratios, OEB Staff does not refer to the most current filed evidence. In its update August 21, 2015 to the Application in response to the OEB Staff Interrogatory II-Staff-27, PowerStream filed updated Cost Allocation models (the latest Board-approved Version 3.3). PowerStream also filed the updated revenue-to-cost ratios. These ratios, in comparison to 2013 Board-approved ratios are presented in Table 1.

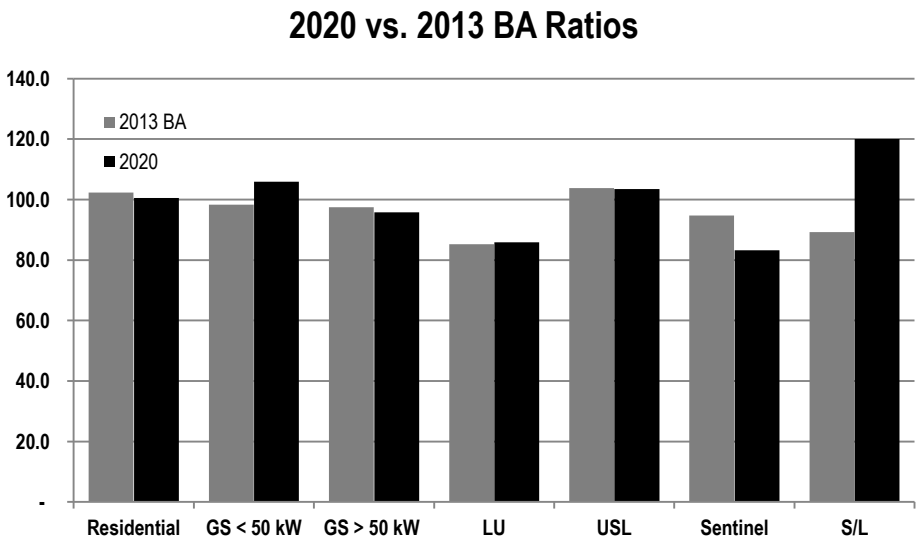
Table 1: Proposed Revenue-to-Cost Ratios (2016-2020)

Rate Class	Last Board-Approved EB-2012-0161	Proposed				
		2016	2017	2018	2019	2020
Residential	102.3	100.9	98.5	99.4	100.0	100.6
GS < 50 kW	98.3	99.7	106.3	106.3	106.2	105.9
GS > 50 kW	97.5	98.0	99.3	97.6	96.5	95.8
Large User	85.2	85.2	85.2	85.3	85.5	85.9
Unmetered Scattered Load (USL)	103.8	89.5	101.2	102.2	102.9	103.4
Sentinel Lighting	94.7	82.2	83.5	83.1	83.1	83.3
Street Lighting	89.2	120.0	120.0	120.0	120.0	120.0

PowerStream proposes to move the revenue-to-cost ratios for all customer classes that are outside of the Board's target policy ranges to the top/bottom of the range. PowerStream performed this adjustment for two customer classes – Large User to 85% and Street Lighting to 120% - and reallocated revenue shortfall to all customer classes with ratios below 100% based on the total revenue requirement allocated to each class. PowerStream submits that all revenue-to-cost ratios, as a result of these adjustments, are within the OEB target policy range.

Figure 1 below compares the Year 5 (2020) ratios to 2013 Board-Approved. Street Lighting ratio is held constant at the 120% maximum as a result of the Street Lighting cost allocation adjustment as presented in the latest Board-Approved Cost Allocation model (Version 3.3).

