Fair Hydro Plan Financing Program

Rating Agency Presentation

July 6, 2017

   

ONTARIO POWER GENERATION

CIBC Goldman Sachs RBC | RBC Capital Markets

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Executive Summary

Purpose

- To provide high-level overview of what is being contemplated by Ontario's Fair Hydro Plan and related financing
- This presentation is based on the legislation and regulations in place and anticipated contractual arrangements
- To explore both securitization and traditional structured corporate bond ratings
  - Various financing alternatives are being explored, most of which have potential rating agency involvement
- To set expectations for timing and process

Brief Overview

- On March 2, 2017 Ontario announced its Fair Hydro Plan which proposes to lower the average residential electricity bill by 25%
  - 25% reduction includes the 8% rebate introduced in January 2017 as part of the Ontario Rebate for Electricity Consumers Act, 2016
  - The 25% reduction is expected to be in effect until 2021 (approximately 4 years) although bills may be allowed to increase by the rate of inflation
- The 17% incremental reduction as part of the Fair Hydro Plan will be recorded as a regulatory deferred asset for future recovery
  - The recovery period depends on the final fair allocation but is expected to begin in 2027 with a hard stop in 2047
- The exact quantum and duration of the program is still being developed, but the deferral is expected to amount to ~C$2.5bn / year
  - It is expected that 50+% of the financing will be derived from the capital markets
- Legislation to effect the recovery right was enacted in early June, and the regulations were largely completed at the end of June
  - Legislation and regulations were designed with capital market financing objectives in mind
  - Careful consideration given to possible structural enhancements with respect to creating the regulatory asset, assignability, achieving a true-sale opinion, being non-bypassable and including a true up mechanism to ensure repayment

Ratings Objectives

- Initially we are reaching-out to better understand what methodologies you will apply to this program / structure
- Ultimately, we will be pursuing some combination of ABCP conduit rating confirmation, and/or explicit long-term ratings for the credit facility, term debt and sub-debt

Transaction Parties

Issuer	Fair Hydro Trust (“FHT”)	
Advisors	CIBC, Goldman Sachs, RBC	
Financial Services Manager	Ontario Power Generation (“OPG”) is 100% owned by the Province of Ontario (the “Province”)	A low (DBRS), BBB+ (S&P)
Servicer	Independent Electricity System Operator (“IESO”)	A high (DBRS), Aa2 (Moody’s)
Provincial Rate Authority	Ontario Energy Board (“OEB”)	
Guarantor	Province of Ontario (the “Province”)	AA low (DBRS), AA- (Fitch), Aa2 (Moody’s), A+ (S&P)
Issuer’s Counsel	Torys LLP (Canada), Hunton & Williams LLP (U.S.)	
Advisor’s Counsel	Osler, Hoskin & Harcourt LLP (Canada, U.S.)	

Timeline

- Deferral started in June 2017
- Warehouse financing to begin as soon as possible
- Currently educating agencies and seeking to better understand applicable criteria / methodologies

Key Dates

- Select Rating Agencies
- Complete Ratings Process

Market Holidays

- Canadian
- U.S.

July 2017

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Ontario Electricity Market

SECTION I

Overview of the Electricity Market in Ontario

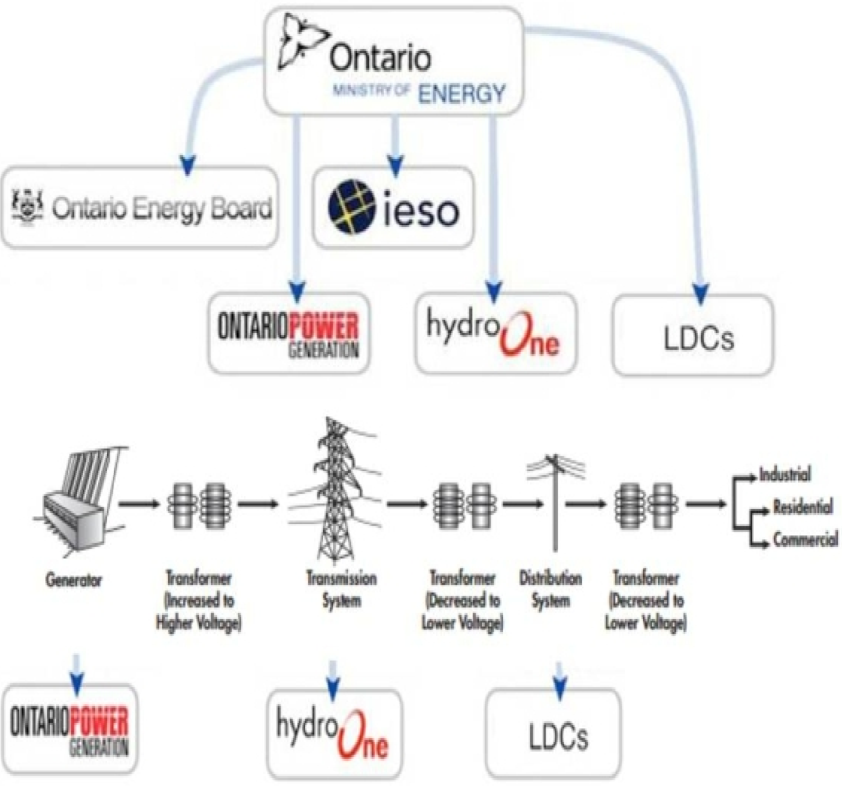
The Ontario electricity market is highly regulated

