Ontario Energy Board P.O. Box 2319 27th Floor 2300 Yonge Street Toronto ON M4P 1E4 Telephone: 416- 481-1967 Facsimile: 416- 440-7656 Toll free: 1-888-632-6273 Commission de l'énergie de l'Ontario C.P. 2319 27e étage 2300, rue Yonge Toronto ON M4P 1E4 Téléphone: 416-481-1967 Télécopieur: 416- 440-7656 Numéro sans frais: 1-888-632-6273



BY E-MAIL

August 19, 2015

Kirsten Walli Board Secretary Ontario Energy Board 2300 Yonge Street, 27th Floor Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: Kingston Hydro Corporation (Kingston Hydro) 2016 Distribution Rate Application OEB Staff Interrogatories Board File No. EB-2015-0083

In accordance with Procedural Order No. 1, please find attached OEB staff's interrogatories in the above noted proceeding. Kingston Hydro and all intervenors have been copied on this filing.

Kingston Hydro's responses to interrogatories are due by September 11, 2015.

Yours truly,

Original Signed By

Birgit Armstrong Advisor – Electricity Rates & Accounting

Attach.

OEB Staff Interrogatories 2016 Custom IR Rate Application Kingston Hydro Corporation (Kingston Hydro) EB-2015-0083 August 19, 2015

GENERAL

1.0-Staff-1

Responses to Letters of Comment

Following publication of the Notice of Application, the Board received 1 letter of comment. Sections 2.4.2 and 2.4.5 of the Filing Requirements state that distributors will be expected to file with the Board their response to the matters raised within any letters of comment sent to the Board related to the distributor's application. If the applicant has not received a copy of the letters, they may be accessed from the public record for this proceeding.

Please file a response to the matters raised in the letter of comment referenced above. Going forward, please ensure that responses are filed to any subsequent letters that may be submitted in this proceeding. All responses must be filed before the argument (submission) phase of this proceeding.

1.0-Staff-2

Conditions of Service

- a) Please identify any rates and charges that are included in the Applicant's Conditions of Service, but do not appear on the Board-approved tariff sheet, and provide an explanation for the nature of the costs being recovered through these rates and charges.
- b) Please provide a schedule outlining the revenues recovered from these rates and charges from 2012 to 2014 inclusive, and the revenues forecasted for the 2015 bridge and 2016 test years.
- c) Please explain whether, in the Applicant's view, these rates and charges should be included on the Applicant's tariff sheet of approved rates and charges.

Updated RRWF

Upon completing all interrogatories from Board staff and intervenors, please provide an updated RRWF in working Microsoft Excel format with any corrections or adjustments that the Applicant wishes to make to the amounts in the populated version of the RRWF filed in the initial applications. Entries for changes and adjustments should be included in the middle column on sheet 3 Data_Input_Sheet. Please include documentation of the corrections and adjustments, such as a reference to an interrogatory response or an explanatory note. Such notes should be documented on Sheet 10 Tracking Sheet, and may also be included on other sheets in the RRWF to assist understanding of changes.

1.0-Staff-4

Updated Appendix 2-W, Bill Impacts

Upon completing all interrogatories from Board staff and intervenors, please provide an updated Appendix 2-W for all classes at the typical consumption / demand levels (e.g. 800 kWh for residential, 2,000 kWh for GS<50, etc.).

1.0-Staff-5

Ref: Exhibit 1, Tab 3, Schedule 1 and Letter from the OEB: Allowance for Working Capital for Electricity Distribution Rate Applications

In a letter, issued June 3, 2015, the OEB provided an update to its policy for calculating the allowance for working capital for electricity rate applications. The OEB determined a new default value of 7.5% of the sum of the cost of power and operating, maintenance and administration (OM&A) costs. For a custom incentive rate-setting (Custom IR) application distributors are expected to file robust evidence of costs and revenues in support of their requested working capital allowance.

In its letter, the OEB also stated that while the use of the default value will no longer be applicable to Custom IR applications, given the timing of this new policy, distributors that have filed a Custom IR application for rates effective January 1, 2016 may use the 7.5% default value to calculate their working capital allowance rather than file a lead-lag study as part of their application.

Kingston Hydro calculated its working capital allowance using the former default value of 13%.

a) Please confirm whether Kingston Hydro wishes to adopt the 7.5% value or whether it will be providing a lead-lag study to support Kingston Hydro's proposed working capital allowance.

Customer Engagement

1.0-Staff-6 Ref: Exhibit 1, Tab 4, Schedule 1 p. 4

Chapter 2 of the Filing Requirements states, "The RRFE Report contemplates **enhanced** engagement between distributors and their customers to provide better alignment between distributor operational plans and customer needs and expectations." (Emphasis added)

Please describe the differences between customer engagement conducted in preparation for the current application and previous customer engagement. Please explain how customer engagement has been enhanced.

1.0-Staff-7

Ref: Exhibit 1, Tab 4, Schedule 1 Exhibit 2, Tab 2, Schedule 1, Appendix 5

In these Exhibits, Kingston Hydro provides information on its customer engagement activities and customer engagement surveys. Please provide a program or investment project roadmap that directly connects Kingston Hydro's future plans with the findings of its customer engagement surveys.

CUSTOM APPLICATION and RRFE ISSUES

1.0-Staff-8

Ref: Exhibit 1, Tab 3, Schedule 1

- a) Please provide Kingston Hydro's rational for choosing the Custom IR methodology versus Price Cap IR using the advanced capital module (ACM) option to address its capital needs over the next 5 years.
- b) Please detail how this methodology achieves objectives of a customer focus approach as well as the promotion of economic efficiency and cost effectiveness.
- c) Please provide a table comparing Kingston Hydro's projected rate of return on equity and annual net income from 2016-2020, using a forward looking test year followed by a 4-year IRM period, and compare this under the Custom IR methodology over the same period.
- d) Are there any capital investments that Kingston Hydro has included in this application that it would not pursue under a Price Cap IR? Please detail the impact on its service reliability indicators.

1.0-Staff-9

Ref: Exhibit 1, Tab 3, Schedule 1

In its RRFE report, the OEB determined that a comprehensive approach to ratesetting, recognizing the interrelationship between capital expenditures and OM&A expenditures. Rate-setting that is comprehensive creates stronger and more balanced incentives and is more compatible with the Board's implementation of an outcome-based framework.

Under a Price Cap IR, productivity determination relies on the index-based approach. As a result, base rates under the IRM mechanism are adjusted annually by an inflation factor minus an x-factor, which consists of an empirically derived industry productivity factor of zero and a utility-specific stretch factor.

In developing its Custom IR application, Kingston Hydro elected to index only its OM&A costs annually, using the IRM price cap mechanism.

- a) What productivity factor or efficiency gains are built into Kingston Hydro's capital program over the next 5 years and how does that compare to an x-factor treatment of the incentive rate-setting mechanism?
- b) If Kingston Hydro has not included any productivity measures, please explain why.

1.0-Staff-10

Ref: Exhibit 1, Attachment 1-14, OEB Issued WNH Scorecard

PEG Report to the Ontario Energy Board, Empirical Research in Support of Incentive Rate Setting: 2013 Benchmarking Update, July 2014

EB-2010-0379, Spreadsheet Model for Benchmarking Ontario Power Distributors, May 7, 2015

Kingston Hydro's scorecard shows that Kingston Hydro has been assigned to Group 3 for Efficiency Assessment, based on the PEG July 2014 report. PEG has also provided LDCs with a spreadsheet that enables them to project future cost performance.

- a) Did Kingston Hydro forecast any future cost performance for 2016-2020 based on the information provided in this application?
- b) If so, please provide the results.
- c) If not, please complete the forecast model, provide the results, any assumptions made and if Kingston Hydro's efficiency assessment is forecasted to worsen, then please provide an explanation on why this is the case.

1.0-Staff-11

Ref: Exhibit 1, Tab 2, Schedule 1

Kingston Hydro has detailed the value of its Shared Service Model. Please provide detailed information of how Kingston Hydro proposes to provide further value to its customers. In particular:

- a) What specific outcomes does Kingston Hydro target for its planned OM&A and capital spending over the five year plan term (e.g. reduction in unit cost to targeted level, reduction in outage length by x%)?
- b) How is progress toward the targeted outcomes to be quantified?
- c) By what metric of performance will success in achieving the outcome be demonstrated?
- d) How is the value to customers of the proposed spending over the plan term to be demonstrated?
- e) What consequences should occur if targeted outcomes are exceeded? If targeted outcomes are not achieved?
- f) Please describe how each of the targeted outcomes aligns with customer preferences identified by Kingston Hydro, with reference to the evidence in this application.

1.0-Staff-12

Ref: Exhibit 1, Tab 2, Schedule 1

Please provide details about what other outcome measures Kingston Hydro considered and why they are not being proposed.

