Financial Accountability Office of Ontario

# Fair Hydro Plan

## An Assessment of the Fiscal Impact of the Province's Fair Hydro Plan

Spring 2017

# About this Document

Established by the *Financial Accountability Officer Act, 2013,* the Financial Accountability Office (FAO) provides independent analysis on the state of the Province's finances, trends in the provincial economy and related matters important to the Legislative Assembly of Ontario.

The FAO produces independent analysis on the initiative of the Financial Accountability Officer. Upon request from a member or committee of the Assembly, the Officer may also direct the FAO to undertake research to estimate the financial costs or financial benefits to the Province of any bill or proposal under the jurisdiction of the legislature.

This report was prepared on the initiative of the Officer in response to a request from a member of the Assembly. In keeping with the FAO's mandate to provide the Legislative Assembly of Ontario with independent economic and financial analysis, this report makes no recommendations concerning policy choices.

This analysis was prepared by Matt Gurnham and Matthew Stephenson under the direction of Peter Harrison and Jeffrey Novak.

FAO | Financial Accountability Office of Ontario

2 Bloor Street West, Suite 900
Toronto, Ontario M4W 3E2

416-644-0702
fao-on.org
info@fao-on.org


ISBN 978-1-4868-0041-4 (Print)
ISBN 978-1-4868-0040-7 (Online)

This document is also available in an accessible format and as a downloadable PDF at fao-on.org.

# TABLE OF CONTENTS

## Table of Abbreviations

| Abbreviation | Long-Form |
| --- | --- |
| FAO | Financial Accountability Office |
| FHP | Fair Hydro Plan |
| GAAP | Generally Accepted Accounting Principles |
| HST | Harmonized Sales Tax |
| IESO | Independent Electricity System Operator |
| MPPs | Members of Provincial Parliament |
| OAGO | Office of the Auditor General of Ontario |
| OEB | Ontario Energy Board |
| OESP | Ontario Electricity Support Program |
| OPG | Ontario Power Generation |
| RRRP | Rural or Remote Rate Protection Program |

# 1 Essential Points

- The Financial Accountability Office (FAO) estimates that the proposed Fair Hydro Plan (FHP), consisting of the provincial HST rebate, electricity cost refinancing, and changes to electricity relief programs, will cost the Province $45 billion over 29 years while providing overall savings to eligible electricity ratepayers of $24 billion.[1] This results in a net cost to Ontarians of $21 billion.
- Under the FHP, electricity costs are projected to be lower than the status quo from 2017 to 2027. After 2027, electricity costs are projected to be higher under the FHP than under the status quo.
  - Average electricity bills are projected to decrease by 25% in 2017, followed by four years of growth at the rate of inflation.
  - Starting in 2021, electricity bills are projected to increase by an average of 6.8% annually until the end of 2027.
  - After 2027, electricity bills are projected to be an average of 4% higher under the FHP than the status quo, even with the continuation of the HST rebate.[2]
- The estimated $45 billion cost to the Province assumes that the Province is able to achieve and maintain a balanced budget over 29 years. If the Province is required to fund its FHP programs (i.e. the HST rebate and electricity relief programs) through debt, then the cost to the Province could increase to between $69 billion and $93 billion.
- The FAO estimates that over half of the projected savings to eligible electricity ratepayers from 2017 to 2027 is achieved through the electricity cost refinancing component of the FHP.
  - Electricity cost refinancing achieves savings for ratepayers from 2017 to 2027 by deferring $18.4 billion in electricity costs. Starting in 2028, ratepayers will be required to repay the $18.4 billion in deferred electricity costs plus approximately $21.0 billion in interest costs.
- The electricity cost refinancing initiative involves a complicated accounting structure that will increase gross debt by approximately $26 billion by 2027-28, but does not impact the Province's net debt due to the creation of a regulatory / investment asset. If the creation of the regulatory / investment asset does not meet with public sector accounting standards, then the Province's annual surplus / deficit would deteriorate by a total of $26 billion over the next 11 years but improve by the same amount over the following 18 years. The FAO recommends that Members of Provincial Parliament (MPPs) obtain assurance from the Office of the Auditor General of Ontario (OAGO) that the Province's proposed accounting treatment will not impact the Province's annual surplus / deficit and net debt.

[1] "Eligible electricity ratepayers" are defined as "specified consumers" under schedule 1, subsection 1(1) of the proposed Bill 132, the *Fair Hydro Act 2017*. According to the Province, eligible electricity ratepayers include all households as well as over 500,000 small businesses and farms. The Province estimates that eligible electricity ratepayers comprise over 90% of electricity ratepayers in Ontario and represent about half of Ontario's electricity demand.
[2] Pre-tax electricity bills (excluding the impact of the HST rebate) are projected to be 12% higher.

# 2 Introduction

On March 2, 2017, the Government of Ontario (the Province) announced its "Fair Hydro Plan" (FHP), a proposal to reduce electricity bills for all residential customers by an average of 25%, starting in the summer of 2017, and to limit the increase in electricity bills to the rate of inflation over the next four years.[3] The Province's FHP also proposes additional assistance for eligible rural and low income ratepayers beyond the promised 25% electricity bill reduction.

The FHP includes the following initiatives:

- **Harmonized Sales Tax (HST) Rebate:** a rebate to residential ratepayers for an amount equal to the 8% provincial portion of the HST on electricity bills.
- **Electricity Cost Refinancing:** the Province is proposing to borrow an estimated average of $2.5 billion per year through 2027 to pay a portion of electricity costs, thereby temporarily reducing the amount paid by eligible ratepayers. The Province would recover the borrowed funds, including interest, from ratepayers over an estimated 18-year period starting in 2028.
- **Adjusting Electricity Relief Programs:** currently the cost of the Rural or Remote Rate Protection Program (RRRP)[4] and the Ontario Electricity Support Program (OESP)[5] is recovered from all electricity ratepayers through the cost of electricity. The FHP would transfer the cost of these programs from electricity bills to the Province. In addition, the Province plans to expand the support provided by the RRRP and OESP as well as establish a new First Nations On-Reserve Delivery Credit and Affordability Fund, all of which is to be funded by the Province.

This report reviews the fiscal impact of the proposed FHP, including the expected cost to the Province and the financial impact to electricity ratepayers.

Appendix D provides more information on the development of this report.

