

The logo for Niagara On-The-Lake Hydro is displayed in white text on a dark purple, wavy background. The text is arranged in three lines: "Niagara" in a large, elegant serif font, "On-The-Lake" in a similar serif font with hyphens, and "HYDRO" in a bold, uppercase sans-serif font.

Niagara On-The-Lake HYDRO

NIAGARA-ON-THE-LAKE HYDRO INC.

Analysis of Hydro One Acquisitions

AUGUST 2017

EXECUTIVE SUMMARY

Hydro One Networks Inc. (Hydro One[®]) acquired 87 local distribution companies (LDCs) in 2000-2001 plus another in 2007. By harmonizing line loss rates and distribution rates of the customers of these LDCs with the Hydro One existing customer base, Hydro One has effectively used these acquisitions to subsidize its existing operations whose distribution rates are thus kept lower than they otherwise would have been. This despite the fact that Hydro One already has one of the fastest increasing distribution rates in Ontario with residential distribution rates rising 39-70% from 2005-2016. We estimate this subsidy to have been over \$492 million from 2005-2016 and growing each year for both line loss rates (\$77 million) and distribution rates (\$415 million).

This analysis was prepared for the Board of Niagara-on-the-Lake Hydro (NOTL Hydro). As a result of the analysis it can be concluded that:

1. This harmonization created rate disparities between Hydro One customers and customers of other LDCs that are either neighbours or in similar sized municipalities. Customers of the acquired LDCs had distribution rate increases that average 262% from 2005-2016 and one municipality saw their rates increase by over 800%. These distribution rates are now over 73% higher than the highest rate grouping of municipally owned LDCs.
2. There is no evidence that Hydro One inappropriately profited from these acquisitions other than in the approved manner of a return on rate base. However, this high level of subsidization is an opportunity not available to other potential acquirers of LDCs and an incentive for Hydro One to increase the LDC purchase price to ensure success. Competitive acquirers would have to match this price increase or remain unsuccessful.
3. Since 2014, Hydro One has purchased three more LDCs and has agreements to purchase another two. By their actions and statements it is clear Hydro One intends to use these acquisitions to provide additional subsidies which we estimate could be another \$26.7 million a year.
4. Every step taken by Hydro One has had regulatory approval. It is clear from the review of these regulatory proceedings that a number of opportunities to prevent these rate increases were missed. It is hoped with the recent adjournment of the Orillia acquisition proceeding that the regulator is going to address this issue. The NOTL Hydro Board supports the Ontario Energy Board in this regard.
5. To correct this situation the NOTL Hydro Board reiterates its recommendations that the Ontario Energy Board be made clearly independent and that Hydro One be broken up between its transmission and distribution businesses and further into multiple smaller distribution businesses. These steps are needed to try to reduce the current Hydro One distribution costs and to prevent further large rate increases.

INTRODUCTION

Hydro One has acquired a number of Ontario LDCs over the past few years (see chart below). The prices paid for these LDCs were higher than what some competing bidders felt they could reasonably offer while still remaining financially prudent. This raises a few questions:

1. Was Hydro One being financially irresponsible or does their position as the high cost provider of electricity distribution provide them with a perverse competitive advantage?
2. What is the rate impact of these acquisitions on the customers of the acquired LDCs and would that rate impact be different with another successful bidder.
3. What conditions should the regulator impose on these acquisitions?

It is too early to analyze the rate impacts of these acquisitions as the acquired LDCs are still in their initial 5 year rate freeze.

Recent Hydro One Acquisitions

Year	LDC Sold	Purchase Price (\$ M)	# Customers	EBITDA (\$ M)	Net Purchase Price (\$ M)	LDC Equity (\$ M)	Purchase Price Per Customer	Purchase Price EBITDA multiple	Purchase Price Equity Multiple
2014	Norfolk	\$93.0	19,337	\$6.4	\$66.0	\$30.7	\$4,809	14.5	2.1
2015	Haldimand	\$75.0	21,323	\$6.4	\$65.0	\$38.9	\$3,517	11.6	1.7
2015	Woodstock	\$46.2	15,75	\$4.2	\$29.2	\$14.9	\$2,934	10.9	2.0
tbd	Orillia	\$41.3	13,445	\$3.1	\$26.35	\$12.6	\$3,072	13.4	2.1
tbd	Peterborough	\$105.0	36,317	\$6.9	\$62.7	\$29.5	\$2,891	15.3	2.1

Note: Customer count, EBITDA and Equity sourced from prior year Ontario Energy Board Yearbook of Electricity Distributors

It is noted that the Ontario Energy Board (OEB) has deferred their decision on the Orillia acquisition until a decision has been made on the rate increase requests for Norfolk, Haldimand and Woodstock in the recent Hydro One rate application.

This report will instead analyze the 87 LDCs Hydro One acquired in 2000 and 2001 and the impact their subsequent rates has had on Hydro One cash flows, Hydro One revenues and customer costs. It is expected that the results of this analysis can help answer the above questions.

HYDRO ONE ACQUISITIONS

Hydro One has acquired a total of 92 LDCs and has agreements to purchase two more LDCs (Orillia and Peterborough) subject to OEB approval. They have since divested one of the acquisitions (Brampton). Hydro One has also purchased the transmission business of Great Lakes Power. These acquisitions and their related good will is summarized below:

Breakdown of Hydro One Goodwill Balance

Year	Acquisition	Goodwill (\$ Million)
2000	16 LDCs	6
2001	71 LDCs	67
2007	Terrace Bay	< 1
2014	Norfolk	40
2015	Haldimand	33
2015	Woodstock	22
2016	Great Lakes Power Transmission	159
Total		327

In theory, the distribution rates of any customer are based on the cost of the assets used to serve the customer. Therefore, a customer should be indifferent as to the ownership of these assets. On an acquisition of an LDC, the value of the acquired assets is not restated to market value, as would be the case in the normal acquisition of a company, but is kept at its existing book value. This allows the regulator to continue to set rates based on actual costs. The difference between the purchase price and the book value is goodwill and is not included in rate calculations.