- Transmission rates, Distribution rates, and OPG's Generation are set by the Ontario Energy Board
- Rates for the majority of the remaining generation are set by direct contracts with the IESO (e.g. Bruce, Wind / Solar Power)

Key Entities

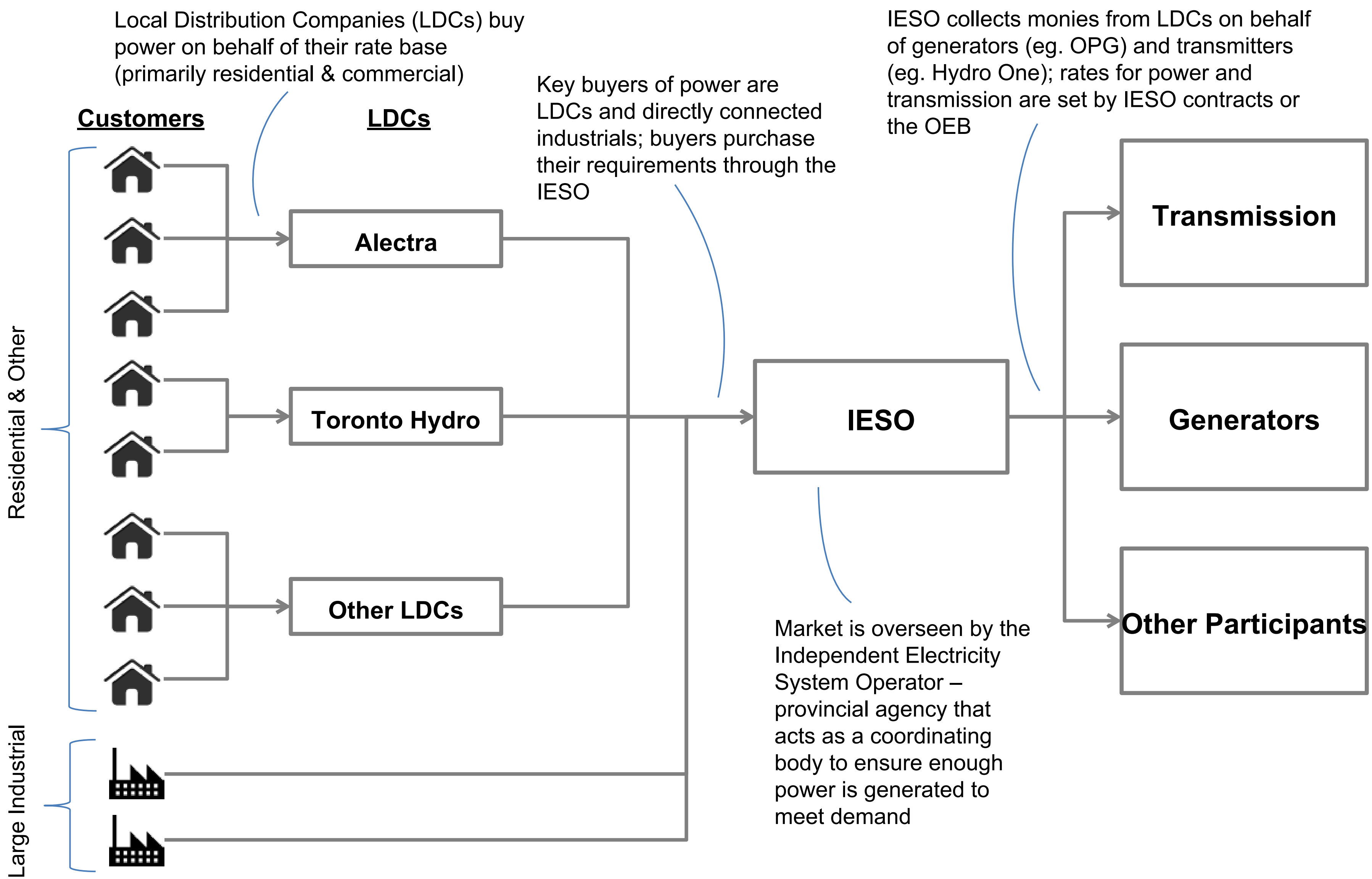
Ontario Ministry of Energy	▪ Sets policy for the electricity system
Ontario Energy Board	▪ Ontario Energy Board is Ontario's independent energy regulator that evaluates rates paid to regulated energy providers ▪ The Ontario Energy Board has a statutory obligation to set the regulated electricity price for Regulated Price Plan (RPP) consumers
IESO	▪ The Independent Electricity System Operator manages the operation and reliability of Ontario's bulk power system and administers the wholesale electricity market
OPG	▪ Ontario Power Generation is Ontario's largest electricity generator, producing approximately half of Ontario's electricity – Wholly owned by the Province of Ontario
Hydro One	▪ Owns and administers transmission in the province
LDC's	▪ Local Distribution Companies (LDC's) provide power to end-users (residential / commercial / industrial) ▪ There are 60+ LDC's operating in the IESO market; the 3 largest LDCs(1) account for ~60% of Ontario's 5.1 million customers