Figure 1: 2020 vs. 2013 Board Approved Ratios



Energy Probe and VECC were the only intervenors to make submissions on this issue. Energy Probe and VECC, however, in their submissions, expressed concerns with the revenue shortfall allocation. VECC submitted that PowerStream's revenue shortfall allocation method does not account for the fact that revenue to cost ratios for some of these classes are already closer to 100% than for others. In the context of this, Energy Probe and VECC submit that the Board should approve a stepwise approach to adjusting the revenue to cost ratios for those rate classes that are below 100% in order to recover the appropriate amount of the revenue shortfall. In particular, the shortfall should first be allocated to the class whose ratio is the furthest below 100% until that ratio equals the ratio for the class with the second lowest ratio. Then both ratios would be increased to the next lowest and so on.

PowerStream does not agree that this approach is better. This approach will result in the disproportionally high bill impacts for the lowest revenue-to-cost ratios' classes. PowerStream's approach leads to much smaller impacts from adjusting revenue to cost rations for customer classes that are within the Board's target policy range.

PowerStream submits that its proposed methodology was previously approved by the Board during the PowerStream's 2013 COS rate case proceeding (EB-2012-0504) and remains appropriate in this Application.

4.6 Are PowerStream's proposed charges for street lighting appropriate?

Discussion and Submission

OEB Staff submits that the proposed charges for street lighting are appropriate.

Intervenors made no submissions.

PowerStream submits that its proposed charges for street lighting are appropriate.

Rate Design Summary

PowerStream submits that its proposals for fixed –variable rate design, low voltage charges, retail transmission service rates and line losses are appropriate and should be accepted by the Board. PowerStream proposes to update Specific Service Charge rates which will increase revenue offsets and reduce rates.

OEB Staff and intervenors supported PowerStream's proposal to start the transition, to fully fixed Residential rates over four years, in 2017.

All parties agreed that specific service charges need to be updated but offered different options.

These matters are discussed further below by issue.

OEB Staff accepted PowerStream's proposal with respect to low voltage charges, retail transmission service rates and line losses. Intervenors either accepted OEB Staff's position or made no submissions.

4.7 Are the proposed fixed and variable charges for all rate classes over the 2016–2020 period appropriate?

Discussion and Submission

OEB Staff submits that the movement in the fixed/variable split including deferral to 2017 to start transitioning Residential customers to fully fixed charges is reasonable, in line with OEB policy and should be approved.

CCC and Energy Probe support deferral to 2017 to start transitioning Residential customers to fully fixed charges.

VECC had no issues with the proposed rate design and supports deferral to 2017 to start transitioning Residential customers to fully fixed charges.

AMPCO, BOMA and SEC and SIA made no submissions.

PowerStream submits that the proposed fixed and variable charges for all rate classes over the 2016 – 2020 period are appropriate.

4.8 Are the proposed LV Rates appropriate?

Discussion and Submission

OEB Staff submitted that the LV rates are appropriate. VECC submitted it has no issues. Energy Probe supported VECC's submission. No other intervenors made submissions.

PowerStream submits that the proposed LV Rates are appropriate.

4.9 Are the proposed Retail Transmission Service Rates appropriate?

Discussion and Submission

OEB Staff submits that PowerStream's proposed retail transmission service rates are appropriate, subject to any updates that may be necessitated by any changes to the current approved uniform transmission rates and Hydro One Distribution sub-transmission rates that may occur prior to the finalization of PowerStream 2016 rates by the OEB.

VECC has no issues with PowerStream's proposed 2016 Retail Transmission Service Rates or its proposal to update them annually. Energy Probe supports the submission of VECC related to this issue. No submission was made on this issue by any other intervenors.

4.10 Are the proposed specific service charges for miscellaneous services over the 2016 – 2020 period reasonable?

Discussion and Submission

During the Interrogatory process PowerStream re-calculated the specific service changes based on its use of its current actual vehicle and labour rates and the calculation methodology from the Distribution Handbook and stated that it would be reasonable to use these rates should this be accepted by the OEB. PowerStream's concern was that the actual cost of providing the services covered by the specific service charges may be significantly greater than the costs recovered at the current rates.

This approach was supported by the OEB Staff and SIA. Both parties submit that PowerStream's specific service charges should be revised to reflect the updated cost-based values.