ANNUAL RATE ADJUSTMENTS

1.0-Staff-13

Ref: Exhibit 1, Tab 3, Schedule 1

Please explain how Kingston Hydro expects to adjust for projects that will not meet the anticipated in-service date in any given year during the Custom IR plan term.

1.0-Staff-14

Ref: Exhibit 1, Tab 3, Schedule 1 and RRFE Report

At page 19 of the RRFE Report, the Board indicates that distributors applying under the Custom IR option must demonstrate the ability to manage within the rates set, given that actual costs and revenue will vary from forecast [*emphasis added*]. Please indicate how Kingston Hydro's proposed annual adjustments for variances in cost and revenue are consistent with demonstrating this ability.

BENCHMARKING

1.0-Staff-15

Ref: Exhibit 1, Tab 2, Schedule 1, p. 14-16

Please provide copies of all benchmarking studies, evaluation, surveys undertaken by Kingston Hydro, either through a third-party or internally, since 2010.

Ref: Exhibit 1, Tab 2, Schedule 1, p. 14-16

In the first reference, Kingston Hydro provides OM&A per customer from 2010 – 2014 and total cost benchmarking projections from 2013 – 2020. Kingston Hydro noted that on a total cost per customer basis it ranks 16th lowest of 73 utilities in 2013.

- a) Please provide a table comparing Kingston Hydro's OM&A per customer to utilities in the same cohort as Kingston Hydro from 2010-2014.
- b) Please provide Kingston Hydro's benchmarking projections for 2015-2020 on an OM&A cost per customer basis in the same format shown in table 6.
- c) Please explain the impact of Kingston Hydro's requested capital budget on its projected total cost ranking by 2020.
- d) Does Kingston Hydro expect to improve its status in its benchmark cost performance by 2020? If not, within what timeframe does Kingston Hydro expect to improve?

1.0-Staff-17

Ref: Exhibit 1, Tab 8, Schedule 1

On p. 2, Kingston Hydro states that it is "the 16th lowest cost utility on a total cost per customer basis in Ontario and a cost per km of line of \$38,667".

a) Please provide a forecasted cost per km of line by December 31, 2020 after completing its proposed infrastructure renewal program and describe the related reliability improvements as well as the value to customers.

2.0 RATE BASE

2.0-Staff-18

Ref: Exhibit 2, Tab 1, Schedule 1 and Attachment 1, Appendix 2-BA

- a) Please reconcile the net book value shown in Appendix 2-BA with the rate base calculations in E2/T1/S1, pp.2-5 and the RRWF for each year of the custom IR years.
- b) Kingston Hydro noted that its custom IR is driven by capital needs over the next 5 years, with a significant infrastructure renewal component (i.e. overhead infrastructure replacement). Please explain why Kingston Hydro has not shown any disposals on its continuity schedule during the custom IR term 2016-2020.

Filing Requirements for Electricity Transmission and Distribution Applications, Chapter 5: Consolidated Distribution System Plan, section 5.1.1

In Chapter 5 of the Filing Requirements, the OEB determined that a project or activity involving two or more 'drivers' associated with different categories should be placed in the category corresponding to the 'trigger' driver. OEB staff notes that Kingston Hydro allocated a percentage of all projects to the different drivers rather than attribute the total costs of a project to its 'trigger' driver.

 Please restate all affected tables and appendices to show total costs of its projects under its 'trigger' driver for each of the 5 years of the Custom IR term.

2.0-Staff-20

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.1 p. 133-136 and 174, Tables 3, 4, 5 and 6 and Appendix 2-AA

Please update Appendix 2-AA to show the actual year-to-date capital expenditures for the 2015 calendar year and the actual 2014 spending over the same time frame.

2.0-Staff-21

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.4 p. 172-3, Tables 1a and 1b

In tables 1 (a) and (b), Kingston Hydro provided the following capital expenditures.

Year	\$	Variance Y/Y
2011BA	\$ 5,433,500	
2011A	\$ 6,169,853	13.55%
2012A	\$ 3,964,048	-35.75%
2013A	\$ 4,643,775	17.15%
2014A	\$ 3,612,844	-22.20%
2015A	\$ 3,600,000	-0.36%
2016E	\$ 5,650,000	56.94%
2017E	\$ 3,049,000	-46.04%
2018E	\$ 4,269,000	40.01%
2019E	\$ 4,200,000	-1.62%
2020E	\$ 4,200,000	0.00%

- a) Please explain the under spending of capital expenditures during the IRM period.
- b) Please explain how Kingston Hydro is expecting to complete the proposed capital projects during the custom IR term within its proposed OM&A budget.

2.0-Staff-22 Ref: Exhibit 2, Tab 2, Schedule 1 – Distribution System Plan (DSP), p. 17 and 134 Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.2 pp. 78, 80, 87-89

Annual Deteriorated Overhead Infrastructure Replacement Program

On p. 134 of the DSP, Kingston Hydro shows an overview of its system renewal plan, which represents 68% of its proposed capital expenditures for 2016-2020. The annual deteriorating overhead infrastructure replacement program constitutes 43.6% of Kingston Hydro's system renewal budget for a total of \$7.3M over 5 years and an annual average of \$1.3M. Historically, Kingston Hydro spent \$880,700 annually on this program.

On pages 87-89 and p. 78 Kingston Hydro shows that 57.5% of Cedar Poles, 75% of Pine Poles and 26% of concrete poles are in very good health. On p.80 Kingston Hydro shows that 70% of pole top transformers are in very good health.

- a) Please provide detailed explanation and a breakdown of Kingston Hydro's proposed overhead infrastructure replacement program year-over-year.
- b) Please quantify the expected annual savings due to pole life maximization for the 2015-2020 budget period.
- c) Is Kingston Hydro maximizing the useful life of poles by running to failure, by active intervention/treatment to extend pole lives, or by a combination of these approaches?
- d) Provide the cost per unit and compare to historical costs.
- c) Please describe and quantify where possible the benefits that Kingston Hydro's customers will realize from this investment. Please explain how the increase to this program reflects customer preferences identified through customer engagement.
- d) Please describe the alternatives to capital investment that were assessed and rejected in favour of the proposed capital investment.
- e) Please explain why a pole replacement program could not be managed under a Price Cap IR approach.
- f) How does the Fibre-To-The-Home project impact the planning and pacing of the pole replacement program (DSP p.17)?
- g) Does the selected approach represent a departure from past Kingston Hydro practice?

2.0-Staff-23

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.1. p. 134, Table 4
Exhibit 2, Tab 2, Schedule 1 5.4.4., p. 174 Table 2, Appendix 2-AA, p. 179
Exhibit 3, Tab 1, Schedule 1 – Appendix 2-IA

On p. 133 of the DSP, Kingston Hydro is showing capital expenditures for meters, which represents 57.2% of Kingston Hydro's system access budget over the next 5 years:

Meters									
2016 2017 2018 2019 2020 Total									
\$300,000	\$376,000	440,000	\$340,000	\$332,000	\$2,088,000				

Kingston Hydro has historically spent an average of \$176,160 on its meter assets over the 2010-2015 years. Over that period Kingston Hydro experienced a load growth of 1%. For the 2016-2020 period Kingston Hydro is forecasting a load decrease for the residential, GS>50 kW and Large Use rate classes.

- a) Please explain the increases in meter expenditures given Kingston Hydro's load forecast.
- b) Please detail the impact of converting multi-unit buildings from bulk meters to unit meters.

2.0-Staff-24

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.1 p. 133, Table 3 Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 179

Road Reconstruction Projects

Please explain Kingston Hydro's process for prioritizing projects for road reconstruction requested by the City of Kingston within the framework of its multi-service model.

2.0-Staff-25

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.1 p. 134, Table 4 Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 180

Substation No. 1 Rebuild

On p. 180 Kingston Hydro notes that capital expenditures on the Substation No.1 Rebuild will be paced over the first 5 years (2015-2019) and will focus on design and remediation work. In 2020 the east bus will be decommissioned and removed and the purchase of new transformers will occur in anticipation of installation in 2021.

- a) Please describe the design and remediation work in more detail to justify average annual spending of \$265,920.
- b) Please explain why the OEB should approve a capital addition of \$1,223,200 to rate base for the 2020 rate year for an asset that won't come into service until 2021 and therefore not be used or useful during the Custom IR plan term.
- c) Please state if any of the cost for the remediation and design work will be allocated to the city of Kingston? If none of the cost have been allocated to the city, please explain why not.
- d) Please explain if Kingston Hydro has considered green field investment to replace this substation and why this option was not chosen.

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.1 p. 133-134, Table 3&4 Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 182

Princess St. Reconstruction

- a) Please confirm that the total cost for the Princess St. Reconstruction is \$2,820,000 in the 2016 year.
- b) What costs will be borne by the City of Kingston as part of their infrastructure renewal plans?

