



Hydro One Rate Payer Impact Analysis

Prepared for: The Ministry of Energy

As part of the Assessment of Organizational and
Structural Opportunities at Hydro One study

February 28, 2013

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Use of this Information

The Ministry of Energy engaged KPMG to estimate rate payer impact based on KPMG-identified organizational and structural opportunities for cost savings at Hydro One.

Estimated savings in this report are based on specific assumptions and actions undertaken by Hydro One. Actual savings achieved for the period covered and the time to achieve these savings will vary from the information presented and the variations may be material.

Our procedures consisted solely of inquiry, observation, comparison and analysis of Hydro One-provided information. We relied on the completeness and accuracy of the information provided. Such work does not constitute an audit. Accordingly, we have expressed no opinion on financial results, internal controls or other information.



Hydro One Rate Payer Analysis

Introduction

This document illustrates the rate payer impact based on the estimated savings identified in the KPMG report titled 'The Assessment of Organizational and Structural Opportunities at Hydro One'.

The methodology used to calculate savings is primarily based on guidance provided by Hydro One. Our analysis shows the rate payer impact for a household consuming 800 KWh per month under three distinct scenarios:

- Scenario one – This scenario reflects a typical 'year one' where one-time costs are incurred and savings from OM&A and Dx capital opportunities are realized. Tx Capital savings are not included as Tx projects are assumed to require one year of development prior to being in-service.
- Scenario two – This scenario reflects a typical 'year two' where OM&A and Dx capital savings are realized as well as the first year of Tx capital savings.
- Scenario three – This scenario reflects the steady state where OM&A, Dx capital and Tx capital savings are realized.

Opportunity Savings

The table below shows the opportunity savings and related one-time costs that were identified in our Hydro One report. Each opportunity has a base and stretch case which shows the range of savings that Hydro One can expect to achieve by pursuing these opportunities. One-time costs include severance and transition costs related to each opportunity.

Opportunity Savings and One-time Costs	Base Case		Stretch Case	
	Estimated Savings	Estimated One-time Costs	Estimated Savings	Estimated One-time Costs
Opportunity #1: Increase EPC	\$ 23.0	\$ 0.2	\$ 77.0	\$ 0.4
Opportunity #2: Outsource Forestry ¹	\$ 15.0	\$ 56.9	\$ 15.0	\$ 57.1
Opportunity #3: Improve Stations Maintenance	\$ 5.0	\$ 0.3	\$ 13.0	\$ 0.5
Opportunity #4: Offshore Non-business Critical Applications	\$ -	\$ 0.8	\$ 3.5	\$ 1.2
Opportunity #5: Extend VDI Deployment	\$ 0.6	\$ 0.5	\$ 1.6	\$ 0.8
Opportunity #6: Switch To An End Point Cost Model	\$ 0.5	\$ -	\$ 0.9	\$ -
Notes: 1. In this analysis, we have used \$15m for both the Base and Stretch case. In the Base case, we assume that all necessary changes to the collective bargaining agreement will be obtained and therefore outsourcing savings can be realized. As noted in our report, further analysis is required to estimate the Stretch Case savings so we have used the savings estimated for the Base case for both scenarios.				

The table below shows how the identified savings and costs are distributed across OM&A and capital. The distribution for each opportunity was determined based on discussions with Hydro One and our analysis.

Distribution of Opportunity Savings	% OMA	% Capital	Rationale
Opportunity #1: Increase EPC	0%	100%	Savings are directly related to the Engineering Projects and Delivery capital spend
Opportunity #2: Outsource Forestry	100%	0%	Savings are based on operational efficiencies in the vegetation management work program
Opportunity #3: Improve Stations Maintenance	87%	13%	Savings fall under both OM&A and Capital as the group does work on both. We calculated the distribution based on how many FTE hours was spent on each.
Opportunity #4: Offshore Non-business Critical Applications	100%	0%	Savings will impact the operational costs of running IT systems which falls under OM&A
Opportunity #5: Extend VDI Deployment	100%	0%	These savings are related to minor fixed assets which fall under OM&A
Opportunity #6: Switch To An End Point Cost Model	100%	0%	Savings will impact the operational costs of running IT systems and falls under OM&A

Rate Payer Impacts

The percentage change in Consumer Bills is calculated by allocating the savings and costs for Tx and Dx based on the standard value/portion that each represents on the average consumer bill (provided by Hydro One). Capital Savings associated with the opportunities are not all passed to the rate payer directly, but rather a specific portion (provided by Hydro One) of the annual savings impact the revenue requirement, and therefore are assumed to be passed on the rate payer.