[3] See the news release "Ontario Cutting Electricity Bills by 25 Per Cent," March 2, 2017, accessed on May 5, 2017: https://news.ontario.ca/opo/en/2017/03/ontario-cutting-electricity-bills-by-25-per-cent.html. Eligible small businesses and farms would also receive a benefit.
[4] The RRRP provides a rate subsidy to approximately 350,000 rural residential electricity ratepayers.
[5] The OESP is an income-tested, application based program that provides a rate subsidy to eligible electricity ratepayer households.

# 3 Fiscal Impact of the FHP

The Financial Accountability Office (FAO) estimates that the FHP will cost the Province approximately $45 billion over 29 years while providing overall savings to electricity ratepayers of $24 billion.[6] This results in a net cost to Ontarians of $21 billion.

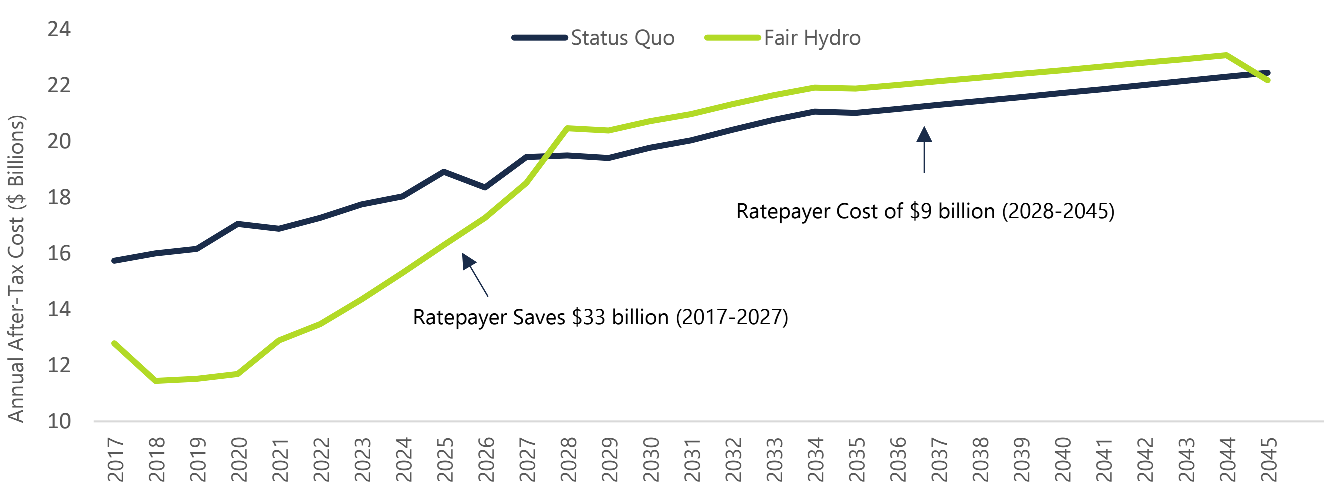
## Impact on Eligible Ratepayers

The FAO estimates that the FHP will reduce costs to eligible electricity ratepayers[7] by a total of $24 billion from 2017 to 2045. The savings estimate of $24 billion over 29 years is made up of the following components:

- HST Rebate: savings of $42 billion.[8]
- Electricity Cost Refinancing: cost of $21 billion.[9]
- Adjusting Electricity Relief Programs: savings of $3 billion.[10]

Figure 3-1 shows the FAO's estimated impact of the FHP on eligible ratepayer electricity costs[11] against a status quo scenario (i.e. the FHP is not implemented). From 2017 to 2027, electricity costs are projected to be lower under the FHP compared to the status quo (for a total savings of $33 billion), while after 2027 electricity costs are projected to be higher under the FHP compared to the status quo (for a total cost of $9 billion). This results in net savings of $24 billion over 29 years.

**Figure 3-1: FAO's Estimated Impact of the FHP on Eligible Ratepayer Electricity Costs**




Source: FAO analysis of Provincial information.

[6] 29 years is the FAO's estimated time period of the electricity cost refinancing initiative. Note: the proposed Bill 132, the *Fair Hydro Act, 2017*, could allow for a longer repayment period (see definition of "reference period" in schedule 1, subsection 1(1)). All amounts are in nominal dollars unless otherwise noted.

[7] "Eligible electricity ratepayers" are defined as "specified consumers" under schedule 1, subsection 1(1) of the proposed Bill 132, the *Fair Hydro Act 2017*. According to the Province, eligible electricity ratepayers include all households as well as over 500,000 small businesses and farms. The Province estimates that eligible electricity ratepayers comprise over 90% of electricity ratepayers in Ontario and represent about half of Ontario's electricity demand.

[8] The FAO assumes that the HST rebate will continue indefinitely. The HST rebate reduces bills by 8% of the pre-tax amount.

[9] See below for more analysis on the cost of this component of the FHP.

[10] The FAO is forecasting the cost of the electricity relief programs based on the Province's announced commitments regarding the FHP and information provided by the Province to the FAO. As such, the FAO does not forecast the costs of the electricity relief programs beyond the year 2020-21. However, there is uncertainty with this assumption because (a) the electricity relief programs may continue after the year 2020-21 and (b) the cost of the RRRP may revert back to ratepayers, as described under schedule 2, section 1 of the proposed Bill 132, the *Fair Hydro Act, 2017*. Overall, the FAO estimates that the $21 billion in net costs to Ontarians of the FHP would not be impacted if this assumption changes. This is because any incremental savings to ratepayers would be offset by costs to the Province.

[11] The FAO defines "electricity costs" as the total amount paid by eligible electricity ratepayers for their consumption of electricity. This includes the cost of electricity generation, transmission, distribution, taxes and other charges.

The impact of the FHP on the average eligible electricity ratepayer can be broken down into three distinct sub-periods:

**Table 3-1: Breakdown of FAO Estimate of FHP Impact on Eligible Electricity Ratepayers**

| Time Period | Province's FHP Proposal | FAO's Analysis of FHP | Description |
|---|---|---|---|
| 2017-2021 | Reduce bills by 25%.<br>Cap bill increases at rate of inflation for 4 years.<br>Province funds and expands assistance for rural and low income ratepayers. | Average bill will be reduced by 25%.<br>Bill increases will be capped at rate of inflation for four years. | Savings to ratepayers of $17.7 billion achieved as follows:<br>HST Rebate - $4.1 billion<br>Electricity Cost Refinancing - $10.6 billion<br>Adjusting Electricity Relief Programs - $3.0 billion |
| 2021-2027 | Continue Electricity Cost Refinancing. | Bills to remain lower than status quo due to refinancing and HST rebate.<br>Bills projected to increase by 6.8% annually as financing costs accumulate. | Savings to ratepayers of $15.5 billion achieved as follows:<br>HST Rebate - $7.7 billion<br>Electricity Cost Refinancing - $7.8 billion |
| 2028-2045 | Ratepayer repays refinancing. | Bills will be higher than status quo despite HST rebate. | Net cost to ratepayers of $9.3 billion as follows:<br>Electricity Cost Refinancing – cost of $39.4 billion<br>HST Rebate – savings of $30.1 billion |

Note: includes impact of HST rebate starting January 1, 2017.