The Ontario electricity market has $22B in annual cash flows



(1) Hydro One, Toronto Hydro, and Alectra

Flow of Funds Through Key Market Participants



The IESO

Key Credit Strengths

- The IESO is at the center of the market, as buyers purchase power from the IESO and sellers of power are paid by the IESO
- IESO is effectively a clearing house and establishes the terms by which buyers are able to purchase power
- IESO Market Rules - Chapter 2 of the Market Rules outlines the parameters for Participation or "the procedures pursuant to which persons may apply to the IESO for the authorization to participate in the IESO-administered markets or to cause or permit electricity to be conveyed into, through or out of the IESO-controlled grid"
- The credit conditions are outlined in Chapter 2 and involves the "prudential support" provided by the LDC
- Based on public credit ratings or credit payment history, a buyer of power may be required to post collateral to support their projected exposure; LDCs, given their strong credit structure are awarded higher unsecured purchase limits
- The Prudential Rules are reviewed every few years and maintain a conservative stance regarding collateral

Strong Credit History

- Approximately $22 billion in costs flow through the Ontario electricity system each year (60% goes to generators)
- Since the beginning of the IESO open market in 2002, there have been 20 defaults
- Only three defaults could not be fully covered by the collateral posted by the defaulters
- Of the three defaults that resulted in "default levies" to the market participants, the total the levies were under $1 million
- Default levies are allocated 50% to Buyers of Power and 50% to the Sellers of Power, based on their usage/generation

LDCs

Key Credit Strengths

- The majority of power purchased in Ontario is by LDCs on behalf of residential and commercial customers; LDCs make up approximately 80% of the market
- The typical customer bill includes charges for the power itself (which goes to the generators), transmission (e.g. Hydro One), to the LDC itself (for local distribution), and for other market charges (e.g. IESO costs)
- LDC rates are governed by the OEB rate setting process; LDCs under the OEB's Retail Settlement and Distribution System Code may obtain a security deposit or letter of credit from their customers to mitigate risk of payment default
- LDCs are able to include an amount for accounts receivable write-offs within operating expenses for rate setting purposes. They can also apply for any extra-ordinary write-offs as a variance account adjustment to be considered by the OEB
- Approximately 10 LDC's have credit ratings through DBRS or S&P; the ratings are generally A, based on very low industry risk of regulated utilities and supportive regulatory framework;
- The OEB deems the capital structure of a LDC to include 40% equity and sets an allowed rate of return

Strong Credit History

- Given the strong credit mitigation measures available to the LDCs, a review of 8 LDCs (varied in size and geographic region), indicated a similar and very low loss rate
- LDC data was based on the financial statements of Toronto Hydro, North Bay Hydro, Horizon Utilities, Enersource, Collus PowerStream, Energy Plus, PowerStream, and Hydro One

	Average	Last 5 Years Average
AFDA / AR	3.40%	3.70%
AFDA / Sales	0.42%	0.44%
Write-Off / Sales	0.29%	0.28%

AFDA: Allowance for doubtful accounts

Fair Hydro Plan

SECTION II

Background

On March 2nd the Ontario Government Announced its Fair Hydro Plan

- The plan proposes to lower the average residential electricity bill by 25 percent
- In part by reallocating the charges paid by ratepayers for generation contracts and conservation programs over an extended period to match the expected life of the assets and the benefits of these initiatives
- In order to reallocate the payments, an OPG managed Financing Entity will use debt to purchase Regulatory Assets from the IESO and amortize them over a longer period
- This will lead to a near-term reduction in electricity bills followed by an increase in electricity bills over the long-term as interest and principal is repaid
- The government has further committed to capping the increase on the average residential bill at the rate of inflation for three years following the initial year

Financing Entity Overview

- OPG has the mandate to create and oversee a Trust separate from regular operations, that will finance costs related to the Fair Hydro Plan and spread the recovery through 2047
- The OEB will set the Regulated Price Plan to meet the requirements of the Fair Hydro Plan
- The IESO will create a regulatory asset approximately equal to the difference between collections from ratepayers and payment obligations to generators and conservation
- The Trust will have the right, but not the obligation, to purchase these regulatory assets / investment interests to support the debt required
  - Upon purchase by the trust, the regulatory asset becomes investment interest for the trust
- The Trust will enter the capital markets 1-3 times per year to secure long-term investment interests

Given the province's commitment to reduce electricity bills, there is a requirement to establish a financing entity, the "Trust", that will finance the shortfall in revenues not received from the market