The figure below shows how opportunity savings and one-time costs impacts to the rate payer are calculated.

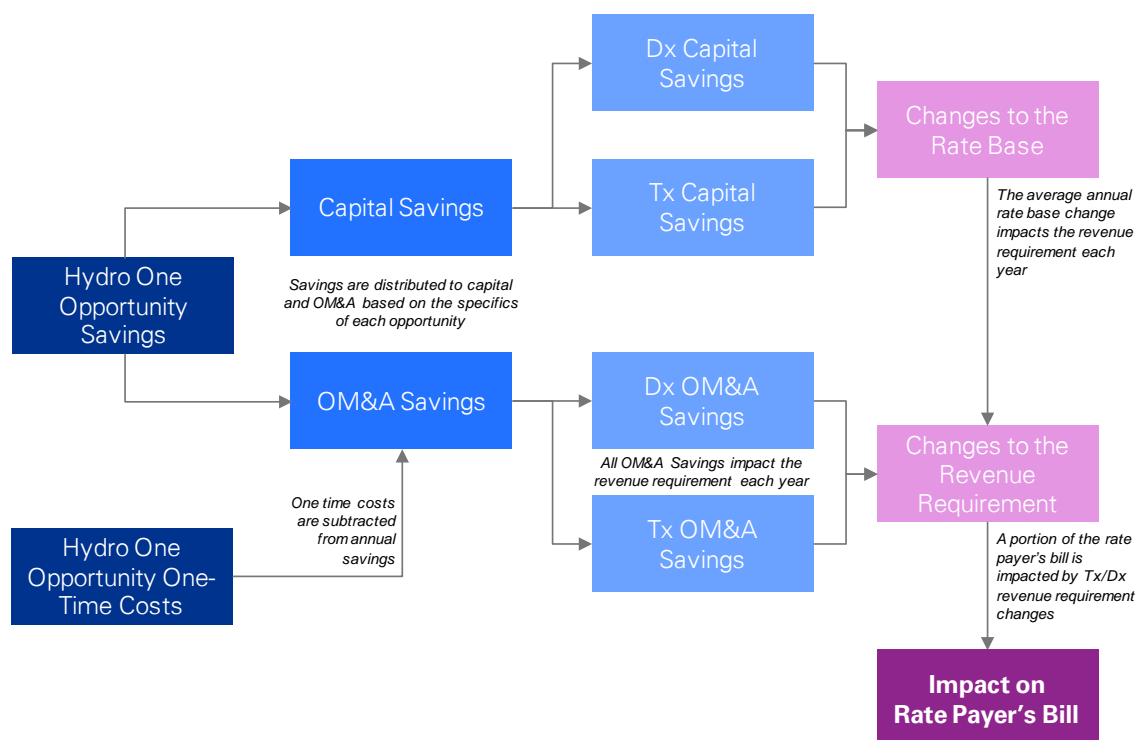


Figure 1: Rate Payer Bill Impact

We have provided rate payer impacts under three scenarios. These scenarios isolate the rate payer impact that could be expected when one-time expenses are incurred, when capital savings have reached a steady state. The following show the calculation of savings on consumer bills for each scenario.

Scenario One:

Step 1: OM&A and Capital Savings

Calculate the OM&A and Capital impact of each opportunity based on the distribution of savings in each area. Scenario 1 includes one-time costs.

Savings by OM&A and Capital	Distribution of Savings		Base Case			Stretch Case		
Key Assumptions:	% OM&A	% Capital	Net OM&A Impact ¹	Net Capital Impact	Total Impact	Net OM&A Impact ¹	Net Capital Impact	Total Impact
Opportunity #1: Increase EPC	0%	100%	\$ 0.2	\$ (23.0)	\$ (22.8)	\$ 0.4	\$ (77.0)	\$ (76.6)
Opportunity #2: Outsource Forestry	100%	0%	\$ 41.9	\$ -	\$ 41.9	\$ 42.1	\$ -	\$ 42.1
Opportunity #3: Improve Stations Maintenance	87%	13%	\$ (4.1)	\$ (0.7)	\$ (4.7)	\$ (10.8)	\$ (1.7)	\$ (12.5)
Opportunity #4: Offshore Non-business Critical Applications	100%	0%	\$ 0.8	\$ -	\$ 0.8	\$ (2.3)	\$ -	\$ (2.3)
Opportunity #5: Extend VDI Deployment	0%	100%	\$ 0.5	\$ (0.6)	\$ (0.1)	\$ 0.8	\$ (1.6)	\$ (0.8)
Opportunity #6: Switch To An End Point Cost Model	100%	0%	\$ (0.5)	\$ -	\$ (0.5)	\$ (0.9)	\$ -	\$ (0.9)
Total Savings			\$ 38.9	\$ (24.2)	\$ 14.7	\$ 29.3	\$ (80.3)	\$ (51.0)
Notes								
1. OM&A Savings include one-time severance and transition costs								

Step 2: Tx and Dx Savings

Calculate the Tx and Dx component of OM&A savings and capital savings.