AMPCO, BOMA, CCC and SIA make no submissions.

VECC and Energy Probe, on the other hand, disagreed with the proposal and recommend that the Board not allow changes to the specific service charges until the outcome of the Board's review is known (on November 5, 2015, the OEB announced the initiation of a comprehensive policy review of miscellaneous rates and charges applied by electricity distributors for specific activities or services they provide to their customers).

However, Energy Probe clarifies as follows:

> "If the Board determines that the new rates and charges are appropriate, it should reinstitute them as soon as possible, including during a Custom IR rate period. Any impact on revenues from these changes in rates and charges should be tracked in a variance account for clearance to ratepayers at a future time".[88] OEB Staff accordingly submits that while it believes accepted that the revised specific service charges should be accepted, "the OEB should require that PowerStream incorporate into its annual adjustment process through the Custom IR period any determinations arising from the Miscellaneous Charges Review that would impact any of its specific service charges."[89]

Given consideration to all of the above, PowerStream proposes the following:

1. On an interim basis, update PowerStream's specific service charges as filed in response to II-SIA-3. As a result:
    a. the calculation methodology will reflect the most current actual vehicle and labour rates;
    b. Ratepayers will not subsidize the cost of these services through their delivery rates;
    c. Revenue offsets will be increase which will reduce rate and bill impacts.

2. Revise specific service charges based on the outcome of the Board's comprehensive policy review of miscellaneous rates and charges in an annual update.

Table 1 below presents the impact on the revenue requirement as presented in response to II-SIA-3[90].

[88] Energy Probe Submission, p. 26
[89] OEB Staff Submission, p. 68
[90] Application Section B, Tab 2, Schedule 6, p. 2 II-SIA-3

Table 1: Revenue Requirement Impact

	Curent Rates	Updated Rates	Change, $
2016	$3,471,316	$5,097,408	$1,626,092
2017	$3,474,784	$5,102,362	$1,627,578
2018	$3,475,039	$5,102,379	$1,627,340
2019	$3,474,966	$5,101,970	$1,627,004
2020	$3,476,285	$5,103,592	$1,627,307

4.11 Are the proposed line losses over the 2016 – 2020 period appropriate?

Discussion and Submission

OEB Staff does not oppose PowerStream's proposed line losses for the test period, but notes that PowerStream is not anticipating any reductions in its level of line losses given the increasing level of capital expenditures. OEB Staff submits that the OEB may wish to require PowerStream to do a study of losses prior to the next rebasing application.[91]

PowerStream submits that the proposed loss factors are derived by either using the average of the three most complete years, or, the current OEB approved loss factors; the proposed loss factors are well below the 5% threshold established by the Board. As such PowerStream does not agree such study is necessary.

Energy Probe accepts PowerStream's submission on the proposed line losses. VECC has no issues with the proposal. No submission was made to this issue by all other interveners.

PowerStream submits that the OEB should accept the proposed line loss factors as filed.

5.0 Deferral and Variance Accounts Summary

PowerStream submits that its proposal regarding disposition of existing deferral and variance accounts are appropriate and should be approved by the Board.

OEB Staff accepted all of PowerStream's proposals with a minor variation regarding tracking of stranded meter costs related to replacing demand meters with time-of-use meters.

Intervenors generally agreed with OEB Staff or made no submissions with one exception. Two intervenors proposed an alternative approach to calculating LRAMVA with respect to demand savings.

[91] OEB Staff Submission, p. 69

This is discussed further below by issue.

5.1 Should the existing deferral and variance accounts proposed for continuation be continued?

Discussion and Submission

OEB Staff submits that two deferral and variance accounts be closed: 1508 Other Regulatory Assets, Sub-account IFRS Transition Costs Variance; and 1555 Smart Meter Capital and Recovery Offset Variance Account, Sub-accounts Stranded Meter Costs.