Regulatory Asset / Investment Asset

Regulatory Asset

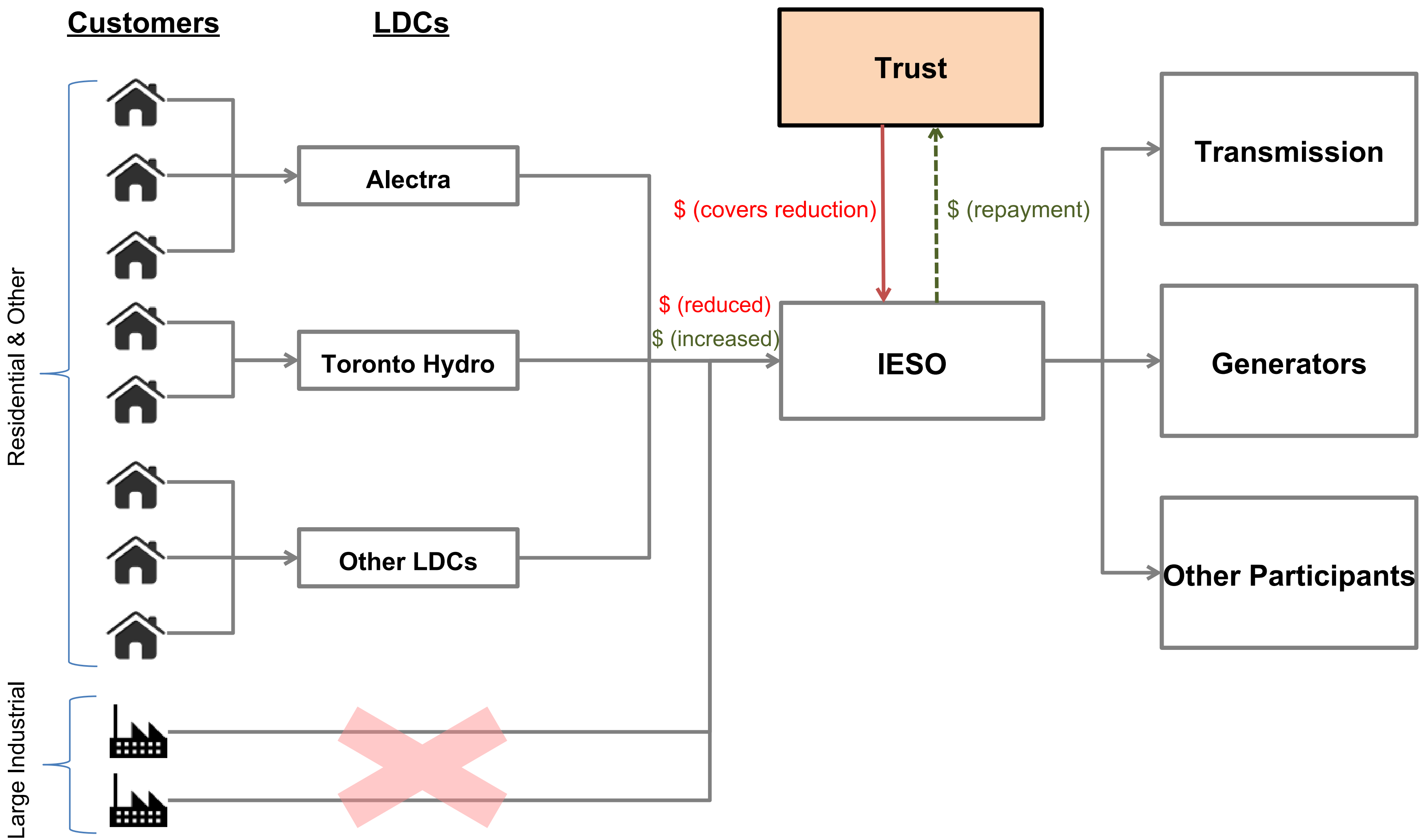
- IESO has authority under the Act to create a variance account to track the regulatory asset and is able to recover the balance in the variance account from consumers
- The OEB will set rates in accordance with regulation to recover the variance account balance through the clean energy adjustment but the OEB cannot change the amount of the clean energy adjustment to be recovered
- IESO is not able to recover the variance account balance prior to May 1, 2021
- IESO can transfer a portion of the variance account / regulatory asset to a financing entity
- A transfer of the variance account / regulatory asset is treated as an absolute sale of the IESO's right to recover the balance [and is not simply a security interest]

Investment Asset

- Transfer of the regulatory asset to a financing entity becomes an investment asset in the financing entity
- The investment asset constitutes an irrevocable property right and interest consisting of all rights of the IESO with respect to the variance account including the right to determine, impose, invoice, and collect the clean energy adjustment
- Investment interest owner can grant a security interest in order to secure a funding obligation

Addition of the Trust

In order to facilitate a ratepayer discount, the Trust is introduced to pay the difference to the IESO