Reality is, naturally, somewhat messier. Rates are not set on a customer by customer basis but for a service territory.

- If ownership changes and the acquired service territory remains the same then rates should remain the same as they would otherwise have been.
- If ownership changes but the acquired service territory is merged with a lower cost service territory then rates in the acquired territory should fall. This can be seen with some of the mergers or sales of small LDCs to their larger, urban neighbours.
- If ownership changes but the acquired service territory is merged with a higher cost service territory then the rates in the acquired territory will rise. This has occurred with the Hydro One acquisitions.

The customers of the LDCs acquired in 2000 and 2001 all saw significant rate increases.

ANALYSIS METHODOLOGY

The purpose of the analysis was to estimate how much incremental revenue Hydro One realized from their 2000-2001 acquisitions and how this revenue affected Hydro One's financial results. For each acquisition, the annual revenue from the customer base at the time of the acquisition and for subsequent years was estimated. This was compared to the equivalent revenue a small LDC would have required based on current rates of small LDCs.

The most recent year for which data is available on the LDCs acquired in 2000 and 2001 is the 1997 Ontario Hydro Municipal Electric Utility Financial & Statistical Summary. This provides us with the following for each LDC:

- Number of residential and general service customers
- Book value of assets sold to Hydro One
- Average monthly kWh for residential and general service customers
- Line loss rate for 1997

Distribution rates are available for all current LDCs from 2005-2016. Rates for each acquired LDC are available from 2005-2010. From 2011 there were no specific rates for the acquired LDCs, only the general Hydro One rates which had been harmonized with all the acquired LDCs.

For the purpose of the analysis the following assumptions were made:

- The number of customers were assumed to remain at 1997 levels. This assumption provides a conservative estimate of the Hydro One incremental revenue as it is likely that the number of customers would have increased. It also allows for the fact that after the acquisition Hydro One would have paid the capital costs of connecting any new customers subject to their conditions of service.
- A few of the LDCs had a large general service customer. These were ignored for the purpose of this analysis as it is possible these customers may not have continued. Ignoring these few customers provides a more conservative incremental revenue estimate.
- The monthly kWh was assumed to decline by 1% per annum commencing in 2005. The decline is consistent with the experience of most LDCs who have seen per capita consumption decline over time.
- Most of the LDC customers were moved to the residential rate class R1 and its general service equivalent in 2011. Some of the larger acquired LDCs had customer bases sufficient that some or all of their customers were charged the lower residential rate class UR (urban) and its general service equivalent. For these larger LDCs we assumed all customers received the urban rates. We

ANALYSIS METHODOLOGY *CONT'D*

know this was not the case but as we did not have access to the breakdown between the urban and rural classes within these service areas this assumption provides a more conservative estimate of incremental revenue.

- Only the fixed service charge and the monthly variable rate were used for the analysis. Rate riders are more commonly cash flow and balance sheet related rather than revenue for the LDC so for simplicity were fully excluded from the analysis. As the rate riders were usually incremental charges (rather than credits) this also provided a more conservative estimate of incremental revenue.
- For comparative purposes the average annual rates of all the LDCs with less than 5,000 customers, as of 2016, was calculated for the purpose of determining the small LDC revenue requirement. LDCs with less than 5,000 customers were used as they have the highest rates of LDCs (other than Hydro One). Thought was given to using rates of LDCs that were made up of a number of merged smaller LDCs such as Westario, Rideau St. Lawrence or Ottawa River Power as this was another option for the LDCs that sold to Hydro One. However, as their rates were lower this would have been a less conservative comparative.

RESULTS OF THE ANALYSIS - *LINE LOSS RATES*

In 1997 the average line loss rate for all 87 LDCs was 5.1%. In the years 2005-2007, Hydro One used a line loss rate of 5.45%. Though this rate is a little higher it appears reasonable.

In 2008, Hydro One switched to using its harmonized line loss rates. This resulted in an average line loss rate of around 8.8% for rural rate customers and 8.5% for urban customers. These are combined residential and general service loss rates so the average will vary by service territory. The total cost increase to customers as a result of this change in line loss rates was over \$6 million each year and the cumulative impact from 2008-2016 was \$77.5 million.

Funds collected for line losses are not revenue for the LDC but are applied against the cost of power. This line loss rate increase therefore did not increase the revenue or net income of Hydro One.

In 2008, Hydro One also decreased their line loss rate for residential classes UR and R1 from 9.2% to 7.8% and 8.2% respectively. A review of the 2008 Hydro One rate application did not indicate any specific references to incorporating the acquired LDCs into this analysis. Rather, the line loss rates were derived from an analysis of Hydro One's full distribution system.

It appears that customers of the acquired LDCs are therefore subsidizing a reduction in rates for other Hydro One residential customers. Also, if overall line loss revenue increased it could also be argued that Hydro One was easing their requirement to make investments to manage their line losses.

Either way, what is clear is that customers of the acquired LDCs are paying significantly more in line losses than if their LDC had not been sold to Hydro One.