Energy Probe and VECC adopted OEB Staff's submission.

No other intervenors made submissions.

PowerStream accepts OEB Staff's proposal.

5.2 Should the OEB approve any new deferral or variance accounts?

Summary of OEB Staff and Intervenor Submissions

OEB Staff submits that PowerStream's request to track stranded meter costs, related to the replace of GS>50 kW demand meters with time of use meters, be denied and that PowerStream be directed to use the already established Account 1557 Meter Cost Deferral Account for the tracking of incremental capital and OM&A costs.

VECC adopts OEB Staff's submission.

AMPCO, BOMA, CCC and submit that should the Board approve a 5 year Custom IR plan there should be a Capital Variance Account (CVA), Efficiency Adjustment Mechanism (EAM) and an Earnings Sharing Mechanism (ESM).

Energy Probe submits that it supports the OEB Staff proposal of the new account 1557 but for PowerStream to use to record the remaining net book value of meters stranded by the requirement to replace demand meters with time of use meters provided these have been removed from 2016 rate base.

SIA made no submissions.

SEC submits if the Board approves a plan for more than one year there should be an asymmetrical ESM. As well SEC proposes an M&A Cost Deferral Account, Asymmetrical Capital Variance Account, Water and Sewer Costs Variance Account.

Discussion and PowerStream's Submission

PowerStream's request was to record the cost of meters stranded by the new DSC requirement in account 1555. PowerStream has included the forecasted cost of the replacement meters in its capital budgets underpinning the Application. PowerStream has not removed the cost of the existing meters from rate base.

Given these facts, the OEB Staff proposal to record the costs related to the installation of the new meters in account 1557 would be inappropriate.

As explained above PowerStream has not removed the net book value of the meters to be replaced. Energy Probe's proposal would effectively deny the recovery of the remaining net book value of the stranded meters.

PowerStream submits that its approach is appropriate and fair. The net book value of stranded meters remains an investment in plant and equipment that must be financed by PowerStream until it is allowed to recover the costs of the stranded meters.

PowerStream notes that this is consistent with the Board's treatment of smart meters. Stranded meters remained in rate base until near the end of the program and only then were removed from rate base. The smart meters were in effect added to rate base when installed as the distributor was able to recover the revenue requirement on these meters through the smart meter recovery process.

If the Board decides that a CVA and/or EAM and/or ESM are required to strengthen PowerStream's Custom IR plan, PowerStream has discussed its proposals in this regard in Section B under the heading, "If refinements are needed".

SEC has proposed an M&A Cost Deferral account. PowerStream submits that it would be inappropriate for the Board to approve this account.

PowerStream submits that the Board has dealt with in its Decision on Horizon Utilities 2008 rate application (EB-2007-0697). In that Decision, the Board disallowed the costs of employees working exclusively on M&A. As stated in its evidence, PowerStream has no employees who work exclusively or even mostly on M&A. With respect to the time spent by senior management on M&A, the Board states:

> *The Board will not make an adjustment for these costs. The evidence shows that the amount of time spent on these activities will ebb and flow given the nature of these transactions. It would be difficult to determine a reasonable allocation in the circumstances. Further, although it is inappropriate for distribution customers to pay for the costs of employees dedicated to merger activity, the Board accepts that, in the Ontario LDC sector, it is appropriate and acceptable for a certain amount of distributor executive employee time to be spent on activities such as these.*[92]

[92] Horizon Utilities Corporation, EB-2007-0697; Decision with Reasons, October 3, 2008; p. 15

SEC has proposed a variance account for PowerStream's water and sewer billing activities. PowerStream submits that it would be inappropriate for the Board to approve this account.

The need to replace our billing system was to meet electricity billing requirement; it has nothing to do with water billing requirements. The water billing functionality is in the CC&B system and required no modifications unlike electricity billing which required extensive modifications.