Financial Services Manager - OPG

The Fair Hydro legislation names OPG, as the Financial Services Manager

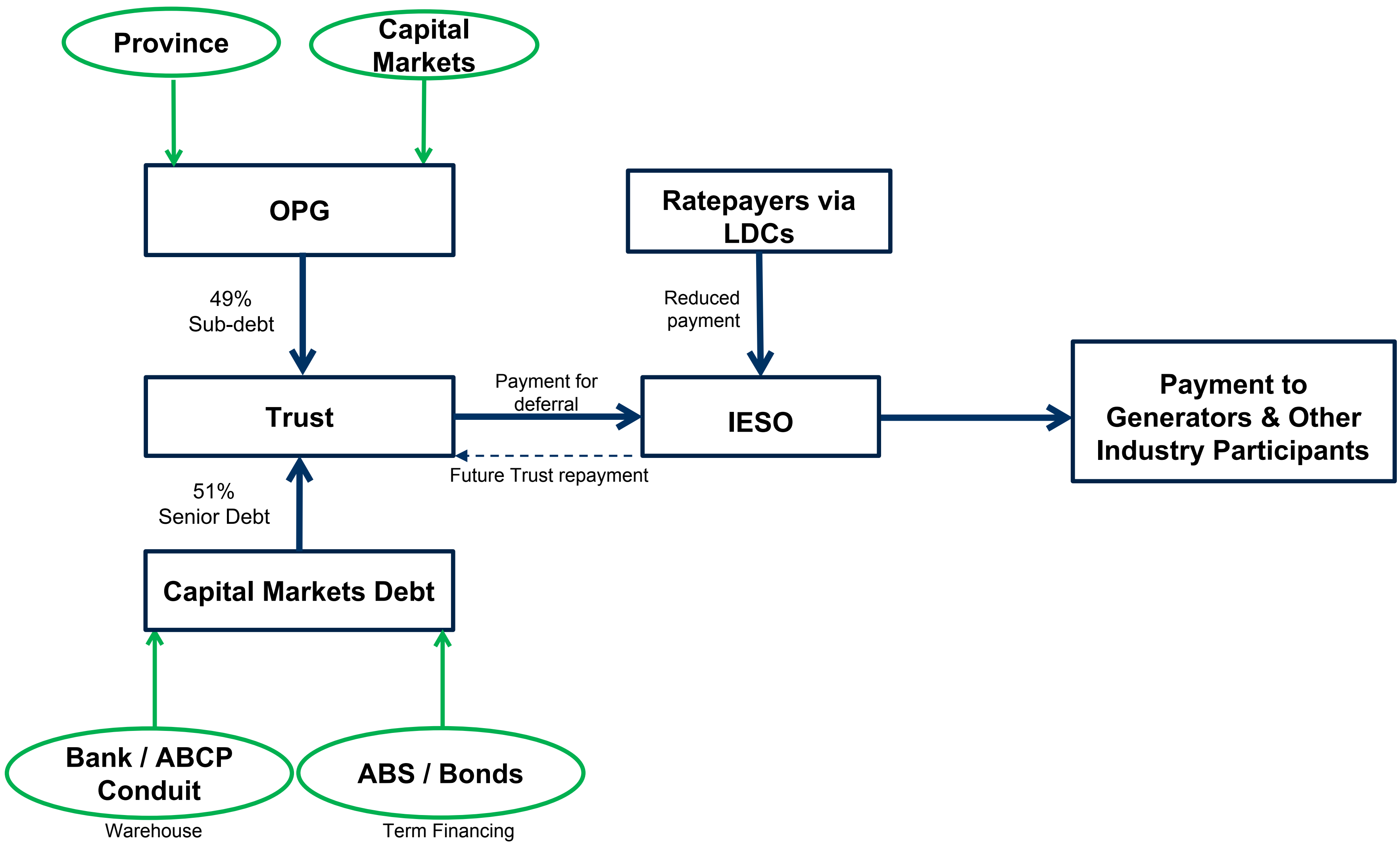
Why OPG

- One of the most experienced and largest generating companies in Canada, OPG has a broad set of relationships and capabilities that make it a valuable resource to the Province of Ontario
- Experienced in successful complex financing arrangements of large capital projects (such as OPG's recently completed Lower Mattagami project)