RESULTS OF THE ANALYSIS - DISTRIBUTION REVENUE

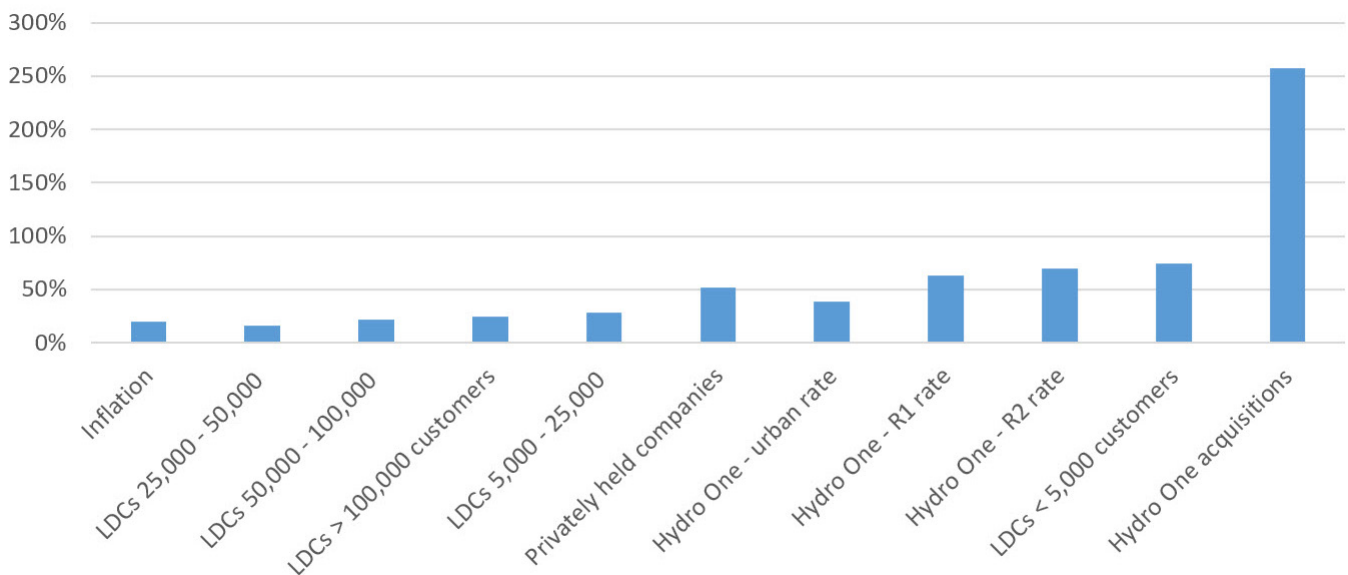
In 2005, the average distribution rates for the customers of the acquired LDCs were 17% lower than if they were charged the rates of the smallest municipally owned LDCs (those with less than 5,000 customers). By 2016, the average distribution rates for the customers of LDCs acquired by Hydro One was 73% higher.

The total excess cost to these customers over the period from 2005-2016 was \$415 million and the annual excess cost was \$58 million in 2016.

On average these customers have seen a 262% rate increase. The rate of inflation over this time period was 21%. The increases ranged from a 52% increase for the former customers of Caledon Hydro to an 816% increase for the customers of the Village of Arkona PUC.

By comparison, the increase in rates for customers of LDCs with less than 5,000 customers was 75% and for customers of municipally owned LDCs with more than 5,000 customers the rate increase was close to the rate of inflation of 21%.

Distribution Rate Increases by LDC Category 2005-2016



RESULTS OF THE ANALYSIS - DISTRIBUTION REVENUE CONT'D

Funds collected from distribution rates are revenue for Hydro One so a fair question is whether any of this \$415 million in excess revenue provided Hydro One with a return in excess over what they would have been allowed to earn on their rate base. Put another way, did Hydro One earn a return on the \$73 million of goodwill booked with these acquisitions? The format of rate applications makes it difficult to analyze the data easily but there does not appear to be an excess return for Hydro One over what they were entitled to earn on their rate base.

In 2005, rates were still low as already noted so no excess returns were earned that year. In 2006, rates jumped an average of 25% but this adjustment was a catch-up from previously deferred rate increases. Rates were now higher than those of smaller LDCs but by less than 2%. In 2007, rates increased at the rate of inflation. 2008 was the big jump when rates increased an average of 54%. However, Hydro One re-based their rates that year and included the acquired LDCs in their rebasing calculations. This means that Hydro One included the loads and costs of the acquired LDCs in calculating their revenue requirements and desired rates and, in doing so, would have limited their returns to those based on their actual cost structure not including the goodwill on the acquisitions.

2008 was also the year Hydro One was approved to harmonize the rates of the acquired LDCs with their own rates over a four year period. As a result, the average customer rates in the acquired LDCs rose 146% (more than doubling) between 2007 and 2011. By 2011 the distribution rates for Hydro One customers were almost double those of the smallest LDCs.

Since 2011, distribution rates for customers of the acquired LDCs have remained harmonized with the rates of the traditional Hydro One customers and have risen at an average of around 3% per year or just a little more than the rate of inflation.

If Hydro One as a corporation did not generate an excess return from the large increases in distribution rates for the acquired LDC customers, existing Hydro One customers certainly benefitted as the revenue requirement allocated to them is \$415 million lower than it otherwise would have been. Yet these customers have seen some of the highest increases in distribution rates in the province with a 39% increase for urban UR customers, a 63% increase for the rural R1 customers and a 75% increase for rural R2 customers. If Hydro One had not acquired these LDCs their rate increases would have been even higher.

