

Regulated Price Plan Prices and the Global Adjustment Modifier for the Period July 1, 2017 to April 30, 2018

Ontario Energy Board

June 22, 2017

Executive Summary

The Fair Hydro Act, 2017, which received Royal Assent on June 1, 2017, puts in place a number of measures to implement the Fair Hydro Plan that was announced by the government on March 2, 2017. Schedule 1 to the FHA – the Ontario Fair Hydro Plan Act, 2017(OFHP Act) – establishes the framework under which eligible consumers will see their electricity bills reduced effective July 1, 2017, and by which bill increases can, through adjustments to the commodity price, be held to the rate of inflation starting in May 2018. Schedule 2 to the new Act contains amendments to the Ontario Energy Board Act, 1998 (OEB Act) regarding a number of electricity-related programs that further mitigate electricity bills for certain classes of consumers.

Under the OFHP Act, the initial electricity bill reduction and the rate of inflation ceiling on bill increases are to be achieved principally through the commodity price. For eligible consumers that pay Regulated Price Plan (RPP) prices set by the Ontario Energy Board (OEB), the electricity bill mitigation initiatives will be implemented through RPP prices. For consumers that are eligible for electricity bill relief under the OFHP Act but are not paying RPP prices, electricity bill mitigation will be implemented through a reduction in the Global Adjustment charges that they would otherwise pay (the GA Modifier).

The OFHP calls on the OEB to reset RPP prices and to set the GA Modifier by June 22, 2017, with effect on July 1, 2017.

Based on the methodology set out in the OFHP and supporting regulation, the RPP prices and GA Modifier that will be in effect for electricity consumed between July 1, 2017, and April 30, 2018, have been set by the OEB as follows:

Table 1: RPP Prices and GA Modifier: July 1, 2017 to April 30, 2018

Time-of-Use RPP Prices	Off-Peak	Mid-Peak	On-Peak	Average Price
Price per kWh	6.5¢	9.5¢	13.2¢	8.2¢
% of TOU Consumption	65%	17%	18%	
Tiered RPP Prices	Tier 1		Tier 2	Average Price
Price per kWh	7.7¢		9.0¢	8.2¢
% of Tiered Consumption	54%		46%	
GA Modifier				
GA Modifier per MWh				-\$32.90

This report describes the methodology that the OEB has followed to determine the new RPP prices and GA Modifier, by reference to the relevant requirements of the OFHP Act and supporting regulation.

1. New RPP Prices

A. Overview of the legislative framework

Under the OFHP Act, the OEB must set new RPP prices that will apply to electricity consumed between July 1, 2017, and April 30, 2018. These prices are to be set under section 7 of the OFHP Act using the methodology detailed in Ontario Regulation 195/17 (Fair Adjustment under Part II of the Act) (OFHP Regulation).

The OEB has traditionally set RPP prices to recover the forecast cost of supply over time, as required by section 79.16 of the OEB Act. By contrast, the OFHP Act requires a comparative exercise: prices are to be set to achieve a 25% total bill reduction for a "hypothetical regulated rate consumer" (referred to in this report as the proxy customer) relative to what RPP prices would have been on May 1, 2017, without any regard to the forecast impact of the OFHP Act. (These May 1 RPP prices are referred to in section 7(3) of the OFHP Act as the "comparison rates"). The RPP prices that result from this exercise will apply to all RPP consumers.

The OFHP Regulation prescribes important elements of the methodology to be used by the OEB in setting new RPP prices:

- i. The attributes of the proxy customer, including that the customer is a residential service class customer of Toronto Hydro-Electric System Limited (Toronto Hydro) paying time-of-use (TOU) RPP prices.
- ii. The attributes of two total invoice amounts:
 - a. "Total Invoice Amount A", representing an electricity bill (Invoice A) for the proxy customer based on what RPP prices would otherwise have been on May 1, 2017; and
 - b. "Total Invoice Amount B", representing an electricity bill (Invoice B) for the proxy customer based on what RPP prices need to be to achieve the 25% reduction.
- iii. The description of the two total invoice amounts makes it clear that the 25% reduction is inclusive of:
 - a. the 8% rebate that has been in effect since January 1, 2017, under the *Ontario Rebate for Electricity Consumers Act*, 2016 (ORECA); and
 - b. the impact of shifting the cost of the Ontario Electricity Support Program (OESP) and of much of the cost of the Rural or Remote Electricity Rate Protection program (RRRP) from ratepayers to the provincial tax base.

B. The proxy customer

As described in the OFHP Regulation, the proxy customer is a Toronto Hydro residential service class customer paying RPP TOU prices who uses 750 kWh in a month and has a TOU consumption profile equal to the long-term aggregate RPP TOU pool (65% of consumption in off-peak periods, 17% in mid-peak periods, and 18% in on-peak periods) used by the OEB to set RPP TOU prices.

C. The components of Invoice A and Invoice B

As set out in the OFHP Regulation, Invoice A and Invoice B are comprised of the invoice amounts shown in Table 2.