Source: FAO analysis of Provincial information.

See Appendix A for a more detailed analysis of the impact of the FHP on ratepayer bills.

# Key Considerations

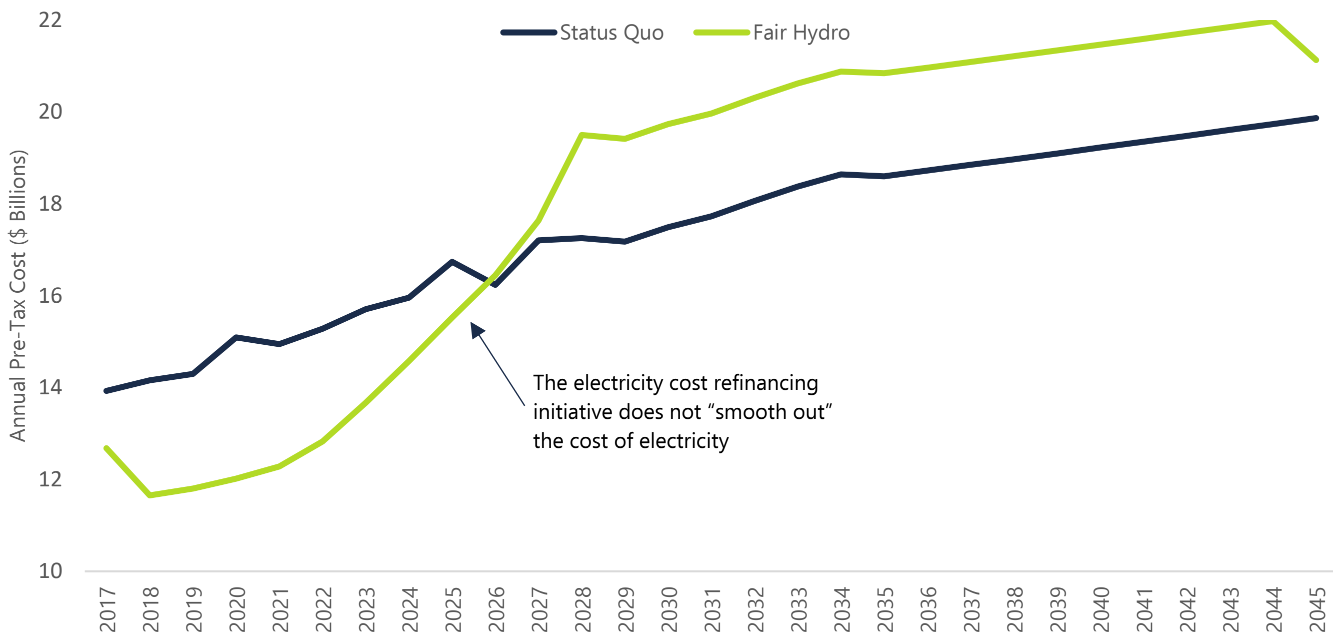
The HST rebate and adjusting the electricity relief programs will transfer costs from ratepayers to the Province, thereby providing savings to eligible electricity ratepayers but a corresponding increase in costs to the Province. However, the proposed electricity cost refinancing provides temporary savings but higher costs overall to eligible electricity ratepayers due to the interest payments on borrowed funds.

Over half of the savings to eligible electricity ratepayers from 2017 to 2027 will be accomplished by the electricity cost refinancing initiative. The Province plans to borrow an average of $2.5 billion annually to pay a portion of the cost of electricity thereby lowering the price paid by ratepayers. The FAO estimates that a total of $18.4 billion of electricity costs and $7.8 billion of accumulated interest will be financed through 2027. The ratepayer will repay $39.4 billion ($18.4 billion of electricity costs and $21.0 billion of interest) from 2028 to 2045.[12] The reason for the high cost of interest relative to the amount of electricity costs financed is that the ratepayer does not begin repayment until 10 years after borrowing commences.

Figure 3-2 outlines the FAO's estimated impact of the electricity cost refinancing by showing the cost to eligible electricity ratepayers on a pre-tax basis, removing the impact of the HST rebate and electricity relief programs.

[12] See Appendix B for more details on the refinancing.

**Figure 3-2: FAO's Estimated Impact of Electricity Cost Refinancing on Eligible Ratepayer Electricity Costs**




Source: FAO analysis of Provincial information

Under the status quo, the FAO projects the pre-tax cost of electricity to eligible ratepayers will increase steadily at approximately 2% per year until 2028 followed by an extended period of slower growth (Figure 3-2).[13] The Province's proposed electricity cost refinancing initiative would result in lower short-term costs to 2021, followed by a period of rapid cost growth to 2028. Starting in 2028, the pre-tax cost of electricity is projected to be on average 12% higher than under the status quo.

# Risks to the Electricity Cost Refinancing Initiative

The FAO has identified two key risks which could impact the electricity cost refinancing initiative.

- **Cost of providing electricity to eligible ratepayers –** The amount of refinancing required to deliver the committed bill reductions to ratepayers from 2017 to 2021 depends on the total cost of generating and delivering electricity to eligible ratepayers. There is potential, for example, that eligible ratepayer demand increases as a result of the reduction in electricity prices or that costs to generate / deliver electricity are higher than expected. Increases in demand or electricity costs could increase borrowing requirements to achieve the committed bill reductions, thus increasing the interest paid by eligible ratepayers during the repayment period.
- **Interest rate assumptions –** Changes in the interest rate on funds borrowed to refinance electricity costs significantly impact the interest cost paid by ratepayers. Appendix B contains analysis of the impact of different interest rates on ratepayers.

[13] FAO analysis of the 2016 Ontario Planning Outlook and information provided to the FAO by the Ministry of Energy.

