Doubling the Fixed Monthly Customer Charge:

A Review of the Ontario Energy Board's Proposal to Guarantee the Residential and Small Business Distribution Revenues of Ontario's Electric Utilities

ONTARIO CLEAN AIR ALLIANCE RESEARCH | www.cleanairalliance.org

MAY 2014

Currently, Ontario electricity distribution utilities (e.g., Toronto Hydro, Hydro One) recover their costs of **distributing** electricity from their residential and small business customers through a combination of a fixed monthly charge, and a distribution charge based on kilowatt-hours used.[i]

The fixed monthly charge does not vary with a customer's electricity usage and is the same for all customers irrespective of whether they live in a small apartment or a mansion.

The volumetric distribution charge varies with electricity usage. As a result, the volumetric charge provides consumers with a reward for conserving electricity.

However, the Ontario Energy Board (OEB) which regulates our electric utilities is now proposing to eliminate the volumetric **distribution** charge for residential and small business customers and to require them to recover all their distribution costs through their monthly fixed charge.[1]

On average, Ontario's electric utilities currently recover approximately 50% of their residential distribution costs from their fixed monthly customer charges and the remaining 50% from their volumetric distribution charges.[2] Therefore for the *average* residential consumer, the OEB's proposal would lead to a *doubling* of their fixed monthly customer charge. In fact, there has already been a significant trend toward relying more on fixed charges by utilities: Toronto Hydro's fixed monthly charge, for example, has increased by 97% since 2000.

The OEB's proposal would increase Toronto Hydro's fixed monthly customer charge for residential consumers by approximately another 60% from $18.63 per month to approximately $30 per month.

Hydro One has three fixed monthly customer charges, namely, $16.64 (Urban High Density), $24.07 (Medium Density) and $33.03 (Low Density). The OEB's proposal would raise these charges by approximately 80 to 260% to approximately $60 per month.[3]

For the *average* residential consumer, the OEB's proposal would lead to a *doubling* of their fixed monthly customer charge

Ontario Clean Air Alliance Research
160 John Street, Suite 300
Toronto, Ontario, M5V 2E5
(416) 260-2080
Fax (416) 598-9520
info@cleanairalliance.org
www.cleanairalliance.org

i The costs of electricity generation, transmission and the nuclear debt retirement are recovered via separate volumetric charges which vary with consumption.

The OEB is considering the following three options for the new higher fixed monthly charge:

1. A single monthly charge for each rate class;
2. Fixed monthly charges based on the size of the customer's electrical connection; and
3. Fixed monthly charges based on use during peak hours during the previous year.

A Single Monthly Charge for Each Rate Class

Eliminating the volumetric charge and creating a uniform fixed monthly charge for all residential customers is **not** in the public interest for the following reasons.

A higher fixed monthly charge would reduce consumers' incentive to conserve energy and their ability to reduce their bills.

1. It would reduce consumers' incentive to conserve energy and their ability to reduce their bills. For example, elimination of Toronto Hydro's 1.5 cents per kWh volumetric distribution charge would reduce its residential customers' financial incentive to conserve electricity by 8 to 13%.[4] Elimination of Hydro One's 3.932 cents per kWh volumetric distribution charge for its low density rural customers would reduce these customers financial incentive to conserve electricity by 20 to 28%.[5]
2. Conserving electricity is in the public interest since it reduces the need for new high-cost electricity generation, transmission and distribution infrastructure that pushes up everyone's electricity rates. Reducing the incentive to conserve electricity will inevitably lead to higher costs.
3. A utility's cost of providing electricity distribution service to a large home is much greater than the cost of providing service to a small home. Therefore, a uniform monthly charge for all consumers will overcharge small homeowners and undercharge large homeowners for electricity distribution service.

Ontario Energy Board's Rationales for Eliminating the Volumetric Charge

The OEB has provided three rationales for its proposal to eliminate the volumetric charge:

1. Making rates more cost-related;
2. Eliminating a disincentive for the utilities to promote energy conservation; and
3. Increasing revenue stability for the utilities.