Savings by Tx and Dx	Base Case			Stretch Case		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Capital Savings ¹	\$ (11.4)	\$ (12.8)	\$ (24.2)	\$ (37.7)	\$ (42.6)	\$ (80.3)
OM&A Savings ^{2,3}	\$ 5.4	\$ 33.5	\$ 38.9	\$ (0.1)	\$ 29.5	\$ 29.3
Total Savings	\$ (6.0)	\$ 20.6	\$ 14.7	\$ (37.9)	\$ (13.1)	\$ (51.0)
Notes						
1. Regular Capital Savings allocation: Tx (47%) and Dx (53%) – provided by Hydro One						
2. Regular OM&A Savings allocation: Tx (57%) and Dx (43%) – provided by Hydro One						
3. Opportunity#2 - Outsource Forestry allocation: Tx (17%) and Dx (83%) – KPMG Analysis						

Step 3: Changes to the Revenue Requirement

Calculate the corresponding change to the Revenue Requirement based on the Tx and Dx impacts. In Scenario one, Tx Capital projects are assumed not in-service and therefore the related savings are not included.

Capital and OM&A changes to the Revenue Requirement	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Percentage of Savings Passed through to the Rate Base ¹	0%	50%		0%	50%	
Capital Savings (Change to Rate Base)	\$ -	\$ (6.4)	\$ (6.4)	\$ -	\$ (21)	\$ (21.3)
Savings Portion that Impacts the Revenue Requirement ²	13%	10%	-	13%	10%	-
Capital Changes to Revenue Requirement	\$ -	\$ (0.6)	\$ (0.6)	\$ -	\$ (2.1)	\$ (2.1)
OMA Savings	\$ 5.4	\$ 33.5	\$ 38.9	\$ (0.1)	\$ 29.5	\$ 29.3
OMA Changes to Revenue Requirement	\$ 5.4	\$ 33.5	\$ 38.9	\$ (0.1)	\$ 29.5	\$ 29.3
Total Changes to Revenue Requirement (Capital + OM&A)	\$ 5.4	\$ 32.8	\$ 38.2	\$ (0.1)	\$ 27.3	\$ 27.2
Notes 1. Based on scenario 2. Ratio provided by Hydro One						

Step 4: Impact on Average Monthly Consumer Bill

Based on changes to the Revenue Requirement, calculate the impact to consumer bills. The table below shows this impact on the average monthly bill for an 800 KWh / month household.

Changes to the Average Consumer Bill	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Average Consumer Bill ¹	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144
Portion of Consumer Bill (%) ²	7%	32%	39%	7%	32%	39%
Portion of Consumer Bill (\$)	\$ 10.1	\$ 46.1	\$ 56.2	\$ 10.1	\$ 46.1	\$ 56.2
Impact on Portion of Monthly Bill (%) ³	0.38%	2.74%	2.31%	-0.01%	2.28%	1.87%
Impact on Monthly Bill (\$)	\$ 0.04	\$ 1.26	\$ 1.30	\$ (0.00)	\$ 1.05	\$ 1.05
Notes 1. Based on 800 KW usage per month for an average residential Hydro One customer 2. Ratio provided by Hydro One 3. Positive values represent an increase while negative values represent a decrease in the monthly bill						

Scenario Two:

Step 1: OM&A and Capital Savings

Calculate the OM&A and Capital impact of each opportunity based on the distribution of savings in each area. Scenario 2 does not include one-time costs.