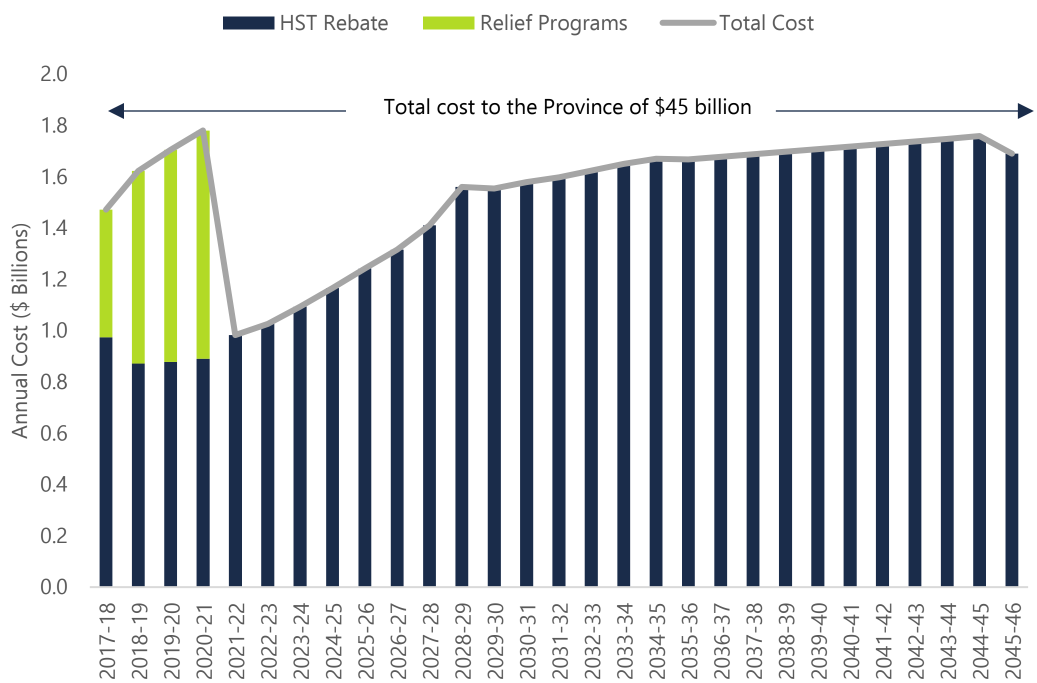
# Impact on Provincial Finances

The FAO estimates that the FHP will cost the Province approximately $45 billion over 29 years. The cost estimate is made up of the following two components:[14]

- HST Rebate: cost of $42 billion.
- Adjusting Electricity Relief Programs: cost of $3 billion.[15]

Figure 3-3 summarizes the FAO's estimate of the annual cost[16] of the FHP through to 2045-46. The FAO estimates the cost of the FHP to the Province will peak at $1.8 billion in 2020-21, after which the FAO assumes that the electricity relief programs will no longer be funded by the Province. The HST rebate is forecast to cost $0.9 billion in 2021-22, rising rapidly to $1.6 billion by 2028-29.[17]

**Figure 3-3: FAO's Estimated Annual Cost of the FHP to the Province, 2017-18 to 2045-46**




Note: Provincial funding for electricity relief programs is assumed to end after 2020-21 based on the Province's announced commitments regarding the FHP and information provided by the Province to the FAO.

Source: FAO analysis of Provincial information.

[14] The Province's FHP assumes that electricity cost refinancing would not impact net debt or the annual surplus / deficit. Please see chapter 4 for more details.

[15] The FAO is forecasting the cost of the electricity relief programs based on the Province's announced commitments regarding the FHP and information provided by the Province to the FAO. As such, the FAO does not forecast the costs of the electricity relief programs beyond the year 2020-21. However, there is uncertainty with this assumption because (a) the electricity relief programs may continue after the year 2020-21 and (b) the cost of the RRRP may revert back to ratepayers, as described under schedule 2, section 1 of the proposed Bill 132, the *Fair Hydro Act, 2017*. Overall, the FAO estimates that the $21 billion in net costs to Ontarians of the FHP would not be impacted if this assumption changes. This is because any incremental savings to ratepayers would be offset by costs to the Province.

[16] Annual cost defined as the impact to the Province's annual surplus / deficit.

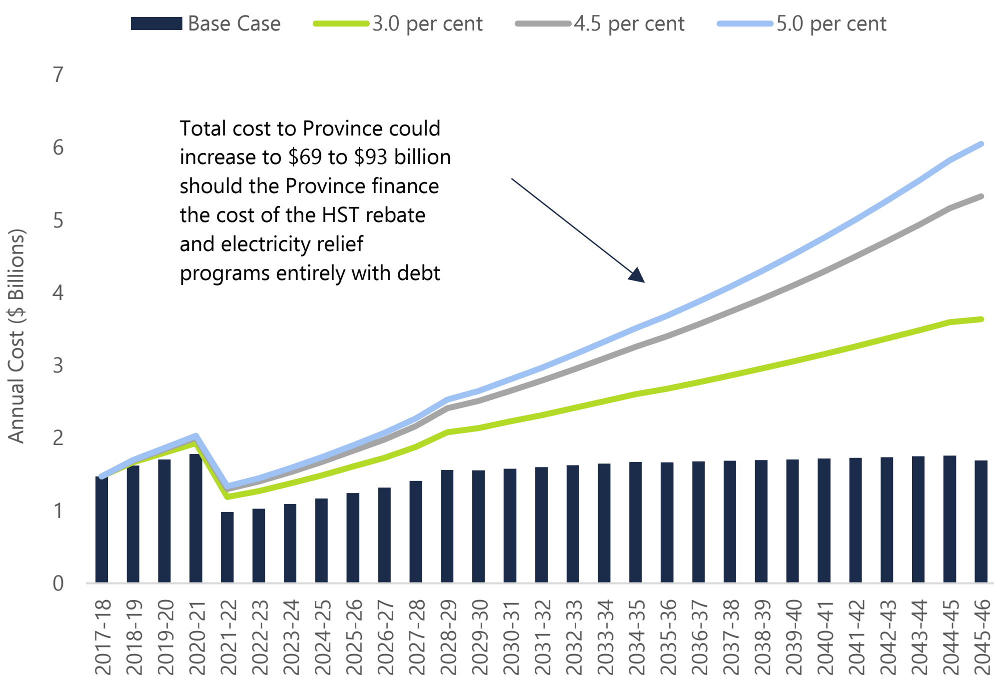
[17] The rapid increase in the cost of the HST rebate from 2021-22 to 2028-29 results from the rapid increase in electricity costs over the corresponding time period. See Figure 3-1.