OPG's Role as Financial Services Manager

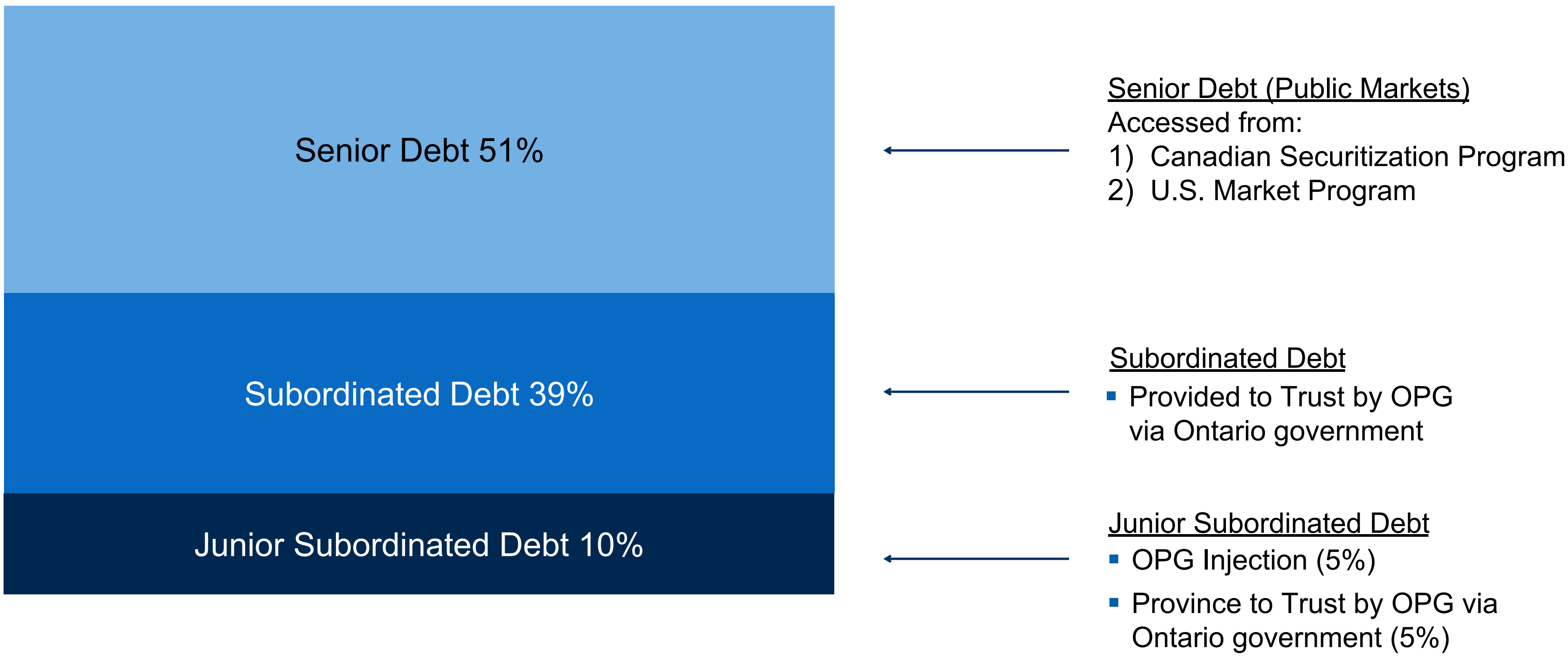
- Prepare a Financing Plan to evaluate whether potential funding obligations should be incurred for the purposes of acquiring an investment asset
- Administer the investment asset on behalf of the financing entities
- Ensure that funding obligations are incurred in a manner that is consistent with the Financing Plan
- Establish and charge fees for Financial Management Services
- Shall not provide for funding obligations to be incurred with any recourse to any assets of an electricity vendor, OPG, the OEB, the Province or the Lieutenant Governor in Council

Flow of Money between Trust and IESO



Simplified Trust Structure

- The Fair Hydro Trust will fund regulatory asset purchases through the issuance of senior and subordinated secured debt
  - Senior debt (51%) will be sourced monthly from committed warehouse facilities (bank and / or ABCP), and the periodic issuance of term debt
  - Subordinated debt (49%) will be provided by OPG; 44% of which will be obtained from an OEFC equity injectionand 5% from OPG via external markets
  - Senior and subordinated principal will be scheduled to amortize to maintain the original proportions, shortfalls to be allocated first to the subordinated debt



Financing Strategy

SECTION III

Financing Strategy – Funding Alternatives

- There are several potential funding sources that OPG can consider to structure the overall financing program, including securitization (issued in Canada or the U.S.), bonds, bank financing, and subordinated debt
- Warehouse financing (ABCP or bank debt) and OPG sub-debt will be used to fund monthly investment asset purchases from the IESO (monthly IESO funding shortfalls anticipated to be ~$200 million)
  - Fair Hydro Trust will periodically refinance the warehouse facility through the issuance of term debt
- It is anticipated that the first term debt takeout will be completed in the fall of 2017
  - Aggregate financing for the first offering could be ~$400 - $600 million, with senior-debt of about $200 - $300 million
- Both Canadian and U.S. term debt markets will be considered but decision on which markets to access will be determined on a deal by-deal-basis
- Term debt can take the form of bullet bonds or could be issued as amortizing bonds

ABCP Conduit	▪ R-1(high) rating confirmation will be required from DBRS pre-closing ▪ Used to fund monthly regulatory asset purchases from the IESO
Bank	▪ Two explicit long-term ratings will be required ▪ Used to fund monthly regulatory asset purchases from the IESO
Canadian Term ABS / Bond	▪ Two explicit long-term ratings required; AAA rating will be targeted
US Term Debt (ABS / Bonds)	▪ Two explicit long-term ratings required; AAA rating will be targeted ▪ Requires cross-currency swaps
Subordinated Debt	▪ Subordinated notes will provide credit enhancement for senior debt (ranks behind senior debt in cash flow waterfall) ▪ Two explicit long-term ratings required

Indicative Waterfall

Allocation of Collections

- Taxes, Trustee Fees & Operating Expenses (to lawyers, accountants, IESO, rating agencies, etc.)
- Interest on Senior Notes
- Scheduled Principal – Senior
- Replenishment of Reserve Accounts
- Financial Services Manager fees (OPG)
- Interest on Subordinated Notes
- Scheduled Principal – Subordinated
- Interest on Junior Subordinated Notes
- Scheduled Principal – Junior Subordinated
- Excess Funds Account (amounts available for next payment period)