IMPLICATIONS FOR RECENT ACQUISITIONS

Working on the assumption that Hydro One will want to harmonize the rates of its more recent acquisitions we can calculate the potential average customer rate for these LDCs. The one challenge is we do not know if the customers will be considered an urban (UR) or rural customer (R1) for the purposes of Hydro One's customer rate classification system. Our best estimate is as follows:

Potential Rate Impact at Recent Hydro One Acquisitions

Acquired LDC	Rate Year	Urban Rates		Rural Rates	
		% Change in Rates	Financial Impact (\$ million)	% Change in Rates	Financial Impact (\$ million)
Norfolk	2013	(3.4%)	(\$0.4)	50.4%	\$5.8
Haldimand	2014	(3.2%)	(\$0.4)	55.7%	\$6.2
Woodstock	2014	47.0%	\$3.5	130.7%	\$9.7
Orillia	2015	28.8%	\$2.1	115.9%	\$8.3
Peterborough	2015	66.0%	\$9.1	177.2%	\$24.5

Note: Green shading indicates the expected rate increase based on customer density

Norfolk and Haldimand have customer densities well below 60 customers per km of line so it is expected their customers would be classified as rural for Hydro One rate purposes though some towns may be classified as urban. Woodstock, Orillia and Peterborough have customer densities of around 60 so it is expected that their customers would be classified as urban though it is possible that some outlining areas may be classified as rural.

Based on this analysis it would appear that, on average, customers in these municipalities will eventually have a 50% increase in rates (Orillia customers will see a lower increase). In general, the lower the rates in each municipality the greater will be the increase. This rate increase will be higher if Hydro One distribution rates continue to increase more than LDCs each year.

Combined this totals an increase in cash flow to Hydro One of \$26.7 million each year which will help suppress rates for existing Hydro One customers as of the next rate rebasing.

It can also be questioned whether the annual financial drain to the municipality offsets the gain from the sale of the LDC at a high price. In the case of Norfolk, Hydro One paid \$40 million above book value for the LDC. At \$5.8 million a year, this gain will be offset in seven years after Norfolk rates are harmonized. The gain on the sale is held by the municipal government while the increase in distribution rates is born by individual residences and businesses.

REGULATORY OVERSIGHT

Every step in this process has been made with the approval of the Ontario Energy Board.

The initial acquisitions were approved in 2000 and 2001. This was not surprising given that most of the LDCs purchased by Hydro One had less than 2,000 customers so would likely not have survived on their own, nobody knew how the new electricity market was truly going to work and what the demands on LDCs would be and nobody knew that Hydro One's rate increases would be so high over the next ten years. However, in approving the sales it is not clear that thought had been given to how their rates would be managed in the future.

In 2006, after the five year rate freezes had expired, Hydro One applied to harmonize the rates within two years. The OEB did not approve this proposal with the substantial increase in rates being the reason given. The OEB requested Hydro One perform a cost allocation study to support its rate request.

In 2008, Hydro One again asked to harmonize rates but this time over a four year time period. This time the OEB agreed to the request. There were four features of interest in this decision.

1. As mentioned, the OEB in 2006 asked for a cost allocation study. Hydro One provided the cost allocation study but it allocated costs between the different proposed rate classes. The study did not analyze the costs between the acquired LDC territories and the "legacy" Hydro One territory. The reason given by Hydro One for not performing this analysis was that the operations had become so integrated that the study was no longer possible. By not addressing this issue at the time of the acquisition the OEB has allowed itself to be put in a position where it had no choice but to accept the Hydro One proposal.
2. By 2008 other LDCs had started building a history of rate increases. An analysis of LDCs comparable in size to the acquired LDCs, as we have used in our analysis, would have demonstrated that it was more than possible to manage these territories without requiring the rates that Hydro One was proposing. Instead of requiring this analysis during this hearing the OEB asked for it to be provided at future rate hearings at which point it would be too late.
3. Hydro One suggested that the low rates of the acquired LDCs were indicators that they were not recovering their costs. No evidence was provided for this argument and no suggestion of the alternative hypothesis that the smaller LDCs might have been more efficient. The intervenors did not accept this argument and the OEB avoided it in their decision.
4. In demonstrating the rate impact on customers of the acquired LDCs, Hydro One provided the impact of the increase as a percentage of the total customer bill. This is a standard analysis required by the OEB. The problem with this analysis is that it effectively assumes that all the other

REGULATORY OVERSIGHT - CONT'D

components of the customer bill remain unchanged. This is rarely the case. When this rate impact is combined with increases in other components of the customer bill such as the electricity commodity and regulated costs the total increase can be substantially more than 10%. It also allowed increases of over 50% in distribution costs to customers in a single year.

In 2014, Hydro One acquired Norfolk Power Distribution. Other than the acquisition of the small utility of Terrace Bay in 2007, which was included in the 2008 harmonization decision, this was the first acquisition since 2000-2001. As a result, a number of LDCs, including Niagara-on-the-Lake Hydro, intervened due to concerns Hydro One was using its higher rates to finance higher prices on acquisitions. The OEB approved the acquisition though there were features of interest in the decision.

1. As with previous acquisitions, Hydro One provided a five year rate freeze which was now enhanced by a 1% rate reduction. No commitments were made by Hydro One as to rates after the five years other than Hydro One would examine the options of a) create new rates classes for Norfolk customers, b) harmonize Norfolk rates with Hydro One rates as had been done with previous acquisitions or c) propose something else with rates. The OEB accepted this with the proviso that “it is the Board’s expectation that at the time of rate rebasing Hydro One will propose rate classes for Norfolk customers that reflect costs to serve the Norfolk service area”. It would be a concern if by the time of this rebasing Hydro One will once again have integrated the operations such that differentiating Norfolk customers is no longer possible.
2. The OEB focused on costs rather than prices in their decision-making. Presumably, the theory is that as Hydro One will reduce costs in consolidating Norfolk (this is accepted) and as there is a direct correlation between costs and rates any reduction in costs must be good for customers. The problem with this limited approach is that it ignores how costs are allocated. The OEB is effectively saying that it is acceptable for Norfolk customers to subsidize the rates of other Hydro One customers, as we saw with the previous Hydro One acquisitions, as long as the costs of the system as a whole decline.
3. Intervenors noted the past history of Hydro One rate increases for customers of acquired LDCs. The OEB’s response was that “the Board does not consider that the rates of other acquired utilities are relevant to this proceeding”. Given that the OEB noted in their decision that their number one objective under the Ontario Energy Board Act was “to protect the interests of consumers as to prices and the adequacy, reliability and quality of electrical service” this is a curious set of data to ignore.