# Key Considerations

## Funding the Provincial FHP Cost

The FAO estimates that the FHP will cost the Province approximately $45 billion over 29 years. However, this amount could increase if the Province funds the cost of the FHP (i.e. the HST rebate and the electricity relief programs) through additional debt. For example, if the Province funds the HST rebate and electricity relief programs by borrowing over the 29-year period, it could increase costs by $24 to $48 billion, assuming an effective cost of borrowing between 3.0% and 5.0%. This could bring the total Provincial cost of the FHP to between $69 and $93 billion (Figure 3-4).

**Figure 3-4: FAO's Estimated Annual Cost of the FHP to the Province, 2017-18 to 2045-46**




Source: FAO analysis of Provincial information

In the 2017 Ontario Budget, the Province is forecasting balanced budgets from 2017-18 to 2019-20, which include the costs of the FHP. However, in the FAO's Fall 2016 Economic and Fiscal Outlook, the FAO is projecting continued budget deficits over the same period.[18] If the Province is unable to balance the budget,[19] then the estimated cost of the FHP will be higher than $45 billion, as the Province would need to borrow to fund the FHP.

## Electricity Cost Refinancing Accounting Treatment

Under the Province's proposed financing structure, the electricity cost refinancing component of the FHP would not impact the annual surplus / deficit or net debt of the Province. However, gross debt would increase by $26 billion by 2027-28, before being completely repaid by eligible electricity ratepayers by 2045-46.[20] Please see the next chapter for more details.

[18] See the FAO's Economic and Fiscal Outlook, Fall 2016.
[19] Specifically, if the Province has an operating cash flow deficit.
[20] Provincial gross debt would increase by about $12 billion, while Ontario Power Generation Trust would issue about $14 billion in debt. Please see Appendix C for more details on the proposed financing structure of the electricity cost refinancing.

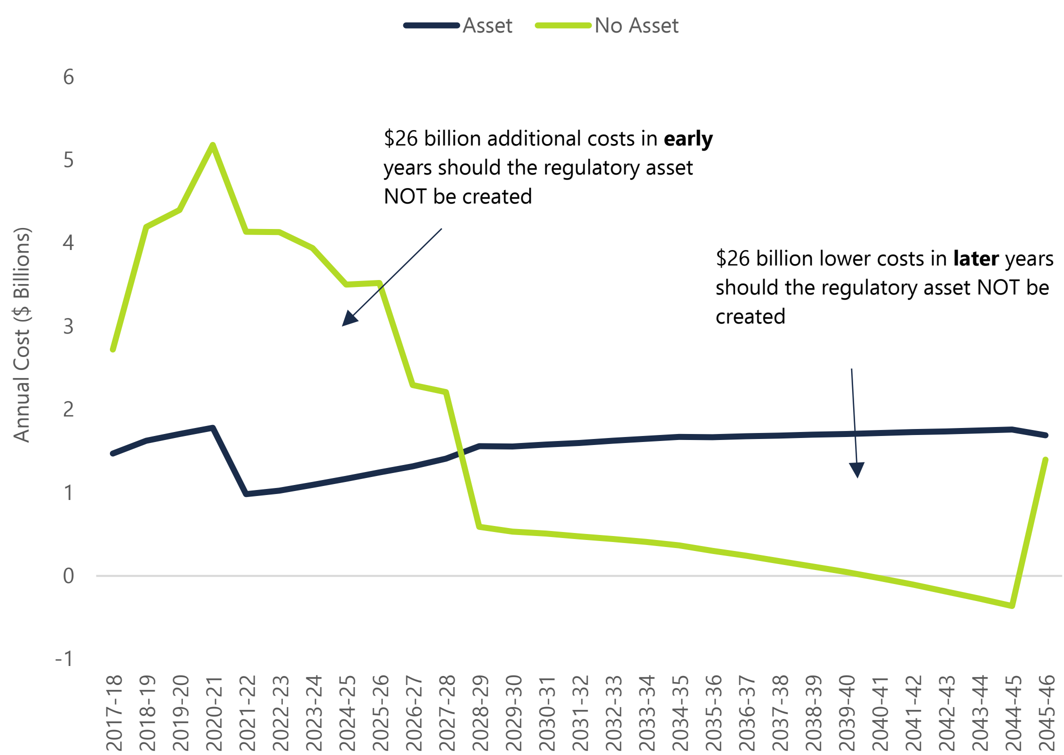
# 4 Accounting Treatment Uncertainty

The electricity cost refinancing component of the FHP involves a complicated accounting structure that will increase gross debt by approximately $26 billion by 2027-28,[21] but does not impact the Province's net debt due to the creation of a regulatory / investment asset; essentially an obligation for ratepayers to repay the Province approximately $26 billion.[22]

Due to the nature of the proposed financing transaction, the FAO recommends that Members of Provincial Parliament (MPPs) obtain assurance from the Office of the Auditor General of Ontario (OAGO) that the Province's proposed accounting treatment for the electricity cost refinancing meets public sector accounting standards and will not impact the Province's annual surplus / deficit and net debt.[23]

If the creation of the regulatory / investment asset does not meet with public sector accounting standards, then the electricity cost refinancing initiative would impact the Province's annual surplus / deficit over the 29-year period. In the absence of a regulatory / investment asset, the FAO estimates that costs to the Province would increase by an additional $26 billion over the next 11 years, but would decrease by the same amount over the following 18 years thereafter (Figure 4-1).

**Figure 4-1: FAO's Estimated Annual Cost to the Province of the FHP if the Regulatory / Investment Asset is Created or Not Created, 2017-18 to 2045-46**




Source: FAO analysis of Provincial information

[21] The FAO estimates that Provincial gross debt would increase by about $12 billion, while the Ontario Power Generation Trust would issue about $14 billion in debt. Please see Appendix C for more details on the proposed financing structure of the electricity cost refinancing.

[22] This asset will be recorded on the consolidated financial statements of Ontario Power Generation as an investment asset, which will then increase the Province's asset value labelled, "investment in government business enterprises."

[23] Please see Appendix C for more information on the Province's proposed accounting treatment.