Savings by OM&A and Capital	Distribution of Savings		Base Case			Stretch Case		
	% OM&A	% Capital	Net OM&A Impact ¹	Net Capital Impact	Total Impact	Net OM&A Impact ¹	Net Capital Impact	Total Impact
Key Assumptions:								
Opportunity #1: Increase EPC	0%	100%	\$ -	\$ (23.0)	\$ (23.0)	\$ -	\$ (77.0)	\$ (77.0)
Opportunity #2: Outsource Forestry	100%	0%	\$ (15.0)	\$ -	\$ (15.0)	\$ (15.0)	\$ -	\$ (15.0)
Opportunity #3: Improve Stations Maintenance	87%	13%	\$ (4.4)	\$ (0.7)	\$ (5.0)	\$ (11.3)	\$ (1.7)	\$ (13.0)
Opportunity #4: Offshore Non-business Critical Applications	100%	0%	\$ -	\$ -	\$ -	\$ (3.5)	\$ -	\$ (3.5)
Opportunity #5: Extend VDI Deployment	0%	100%	\$ -	\$ (0.6)	\$ (0.6)	\$ -	\$ (1.6)	\$ (1.6)
Opportunity #6: Switch To An End Point Cost Model	100%	0%	\$ (0.5)	\$ -	\$ (0.5)	\$ (0.9)	\$ -	\$ (0.9)
Total Savings			\$ (19.9)	\$ (24.2)	\$ (44.1)	\$ (30.7)	\$ (80.3)	\$ (111.0)
Notes								
1. OM&A Savings include one-time severance and transition costs								

Step 2: Tx and Dx Savings

Calculate the Tx and Dx component of OM&A savings and capital savings.

Savings by Tx and Dx	Base Case			Stretch Case		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Capital Savings ¹	\$ (11.4)	\$ (12.8)	\$ (24.2)	\$ (37.7)	\$ (42.6)	\$ (80.3)
OM&A Savings ^{2,3}	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
Total Savings	\$ (16.7)	\$ (27.4)	\$ (44.1)	\$ (49.2)	\$ (61.7)	\$ (111.0)
Notes						
1. Regular Capital Savings allocation: Tx (47%) and Dx (53%) – provided by Hydro One						
2. Regular OM&A Savings allocation: Tx (57%) and Dx (43%) – provided by Hydro One						
3. Opportunity#2 - Outsource Forestry allocation: Tx (17%) and Dx (83%) – KPMG Analysis						

Step 3: Changes to the Revenue Requirement

Calculate the corresponding change to the Revenue Requirement based on the Tx and Dx impacts. In Scenario two, Tx Capital projects are assumed in-service and therefore the related savings are included.

Capital and OM&A changes to the Revenue Requirement	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Percentage of Savings Passed through to the Rate Base ¹	50%	100%		50%	100%	
Capital Savings (Change to Rate Base)	\$ (5.7)	\$ (12.8)	\$ (18.5)	\$ (19)	\$ (43)	\$ (61.4)
Savings Portion that Impacts the Revenue Requirement ²	13%	10%	-	13%	10%	-
Capital Changes to Revenue Requirement	\$ (0.7)	\$ (1.3)	\$ (2.0)	\$ (2.5)	\$ (4.3)	\$ (6.7)
OMA Savings	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
OMA Changes to Revenue Requirement	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
Total Changes to Revenue Requirement (Capital + OM&A)	\$ (6.1)	\$ (15.8)	\$ (21.9)	\$ (13.9)	\$ (23.4)	\$ (37.4)
Notes 1. Based on scenario 2. Ratio provided by Hydro One						

Step 4: Impact to Average Monthly Consumer Bill

Based on changes to the Revenue Requirement, calculate the impact to consumer bills. The table below shows this impact on the average monthly bill for an 800 KWh / month household.

Changes to the Average Consumer Bill	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Average Consumer Bill ¹	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144
Portion of Consumer Bill (%) ²	7%	32%	39%	7%	32%	39%
Portion of Consumer Bill (\$)	\$ 10.1	\$ 46.1	\$ 56.2	\$ 10.1	\$ 46.1	\$ 56.2
Impact on Portion of Monthly Bill (%) ³	-0.43%	-1.32%	-1.16%	-0.99%	-1.95%	-1.78%
Impact on Monthly Bill (\$)	\$ (0.04)	\$ (0.61)	\$ (0.65)	\$ (0.10)	\$ (0.90)	\$ (1.00)
Notes 1. Based on 800 KW usage per month for an average residential Hydro One customer 2. Ratio provided by Hydro One 3. Positive values represent an increase while negative values represent a decrease in the monthly bill						

Scenario Three:

Step 1: OM&A and Capital Savings

Calculate the OM&A and Capital impact of each opportunity based on the distribution of savings in each area.