Illustrative Trust Debt Balance: Borrowing and Repayment

Transaction Structure

SECTION IV

Structural Comparison

	Precedent Utility Charge Securitizations	Proposed Fair Hydro Structure
Legislation	Legislation creates regulatory basis for implementation and servicing of the charge	
Details of Financing	Outlined in irrevocable Financing Order	Outlined in Regulations supported by province guarantee
Collateral	The right to impose and collect a charge from electric utility customers as well as transaction reserve accounts	
Government Support	State pledge not to permit any action that would impair the value of the Collateral	Province guarantee of repayment if any action taken that would impair the value of the Collateral
Non-Bypassability	Charge to be paid by all existing and future electric customers in included customer classes	
Impacted Customers	The majority of customers in service territory (including residential, commercial and industrial)	The majority of customers are residential and light commercial
Recovery Charge	Relatively low, <5% of total bill	Approximately 10% of total bill
Issuer	Varies, but generally a newly formed special purpose vehicle (“SPV”) that is a subsidiary of Investor Owned Utility	Newly formed special purpose vehicle (“SPV”) would be consolidated into Ontario Power Generation (“OPG”) financial statements
Servicer	Varies, but generally Investor Owned Utility	Independent Electricity System Operator (“IESO”)
Third Party Billing	Varies depending on State	Yes, via Local Distribution Companies (“LDC”)
Nonpayment & Partial Payment by Customers	To the extent that any electric utility customer makes a partial payment of a bill containing the charge, the charge collection will be a pro-rata portion of the payment	
Amortization	Fully amortizing with principal payments beginning at first issuance	Bullet or amortizing bonds with principal payments deferred for a number of years following issuance
Establishment of First Charge	Generally within 1 year of issuance	Delayed start
Credit Enhancement	True-up mechanism, reserve accounts	True-up mechanism, reserve accounts, and subordinated debt
Hedging	Historically limited to interest rates	May include interest rate and currency hedging
Trust Structure	Discrete (single issue) trust	Master trust with multiple series issued over a 10 year period
Legal Opinions	Standard opinions regarding Validity, Enforceability and Regulatory Issues (Constitutionality opinion not applicable for Canadian transactions)	

Transaction Includes Same Key Elements as 'AAA' Investor-Owned Utility Securitizations

- Based on the existing Ontario Electricity market infrastructure no credit losses are anticipated
- Fair Hydro Trust true-up mechanism will ensure timely and full collectability of all debt
- OPG subordinated debt will provide incremental credit enhancement for the senior debt
- Provincial guarantee protects investors from an adverse change in law or inability to fund in capital markets
- The Province of Ontario has very low credit risk and is considered to be stable
  - High likelihood of Government of Canada (Aaa, stable) actions to prevent provincial default
  - Ontario is the largest economy of Canadian provinces: 40% of national economic output, 38% of national population, strong destination for immigration, lower than national unemployment rate

✓	**Experienced Operating Agent**	▪ OPG, IESO, and LDC are experienced operators
✓	**Strong Service Territory**	▪ Stable customer base with diversified service territory
✓	**Enhanced True-up**	▪ Mandatory semi-annual true-ups to correct for any over or under collections ▪ Optional interim adjustments permitted as necessary
✓	**Irrevocable & Nonbypassable Charge**	▪ Final and effective upon issuance of Bonds ▪ Applies to all residential and small commercial consumers receiving power through T&D system
✓	**No "Cap" on Collection of Charge**	▪ No limits on collection of charge that may be imposed on all customers after moratorium period
✓	**Province Guarantee**	▪ Strong government support through guarantee of bond legal and regulatory framework
✓	**Full Cross-Collateralization**	▪ Any collection shortfall is allocated among all specified consumers
✓	**No Industrial Risk**	▪ No single large customer or industry exposure

Legislative and Regulatory Overview

Authorizes Use of Securitization and Establishes Servicing Relationship between OPG, IESO and LDCs

General Powers and Authority of Legislation

- Creation of mechanism for deferral of costs by the IESO and establishment of the Regulatory Asset
- Creation of mechanism for absolute sale of Regulatory Asset to Financing Entity
- Definition of impacted customers (“specified consumers”)
- Establishment of right to bill and collect a non-bypassable clean energy adjustment from future specified consumers
- Establishes principles of the Financing Plan
- Statement of non-impairment by the Crown and provision for a Provincial Guarantee
- Allowance for the establishment of a bankruptcy-remote issuer
- Allowance for true-up mechanism

Fair Hydro Regulations

- Details on calculation of the fair allocation amount
- Details on eligible financeable amounts
- Additional details on clean energy adjustment assessment methodology (true-up mechanism):
  - Timing (mandatory semi-annual + more frequent as needed)
  - Calculation (accounts for expected charge-offs, billing delays and usage as well as any under / over collection in previous period)
- Additional details around servicing / billing mechanics (e.g., LDCs and IESO)

Responsibilities Under New Structure

OPG

- OPG to act as Financial Services Manager including the development and implementation of the Financing Plan
- Calculates the clean energy adjustment including semi-annual true-up

IESO

- Establishment of IESO as Servicer
- Aggregation of collections by LDCs and remittance to Trustee

LDCs

- Manage the billing and remittance of the non-by-passable charge
- Includes charge as a separate line-item on customer bills