2.0-Staff-27

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 182

5kV Oil Switch Replacement

On p. 182, Kingston Hydro states that replacing oil switches with new gas switches will greatly improve system reliability, efficient operations and worker safety, and reduce O&M cost.

- a) Please quantify the OM&A savings.
- b) Please state if and how these OM&A savings have been reflected in Kingston Hydro's OM&A budget for the 2016 rate year.
- c) If no, please explain why not.

2.0-Staff-28

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 183

Customer Information System (CIS)

On p. 183 Kingston Hydro states that the capital cost for the new CIS system is spread across all utilities and that it shares the Enterprise Resource Management System and Customer Relationship Management System.

- Please state what percentage of the total cost has been allocated to Kingston Hydro for each of these systems and describe the allocation methodology used.
- b) Please state if any OM&A savings can be achieved through these system upgrades.
- c) If so, explain how these savings will impact Kingston Hydro's 2016 OM&A budget over the next 5 years.

2.0-Staff-29

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.5 p. 184

Vehicle Replacement Policy

Please provide Kingston Hydro's vehicle replacement policy, and provide details and further justification for Kingston Hydro's proposed capital expenditures on its fleet over the next 5 years.

2.0-Staff-30

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (b) p. 15

Sources of Cost Savings - Substation Power Transformers

Kingston Hydro is showing \$900,000 in cost savings, which are attributed to deferring the replacement of the six 3 MVA transformers at Substation No. 1 and reusing transformer T2 from Substation No. 4 at Substation No. 17 to pace investments.

- a) Please show how the \$900,000 in savings was calculated.
- b) What portion of the \$900,000 is related to deferring replacement of the Substation No. 1 transformers?
- c) Are these annual savings or are they savings spread over the 5 year forecast period?

2.0-Staff-31

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (b) p. 15 Exhibit 2, Tab 2, Schedule 1, PDF pp. 797 – 799 Appendix 9 - Capital Project Write-ups

Sources of Cost Savings - Substation #1 Comparison of Upgrade Options

Kingston Hydro states that the J.L. Richards & Associates report identified cost savings of \$1.65M for upgrade Option A2 relative to Option A due to reduced costs related to "constructability, scheduling, reliability, phasing, health and safety".

- a) Please provide details of the specific cost savings attributable to each of these categories, and how the attribution was calculated.
- b) Please explain why similar costs savings could not be achieved under development Option A.
- c) Will Kingston Hydro engineering or electrical staff be underutilized if Option A2 is not pursued?

2.0-Staff-32

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (b) p. 15 Exhibit 2, Tab 2, Schedule 1, PDF pp. 797 – 799 Appendix 9 - Capital Project Write-ups Substation No. 1 Rebuild

Sources of Cost Savings - Substation #1 Comparison of Upgrade Options

With reference to Option A2, Kingston Hydro states that "Paced design creates cost uncertainty since total construction cost cannot be accurately estimated until final design is complete".

- a) Please quantify the range of the project cost uncertainty associated with the proposed project implementation approach.
- b) Please assess if the cost uncertainty is greater than the projected \$1.65M cost savings of Option A2 relative to Option A.

2.0-Staff-33 Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (e), p. 16

Please describe Kingston Hydro's transition from "a 'top down' planning process" to "a more formal asset lifecycle optimization process." When did the transition begin, and when does Kingston Hydro plan to have fully transitioned?

- a) Will the transition to formal asset lifecycle optimization approach impact the capital investment decisions in the 2016-2020 time period?
- b) If no, then why not?
- c) What is Kingston Hydro's assessment of the risk of not yet having fully transitioned to a new process? What is the risk that a number of assets fail simultaneously or in quick succession relative to Kingston Hydro's recent operating history?

2.0-Staff-34 Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (f), p. 16

Section 5.2.1 (f) describes the future influences on Kingston Hydro's DSP.

- a) What are the anticipated impacts of these influences?
- b) What is the risk that the costs associated with the DSP will increase or decrease?
- c) Please describe how Kingston Hydro calculates and quantifies the costs provided in response to the previous question.

2.0-Staff-35 Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (b) p. 15

Sources of Cost Savings - Reduced Underground Asset Costs

Kingston Hydro states that costs were reduced through coordinating replacement of underground assets with City of Kingston road upgrades.

- a) Please quantify the expected savings for each of the road upgrade projects and describe how the savings were calculated.
- b) Does Kingston Hydro have input into the City of Kingston's planning and scheduling of road upgrade projects?

2.0-Staff-36

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (a) pp. 26 & 27

Engineering Costs

Kingston Hydro states that as a percentage of its total project costs, engineering costs amount to approximately 2% for pole replacement projects, and in the range of 5% to 8.5% for other project types. The RSMeans Electrical Cost Data indicates that industry standard engineering and construction management fees for projects up to \$1M, range from 8.6% to 17.6% of total project costs.

- a) Does Kingston Hydro's low level of engineering expenditure relative to industry standards materially improve average project costs?
- b) Does Kingston Hydro's low level of engineering expenditure relative to industry standards increase the risk of poor project execution or reduced project reliability and quality?

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.1 (f) p. 17 Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.2 p. 19 Table 1

Coordination with Third Parties

Kingston Hydro has identified that third party projects, including Bell's Fibre-To-The-Home and Fibre-To-The-Node projects are expected to have an impact on staff resources for most of 2015, and will have an ongoing impact on Capital Expenditures for 2016-2020 related to System Access.

- a) How are Kingston Hydro's costs for performing the cited make-ready work allocated to third parties?
- b) Does the allocation methodology fully recover Kingston Hydro's incremental costs, including the impacts on staff resources?

2.0-Staff-38

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 Figure 2 p. 23

Annual ESA Audit Findings

Kingston Hydro's ESA audit performance as shown in Figure 2 improved materially over the period from 2006 to 2015.

- a) Describe any capital projects or O&M changes Kingston Hydro undertook to deliver the improved performance.
- b) Did implementing the required changes impact capital or operating budgets?

2.0-Staff-39

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (a), p. 24, 5.2.3 – Table 1 Kingston Hydro Performance Outcomes

In **5.2.3 – Table 1 Kingston Hydro Performance Outcomes**, Kingston Hydro lists "Risk Management" as one of the categories monitored.

- a) Please describe how Kingston Hydro identifies, prioritizes, and mitigates risks.
- b) Does Kingston Hydro maintain some form of risk registry or a database listing risks being monitored?

- c) If yes,
 - i) Please provide a recent sample of the document.
 - ii) Please list which assets are not covered by the risk registry.

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (a) p. 25

Monitoring of Risk Management

Kingston Hydro adjusted its Tree Trimming program to produce a significant reduction in Total Customer Hour Interruptions (TCHI).

- a) Quantify the annual changes in tree trimming program costs associated with the referenced TCHI improvements.
- b) Will the tree trimming program adjustments be continued going forward into the forecast period to maintain the improved TCHI performance?
- c) If yes to b), what are the associated incremental O&M costs during each year of the forecast period?

2.0-Staff-41

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (a) p. 29

Aging Oil Switches

Kingston Hydro notes that Outage Code 1B was created to denote planned outages performed to accommodate work or switching involving aging oil switches which are unsafe to operate while energized due to slow-moving deteriorated mechanical contacts.

- a) Is it anticipated that replacement of the aging oil switches will eliminate or significantly reduce Outage Code 1B outages?
- b) What is the count of problematic/unsafe oil switches in the Kingston Hydro system at present?
- c) How many problematic/unsafe oil switches will remain in the Kingston Hydro system after 2020 following the planned replacements under the DSP?

2.0-Staff-42

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (b), p. 40, 5.2.3 – Table 4 Top Three Defective Equipment Causes

Please explain why Kingston Hydro only listed years 2011 and 2014 in 5.2.3 – Table 4 Top Three Defective Equipment Causes.

2.0-Staff-43

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.2.3 (c), p. 43

Regarding "Continuous Improvement Using Corporate Strategy":

- a) Please explain how Kingston Hydro links information that resides in the asset registry, the Asset Condition Assessment, and the observational database and/or the historical reliability data.
- b) Are there instances where there is inconsistency between one set of data and another?

2.0-Staff-44

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.1 (b), p. 55

The following are intended to assess Kingston Hydro's intentions regarding the performance of its Asset Condition Assessments in the future:

- a) Please provide a list of Kingston Hydro's electric assets for which Kinectrics did not perform a Health Index calculation.
- b) How often will the ACA be performed?
- c) Will future ACAs be performed by Kingston Hydro personnel or external third parties?
- d) Does Kingston Hydro intend that its ACA adhere to international standards or processes?
- e) If yes, please provide details and relevant documentation.