Making rates more reflective of actual service costs

According to the OEB, electricity distributors' costs are primarily driven by two factors: 1) their number of customers; and 2) their annual peak day demands (electricity delivered during peak periods). That is, according to the OEB, the relationship between an electricity distributor's costs and its customers' energy consumption on non-peak days is "relatively insignificant". Furthermore, the Board's Report implies that replacing the volumetric charge with a higher fixed charge will make rates more cost-related.[6]

While the Board is correct that the link between a distributor's costs and its customers' non-peak day energy consumption is weak, it does not follow that a new rate structure that recovers 100% of the utilities' costs via the monthly customer charge better reflects actual costs. The Board's proposed new rate design ignores the fact that a major driver of the utilities' costs are their customers' peak day demands and that the existing volumetric charge is a good proxy for this peak day demand. This is due to the fact that, for most customers, there is a strong correlation between their peak day demand and annual electricity consumption (with high peak demand usually indicating high annual usage and vice versa).

Therefore, if the Board wants to make rates more cost-related, it should replace the existing volumetric charge with a new volumetric charge (kWh) or a demand charge (kW) that is based on customers' demands on the peak day or during the expected peak day period.

If the Board is unwilling to create a volumetric charge that is directly linked to peak day demands, it should retain the status quo volumetric charge since it is a good proxy for customers' peak day consumption.

In short, the Board's proposal to recover all of the utilities' costs via a single fixed monthly customer charge will make rates *less cost-related* since it will eliminate any relationship between a customer's peak day consumption and his/her electricity bill.

The OEB has already established a Lost Revenue Adjustment Mechanism (LRAM) that fully protects the utilities from lost revenues due to their conservation programs.

Eliminating a disincentive for utilities to promote energy conservation

The Board's Report implies that the elimination of the volumetric charge is necessary to ensure that a utility's revenues and profits will **not** decline if it promotes energy conservation:

> "If a distributor's efforts in conservation result in a reduction in its anticipated revenues, it may not aggressively undertake emerging opportunities to support and deliver conservation programs in their service areas."[7]

Fortunately, there is no need to eliminate the volumetric charge to ensure that our electric utilities will not be penalized for promoting conservation. As the Board acknowledges in another section of its Report, it has already established a Lost Revenue Adjustment Mechanism (LRAM) that fully protects the utilities from lost revenues due to their conservation programs:

> "The Board has already implemented revenue decoupling to some extent for electricity distributors by providing a lost revenue adjustment mechanism (LRAM). This revenue decoupling mechanism has been designed primarily to address the disincentive for a distributor to promote conservation and demand management for consumers as a result of the current rate design that relies on consumption."[8]

Increasing revenue stability for the utilities

The OEB's prime rationale for eliminating the volumetric charge is to provide the utilities with stable revenues that it alleges are "necessary to implement the distributor capital investment plans."[9] According to the Board:

> "When revenue recovery is linked to variable throughput, distributors might not have the revenue certainty to facilitate the execution of long-term capital plans."[10]

While a guaranteed revenue stream that doesn't fluctuate with the weather, the business cycle or frequency and length of utility power outages is an attractive option for utilities, there is no evidence to support the Board's assertion that it is necessary to facilitate the execution of their long-term capital plans.

Ontario's utilities have expanded their infrastructure for more than 100 years without a guaranteed revenue stream and there is absolutely no empirical evidence to indicate that they now need a guaranteed revenue stream to continue to do so.

This proposal could lead to large bill increases for homes with large voltage connections, but low or average actual electricity consumption.

Fixed Monthly Charges Based on Size of Electrical Connection

The Board's second proposed option for eliminating the volumetric charge is to make the fixed monthly charge a function of the size of a customer's electrical connection to the distribution system. Specifically, the fixed monthly customer charge would be a function of a customer's maximum connection current in amps.[11]

According to the Board, this option would motivate people to buy energy efficient homes:

> "A rate design based on consumers' connection current could influence consumers to reduce their connection capacity. This pricing would also be signal to developers: customers would be aware that new homes with high connection current would pay higher monthly electricity bills. This in turn would encourage the "right sizing" of connections and lower the distributors requirements, minimizing new infrastructure costs. To influence purchasing decisions, new buildings could be certified by something like the LEED program or some other labelling program for efficiency."[12]

It is unclear how much effect such a policy would have on new home builders and their customers, for whom this is unlikely to be a top-of-mind issue for a home purchase. However, the Board's proposal could be especially unfair to *existing* homeowners who are unlikely to downsize a connection. This proposal could lead to large bill increase for homes with large voltage connections, but low or average actual electricity consumption.

A more effective and fairer option to promote energy conservation would be to establish a peak day or peak period volumetric distribution charge. This option would motivate all existing and new homeowners to reduce their peak period consumption.