REGULATORY OVERSIGHT - CONT'D

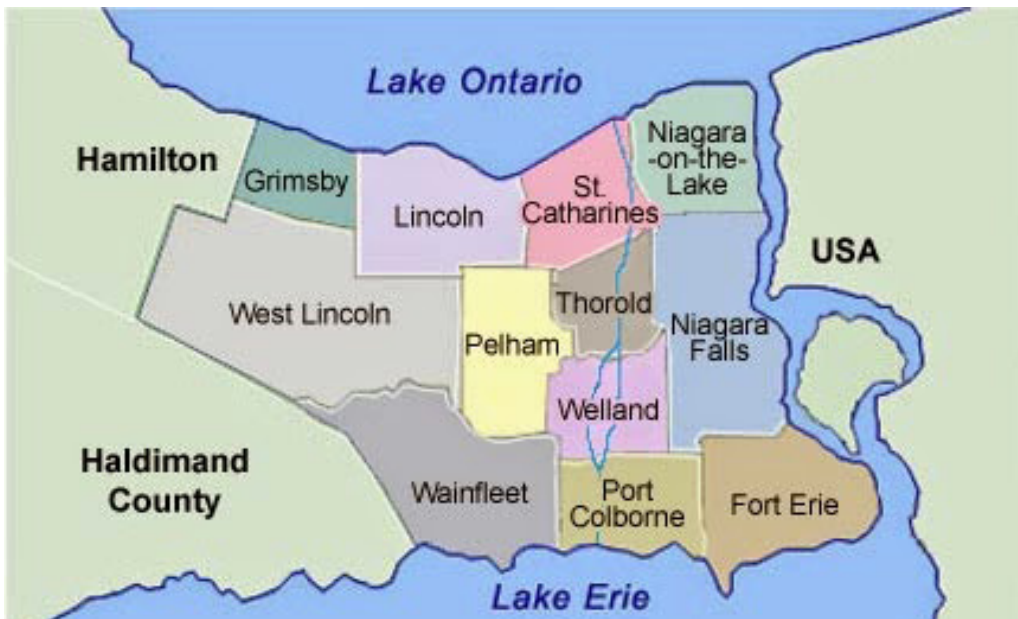
In 2017, Hydro One filed its rate application for the period from 2017-2022. This application includes rates for the new acquisitions Norfolk, Haldimand and Woodstock for 2021-2022. 2021-2022 is the expiry of the five year rate freezes provided at the time of the acquisitions. Hydro One is proposing new rates classes which will serve all three of these acquisition customers. Whether this proposal is for a permanent new rate class or is a step on the harmonization process will not be known until future rate applications. However, in its application Hydro One acknowledged that “the increase in revenue from these classes is offset by decreasing the revenue collected from the UR, R1, Seasonal and USL classes” so customers of these acquisitions will also be subsidizing existing Hydro One customers.

Later in 2017, the OEB adjourned its hearing on the proposed acquisition of Orillia Power by Hydro One until the above Hydro One rate application is settled. In its decision to adjourn the OEB noted “that the rates proposed for previously acquired utilities (Norfolk, Haldimand and Woodstock) in Hydro One’s distribution rate application suggest large distribution rate increases for some customers of these acquired utilities once the deferred rebasing period elapses”. It appears that previous rate experiences of acquired utilities is now relevant.

The arguments made by Hydro One are equally revealing. Hydro One submitted that intervenors “confused lower cost structures, which it states are used to test the validity of a merger or acquisition, with allocated costs used for rate setting” and that “how those costs are then allocated to rate classes is outside the merger or acquisition application”. Given that the point of a regulatory review of proposed acquisitions is to protect the customers of the LDCs being acquired this is a curious argument.

REGIONAL COMPARISONS

Hydro One's strategy of harmonizing rates creates some significant regional rate distortions. You could choose any small or mid-sized LDC and compare it to a similar sized community served by Hydro One and see significant rate differences. For the purposes of this analysis we will use the Region of Niagara as it is served predominantly by independent LDCs.