2.0-Staff-45 Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.1(b) pp. 61-64

Kingston Hydro describes its asset management process as the collection of informational inputs, including asset age and asset degradation assessments, and Kingston Hydro's proprietary asset registry. The informational inputs are then analyzed, and based upon that analysis; Kingston Hydro compiles a list of potential asset repair or replacement projects. From this list of projects, Kingston Hydro prioritizes the projects, and schedules the work according to perceived available resources.

- a) Is the prioritization process described in **5.3.1 (b): Capital Expenditure Decision Making Process** exclusively or primarily a qualitative exercise?
- b) Does Kingston Hydro use quantitative cost-benefit analysis in the selection and prioritization of the capital investment projects?
- c) **5.3.1 (b): Results Measurement Process** states that Kingston Hydro, as part of the continuous improvement of the asset management cycle, assesses the effectiveness of the capital investment program. How does Kingston Hydro measure the results of the individual capital projects? Please provide examples.

2.0-Staff-46

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.2 (c) pp. 72 - 90

Summary of Asset Age and Condition

DSP section 5.3.2 provides Typical Useful Life (TUL) values for different asset categories and then provides actual asset age distributions and condition assessments for the Kingston Hydro portfolio.

a) Should the TUL values be adjusted upward for specific asset categories, considering that significant numbers of Kingston Hydro's pole, switch, transformer and underground cable assets have achieved service lives far beyond the expected TUL values?

2.0-Staff-47

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.1 (c), pp. 92-95

Kingston Hydro has listed three groups of assets that "Require Detailed Condition Assessment": Maintenance Holes, Primary Cable, and Substation Facilities.

- a) For maintenance holes, Kingston Hydro states: "Costs for this inspection would be part of Kingston Hydro's existing operating expenses created through on-going efficiencies."
 - i) Please explain the Kingston Hydro ongoing efficiencies that are going to be created.
 - ii) Are those efficiencies accounted for in the current spending plans?
- b) For primary cable, Kingston Hydro states: "test are required ... providing further evidence ... obsolete cable to be replaced."
 - i) Please explain the purpose of the testing of the cables, since it appears that Kingston Hydro intends to replace the cables regardless of the results of the tests.

2.0-Staff-48

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.3.3 p. 113 Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.4 pp. 179 – 183

Asset Lifecycle Optimization

Justification and Investment Drivers – Historic Trend and Forecast Evolution Kingston Hydro's pole, switchgear, transformer and underground cable assets can be generally grouped into two vintage categories: very old assets near, at or beyond planned end of life, and very new assets which have a substantial expected remaining useful life. For example, 41% of the pole assets exceed the typical planned useful life of 45 years and 19% are in Poor or Very Poor condition.

In its discussion of investment drivers, Kingston Hydro states that it has to maintain the same investment level over the forecast period, so that the overhead infrastructure can be sustainable.

a) Considering the "dumbbell shaped" vintage curves for much of Kingston Hydro's fleet of poles, switches, transformers and underground cables, and the fact that a significant proportion of the asset portfolio has already reached, or will reach or exceed planned service life over the next 5 years, is the planned investment level adequate to maintain system performance and customer service?

- b) Has Kingston Hydro quantitatively evaluated the system performance and customer service risk that would be associated with accelerating equipment failure rates due to the asset vintage distribution?
- c) Would an increased rate of asset failure over the next 5 years materially impact future operation and/or capital maintenance costs?

2.0-Staff-49

Ref: Exhibit 2, Tab 2, Schedule 1 – DSP 5.4.4 p. 113

Capital vs. Operating Costs

This table shows that System O&M costs are projected to increase in each year of the Forecast Period of 2015 to 2020 by an average of over \$93,000 (approximately 2.7%) per annum, resulting in a cumulative O&M cost increase of \$467,236 annually, or approximately 15% over the forecast period. Historical System O&M costs fell from \$3,344,858 in 2010 to \$3,051,338 in 2014, representing a reduction of \$293,520 or approximately 8.8% over the historical period.

- a) Please explain what is causing the historical trend in O&M cost reductions to reverse into significant O&M cost increases.
- b) Given the forecast increase in average expenditures for System Renewal and System Service projects, and considering the planned General Plant expenditures on upgraded CIS, GIS and Financial systems, should the expectation not be that O&M costs will decrease over the forecast period?

2.0-Staff-50

Ref: Exhibit 2, Tab 2, Schedule 1, Appendix 4

Utilities Kingston 2012 Asset Condition Assessment

Kinectrics Inc. issued the Utilities Kingston Asset Condition Assessment report in December 2013.

- a) Please confirm that the Asset Condition Assessment by Kinectrics was prepared based entirely upon information provided by Utilities Kingston, and did not involve any field evaluation of assets by Kinectrics.
- b) Please confirm that the Asset Condition information used in the report was collected up to and including 2012.
- c) Did Kinectrics identify any deficiencies in the quality or quantity of the asset condition data or records made available by Utilities Kingston for preparation of the report?
- d) If yes to c), please identify any steps Kingston Hydro has taken to improve the asset condition information that will be made available for subsequent Asset Condition Assessments.

Ref: Exhibit 2, Tab 2, Schedule 1, PDF p. 797 Appendix 9 - Capital Project Write-ups Substation No. 1 Rebuild

Substation #1 Comparison of Upgrade Options

Table 1 on PDF page 797 compares various parameters related to the different development options. This table rates Option A2 as "Difficult to Manageable" for Constructability and Health & Safety, and as "High Risk" for Reliability.

- a) Has Kingston Hydro quantified or evaluated the project cost risks attributable to pursuing an upgrade option with such Constructability, Health & Safety and Reliability risks?
- b) Has Kingston Hydro created a planning phase risk register for the Substation #1 project?

2.0-Staff-52

Ref: Exhibit 2, Tab 2, Schedule 1, PDF pp. 788 & 789 Appendix 9 - Capital Project Write-ups Substation No. 1 Rebuild

Overview of the Condition of Major Substation Components

Table 1 on pdf page 788 categorizes the condition of the six power transformers in Substation #1 as "Critical – at end of life". The detailed description table on page 789 states: "...oil analysis suggests these transformers have reached end-of-life".

- a) Has Kingston Hydro quantitatively evaluated the probability and cost consequences of one or more of these transformers failing prior to their planned replacement?
- b) Would catastrophic failure of any of the 6 power transformers in Substation No. 1 potentially cause an extended loss of service to significant portions of downtown Kingston?
- c) How frequently is the transformer oil analyzed?
- d) Confirm that none of these transformers has real-time alarms to enable preventive de-energization of an individual transformer in the event of sudden acceleration in the rate of off-gassing.

3.0 OPERATING REVENUE

Load and Customer Forecast

3.0-Staff-53

Ref: Exhibit 3, Tab 1, Schedule 1, Attachment 1 – OEB Appendix 2-IA OEB Filing Requirements for Electricity Distribution Rate Applications, July 16, 2015, Section 2.3.2 Accuracy of Load Forecast and Variance Analysis

- a) The above section of the cost of service Filing Requirements will be helpful in assessing Kingston Hydro's five year load forecast. Please provide all the information as per Section 2.3.2 of the Filing Requirements including, but not limited to, the variance analysis and relevant discussion for volumes, revenues, customer/connections count and total system load: Historical OEB-approved vs. historical actuals Historical OEB-approved vs. historical actual (weather-normalized) Historical actual (weather normalized) vs. preceding year Last year historical actual (weather-normalized) vs. bridge year forecast Bridge year vs. Test year
- b) Please complete Appendix 2-IA such that it shows year over year variances.

 Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR Exhibit 1, Tab 3, Schedule 1, p. 15 Exhibit 2, Tab 2, Schedule 1, Attachment 1 – Distribution System Plan, p. 69

In the second reference, Kingston Hydro indicates that it is requesting approval of the 2016 to 2020 load forecasts as presented in this application, with no annual updates. Based on data from Tables 1 and 2 of the first reference and the sum of the class weather normalized actuals, the following growth rates are obtained:

	W/N Actual/Non CDM Adjusted Forecast kWh	Growth	W/N Actual/CDM Adjusted Forecast kWh	Growth
2009	722,820,774		722,820,774	
2010	719,429,322	-0.47%	719,429,322	-0.47%
2011	721,735,543	0.32%	721,735,543	0.32%
2012	710,919,873	-1.50%	710,919,873	-1.50%
2013	713,891,948	0.42%	713,891,948	0.42%
2014	712,079,234	-0.25%	712,079,234	-0.25%
2015	715,028,487	0.41%	712,428,487	0.05%
2016	712,404,228	-0.37%	704,804,228	-1.07%
2017	709,612,250	-0.39%	696,862,250	-1.13%
2018	706,997,473	-0.37%	688,547,473	-1.19%
2019	704,560,822	-0.34%	679,960,822	-1.25%
2020	702,303,252	-0.32%	671,053,252	-1.31%

	W/N Actual/Non CDM Adjusted Forecast kW	Growth	W/N Actual/CDM Adjusted Forecast kW	Growth
2009	978,952		978,952	
2010	1,047,021	6.95%	1,047,021	6.95%
2011	1,078,032	2.96%	1,078,032	2.96%

2012	1,109,149	2.89%	1,109,149	2.89%
2013	1,066,359	-3.86%	1,066,359	-3.86%
2014	1,039,961	-2.48%	1,039,961	-2.48%
2015	1,042,839	0.28%	1,039,049	-0.09%
2016	1,046,119	0.31%	1,034,965	-0.39%
2017	1,049,033	0.28%	1,030,195	-0.46%
2018	1,052,234	0.31%	1,024,792	-0.52%
2019	1,055,727	0.33%	1,018,888	-0.58%
2020	1,059,513	0.36%	1,012,398	-0.64%

- a) Please confirm that Kingston Hydro agrees these numbers are correct.
- b) Please update the 2015 numbers with actuals for the first six months and compare to these forecasts.
- c) Kingston Hydro is proposing an average annual <u>decrease</u> in its load in the next five years of 1.2%, despite increasing customer numbers. Additionally, on page 69 of its DSP, Kingston Hydro states that in 2012 a 20 year load forecast for capacity planning was done which predicted an average annual <u>increase</u> in load of 1.1%. How does Kingston Hydro reconcile these two contrary forecasts?
- d) Did the 20 year load forecast that was done in 2012 include the impacts of the new CDM targets for 2015-2020?

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

The referenced report states on page 1 that Kingston Hydro has used the Hartington IHD weather station for its weather data because it "has nearly interrupted [sic] temperature observations for the 1995-2014 period."

- a) Please confirm that Kingston Hydro meant 'uninterrupted'
- b) How much data would be missing if the nearer Kingston Climate station was used?
- c) Are the number of HDD and CDD significant different for the Kingston Climate station from the Hartington IHD?

3.0-Staff-56

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

- a) The referenced report states on page 1 that '*There is no known agency that publishes monthly economic accounts on a regional basis for Ontario.*" Is there a reason why Kingston Hydro has not used the data that is produced by the Conference Board of Canada for Kingston?
- b) Kingston Hydro has used an average of the forecast of employment in Ontario for 2015 and 2016 from four banks to forecast the economic growth for 2015 to 2020.

- i) Please provide an update to the forecasts if available from the four banks.
- ii) Please compare the revised forecast for employment in Ontario to the forecast for employment in Kingston over the application period produced by the Conference Board of Canada.
- c) For each class the report states that 72 points of data were used, i.e. monthly data from January 2009 to December 2014. Why were only six years of data used?
- d) Kingston Hydro used a similar data set for 2003 to 2009 in their 2011 Cost of Service application. Please update the current load forecast using as much historical data as is available, but at a minimum including 2003 to 2009.

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

All of the class kWh forecasts include a trend variable based on the number of months starting from 2009. This variable has a negative coefficient and as a result the impact on the kWh sales grows significantly such that by 2020 it represents a decrease of almost 25% in consumption.

- a) Please explain what driver of consumption this trend variable is capturing.
- b) If the trend variable is capturing the impact of conservation, then does this result in double counting when the forecast is also manually adjusted for CDM?
- c) Why has the trend variable not been continued past December 2014 in the forecast for the GS < 50kW class?

3.0-Staff-58

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 13

The results of the regression analysis for the Large Use class show the coefficient for HDD as negative 1,950.

- a) Does this make sense intuitively? I.e. for ever one unit increase in HDD, the consumption of the Large User goes down by 1,950 kWh?
- b) Please provide an explanation of why this is occurring in the model.

3.0-Staff-59

 Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 15
 OEB Filing Requirements for Electricity Distribution Rate Applications, July 16, 2015, p. 30

Kingston Hydro uses a 10 year average of HDD and CDD for weather normal. The applicant has also provided the 20 year average of HDD and CDD, as required by the second reference. However, the Filing Requirements for cost of service

applications also ask the applicant to show the load forecasts based on both a 10 year average and on the 20 year trends. This information would also be helpful for this Custom IR application.

- a) Please provide the forecast based on a 20 year average of HDD and CDD. Note that this should be done with the expanded data set request in 3-Staff-1 above.
- b) Please provide the rationale for choosing the 10 year average forecast.

3.0-Staff-60

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 17

The report states that the economic variable was used to normalize the historic Residential kWh, however the regression for the Residential class does not include an economic variable. Please explain.

3.0-Staff-61

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 19

For the forecast of customer count for the GS < 50 kW and GS > 50 kW classes, Kingston Hydro did not use an economic variable such as full time employment. In the approved load forecast for its 2011 Cost of Service application, Kingston Hydro used a lagging Full Time Employment variable to forecast customer counts for these classes.

- a) Did Kingston Hydro test an economic variable for determining customer count in the GS classes?
- b) If so, please provide the results?
- c) If not, please do so and provide the results.

3.0-Staff-62

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

- a) Has Kingston Hydro done a regression analysis on system purchases?
- b) If so, please provide the results
- c) If not, please do so and provide the results.

3.0-Staff-63

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 21

To forecast the kW sales for the GS > 50 kW, Large Use and Street Lighting classes, Kingston Hydro has used the kW to kWh ratio for the most recent historical year.

a) Is there a reason that the average of the available previous historical years was not used instead?

b) Please redo the forecast of kWs using the average kW to kWh ratio for all available historical years.

3.0-Staff-64

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 28 - 30

Kingston Hydro has used the ratio of kWh and kW sales in a class to allocate the CDM savings for purposes of adjusting the load forecast.

- a) What is the rationale for doing this as opposed to looking at an average of historical CDM savings by class and using those ratios?
- b) Please provide the verified kWh and kW savings for each historical year by class and calculate an average percentage contributed by each class to the total savings.
- c) Please then apply these percentages to determine the 2016 to 2020 adjusted load forecasts by class.

3.0-Staff-65

Ref: Exhibit 3, Tab 1, Schedule 3 – CDM Adjustment

The reference states "Verified conservation savings achieved from 2010-2014 have been calculated for each rate class and integrated into the current application's load forecast."

- a) Please confirm that the 2010-2014 CDM savings have been integrated into the 2016-2020 load forecast because they are picked up in the regression formula, i.e. not requiring a calculation and manual adjustment.
- b) If this is not the case, then please explain why Kingston Hydro thinks the savings would not be incorporated in the actual data for 2010 to 2014 and therefore part of the regression model.
- c) Why has Kingston Hydro not made a calculation and a manual adjustment for one half of the savings from 2014?
- d) If the answer to part c) is that it was an oversight, then please adjust the CDM adjusted load forecast to include one half of 2014 savings.

3.0-Staff-66

Ref: Exhibit 3, Tab 1, Schedule 3 – Attachment 1, OEB Appendix 2-I

Please redo Appendix 2-I using the revised Chapter 2 Appendices issued by the OEB on July 7, 2015.

3.0-Staff-67

Ref: Exhibit 3, Tab 3, Schedule 1 – Appendix 2-H

Please provide the most recent year-to-date figures available for the 2016 test year and the compare to 2015 figures over the same time period.

Ref: Exhibit: 3 Tab: 3 Schedule: 1 Other Operating Revenue

Please update Appendix 2-H to include a five year forecast for all other operating revenue.

4.0 OPERATING EXPENSES

4.0-Staff-68

- Ref: Exhibit 4, Tab 2, Schedule 1, pp. 1-9, Appendix 2-JB and Appendix 2-JC Exhibit 1, Tab 2, Schedule 2, p. 6
 - a) Please confirm that the table below correctly represents a summary of OM&A expenses from 2011-2016.
 - b) Confirm if Kingston Hydro is requesting approval of OM&A expenditures as shown on exhibit 1 or if the OM&A budget will be adjusted year-over-year using the Price Cap adjustment as set by the OEB for that given year.
 - i) If Kingston is proposing set OM&A budget over the next five year, please provide a detailed explanation in how an adjustment of 1.72% was derived at.
 - c) Please provide a forecast for the 2016-2020 period based on:
 - i) Proposed OM&A updates as per the OEB's Price Cap adjustment mechanism and Please provide the five year business plan as approved by Kingston Hydro's Board of Directors.
 - ii) Please identify efficiencies over the custom IR term, in particular discuss any OM&A savings as a result of Kingston Hydro's capital projects (i.e. overhead infrastructure renewal).