PowerStream already charges a mark-up plus a 3% annual escalation on the water billing fees to the Cities of Markham and Vaughan. These parties are not affiliates as defined by the Board's Affiliates Relationship Code so suggestion that fully allocated costs must be used are incorrect.

Intervenors are incorrect in suggesting that electricity customers are subsidizing water billing. In fact the sharing of fixed cost with water billing reduces the costs to be paid by electricity customers. Raising the prices inappropriately will likely lead to the loss of this revenue and its benefit for electricity customers.

This is discussed further In Section C, Issue 3.8, in the section titled "Water Billing".

5.3 Are the balances and the proposed methods for disposing of the balances in the existing deferral and variance accounts, appropriate (such as Account 1508)?

Discussion and Submission

OEB Staff did not identify any issues with PowerStream's proposal and submitted that PowerStream's proposal for the disposition of the existing DVA balances are reasonable, subject to PowerStream's two commitments made as a result of OEB Staff questions at the Technical Conference. The commitments related to the recalculation of the rates riders using billing determinants excluding wholesale market participant customers' quantities and updating the evidence using the most current DVA work form.

Energy Probe submits that the proposed methods for disposing of the balances in the existing deferral and variance accounts are appropriate subject to three adjustments: updating projected interest for 2015 to actual OEB prescribed rates, correction of the ICM true-up amount, and the change to LRAMVA proposed by VECC.

AMPCO, BOMA, CCC and SIA made no submissions.

LRAMVA

VECC was the only party to make submissions regarding LRAMVA. Energy Probe and SEC agreed with VECC's submission. VECC submitted that PowerStream should be directed by the Board to revise its calculations of the annual billing demand savings. VECC states that these calculations should be based on the multiplier of "6" which is applied to the IESO-reported annualized peak demand savings. The first year program savings should be adjusted further to account for the ½ year rule.

PowerStream submits that the VECC proposal is flawed and does not correctly reflect the impact of the actual demand savings.

The proposed reduction by VECC is premised on the idea that there is no reduction in peak demand billed as a result of CDM activities other than certain system peak months as defined by IESO. PowerStream disagrees with this premise. The majority of GS>50 demand customers are billed on their peak demand and not system peak demand.

The premise by VECC may be suitable for the Demand Response 3 (DR3) program. PowerStream notes that it has assumed a reduction in only 3 months for DR3 rather than the 6 proposed by VECC.

Most CDM programs involve retrofitting with more energy efficient equipment such as lighting retrofits. These steps reduce the customer's kWh consumption on an ongoing basis. Demand is the measure of average consumption over a period of time, generally an hour. If ongoing consumption is lowered, it only stands to reason that the corresponding demand is also reduced on an ongoing basis, including the customer's peak demand.

PowerStream has based its LRAMVA calculation based on the final CDM evaluation report from the OPA. The OPA-reported annual kW demand savings for the GS>50 kW class were converted to billable quantities using the following methodology:

The annual kW demand savings, excluding the DR3 demand savings, were divided by 12 to arrive at the average contribution each month of the CDM activities that result in reaching the total annual kW savings by the end of the year, i.e. average monthly kW saving addition.

Billable kW demand in January is reduced by the average monthly kW saving addition from the CDM programs delivered in January. The reduction in monthly billable demand kW for February is the January reduction plus the reduction from CDM programs delivered in February. Each month there are further reductions in monthly billed demand based on the impact of the CDM programs delivered in the month. The resulting reduction in the annual monthly billable kW demand is 6.5 times the annual kW savings achieved by year end.

For DR3 programs, PowerStream assumed that the billed demand was reduced by the OPA-reported peak demand savings in each of the three months from June through August.

These calculations are illustrated in PowerStream's submission to N-VECC-40.

PowerStream submits that its methodology has been previously approved by the Board during the 2015 IRM rate case proceeding (EB-2014-0108) and remains appropriate for the calculation of LRAMVA for the reasons provided above.

All of which is respectfully submitted this 29th day of January, 2016.