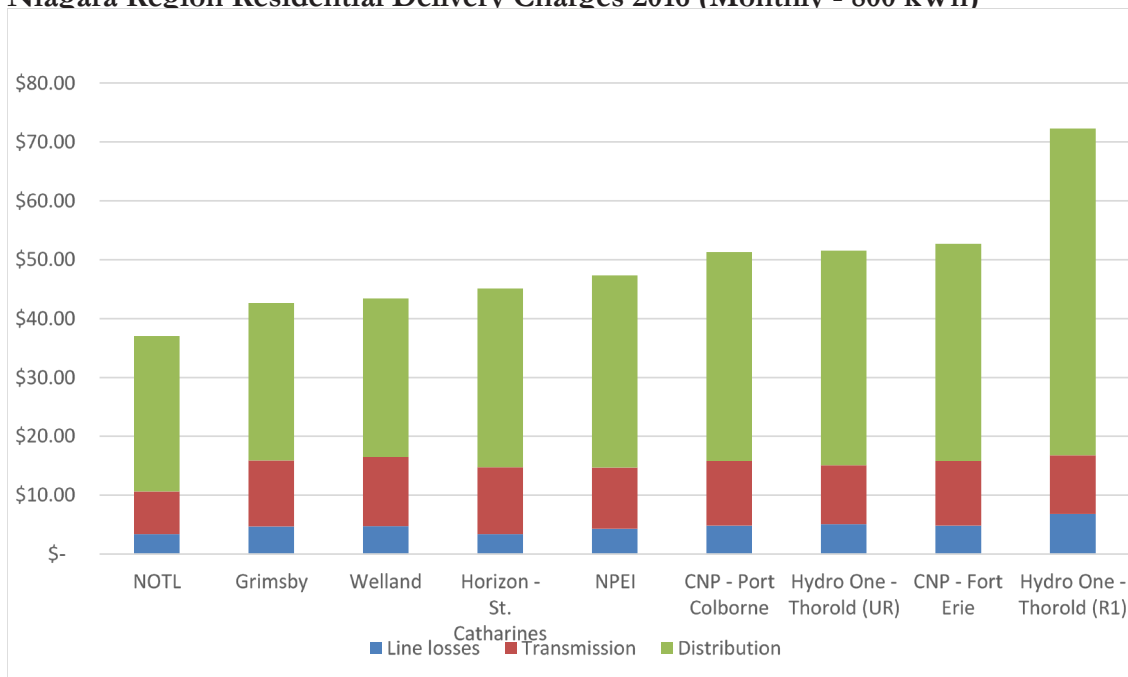


Grimsby, Niagara-on-the-Lake and Welland have their own LDCs, Niagara Peninsula Energy serves Niagara Falls, Lincoln, West Lincoln and the urban part of Pelham, Canadian Niagara Power (CNP) serves Fort Erie and Port Colborne and Hydro One serves Thorold, Wainfleet, and the rural part of Pelham.

Thorold has a sizable urban area which is indistinguishable from St. Catharines. Other parts of Thorold are rural and sparsely populated. Thorold was purchased by Hydro One in 2000-2001 and at that time had one distribution rate for all customers which was equivalent to its neighbours.

REGIONAL COMPARISONS - CONT'D

Niagara Region Residential Delivery Charges 2016 (Monthly - 800 kWh)



Rates for Thorold customers are now considerably higher than those of its neighbours; particularly for rural customers. The Hydro One rates would look worse if not for CNP's high rates.

Some other examples of regional distortions include:

Comparison of Rates at Hydro One and Similar Municipal LDC Territories

Hydro One Service area	Hydro One rate class	Delivery Charge	LDC Service Area	Delivery Charge	Difference	Reason for Comparison
Kemptville	R1	\$66.12	Prescott, Rideau St. Lawrence	\$45.53	\$20.69	similar size and location
Brockville	UR	\$45.66	Cobourg, Lakefront	\$38.38	\$7.28	similar size and location
Glanbrook	R1	\$66.12	Dundas, Alectra	\$39.78	\$26.34	suburbs of Hamilton

OTHER CONSIDERATIONS

Municipal governments had a number of reasons for selling their LDC to Hydro One.

- This was the first time the municipalities were allowed to monetize what was previously close to being another department for delivering services though one that had to be kept separate for rate setting purposes. Many municipalities had a real requirement for these funds.
- There was considerable uncertainty as to what the demands on the LDCs would be in the new electricity market and whether the LDCs of this size would be able to meet the new requirements.
- In much of Eastern Ontario the ice storm of 1998 was still very much on everyone's mind and the need for adequate resources should something similar occur again.
- Hydro One was usually the first potential acquirer to provide structured offers to the municipal owners.
- No one could have forecast at this time the substantial rate increases for Hydro One customers.

However, many municipalities also chose not to sell but instead addressed their issues by merging with their neighbours to create LDCs of sufficient mass. Examples include Ottawa River Power and Rideau St. Lawrence in the east, Westario and Northern Ontario Wires further north and Entegrus, Erie Thames and Festival Hydro in the south west. Joining one of these merging entities was always an option and all have kept their rates reasonable.

Hydro One has characterized its acquisition strategy in terms of enhancing its return to investors. The acquisition strategy also had implicit Provincial Government support. This was probably driven by the Government's desire to reduce the number of LDCs which still appears to be Government policy. We can only speculate that the objective is to make LDCs more manageable from a policy perspective. This lessened the political objections to the increased rates of customers of the acquired LDCs.

Hydro One was aided in its acquisitions by the application of the transfer tax. The transfer tax was waived for significant periods of time if Hydro One or a municipally owned LDC was the acquirer. This gave Hydro One a competitive advantage over any potential private sector acquirer (Fortis, Enbridge, Borealis) that would also have access to the capital needed for multiple acquisitions. The transfer tax would be applied if they were the acquirer. Municipal LDCs, being newly created, were not in a position to compete extensively with Hydro One and did not have access to much additional capital. The structuring of the transfer tax was a political decision.

Hydro One is now majority owned by independent investors but until recently, and at the time most of the acquisitions and rate-setting took place, was 100% owned by the Government of Ontario. Discussions with MPPs in the past have indicated they were aware of this subsidization by some Hydro One customers though had never had it quantified. Their worry was that if the very rural and northern Hydro One customers had to pay rates that more closely reflected their true costs this would create a big political issue. This benefit also served to lessen political objections.

RECOMMENDATIONS GOING FORWARD

The current policy of Hydro One subsidizing its existing customer base with rate increases for acquired customers is wrong for four reasons.