Savings by OM&A and Capital	Distribution of Savings		Base Case			Stretch Case		
	% OM&A	% Capital	Net OM&A Impact	Net Capital Impact	Total Impact	Net OM&A Impact	Net Capital Impact	Total Impact
Key Assumptions:								
Opportunity #1: Increase EPC	0%	100%	\$ -	\$ (23.0)	\$ (23.0)	\$ -	\$ (77.0)	\$ (77.0)
Opportunity #2: Outsource Forestry	100%	0%	\$ (15.0)	\$ -	\$ (15.0)	\$ (15.0)	\$ -	\$ (15.0)
Opportunity #3: Improve Stations Maintenance	87%	13%	\$ (4.4)	\$ (0.7)	\$ (5.0)	\$ (11.3)	\$ (1.7)	\$ (13.0)
Opportunity #4: Offshore Non-business Critical Applications	100%	0%	\$ -	\$ -	\$ -	\$ (3.5)	\$ -	\$ (3.5)
Opportunity #5: Extend VDI Deployment	0%	100%	\$ -	\$ (0.6)	\$ (0.6)	\$ -	\$ (1.6)	\$ (1.6)
Opportunity #6: Switch To An End Point Cost Model	100%	0%	\$ (0.5)	\$ -	\$ (0.5)	\$ (0.9)	\$ -	\$ (0.9)
Total Savings			\$ (19.9)	\$ (24.2)	\$ (44.1)	\$ (30.7)	\$ (80.3)	\$ (111.0)

Step 2: Tx and Dx Savings

Calculate the Tx and Dx component of OM&A savings and capital savings.

Savings by Tx and Dx	Base Case			Stretch Case		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Capital Savings ¹	\$ (11.4)	\$ (12.8)	\$ (24.2)	\$ (37.7)	\$ (42.6)	\$ (80.3)
OM&A Savings ^{2,3}	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
Total Savings	\$ (16.7)	\$ (27.4)	\$ (44.1)	\$ (49.2)	\$ (61.7)	\$ (111.0)

Notes

- Regular Capital Savings allocation: Tx (47%) and Dx (53%) – provided by Hydro One
- Regular OM&A Savings allocation: Tx (57%) and Dx (43%) – provided by Hydro One
- Opportunity#2 - Outsource Forestry allocation: Tx (17%) and Dx (83%) – KPMG Analysis

Step 3: Changes to the Revenue Requirement

Calculate the corresponding change to the Revenue Requirement based on the Tx and Dx impacts. In Scenario three, Tx Capital projects are assumed in-service and therefore the related savings are included.

Capital and OM&A changes to the Revenue Requirement	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Percentage of Savings Passed through to the Rate Base ¹	100%	100%		100%	100%	
Capital Savings (Change to Rate Base)	\$ (11.4)	\$ (12.8)	\$ (24.2)	\$ (38)	\$ (43)	\$ (80.3)
Savings Portion that Impacts the Revenue Requirement ²	13%	10%	-	13%	10%	-
Capital Changes to Revenue Requirement	\$ (1.5)	\$ (1.3)	\$ (2.8)	\$ (4.9)	\$ (4.3)	\$ (9.2)
OMA Savings	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
OMA Changes to Revenue Requirement	\$ (5.3)	\$ (14.5)	\$ (19.9)	\$ (11.5)	\$ (19.2)	\$ (30.7)
Total Changes to Revenue Requirement (Capital + OM&A)	\$ (6.8)	\$ (15.8)	\$ (22.6)	\$ (16.4)	\$ (23.4)	\$ (39.8)
Notes 1. Based on scenario 2. Ratio provided by Hydro One						

Step 4: Impact to Average Monthly Consumer Bill

Based on changes to the Revenue Requirement, calculate the impact to consumer bills. The table below shows this impact on the average monthly bill for an 800 KWh / month household.

Changes to the Average Consumer Bill	Base			Stretch		
	Net Tx Impact	Net Dx Impact	Total Impact	Net Tx Impact	Net Dx Impact	Total Impact
Average Consumer Bill ¹	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144	\$ 144
Portion of Consumer Bill (%) ²	7%	32%	39%	7%	32%	39%
Portion of Consumer Bill (\$)	\$ 10.1	\$ 46.1	\$ 56.2	\$ 10.1	\$ 46.1	\$ 56.2
Impact on Portion of Monthly Bill (%) ³	(0.49%)	(1.32%)	(1.17%)	(1.17%)	(1.95%)	(1.81%)
Impact on Monthly Bill (\$)	\$ (0.05)	\$ (0.61)	\$ (0.66)	\$ (0.12)	\$ (0.90)	\$ (1.02)
Notes 1. Based on 800 KW usage per month for an average residential Hydro One customer 2. Ratio provided by Hydro One 3. Positive values represent an increase while negative values represent a decrease in the monthly bill						

Key Assumptions:

The primary assumptions used in this analysis are:

- Severance and transition costs are assumed to be paid in year one to affected FTE.
- OM&A savings are realized in year that opportunities are implemented
- Dx Capital savings are realized in year that opportunities are implemented
- Tx Capital savings require two years to be realized i.e. Tx projects are in-service after year one