# 5 Conclusion

The purpose of this report was to assess the fiscal impact of the proposed FHP to both the Province and electricity ratepayers. In summary, the FAO estimates that the FHP will cost the Province approximately $45 billion over 29 years while providing overall savings to eligible electricity ratepayers of $24 billion. This results in a projected net cost of the FHP to Ontarians of $21 billion.

Although eligible electricity ratepayers are projected to achieve overall savings of $24 billion, the savings is not distributed evenly over time. From 2017 to 2027, electricity costs are projected to be lower under the FHP compared to the status quo (for a total savings of $33 billion), while after 2027, electricity costs are projected to be higher under the FHP compared to the status quo (for a total cost of $9 billion). This results in net savings of $24 billion over 29 years.

The projected cost of the FHP to the Province of $45 billion over 29 years assumes that the Province does not borrow funds to finance the FHP. If the Province funds the FHP through borrowing, it could increase costs by $24 to $48 billion, bringing the total Provincial cost of the FHP to between $69 and $93 billion.[24]

Finally, the electricity cost refinancing component of the FHP involves a complicated accounting structure that will increase gross debt but does not impact the Province’s net debt due to the creation of a regulatory / investment asset. If the creation of the regulatory / investment asset does not meet with public sector accounting standards, then the Province’s annual surplus / deficit would deteriorate by a total of $26 billion over the next 11 years but improve by the same amount over the following 18 years. The FAO recommends that MPPs obtain assurance from the OAGO that the Province’s proposed accounting treatment meets with public sector accounting standards and will not impact the Province’s annual surplus / deficit and net debt.

[24] Assuming an effective cost of borrowing between 3.0% and 5.0%.

# 6 Appendices

## Appendix A: Ratepayer Bill Projection

Prior to the introduction of the HST rebate and the proposed FHP, the "average" eligible electricity ratepayer had a monthly bill of $164.[25] Table 6-1 outlines what the average ratepayer's 2017 bill will look like after the implementation of the FHP.

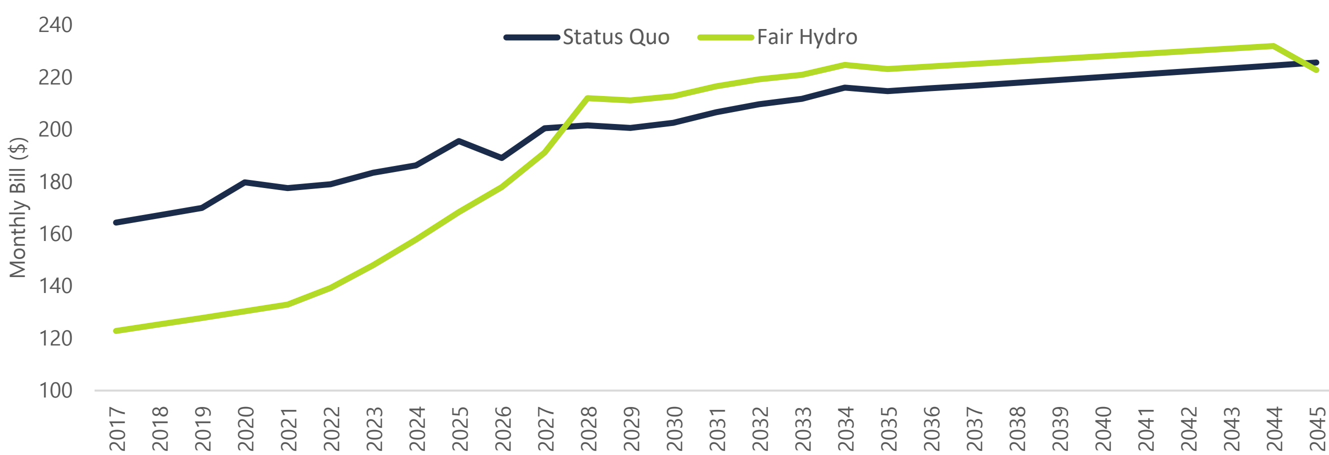
**Table 6-1: FAO Estimated FHP Impact on "Average" 2017 Monthly Bill**

| Category | Pre-FHP Bill | FHP Impact | Post FHP Bill | Explanation |
|---|---|---|---|---|
| Electricity | $85.0 | -$25.6 | $59.4 | Impact of electricity cost refinancing |
| Delivery | $54.7 | 0.0 | $54.7 | No change |
| Regulatory Charges | $5.7 | -$2.4 | $3.3 | Removal of RRRP and OESP from ratepayer bills |
| Tax | $18.9 | -$3.6 | $15.3 | Lower Pre-Tax Bill |
| **Total** | **164.3** | **-31.6** | **132.7** | |
| HST Rebate | 0 | -9.4 | -9.4 | HST Rebate |
| **Total** | **$164.3** | **-$41.0** | **$123.3** | **25% reduction** |

Source: FAO analysis of Provincial information

The FAO's estimated impact on the typical eligible electricity ratepayer bill over the life of the FHP can be seen in Figure 6-1. The FHP will reduce eligible ratepayer bills, on average, by 25% this year with increases capped at inflation for the following four years. After 2021, average eligible ratepayer bills are estimated to increase by an average of 6.8% per year to $213 when the repayment of the electricity cost refinancing begins in 2028. From 2028 until 2045, the repayment of electricity cost refinancing will add approximately $22 per month to the average eligible ratepayer bill resulting in bills that are an average of 4% higher under the FHP than the status quo despite the HST rebate.