1. Customers of the acquired LDCs are seeing disproportionately large rate increases. This is unfair and wrong. No customer should be treated in such a fashion.
2. Customers have significantly different rates when the underlying cost structure of their locations are essentially the same. They may be neighbours served by different LDCs or they may be in similar municipalities served by different LDCs. The only significant difference is their LDC. This is also unfair and wrong. Sound policy should be to have their rates reflect their local underlying costs regardless of who the distributor is.
3. Some Hydro One customers are subsidizing other high cost customers while customers of other LDCs are not. We accept that it is appropriate to subsidize certain rural and northern customers. This is what the RRRP is for. A second hidden subsidy should not be tolerated.
4. The subsidization is hiding further inefficiencies of Hydro One. Hydro One has had the biggest rate increases since market opening. Yet, as the biggest LDC and as the biggest acquirer of other LDCs, Hydro One should have had the best opportunity to manage costs. Instead, Hydro One's rate increases would have been even bigger if not for the cost savings and subsidies of the acquisitions. As the LDC for most of rural Ontario it is accepted that Hydro One should have the highest rates. But they should not be increasing faster than other LDCs; that is inefficiency.

We have two recommendations to try tackle this problem.

1. Ensure the OEB has complete independence. Niagara-on-the-Lake Hydro's Board called for this with their August 1, 2017 press release. Only if the OEB has this independence will they be able and willing to stand up to the larger utilities on behalf of the customer and make the tough decisions. We are heartened by the Orillia adjournment and hope this is a first step in this direction. One wonders why this decision was only made now and not in 2008 or 2014. One is also left to wonder if the fact that the OEB and Hydro One ultimately answered to the same Minister had any influence.
2. Break-up Hydro One between distribution and transmission and then break-up the distribution business into a number of smaller regional LDCs. Niagara-on-the-Lake Hydro's Board called for this with their July 4, 2017 press release. It is posited that Hydro One is simply too big and unwieldy and that the inefficiencies of this scale have more than overcome any true efficiencies that consolidation provided. The relative performances of municipal LDCs and Hydro One is a demonstration that smaller, regionally focused LDCs are more efficient. The regional LDCs created by breaking up Hydro One will have distribution rates that will more accurately reflect the underlying costs in that region and the RRRP can be amended to openly subsidize those rural and northern customers that would be penalized.

CONCLUSION

A number of questions were raised at the start of this report. As a result of the analysis it can be concluded that:

1. Hydro One has a perverse competitive advantage in bidding to purchase other LDCs. As they have been allowed to harmonize rates they can use acquisitions as a means of lowering the cost of their services to existing customers. This allows Hydro One to present their rate management, though still poor, as better than it otherwise would have been. Other LDCs with lower rates do not have this option nor would any non-LDC acquirers.
2. Harmonization of rates have created the fastest rising rates by far in the Province of Ontario. Customers of the acquired LDCs have seen their distribution rates rise by over 250%. No other potential acquirer would have had anywhere near this impact.
3. Unfortunately, just fixing the rates of the acquired LDCs to make them comparable to other LDCs is not sufficient. All of Hydro Ones rates are higher than municipal LDCs due to their significant rate increases over the past 12 years. For this reason we have proposed the break-up of Hydro One as the best means of trying to bring down the existing rates for all Hydro One customers.
4. There is no evidence that Hydro One realized any excess cash flows or booked excess revenues as a result of these acquisitions. Rather, the one customer group from the acquired LDCs saw an excessive increase in rates while the other customer group of existing customers saw a rate increase that, while still very large, was lower than it would have been.
5. The customers of the acquired LDCs would have been better off if their LDC had been sold to another LDC or merged with other small local LDCs to create a bigger local LDC.

APPENDIX 1

2000-2001 Hydro One Acquisitions

Municipality	LDC (if different)	1997 Customer Count	1997 Book Value (\$ thousands)	Hydro One Rate Type (density)	Subsidization 2005-2016 (\$ thousands)	Rate Increase 2005-2016
Ailsa Craig	-	386	\$355	Medium	\$1,502	313%
Alexandria	North Glengarry	1,845	\$2,385	Medium	\$12,719	388%
Apple Hill	North Glengarry	113	\$67	Medium	\$312	388%
Arkona	-	236	\$168	Medium	\$528	816%
Arnprior	-	3,406	\$5,191	Urban	\$8,908	104%
Avonmore	North Stormont	156	\$80	Medium	\$378	658%
Bancroft	-	1,346	\$2,093	Medium	\$8,209	262%
Bath	-	639	\$706	Medium	\$2,033	317%
Blandford-Blenheim	-	899	\$1,448	Medium	\$4,756	283%
Bloomfield	Prince Edward	354	\$215	Medium	\$1,223	238%
Blyth	-	476	\$518	Medium	\$2,742	340%
Bobcaygeon	-	1,740	\$2,059	Medium	\$7,969	242%
Brighton	-	2,240	\$2,642	Medium	\$8,066	256%
Brockville	-	9,427	\$14,652	Urban	\$24,819	144%
Caledon	-	2,589	\$5,561	Urban	\$7,924	52%
Campbellford	Campbellford-Seymour	1,858	\$4,281	Medium	\$10,601	312%
Carleton Place	-	3,801	\$3,671	Urban	\$6,087	61%
Chatsworth	Georgian Bay	225	\$206	Urban	\$179	176%
Chalk River	-	412	\$322	Medium	\$1,562	203%
Chesley	Arran-Elderslie	949	\$1,191	Medium	\$3,622	449%
Chesterville	North Dundas	710	\$1,141	Medium	\$6,562	413%
Cobden	-	543	\$698	Medium	\$1,899	170%
Deep River	-	1,946	\$2,915	Medium	\$10,978	138%
Delaware	Middlesex Centre	376	\$559	Medium	\$1,135	285%
Deseronto	-	775	\$1,013	Medium	\$2,486	326%
Drayton	Mapleton	538	\$779	Medium	\$2,715	225%
Dryden	-	3,106	\$3,503	Medium	\$14,431	271%
Dundalk	-	777	\$1,212	Medium	\$4,003	213%
Durham	-	1,301	\$1,514	Medium	\$4,477	221%
Eganville	-	665	\$1,073	Medium	\$3,046	164%
Erin	-	1,062	\$2,495	Medium	\$15,288	198%
Exeter	-	2,265	\$3,601	Medium	\$11,741	315%
Fenelon Falls	-	1,158	\$1,257	Medium	\$4,953	379%

