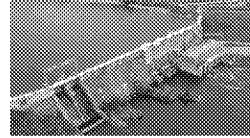
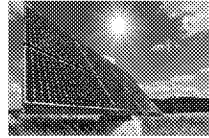
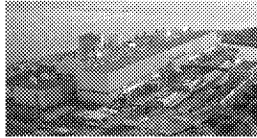
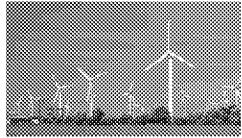


Fair Hydro Plan Financing Program Servicing Review

November 13, 2017



RBC Capital Markets

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- I. Historic and Projected Energy Usage

Regulatory Environment

SECTION I

Regulatory Environment

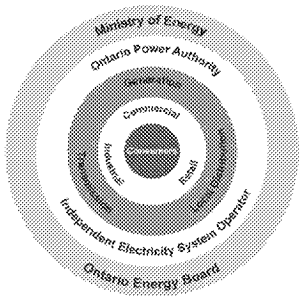
Heading Placeholder

[IESO: Give general overview of Ontario electricity market and regulations. Below are some ideas based on information from IESO website.]

How the Electricity Market Works

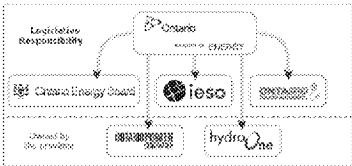
The number of companies, agencies and institutions in Ontario's electricity sector can be intimidating. However, they do have clearly defined roles.

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Regulation of Ontario's Electricity Market

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Ministry of Energy

The **Ministry of Energy** has overall responsibility for Ontario's energy market, including ensuring that Ontario's electricity system functions at the highest levels of reliability and productivity. [Click here to visit the ministry website.](#)

Ontario Energy Board

The **Ontario Energy Board** is the independent tribunal responsible for regulating Ontario's electricity and natural gas sectors. [Click here to visit the board's website.](#)

IESO Business Overview

SECTION II

IESO Business Overview

Heading Placeholder

- Please describe the IESO's management and operating experience
- What is the IESO's financial condition?
- What is the overall size of the Ontario electricity market?
- What are the IESO's strategic initiatives?
- By whom is the IESO regulated?
- How do you manage your relationship with LDC's?
- Describe staffing, training, retention rates and any use of third-party outsourcing/servicing, temporary staff or use of offshore resources
- How is the IESO's staffing affected by the administration of the CEA?

LDC Onboarding

SECTION III

LDC Onboarding

Heading Placeholder

[IESO: For the following questions, speak to what IESO is accountable for and anything OEB related, point to regulations and/or describe generally their responsibilities]

- How many LDC's are there in Ontario?
- Is it possible for new LDC's to be introduced? How frequently does this occur?
- Do all LDC's have the same payment terms? Please describe
- What are the operational and financial requirements of LDC's?
- Please describe the process for the replacement or substitution of non-performing LDC's
- Are there insurance requirements for LDC's?
- Under what jurisdiction are utility contracts originated and executed?
- Has the enforceability of contracts been tested in a bankruptcy?

LDC Administration

SECTION IV

LDC Administration

Heading Placeholder

IESO:

1. Answer questions below by describing process/controls from simply an IESO perspective
2. For completeness, describe relevant OEB activities/regulations. This can include describing Yearbook of Electricity Yearbook in general, providing copies, and referencing it for the applicable questions below.
 - Please provide a ranking of the LDCs in Ontario based on their annual electricity purchase amounts, along with their corresponding percentage share of total LDC annual electricity purchases
 - Please describe the LDC monitoring process
 - Please rank the LDC's based on their risk profile
 - How do you validate the information received from the LDC's?
 - Describe methods used to prevent and detect LDC errors, fraud, mistakes, etc.
 - Please provide a summary of the LDC default experience in payments to the IESO since the creation of the current market in 2002, including the reasons for the default and the net loss incurred
 - Please describe collection strategies for early, middle and late-stage collections (if applicable)
 - Describe the recovery and write-off process

LDC Administration (continued)

Heading Placeholder

- Describe the processes which ensure the timely delivery of monthly reports from LDC's
- Please describe steps to confirm the integrity of the data received from LDC's
- Describe how and when discrepancies in billing and collections are identified and the procedures for resolving
- Please describe procedures for responding to LDC inquiries
- How are disputes handled? Please describe the dispute resolution process
- Does the IESO monitor financial statements of the LDC's?
- Is the credit monitoring system automated?
- When are invoices sent out? When are invoices due?
- Are credits provided to LDC's to compensate for system downtimes?
- Please describe cash management procedures and controls
- Please describe the flow of funds between LDC's and the IESO

IESO's Role in the Fair Hydro Program

SECTION V

a) Creation of the Regulatory Asset

IESO's Role in the Fair Hydro Program

Creation of the Regulatory Asset

- When is the asset created?
- Describe the monthly process for determining the shortfall resulting from the rate reduction, and the procedures involved in recording and reconciling that shortfall in the variance account
- What additional costs does the IESO have the right to recover, and therefore include in the balance of the variance account? Please describe the process for quantifying these costs and recording them in the variance account
- Please outline the steps involved in the monthly sale of the regulatory asset to the financing entity
- Will there be a set monthly schedule for the transfer to the IESO of CEA amounts collected by the LDCs, similar to the monthly invoicing and payments under the market rules?
- How will the IESO register title to the Regulatory Asset? **[IESO will need to clarify if this is required or not]**

IESO's Role in the Fair Hydro Program

SECTION V

b) Billing and Remittance of the Clean Energy Adjustment

IESO's Role in the Fair Hydro Program

Billing and Remittance of the Clean Energy Adjustment

[IESO: The questions below should be answered by stating that there currently is an undertaking to establish a process to track billings and collections of CEAs, and provide other relevant metrics and information. This is a joint effort between the servicer (IESO) and the Financial Services Manager (OPG) to ensure the proper information is being communicated. This will be established in a protocol agreement between the two parties.]