4.0-Staff-69

Ref: Exhibit 4, Tab 2, Schedule 1, pp. 1-9

In Kingston Hydro's last Cost-of-Service application (EB-2010-0136), Kingston provided a table (E4/T2/S2, p. 2) that showed its historic, bridge and test year OM&A expenses account-by-account. OEB staff notes that Kingston Hydro did not provide the same detail in this custom IR application.

a) Please provide a detailed OM&A table account-by-account over the last 5 historical years.

4.0-Staff-70

Ref: Exhibit 4, Tab 2, Schedule 1, pp. 1-9, Appendix 2-JB and Appendix 2-JC In Appendix 2-JC Kingston Hydro provided its individual program costs prior to the OM&A envelope reduction ordered by the OEB in its last CoS proceeding. The overall total also includes taxes.

- a) Please update Appendix-2-JC by applying the envelope reduction to the applicable programs and remove the taxes amount included in the total OM&A expenditures from 2011 Board-approved to 2016 Test Year.
- b) Following the updates, please provide a table in the same format as Appendix 2-JC to include the most recent year-to-date OM&A expenditures for the 2015 bridge year and provide corresponding year-to-date figures for the 2014 year.
- c) Please update Appendix 2-JC to include a forecast for the 2016-2020 custom IR term.
- Please provide more detail regarding the cost drivers for the 2016 test year and provide details of the variances expected year-over-year for the custom IR period.
- e) What programs are included in the \$202,156 of miscellaneous cost shown in Appendix 2-JB?
- f) Please explain the under-spending in the following OM&A programs:
 - Engineering
 - Supervision
 - Overhead System
 - Substation
 - Underground System

Shared Services and Corporate Cost Allocation

4.0-Staff-71

Ref: Exhibit 4, Tab 3, Schedule 3 and Exhibit 4, Tab 3, Schedule 2, p. 7 and Appendix 2-N

- a) Please confirm that the variances in Kingston Hydro's shared services shown in the table below are correct.
- b) Kingston Hydro stated that the 3% increase for 2016 is based on the Bank of Canada's targeted inflation.

On page 7 of E4/T3/S2, Kingston Hydro shows a union wage increase of 1.95% in 2014 and 2% in 2015 and 2016.

- i) Please explain a uniform 3% increase on all affiliate services for the 2016 test year.
- ii) Please confirm if the 3% increase is based on a forecast of the Bank of Canada's target.
- iii) Please provide supporting documentation to support this increase.

	2011 A	2012 A	Variance	2013 A	Variance	2014 A	Variance	2015 B	Variance	2016 T	Variance
Information Services	201,631	284,759	41.2%	301,715	6.0%	307,750	2.0%	310,459	0.9%	319,772	3.0%
Client Services	152,946	163,340	6.8%	83,303	-49.0%	84,970	2.0%	86,669	2.0%	89,269	3.0%
Human Resources	39,960	48,788	22.1%	49,763	2.0%	50,759	2.0%	51,538	1.5%	53,084	3.0%
Communications	16,262	16,587	2.0%	16,919	2.0%	17,257	2.0%	12,509	-27.5%	12,885	3.0%
Financial Services	36,129	67,420	86.6%	68,769	2.0%	70,144	2.0%	71,800	2.4%	73,954	3.0%
Legal Services	17,687	18,533	4.8%	18,904	2.0%	19,282	2.0%	19,668	2.0%	20,258	3.0%
Total	464,615	599,427	29.0%	539,373	-10.0%	550,162	2.0%	552,643	0.5%	569,222	3.0%

c) Please provide a forecast of shared services for each year during the custom IR term 2017-2020.

4.0-Staff-72 Ref: Exhibit 4, Tab 3, Schedule 1, Appendix 2-JC

Please explain the increase in meter reading expenses by 48.7% in 2012 and 44.6% in 2013. Was this increase related to Kingston Hydro's smart meter initiative? If so, how?

4.0-Staff-73 Ref: Exhibit 4, Tab 3, Schedule 1, p. 1

Kingston Hydro shows an anticipated increase of OM&A expenses of 12% over the term of the custom IR. Kingston Hydro noted that these costs are mainly attributable to inflationary increases as well as increase in customer reliability areas such as tree trimming.

a) Please provide further detail regarding Kingston Hydro's tree trimming program.

Employee Cost and Compensation

4.0-Staff-74

Ref: Appendix 2-JA

Please provide a version of Appendix 2-JA that includes Kingston Hydro's 2011 OEB approved OM&A expenditures by adding a column showing last OEB approved amounts. Provide a variance analysis based on the last approved OM&A expenditures.

4.0-Staff-75

Ref: Exhibit 4, Tab 3, Schedule 2, p. 1

On page 1, Kingston Hydro states that staffing levels will increase from 47 FTEs to 50.3 FTE, which is a 7.02% increase. Kingston also shows a corresponding to a 17% increase in employee compensation for the test year relative to the 2014 actual levels.

- a) Please provide a detailed explanation of this increase in FTEs (i.e. what positions are being filled, are they 100% attributable to Kingston Hydro, etc.)
- b) What objectives has the applicant established for its operations?
- c) Please provide specific information on why the proposed cost increases are necessary for the applicant to achieve the objectives that the applicant has targeted in the capital and operating expenditure sections of its application, and the alternative methods for achieving these objectives that were considered and rejected in favour of the proposed headcount and compensation increases.

Ref: Exhibit 4, Tab 3, Schedule 2

- a) Please provide a table showing full FTEs for all employees of the City providing services to the Applicant, and break down those FTEs into the FTEs allocated to the Applicant (through Utilities Kingston), and the FTEs allocated to other activities of the City including other activities of Utilities Kingston.
- b) Please provide a table showing full FTEs for all employees of Utilities Kingston providing services to the Applicant, and break down those FTEs between the FTEs allocated to the Applicant and the FTEs allocated to each of the other business areas of Utilities Kingston.
- c) Please provide a table showing full FTEs for all employees of the Applicant (if any), and break down those FTEs between the FTEs allocated to the Applicant, and the FTEs allocated to the provision of services to any related entity.
- d) Please confirm Kingston Hydro's increase in FTEs by 13% over the five year period ending in the Test Year and confirm that this level will be maintained over the Custom IR term 2016-2020. Please disaggregate the increase in FTEs into the numbers of:
 - i. additional persons hired solely to provide services to the applicant,
 - ii. additional persons hired to provide services to the applicant as well as other activities of Utilities Kingston or the City, and
 - iii. re-allocations of the time spent by existing persons working for the City or Utilities Kingston.
- e) Please describe Kingston Hydro succession plan over the custom IR term.

4.0-Staff-77

Ref: Exhibit 4, Tab 3, Schedule 2

The applicant did not show any relevant studies of its proposed increases in compensation/headcount on the basis of compensation benchmarking, or any other external comparators, and appears to have justified its proposed increases solely on the basis of its anticipated needs without any specific reference to any external comparators. Please explain what analyses and data the Applicant has used to derive its proposed compensation per headcount for the bridge and test years.

4.0-Staff-78

Ref: Exhibit 4, Tab 3, Schedule 2, Exhibit 2, Tab 2, Schedule 1 (DSP), p. 15 and Appendix 2-K

On page 15 of the DSP, Kingston Hydro states that the use of in-house hydro field staff resources is a source of cost savings. Please confirm that the proposed staffing levels are sufficient to complete the capital and OM&A projects included in Kingston Hydro's 5 year plan and provide further detail regarding Kingston Hydro's resourcing for the Substation No.1 rebuild.

Regulatory Costs

4.0-Staff-79

Ref: Exhibit 4, Tab 3, Schedule 7

Kingston Hydro noted that 2014 regulatory costs increased due to the customer satisfaction survey conducted in 2014. Please explain if Kingston Hydro has included those costs as well as consultant cost incurred in the bridge year in its total one-time cost amount of \$351,850 for recovery.

4.0-Staff-80

Ref: Exhibit 4, Tab 2, Schedule 2

- a) Please identify what improvements in services and outcomes the Applicant's customers will experience in 2016 and during the subsequent term for the custom IR as a result of increasing the provision for OM&A in 2016.
- b) How has the Applicant communicated these benefits and the associated costs to its customers, and how did customers respond? Please provide some examples, including a synopsis of any customer feedback. If no communications took place, please explain why not.

4.0-Staff-81

Ref: Exhibit 1, Tab 5, Schedule 1, Attachment 4

1.5.1.4 - 2014 Financial Statements

The 2014 financial statements report \$1,096,482 of liabilities related to employee future benefits. Note 10(b) of the 2014 financial statements states:

The Company has an obligation with respect to post employment extended health care, dental and life insurance benefits that are provided to employees of Utilities Kingston through the service agreement with Utilities Kingston.

It is OEB staff's understanding that Kingston Hydro has no employees.