Fixed Monthly Charges Based on Use During the Previous Year

The Board's third option for eliminating the volumetric charge is to create fixed monthly customer charges that are a function of customers' peak day demands during the previous year. That is, the higher your peak day demand was during the *previous* year, the higher will be your fixed monthly charge during the *current* year.

According to the Board, implementing this proposal will create extra work for the utilities:

> "The fixed monthly charge based on use will require an annual reclassification process for all low volume consumers which may give rise to consumer concern. The communication message to consumers for reasons and benefits of the fixed rate with sub-groups approach will be much more complex than for a single fixed monthly charge."[13]

Once again, a simpler and more cost-related rate design would be to create a volumetric distribution charge (kWh or kW) that is a function of a customer's electricity consumption during the peak day or peak period in the *current* year. In this way, consumers get a clear signal to reduce consumption on days when utility delivery costs are highest and utility cost recovery is directly tied to servicing costs.

A simpler and more cost-related rate design would be to create a volumetric distribution charge (kWh or kW) that is a function of a customer's electricity consumption during the peak day or peak period in the *current* year.

Conclusion

The Government of Ontario's *Long-Term Energy Plan* has endorsed a Conservation First framework for electric and natural gas planning. That is, Ontario's electric and gas utilities must pursue all of their feasible and cost-effective energy conservation and efficiency opportunities before investing in new supply. On March 31, 2014 Energy Minister Bob Chiarelli further directed the Ontario Power Authority to fund electric utility conservation programs that will reduce Ontario's electricity consumption by 7 billion kilowatt-hours or 5% in 2020.

Conservation First is in the public interest for a number of reasons. First, by reducing the need for new, high-cost supply-side infrastructure, it will lead to lower energy rates and bills for Ontario's residential consumers and manufacturing industries.

Second, energy conservation and efficiency (e.g., home energy retrofits) will create good jobs in every community in Ontario.

Third, energy conservation and efficiency will reduce the outflow of Ontario dollars and jobs to western Canada and Pennsylvania to purchase natural gas and uranium.

Utility rate design reform (e.g., time-of-use rates, lower fixed monthly charges and higher volumetric charges) is the lowest cost option to promote energy conservation and efficiency. Therefore all rate reform proposals should be evaluated according to the following criteria:

1. Do they promote energy conservation and efficiency to the maximum extent feasible?
2. Do they fairly allocate the utility's costs amongst their customers?
3. Are they easy to understand and publicly acceptable?

The Ontario Energy Board's proposal to eliminate volumetric distribution charges for residential and small business customers is driven by an unjustified desire to provide our electric utilities with a *guaranteed revenue stream* irrespective of fluctuations in the economy, the weather and the frequency and duration of their power outages. As a consequence, the Board's proposals to eliminate the volumetric charges are inconsistent with the generally accepted principles of public utility rate making,[14] the policies of the Government of Ontario and the public interest.

Ontario Clean Air Alliance Research
www.cleanairalliance.org

Endnotes

1 Ontario Energy Board, *EB-2012-0410 Draft Report of the Board: Rate Design for Electricity Distributors*, (March 31, 2014).

2 *Draft Report of the Board*, page 3.

3 In 2012 Toronto Hydro's and Hydro One's average distribution costs per residential customer were $28.66 and $60.17 per month respectively. See Ontario Energy Board, *2012 Yearbook of Electricity Distributors*, pages 88 and 93.

4 The total volumetric charges (e.g., commodity, transmission, distribution, nuclear debt retirement) for Toronto Hydro's residential customers are 11.736 and 17.736 cents per kWh during the off-peak and peak periods respectively.

5 The total volumetric charges for Hydro One's residential, low-density customers are 13.864 and 19.864 cents per kWh during the off-peak and peak periods respectively.

6 *Draft Report of the Board*, page 14.

7 *Draft Report of the Board*, page 9.

8 *Draft Report of the Board*, page 16.

9 *Draft Report of the Board*, page 2.

10 *Draft Report of the Board*, page 8.

11 *Draft Report of the Board*, page 24.

12 *Draft Report of the Board*, page 26.

13 *Draft Report of the Board*, page 27.

14 James C. Bonbright, *Principles of Public Utility Rates*, (New York, Columbia University Press, 1961), Chapter XVI: Criteria of a Sound Rate Structure.

Thanks to the Echo Foundation and the Taylor Irwin Family Foundation at the Toronto Community Foundation for their generous financial support.