**Figure 6-1: FAO's Estimated Average Eligible Electricity Ratepayer Bill Impact under the FHP**




Source: FAO analysis of Provincial information

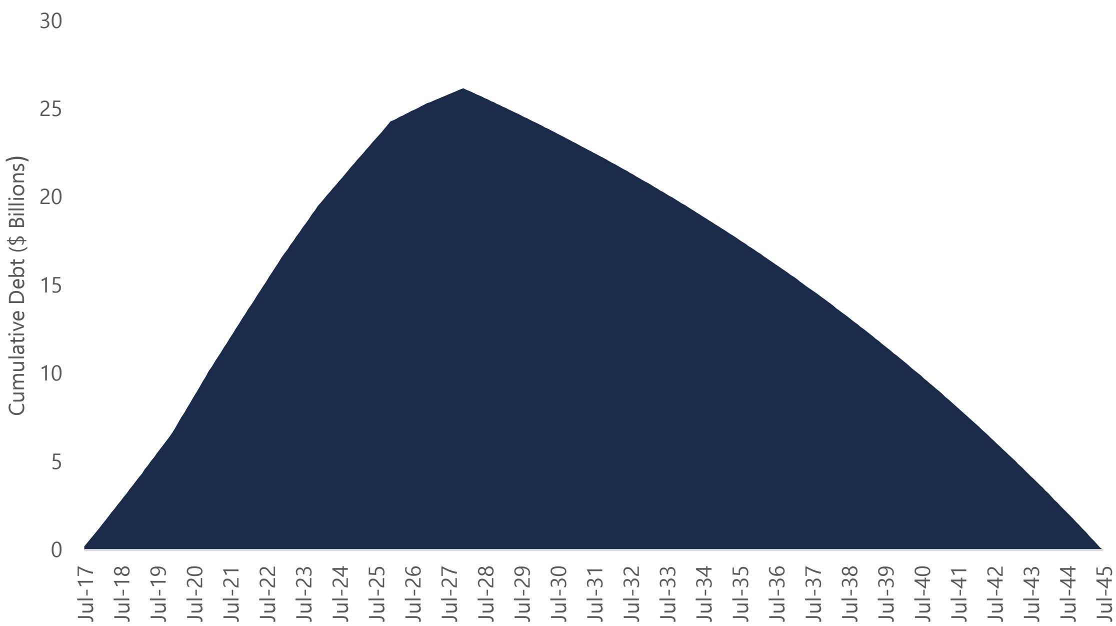
[25] According to the Ontario Planning Outlook, 2016, 750 kWh per month is the average household electricity consumption. This results in an average pre-FHP electricity bill of $164.30.

# Appendix B: Electricity Cost Refinancing

## Refinancing Plan

Under an assumed 5% interest rate, total debt would peak in 2027 at $26.2 billion (Figure 6-2). The $26.2 billion balance would then be amortized and repaid by eligible ratepayers from 2028 to 2045 in monthly payments that total $2.2 billion annually.

**Figure 6-2: Refinancing Balance**




Source: FAO analysis of Provincial information

## Interest Rate Sensitivity

The FAO assumes that total debt issued to finance the electricity cost refinancing has a weighted average interest rate of 5%. This includes the following assumptions:

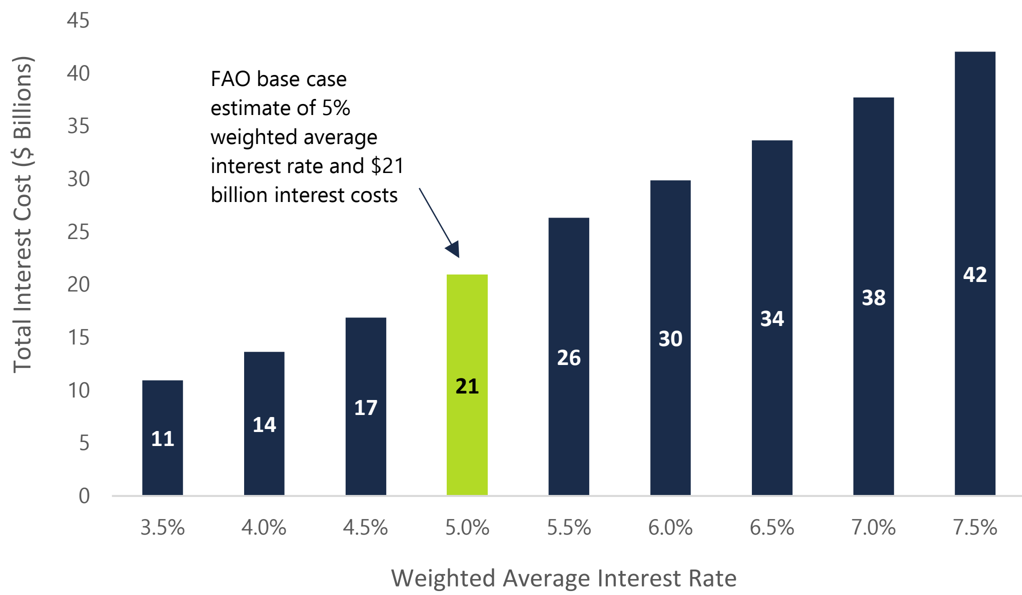
- Ontario Power Generation (OPG) Trust will finance 55% of the electricity cost refinancing, while the Province will finance 45%,
- OPG Trust borrows at an average interest rate of 5.4%, and
- the Province borrows at an average interest rate of 4.5%.[26]

Assuming a weighted average interest rate of 5%, the FAO estimates that the electricity cost refinancing results in total interest costs to eligible ratepayers of about $21 billion.[27] Figure 6-3 shows the FAO's estimate of interest costs to eligible ratepayers under different interest rate scenarios.

[26] The Province's report, *Ontario's Long-term Report on the Economy*, forecasts the government of Canada's 10-year government bond will average approximately 3.6% over the electricity cost refinancing period. The interest rate on Ontario debt is approximately 90 basis points higher than government of Canada debt, resulting in an average yield of 4.5%. The FAO assumes that OPG Trust debt will have an interest rate that is 90 basis points higher than Ontario's debt. The actual interest rate spread between OPG Trust debt and Provincial debt will depend on market conditions.

[27] See Appendix C for details on the financing structure.

**Figure 6-3: FAO Estimate of Impact of Changes in Interest Rate on Electricity Cost Refinancing**




Source: FAO analysis of Provincial information

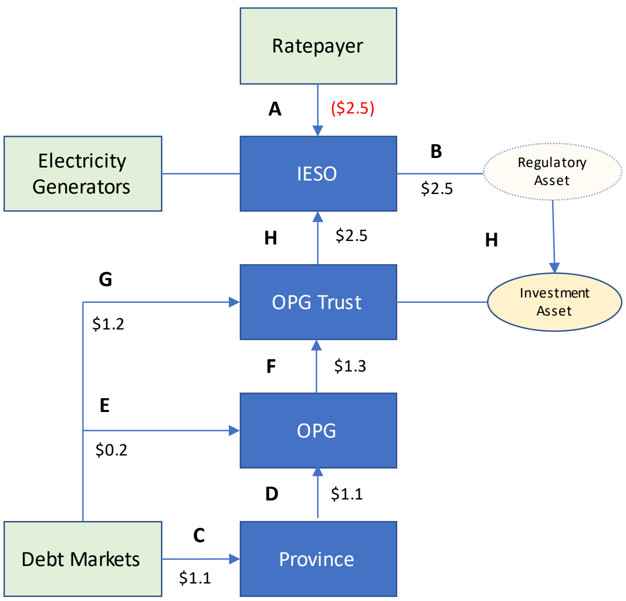
If the weighted average interest rate increases from 5% to 6%, then the FAO estimates that ratepayers would pay an additional $9 billion in interest expense related to the electricity cost refinancing. If the weighted average interest rate decreased to 4%, then the FAO estimates that ratepayers would pay $7 billion less in interest expense. If the Province financed the entire electricity cost refinancing, as opposed to only 45%, the FAO estimates that ratepayers would save about $4 billion in interest expense, because the interest rate on Provincial debt is lower than the interest rate on OPG Trust's debt.