Ontario Energy Board

- Must accept clean energy adjustment, and converts to customer charge
- Allow for the charge to go into effect
- Review / approve ongoing Financial Services Manager fees and expenses

Objective of the Legislative, Regulatory and Contractual Structure

- Due to the number of related parties participating in the transaction an overarching theme of the structure is to establish the transaction on a commercial basis
- OPG expects to consolidate the results of the Trust in its financial statements based on the commercial relationship between OPG and the Trust
- The commercial basis is established by a number of elements which work together
  - Trust has the right but not the obligation to purchase a Regulatory Asset
  - Regulatory Asset purchased by the Trust provides the right to bill and collect a charge from future consumers
  - Transactions in the Trust to finance the asset purchase to be on an arm's length basis
  - Amount collected from consumers includes costs of financing the asset purchase, costs to manage the financing, costs to operate the Trust and repayment of principal
  - OEB role established to support recognition of asset and customer charge
  - Debt of the Trust structured to balance risk and cost with objective to achieve highest rating possible
  - Subordinated debt issued by the Trust will be rated and will price off of the senior debt based on a survey of banks
  - Subordinated debt will absorb uncertainties of the senior debt to support highest rating of the senior debt
  - OPG will manage the activities of the Trust for a fee comparable to fees charged by 3rd party managers. OEB role will be limited to reviewing the application of the fee methodology
- Notwithstanding consolidation of the Trust into OPG the Trust will be structured to be bankruptcy remote from OPG

Bill 132 Fair Hydro Plan Act, 2017 Legislation

The Act establishes a framework under which the costs and benefits associated with the “clean energy initiative” are to be allocated among present and future consumers of electricity

Rate Reduction Time Period

- From July 1, 2017 until April 30, 2019, electricity rates payable by a “regulated rate consumer” will be the rate that would result in a representative regulated rate consumer who meets the prescribed criteria being charged an invoice amount that is 25% less than the regulated rate that would otherwise have been determined by the OEB
  - For the 12 month period beginning May 1, 2018 the invoice amount established previously would increase by the rate of inflation in Ontario
  - Subsequent rate reductions beyond April 30, 2019 will be established by regulation

Regulatory Asset

- Each month, the IESO will determine the shortfall resulting from the rate reduction and record in a variance account. IESO has the right to recover the balance recorded in the variance account from specified consumers and this right will be a “regulatory asset” under the Act. IESO will not be entitled to collect the balance recorded in the variance account from specified consumers before May 1, 2021

Investment Asset

- IESO may transfer (sell) a specified portion of the regulatory asset to the financing entity established by OPG. The Trust is not obligated to purchase the asset. Upon the transfer, the financing entity acquires an interest in the investment asset that is a current and irrevocable property right consisting of the right to impose, invoice, collect, receive and recover the clean energy adjustment from specified consumers or electricity vendors

Components of the legislation and accompanying agreements that are of interest to investors

- Investment assets created by the IESO represents a claim on the rate-payers that is a current and irrevocable property right consisting of the right to impose, invoice, collect, receive and recover from the market
- The trust is not obligated to purchase the regulatory asset from the IESO
- The various investment assets are pari passu
- **The province is providing a guarantee to the trust; backstopping its obligations, either if there are changes in future legislation or if there are market disruption (liquidity) issues**

Clean Energy Adjustment – Proposed Billing and Collection Process

- Clean Energy Adjustment amounts for billing and collection purposes will be managed outside of the IESO's current settlement processes set out in the Market Rules for electricity invoice amounts
  - As such, CEA amounts will not benefit from the rights the IESO currently has under the Market Rules – ability to charge interest, draw down on prudential amounts, and borrow to cover shortfalls
  - Collections risk for CEA amounts are dealt with through statutory rights in the Act, the collection obligations of the IESO under the Master Sales and Services Agreement (to be finalized) and the ability to include amounts into the true up mechanism

1 Financial Services Manager

Determines the CEA (monthly) based on legislation and regulation and notifies the OEB of CEA for each reference period

2 OEB

Determines volumetric rates[1] to invoice specified consumers to recover CEA expressed as a cent per kWh

3 Electricity Vendors

Invoice specified consumers for CEA amount by using volumetric rate set by OEB and report the amount invoiced and collected from consumers to the IESO

4 Specified Consumers

Must pay invoice from Electricity Vendors for CEA amount

5 Electricity Vendors

Must collect CEA amounts from specified consumers, hold amounts in a segregated account and remit CEA amounts to the IESO (separate from any other amount collected and remitted)

6 IESO

Must receive CEA amounts paid by Electricity Vendors, hold CEA amounts in a trust and remit the CEA amounts to the financing entities

[1] The rates will be determined by dividing the CEA amount by the forecasted energy consumption in the reference period by specified consumers

Indicative Allocation of Servicing Role and Responsibilities

	OPG / Financing Entity	IESO	LDC
Management of Ongoing Issuance	♋		
Meter Reading			♋
Billing			♋
Collections			♋
Cash Management		♋	
Remittance of Charge to Trustee	♋	♋	
(Responding to inquiries by customers if practicable, or forwarding such inquiries to OPG)	♋		♋
Ongoing Filings for Trustee and Rating Agencies	♋		
True-Up Calculation	♋	♋	