Flesherton	Artemesia	360	\$429	Medium	\$1,552	234%
Forest	-	1,373	\$1,639	Medium	\$6,847	250%
Frankford	Quinte West	910	\$923	Medium	\$1,242	266%
Georgina	-	1,400	\$1,793	Medium	\$6,752	261%
Glencoe	-	1,010	\$1,049	Medium	\$4,723	442%
Grand Bend	-	1,283	\$1,474	Medium	\$3,910	272%
Granton	Lucan Granton	144	\$116	Medium	\$555	261%
Hastings	-	612	\$1,005	Medium	\$2,653	197%
Havelock	Havelock-Belmont-Methuen	633	\$758	Medium	\$2,505	225%
Kemptville	North Grenville	1,558	\$2,316	Medium	\$8,912	202%
Kirkfield	-	140	\$137	Medium	\$590	273%
Lanark	-	413	\$536	Medium	\$1,597	221%
Lancaster	South Glengarry	413	\$374	Medium	\$1,715	429%
Larder Lake	-	497	\$522	Medium	\$1,791	230%
Latchford	-	216	\$209	Medium	\$693	480%
Lindsay	-	7,139	\$11,008	Urban	\$16,749	84%
Listowel	North Perth	2,394	\$4,688	Medium	\$17,571	244%
L'Orignal	Champlain	914	\$1,173	Medium	\$3,410	347%
Lucan	Lucan Granton	762	\$835	Medium	\$2,470	261%
Madoc	Centre Hastings	809	\$1,103	Medium	\$3,179	339%
Markdale	-	774	\$1,055	Medium	\$5,602	317%
Martintown	South Glengarry	131	\$85	Medium	\$377	429%
Marmora	-	771	\$883	Medium	\$3,146	405%
Maxville	North Glengarry	420	\$306	Medium	\$1,809	388%
McGarry	-	306	\$368	Medium	\$1,214	209%
Meaford	-	2,198	\$2,193	Medium	\$7,903	262%
Millbrook	Cavan-Millbrook-North Monaghan	561	\$756	Medium	\$2,136	219%
Milverton	Perth East	620	\$748	Medium	\$2,686	379%
Moorefield	Mapleton	189	\$148	Medium	\$832	225%
Napanee	-	2,599	\$3,786	Medium	\$12,309	254%
Nipigon	-	951	\$1,137	Medium	\$5,278	244%
North Dorchester	-	772	\$687	Medium	\$2,362	408%
Omeme	-	565	\$700	Medium	\$2,913	219%
Owen Sound	Georgian Bay	9,124	\$13,147	Urban	\$15,744	176%
Paisley	Arran-Elderslie	541	\$668	Medium	\$1,955	449%
Perth	-	3,289	\$4,996	Urban	\$7,396	122%
Picton	Prince Edward	2,408	\$3,298	Medium	\$10,911	238%
Priceville	Artemesia	127	\$102	Medium	\$295	234%

Rainy River	-	498	\$396	Medium	\$1,734	219%
Ramara	-	132	\$120	Medium	\$674	346%
Red Rock	-	405	\$532	Medium	\$1,662	163%
Rockland	Clarence-Rockland	3,166	\$3,907	Medium	\$13,751	476%
Rodney	West Elgin	555	\$272	Medium	\$1,951	367%
Russell	-	800	\$675	Medium	\$3,202	180%
Schreiber	-	843	\$1,313	Medium	\$4,733	143%
Severn	-	651	\$864	Medium	\$2,617	310%
Shelburne	-	1,498	\$1,966	Medium	\$6,472	303%
Smith Falls	-	4,523	\$4,900	Urban	\$10,220	155%
South River	-	557	\$570	Medium	\$1,998	220%
Springfield	Malahide	264	\$200	Medium	\$745	235%
Springwater	-	762	\$719	Medium	\$3,947	315%
Stirling	Stirling-Rawdon	957	\$1,054	Medium	\$3,830	252%
Tara	Arran-Elderslie	435	\$385	Medium	\$1,888	449%
Thedford	-	380	\$325	Medium	\$1,694	331%
Thessalon	-	676	\$701	Medium	\$3,223	238%
Thorndale	-	159	\$104	Medium	\$631	446%
Thorold	-	7,729	\$9,268	Urban	\$12,842	77%
Trenton	-	6,843	\$12,046	Urban	\$16,060	266%
Tweed	-	850	\$708	Medium	\$3,315	540%
Vankleek Hill	Champlain	996	\$941	Medium	\$3,073	347%
Wardsville	-	212	\$124	Medium	\$526	408%
Warkworth	-	337	\$405	Medium	\$1,501	224%
Wellington	Mapleton	891	\$720	Medium	\$3,246	225%
West Lorne	West Elgin	639	\$857	Medium	\$3,797	367%
Whitchurch-Stouffville	-	3,407	\$5,177	Urban	\$7,821	135%
Warton	South Bruce	1,129	\$1,597	Medium	\$6,344	177%
Winchester	North Dundas	1,050	\$1,922	Medium	\$10,609	413%
Woodville	-	354	\$135	Medium	\$953	322%
Wyoming	-	877	\$669	Medium	\$3,080	289%
Totals		140,304	\$190,230		\$492,312	262%