# Appendix C: Accounting Treatment Analysis for Electricity Cost Refinancing

## Financing Structure[28]

The Province is proposing that it will finance about 45% of the electricity cost refinancing, while Ontario Power Generation (OPG) will finance the remaining 55%. The Province will issue debt to finance its portion, and then invest this amount into OPG. Then, OPG will take the funding provided by the Province and loan it to a newly created trust (OPG Trust), which will be consolidated within OPG. The OPG Trust will then issue debt to finance OPG's portion of the electricity cost refinancing. Meanwhile, the Independent Electricity System Operator (IESO) will create a regulatory asset to account for the future repayment of the electricity cost refinancing. Finally, the OPG Trust will purchase the regulatory asset from the IESO. This purchase converts the regulatory asset into an investment asset.[29] Figure 6-4 summarizes the proposed financing structure. It illustrates how the estimated $2.5 billion in average annual electricity costs over the first 10 years of the FHP will be financed by the Province and its consolidated entities.

**Figure 6-4: Proposed Financing Structure for $2.5 billion in Electricity Cost Refinancing**




**A:** IESO collects $2.5 billion less from ratepayers

**B:** IESO records a regulatory asset of $2.5 billion

**C:** Province borrows $1.1 billion from debt markets

**D:** Province invests $1.1 billion into OPG as equity

**E:** OPG borrows $0.2 billion from debt markets

**F:** OPG loans $1.3 billion to OPG Trust

**G:** OPG Trust borrows $1.2 billion from debt markets

**H:** OPG Trust purchases regulatory asset from IESO for $2.5 billion

Source: FAO analysis of Provincial information

## Regulatory Asset

As Figure 6-4 illustrates, the Province is proposing that the IESO will record a regulatory asset to account for the future repayment of the electricity cost refinancing from eligible electricity ratepayers. The IESO will rely on U.S. Generally Accepted Accounting Principles (US GAAP) to record the value of this asset on its balance sheet. For example, the IESO has recently added the following to the accounting policies section of its financial statements,

> As a rate-regulated entity, the IESO, in appropriate circumstances establishes regulated assets or liabilities and thereby defers the impact on the statement of operations of certain expenses or revenues because they are probable to be collected or refunded to market participants through future billings. The IESO has applied guidance from United States Generally Accepted Accounting Principles (US GAAP) Topic 980, Regulated Operations, in this policy.[30]

[28] Based on FAO analysis of information provided by the Province.
[29] See schedule 1, section 28(1) of the proposed Bill 132, the *Fair Hydro Act, 2017*.
[30] Page 10 of IESO's financial statements in its 2016 Annual Report.

US GAAP Topic 980, Regulated Operations, specifies the following conditions to record a regulatory asset,

1. The entity's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.
2. The regulated rates are designed to recover the specific entity's costs of providing the regulated services or products.
3. It is reasonable to assume that rates set at levels that will recover the entity's costs can be charged to and collected from customers.[31]

The IESO submits to the Ontario Energy Board (OEB) its proposed expenditure and revenue requirements and the fees it proposes to charge.[32] Further, under the proposed Bill 132, the *Fair Hydro Act, 2017* the OEB will set and determine rates that will create a revenue loss for the IESO and allow it to eventually recover that lost revenue from eligible electricity ratepayers.[33] The Province proposes that the regulatory asset will be created because the IESO has incurred costs with respect to its regulated service of settling the wholesale electricity market.

However, in principle, the electricity costs ultimately belong to entities that provide electricity. In other words, the IESO would not be able to incur a revenue shortfall if electricity generation, transmission and distribution assets did not exist. The IESO does not provide electricity to ratepayers. Nevertheless, the Province is proposing that the IESO has incurred costs with respect to its service of settling the wholesale electricity market. As such, it is important to determine whether this service is a rate-regulated activity.

In addition, the electricity cost refinancing initiative is not directly related to the actual cost of generating electricity in Ontario. This is because the contracts that generators have with the IESO will not be changed, which dictate how much money generators will receive for their electricity production. In this sense, the costs of the Province's proposal are more like direct financing costs for electricity ratepayers.

Overall, due to the nature of the proposed financing transaction, the FAO recommends that MPPs obtain assurance from the OAGO that the Province's proposed accounting treatment for the electricity cost refinancing meets Canadian public sector accounting standards.

[31] ASC 980-10-15-2.
[32] Part 2, section 25(1) of the *Electricity Act, 1998*.
[33] See schedule 1, section 25(2) of the *Fair Hydro Act, 2017*.

# Appendix D: Development of this Report

## Authority

The Financial Accountability Officer decided to undertake the analysis presented in this report under section 10(1)(b) of the *Financial Accountability Officer Act, 2013*.

## Key Questions

The following key questions were used as a guide while undertaking research for this report:

- What is the fiscal impact of the FHP on the Province's long-term finances over 30 years?
- What is the impact on electricity costs and electricity ratepayers over 30 years?
- A review of the financing structure of the FHP, including the electricity cost refinancing.

## Methodology

This report has been prepared with the benefit of information provided by the Province, meetings with staff from the Ministry of Energy, the Ontario Financing Authority, Treasury Board Secretariat and the Ministry of Finance, a review of the proposed Bill 132, the *Fair Hydro Act, 2017*, a review of relevant literature, as well as other publicly available information. Specific sources are referenced throughout.

This report reviews the FAO's estimate of the fiscal impact of the Province's FHP on the Province and electricity ratepayers. The FAO's estimates are subject to many assumptions and uncertainties, which are referenced throughout the report. As such, the actual fiscal impact of the FHP may differ significantly from the FAO's estimates.

All dollar amounts are in Canadian, current dollars (i.e. not adjusted for inflation) unless otherwise noted. The FAO has not adjusted its estimates of future costs and savings to a present value basis.