In 2011, in determining the appropriate PILs proxy to be included in rates, the OEB noted Kingston Hydro was not liable for these liabilities under the terms of the services agreement and denied Kingston Hydro's proposal to include OPEBs has an add back to the PILs calculation. The June 23, 2011 Decision and Order of the Ontario Energy Board states:

Kingston Hydro is a virtual utility affiliated with the City of Kingston and Utilities Kingston. Kingston Hydro does not directly employ any people and as a result did not issue federal government T4s in 2009 and 20101 the services agreement that sets out the employment relationship between Kingston Hydro and Utilities Kingston does not specifically identify that liability for postemployment benefits be maintained in the records of the regulated utility, Kingston Hydro.

- a) Has the services agreement with Utilities Kingston been modified since 2011?
- b) If not, please explain why Kingston Hydro Corporation has recorded a liability related to the post-employment benefits of another entity's employees.
- c) Please confirm whether or not the amounts paid by Kingston Hydro to Utilities Kingston by way of the services agreement (since the onset of the agreement) has included and continues to include amounts for OPEBs. If so, please respond to part d) and e) below. If not, please explain why not.
- d) Please indicate if OPEBs have been included in the services agreement billings (and therefore recovered from its customers through distribution rates) on a cash or accrual accounting basis for each year since Kingston Hydro started to recover OPEBs.
- e) Please complete the table below to show how much more than the actual cash benefit payments, if any, have been recovered from ratepayers from the year Kingston Hydro started recovering amounts for OPEBs. If it is easier to provide the information below on a consolidated basis, please do so while also identifying the percentage allocated to the wires company for each year.

OPEBs	First year of	2012	2013	2014	2015	2016	Total
-------	------------------	------	------	------	------	------	-------

	recovery to 2011						
Amounts included							
			-				
Capital	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sub-total	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paid benefit amounts							
Net excess amount included in rates greater than amounts actually							

f) Please describe which entity makes the benefit payments and what that entity has done with the recoveries in excess of cash benefit payments.

5.0 COST OF CAPITAL AND CAPITAL STRUCTURE

5.0-Staff-82

Ref: Exhibit 5, Tab 1, Schedule 1, p. 3 and Attachment 3 – Affiliated Debt

On page 3, Kingston Hydro states that the interest rate on its long term affiliated debt of \$10.9M remains at 5.87% as per a promissory note dated November 28, 2012.

a) Please explain why Kingston Hydro is not applying the OEB's current deemed long-term rate of 4.77% to its affiliated debt, given that the note might be called within 366 days, which is within the 2016 test year period.

5.0-Staff-83

Ref: Exhibit 5, Tab 1, Schedule 1, p. 4-5

In Exhibit 5, Kingston Hydro provided details on its applied for long-term debt rate for the 2016-2020 period, proposing the OEB deemed debt rate as of April 25, 2015 of 4.77%.

- a) Please confirm that Kingston Hydro is requesting a long-term debt rate of 4.77% for each of the new debt instruments to be issued between 2016 and 2020.
- b) If yes, explain why.
- c) Does Kingston Hydro expect to approach Infrastructure Ontario for any of the debt instruments during the custom IR period 2016-2020?

d) Please explain why Kingston Hydro should not update its debt portfolio annually in conjunction with its annual cost of capital parameter updates.

7.0 COST ALLOCATION

8.0-Staff-84

Ref: Exhibit 7, Tab 1, Schedule 1, p. 1 – Cost Allocation Model

On June 12, 2015, the OEB issued its letter outline the new policy regarding cost allocation for the street lighting class. The letter approved recommendations provided in the referenced report, prepared by Navigant Consulting Ltd. The report recommended the use of a "street lighting adjustment factor" instead of the number of connections for the allocation of primary and line transformer assets.

On page 1 of exhibit 7, Kingston Hydro stated that it used the OEB version 3.2 Cost Allocation Model for each of the 5 test years during the custom IR term.

 a) Please provide an updated cost allocation study using the OEB version 3.3 Cost Allocation Model reflecting the changes adopted by the OEB's new cost allocation policy for the street lighting class, as well as any other updates to the application (i.e. working capital allowance).

8.0-Staff-85

Ref: Exhibit 7, Tab 1, Schedule 1, pp. 2-3 – Weighting Factors

Kingston Hydro provided the following weighting factors, which remain constant over the custom IR period.



Kingston Hydro notes that these factors were developed based on Kingston Hydro's evaluation of the costs of providing services to customer classes.

a) Please provide specific details as to how these weighting factors were developed.

8.0-Staff-86 Ref: Exhibit 7, Tab 3, Schedule 2 – Appendix 2-P (C)

Kingston Hydro has proposed the following revenue to cost ratios from 2016 – 2020, as shown below:

2016 - 2020						
Class		Policy Pango				
	2016	2017	2018	2019	2020	Folicy Range
	%	%	%	%	%	%
Residential	97.66	97.81	98.36	99.37	100.40	85 - 115
GS < 50 kW	120.00	118.63	116.90	115.30	114.37	80 - 120
GS 50 to 4,999 kW	97.74	97.82	97.48	96.42	95.12	80 - 120
Large User	98.42	100.00	98.78	94.30	89.68	85 - 115
Street Lighting	54.00	58.00	62.00	66.00	70.00	70 - 120
Unmetered Scattered Load (USL)	120.00	118.45	117.32	116.30	115.97	80 - 120
Standby Approved on an Interim Basis						0
						0
0						

- a) Please explain why Kingston Hydro is moving away from parity for the Large use and the GS>50 customer classes after 2017, rather than lowering the revenue to cost ratio for the GS<50 customer class.
- b) In a letter, issued June 12, 2015, the OEB determined that the revenue to cost ratio policy range for street lighting should be narrowed from the current 70%-120% to 80%-120%. The OEB further noted that this change in policy is effective immediately. Please update Kingston Hydro's revenue to cost ratios to comply with this policy or in the alternative, please explain why Kingston Hydro chooses not to apply the policy.

8.0 RATE DESIGN

8.0-Staff-87

Ref: Exhibit 8, Tab 4, Schedule 1, pp. 3-4 – Standby Rates Filing Requirements for Electricity Distribution Rate Applications – 2015 Edition for 2016 Rate Applications – Chapter 2, pp. 53, 54

On page 3 of E8/T4/S1, Kingston Hydro is requesting a change in the service classification of the monthly Standby Charge as follows:

Kingston proposes to amend the Standby Charge description to the following:

Standby Charges are applicable for a month where standby power is not provided. The charge is based upon applicable monthly General Service 50 to 4,999 kW or Large Use Distribution Volumetric Charges applied to the following:

a) In the case where no utility-grade metering is installed for the Load Displacement Generation, the nameplate rating of the generation facility in kW.

b) In the case where utility-grade metering is installed for the Load Displacement Generation, the monthly metered amount of standby demand service provided by Kingston Hydro.

Ref: Exhibit 8, Tab 4, Schedule 1, pp. 3-4 – Standby Rates Filing Requirements for Electricity Distribution Rate Applications – 2015 Edition for 2016 Rate Applications – Chapter 2, pp. 53, 54

The OEB's filing requirements for cost of service applications contain helpful information to support an applicant's request for changes to standby rates: A distributor that seeks changes to its standby charges, including a change in the methodology on which these rates are based may do so, but must provide full documentation supporting its proposal, in addition to confirming that all affected customers have been notified of the proposed change(s).

- a) Currently, Kingston Hydro's standby rates are approved on an interim basis. Please confirm that Kingston is seeking the standby charge to be applied on a final basis.
- b) Please provide a more detailed explanation of the change in methodology on which standby rates will be based on.
- c) How many customers would be affected by each of the two classifications and what is the expected growth rate of these customers?
- d) Please provide supporting documentation showing the result of the consultation with affected customers.
- e) How have the distribution system costs to provide a standby service for these customers been allocated?

9.0 DEFERRAL AND VARIANCE ACCOUNTS

9.0-Staff-89

Ref: Exhibit 9, Tab1, Schedule 15, p. 6 and 9

Kingston Hydro has requested a 5 year disposition period for accounts 1555 – Sub Account-Stranded Meters and 1576 Accounting Changes under CGAAP.

- a) Please provide a further explanation to justify the extended disposition period.
- b) Please provide total bill impact calculations for a disposition period of 1, 2, 3 and 4 years, include all deferral and variance accounts.