- Will the IESO invoice the LDCs for the amount of the CEA they should have collected during the previous month, or is it up to the LDCs to report to the IESO the amount they billed and collected?
 - If the system relies on the LDCs reporting the amount billed and collected, what controls are in place to ensure that the CEA is being appropriately billed by the LDC, collections remitted, and past-due amounts tracked? How will the IESO know if the LDC has remitted all amounts due?
- How will the billing and remittance work for licensed energy retailers? Do they have the same obligation to bill, collect, segregate the CEA? Do they remit directly to the IESO, or is it through the LDC?
 - What percentage of specified customers purchase electricity through licensed energy retailers?

IESO's Role in the Fair Hydro Program

SECTION V

c) Role of IESO in Covering Insufficient Collections

IESO's Role in the Fair Hydro Program

Role of IESO in Covering Insufficient Collections

- What will be the IESO's role during the moratorium phase?
- Will the IESO be obligated to cover the trust's interest and carrying costs if, at any time, there are insufficient collections to make those payments? If so, what will be the mechanism for the IESO to recover the amount of carrying costs fronted by the IESO?
 - Will the IESO have the ability to add these amounts to the variance account and transfer these amounts to the trust as an additional investment interest?
 - Will there be a cap on the amount of carrying costs that may be fronted by the IESO at any time?

Clean Energy Adjustment
Bypassability

SECTION VI

Clean Energy Adjustment Bypassability

Heading Placeholder

[IESO: Please provide thoughts on this topic of bypassability]

List any exceptions to the nonbypassability of the Clean Energy Adjustment, including:

- Self-generation in the service area
 - How does self-generation impact a specified customers customer's obligation to pay the CEA? Is the CEA only payable on the amount of electricity purchased through the LDC?
 - Please provide an estimate of the percentage of specified customers customers that self-generate, and the amount of energy resulting from that self-generation over the past five years
 - How do you estimate the impact of customer self-generation in your energy forecast? What is your forecast energy consumption resulting from customer-owned generation as a percentage of total consumption over the next 10 years?
- Use of alternative electricity providers in Ontario
 - Is it possible for specified customers customers to purchase electricity from a provider other than their LDC and thereby bypass the CEA? **[IESO: Confirm it is NO]**
 - If so:
 - What percentage of specified customers customers currently receive service from an alternative provider?
 - How many alternative providers operate in the Ontario market?
 - How does this impact forecasting electricity consumption, and how do you account for the potential for customers to switch to alternative providers in the future?

Demand Forecasting

SECTION VII

Demand Forecasting

Heading Placeholder

[IESO: How does IESO intend to do a consumption/demand forecast for specified consumers?]

- Provide a detailed explanation of your forecasting methodology [IESO: Is there anyone within IESO that has detailed knowledge of this?]
- How often are forecasting variances reviewed?
- How often is the forecasting model updated/revised?
- Provide details of historical and forecasted excess capacity in the electricity system by seasonal demand
- Is the IESO required to file its forecast with the OEB or other parties? If so, how often?
- Will any changes to procedures be required to accommodate the forecasting requirements under the Fair Hydro Plan?
- Please explain the reasons behind the forecasting variances highlighted in the tables below:

IESO Demand Forecast	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
IFSP I	154.0	154.5	153.8	149.8	149.0	148.8	147.7	147.0	146.4	147.7
IFSP II					143.3	144.4	144.5	145.0	146.0	146.3
2013 LTSP							142.5	140.9	140.3	140.5
Combined Forecast	154.0	154.5	153.8	149.8	143.3	144.4	142.5	140.9	140.3	140.5
Actuals	153.8	150.6	141.1	144.5	144.3	144.5	145.0	144.9	143.0	143.3
Variance	0.2	3.9	12.7	5.3	-1.0	-0.1	-2.5	-4.1	-2.7	-2.8
% Error	0.1%	2.6%	8.0%	3.7%	-0.7%	0.0%	-1.7%	-2.8%	-1.9%	-2.0%

IESO Technology

SECTION VIII

IESO Technology

Heading Placeholder

- Please describe the core IESO financial reporting system
- How is operating system maintenance performed? What procedures and backup systems are available?
- Please describe the IESO disaster recovery and business continuity plans. What was the success of the last test? How are tests assessed?
- Please describe the frequency of a full-system backup
- Describe the IESO's future technology initiatives

Historic and Projected Energy Usage

Appendix I

Historic and Projected Energy Usage

Heading Placeholder

[IESO: Can IESO provide this data?]

Please provide the following information in Excel:

- Aggregate number of retail (specified customers) customers in Ontario over the period 2007-2016 and YTD 2017
- Aggregate retail (specified customers) electricity usage in Ontario over the past 10 years for 2007-2016 and YTD 2017
- Retail (specified customers) electricity revenue over the past 10 years for 2007-2016 and YTD 2017, (a) including transmission and distribution revenue and (b) excluding transmission and distribution revenue
- Forecast annual energy consumption by customer class for the next 10 years

[Note: 70TWh annually has been the going assumption for specified customer demand. How was this determined?]