9.0-Staff-90

Ref: Exhibit 4, Tab 6, Schedule 1 – Table 1, p. 2

Kingston Hydro Lost Revenue Adjustment Mechanism Variance Account (LRAMVA) OEB Filing Requirements for Electricity Distribution Rate Applications, July 16, 2015, p. 44

- a) Why has Kingston Hydro included lost revenue for 2010 CDM programs when the Filing Requirements state that distributors are no longer eligible for LRAM for pre-2011 CDM activities.
- b) Please show the calculations to arrive at the lost revenue by year and by class, i.e. kwh/kW x the appropriate variable rate.
- c) Please provide the OPA Contracted Province-Wide CDM Programs Final 2011 to 2013 Results and 2014 preliminary results for Kingston Hydro.
- d) Confirm that no adjustments were made to the 2011 Cost of Service approved load forecast for forecasted CDM results in 2010 to 2014.

Ref: Exhibit 9, Tab 1, Schedule 14, p 6 - LRAMVA Disposition

Please provide a table that lists all the appropriate OPA CDM Initiatives that produced net CDM savings which were used in the LRAMVA calculations. For each rate class, please list all relevant CDM initiatives in the applicable year and provide the subsequent net CDM savings for each. An example is provided below:

Residential	Net kWh	Net kW
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
GS < 50 kW	Net kWh	Net kW
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
GS > 50 kW	Net kWh	Net kW
Initiative 1		
Initiative 2		
Initiative 3		
Total		
Volumetric Rate Used		
Lost Revenues		
Other classes (e.g.,	Net kWh	Net kW

Streetlighting, Large	
Use, etc.), as needed	
Initiative 1	
Initiative 2	
Initiative 3	
Total	
Volumetric Rate Used	
Lost Revenues	

A separate table should be provided for each year.

9.0-Staff-92

Ref: Exhibit 9, Tab 1, Schedule 14, p. 6

Please provide the 2013 Final OPA Conservation Program Report, OEB staff is not able to verify the results.

9.0-Staff-93

Ref: Exhibit 9, Tab 1, Schedule 15, p. 1

Kingston Hydro in exhibit 2 indicates a three year recovery period for stranded meters, however in exhibit 9 a five year recovery period is requested. Please identify which recovery period Kingston Hydro is requesting.

9.0-Staff-94 Ref: Exhibit 9, Tab 1, Schedule 8, p. 1

The IESO provides a first, second and actual rate that distributors can be use to charge to their customers for Account 1589 – Global Adjustment.

- a) Which estimate does Kingston Hydro use from the IESO to charge customers for Account 1589 Global Adjustment?
- b) Does Kingston Hydro consistently use the same estimate?

9.0-Staff-95

Ref: Exhibit 9, Tab 1, Attachment 1 – Reconciliation of RRR

Please confirm the balance of \$2,192,240 in 1505 – Unrecovered Plant and Regulatory Study Costs was incorrectly recorded in RRR 2.1.7 Trial Balance. If not please reconcile to Kingston's DVA work form. The balance recorded in 1505 reconciles to account 1508 - Other Regulatory Assets in the DVA work form.

9.0-Staff-96

Ref: Exhibit 9, Tab 1, Schedule 1, pp. 4 and 5 – Accounting Guidance on REG and Smart Grid

The OEB issued APH guidance on deferral accounts related to Renewable Generation Connection and Smart Grid Development accounts on March 31, 2015.

Has Kingston Hydro followed this guidance (Guideline Q&A #8) as it applies to the portion for rate base inclusion? If not, please make any required changes and refile the information. If the applicant does not wish to update the information, please explain why not.

9.0-Staff-97

Ref: Exhibit 9, Tab 1, Schedule 14, p.5

On page 5 of E9/T1/S14, Kingston Hydro requested the recovery of 380 defective smart meters, out of a total 26,721 smart meters, which represents a total defect rate of 1.4%.

- a) Please explain the nature of the failure of the 380 meters.
- b) Please explain why Kingston Hydro did not test all the meters prior to the warranty expiring.
- c) Please provide the number of failed meters on warranty.

9.0-Staff-98

Ref: Exhibit 9, Tab 1, Schedule 14, p. 6 Exhibit 2, Tab 1, Schedule 5

In its previous Smart Meter Application (EB-2012-0310), Kingston Hydro stated "...approximately 2700 scrap meters were sold for use by another Canadian utility while the remainder were disposed of as scrap metal." Kingston noted it is not applying for disposition of stranded meter costs until the next cost of service application and therefore the scrap meter sale proceeds are not reflected in the current application".

Below is a table showing the stranded meters, including the proceeds on disposition:

Year	Notes	Gross Asset Value	Accumulated Amortization	Contributed Capital (Net of Amortization)	Net Asset	Proceeds on Disposition	Residual Net Book Value
		(A)	(B)	(C)	(D) = (A) - (B) - (C)	(E)	(F) = (D) - (E)
2006					\$ -		\$ -
2007					\$ -		\$ -
2008					\$ -		\$ -
2009					\$-		\$ -
2010				/	\$-		\$-
2011		\$ 3,589,236	\$ 1,686,706	/	\$ 1,902,530	\$ 4,023	\$ 1,898,507
2012		\$ 3,589,236	\$ 1,686,706		\$ 1,902,530	\$ 4,023	\$ 1,898,507
2013		\$ 3,589,236	\$ 1,686,706		\$ 1,902,530	\$ 4,023	\$ 1,898,507
2014	(1)	\$ 3,589,236	\$ 1,686,706		\$ 1,902,530	\$ 4,023	\$ 1,898,507

Appendix 2-S Stranded Meter Treatment

a) Please confirm if the \$4,023 represents the sale of the scrap and confirm that is amount has been included in other revenues in the 2016 test year.

9.0-Staff-99

Ref: Exhibit 9, Tab 1, Schedule 15, p. 9

Please provide a copy of Sheet I.7 from Kingston Hydro's 2011 Cost Allocation model to show the data for the allocation of stranded meter costs between Residential and GS < 50 kW, as shown in Table 8.

9.0-Staff-100

Ref: Exhibit 9, Tab 1, Schedule 14, p. 6 Exhibit 2, Tab 1, Schedule 5

- a) Are the stranded meter costs recorded in Account 1555 comprised of the gross costs of the stranded meters, less any capital contributions, less the accumulated depreciation and less any proceeds from the disposition of the meters?
- b) If so, please explain why Kingston Hydro did not apply depreciation to its stranded conventional meters as of December 31, 2015, given that these meters attract a return of (depreciation) and return on capital until the effective date of this application.
- c) Please confirm that the stranded meters, recorded in account 1555 were removed from account 1860.

Account 1576 IFRS – CGAAP PP&E

9.0-Staff-101

Ref: Exhibit 9, Tab 1, Schedule 12, Attachments 1 and 2 – Fixed Asset Continuity Schedules – Appendices 2-BA, and Appendix 2-EC

- a) Please provide Appendix 2-BA under former CGAAP to support the Net Additions and Net Depreciation amounts in the calculation of the balance in Account 1576 on Appendix 2-EC for year
 - i) 2014
 - ii) 2015.
- b) Please explain the "Adjusted Opening Balance" columns under "Cost" and "Accumulated Depreciation" in Appendix 2-BA for 2013.
- c) The Adjusted Opening Balance in Appendix 2-BA for 2013 does not match the closing balance for 2012. Please explain the nature of adjustments and why the adjustments are made.

d) The "Additions" on Appendix 2-BA do not match the "Net Additions" shown in Appendix 2-EC for years 2014 and 2015. Please provide an explanation and update and file schedules as necessary.

Year	Additions per 2-BA	Net Additions per 2EC
2014	\$3,549,151	\$3,330,931
1.	\$3,499,700	\$3,600,000

9.0-Staff-102

Ref: Exhibit 9, Tab 1, Schedule 12, Attachments 1 and 2 – Fixed Asset Continuity Schedules – Appendices 2-BA, and Appendix 2-EC

Kingston Hydro has calculated the WACC component of Account 1576 on a declining balance basis. Per the Board letter dated June 25, 2013, the OEB will require a rate of return component to be applied to the balance of Account 1576 upon its disposition in rates.

a) Please provide Kingston Hydro's rationale for deviation from the Board policy.

9.0-Staff-103

Ref: Exhibit 9, Tab 1, Schedule 12, Attachments 1 and 2 – Fixed Asset Continuity Schedules – Appendices 2-BA, and Appendix 2-EC

Kingston Hydro has not calculated a balance for Account 1575 as of the changeover date of January 1, 2015. OEB staff notes that Kingston Hydro had a credit of approximately \$2.4 Million in Account 1995 – Customer Contributions as of the changeover date. According to the APH Article 510, under IFRS, customer contributions received <u>subsequent</u> to the transition date are recognized as deferred revenue. Customer contributions recognized <u>prior</u> to the transition date are not reclassified to deferred revenue as a result of electing the optional exemptions.

a) Please calculate the balance to be recorded in Account 1575 as of the changeover date of January 1, 2015. This amount would be the difference between Kingston Hydro's revised CGAAP based amount for customer contributions as of the changeover date, and the MIFRS based amount for customer contributions as of the same date.