Table 2: Components of Invoice A and Invoice B

	Invoice A	Invoice B
Invoice Amounts ¹		
i. Electricity	RPP prices that would have been effective May 1, 2017, if determined by the OEB in the normal course and without taking into account any forecasted impact of the OFHP Act	New RPP prices set by the OEB to be effective July 1, 2017
ii. Delivery	Rates and charges for the proxy customer as set out in Toronto Hydro's rate order in effect May 1, 2017	Rates and charges for the proxy customer as set out in Toronto Hydro's rate order in effect May 1, 2017
iii. Regulatory	Rates and charges for the proxy customer as set out in Toronto Hydro's rate order in effect May 1, 2017, other than the OESP and RRRP charges. The OESP and RRRP charges for the proxy customer as set out in Toronto Hydro's rate order in effect April 30, 2017	Rates and charges for the proxy customer as set out in Toronto Hydro's rate order in effect May 1, 2017, other than the RRRP charge. ² The RRRP charge for the proxy consumer as set out in the OEB's rate order in effect July 1, 2017 ³
iv. 8% ORECA rebate	Not applied	Applied
v. HST	Applied to items (i) to (iii)	Applied to items (i) to (iii)
Total	Total Invoice Amount A	Total Invoice Amount B, which must be 25% less than Total Invoice Amount A

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¹ Section 1(5) of the FHA Regulation provides that the following types of amounts are to be excluded from both Invoice A and Invoice B: (i) the balance of any amounts carried forward from previous invoices; (ii) penalties or interest; (iii) charges that do not relate to the consumption of electricity; (iv) any fixed monthly service charge payable by a microFIT generation facility; (v) any specific service charges or retail service charges; and (vi) HST on any of (i) to (v).

² The OESP charge was rescinded effective May 1, 2017, by Decision and Order dated March 23, 2017 (EB-2017-0135).

³ A new RRRP charge effective July 1, 2017, was set by Decision and Order dated June 22, 2017 (EB-2017-0234). In accordance with that Decision and Order, the new RRRP charge applies effective July 1, 2017, and supersedes the RRRP charge set Decision and Order dated December 15, 2016 (EB-2016-0362).

D. Total Invoice Amount A for Invoice A

As described in the OFHP Regulation, Invoice A largely represents the electricity bill that would have been received by the proxy customer in the normal course for electricity consumed on May 1, 2017, without consideration of any measures under the OFHP Act. However, because the 25% reduction to be achieved under the OFHP Act is inclusive of other measures, Invoice A does not take into account the 8% rebate under ORECA and assumes that the OESP charge was still in effect.⁴ Invoice A therefore is the sum of invoice amounts for electricity, delivery, regulatory charges and taxes as follows:

- Electricity: The invoice amount for electricity is determined using the comparison rates described in section 7(3) of the OFHP. As discussed in the Regulated Price Plan Price Report (RPP Report) released on April 20, 2017, the RPP prices set by the OEB to be effective May 1, 2017, took into account a portion of the estimated impact of the proposed (as it then was) Fair Hydro Plan. To avoid double-counting, the comparison rates are described as those that would have been set by the OEB effective May 1, 2017, without taking into account any forecasted impact of the OFHP Act. As indicated in the RPP Report, RPP TOU prices determined on the basis of the forecast of costs for RPP consumers effective May 1, 2017, would have been 9.1, 13.3 and 18.5 cents per kWh in each of the off-, mid- and on-peak periods, respectively.
- Delivery: Invoice amounts for delivery are determined using rates and the loss factor set out in the OEB's final rate order for Toronto Hydro effective January 1, 2017, issued December 21, 2016 (EB-2016-0254).
- Regulatory charges: Invoice amounts for applicable regulatory charges are determined using the charges set out in the OEB's Decision and Order on regulatory charges for 2017 (EB-2016-0362), issued December 15, 2016. As noted above, it is assumed that the OESP charge was still in effect on May 1, 2017.
- Taxes: HST on the above.

On the basis of these inputs and the consumption assumptions or criteria for the proxy customer as set out in the OFHP Regulation, Total Invoice Amount A for the proxy customer is \$161.61, inclusive of HST, as shown on line 12 in Table 3.

⁴This is the result of requiring that the OESP invoice amount be determined based in the applicable rate order in effect on April 30, 2017. The OESP charge of \$0.0011/kWh that was continued for 2017 by Decision and Order dated December 15, 2016 (EB-2016-0362) was rescinded effective May 1, 2017, by Decision and Order dated March 23, 2017 (EB-2017-0135).

Table 3: Total Invoice Amount A for the proxy customer (\$)

		Invoice
		Amount A
	Electricity	
1	Off-peak	44.36
2	Mid-peak	16.96
3	On-peak	24.98
	Delivery	
4	Cost of losses	3.24
_	Distribution and	47.04
5	Transmission	47.94
	Regulatory	
6	OESP	0.86
7	RRRP	1.63
8	Other	3.05
9	Subtotal	143.02
10	HST	18.59
11	8% Rebate	0.00
12	Total	161.61

E. Setting RPP TOU prices for Invoice B

To achieve the 25% reduction required by the OFHP Act, RPP prices are being set by the OEB such that Total Invoice Amount B is as close as feasible to \$121.21 (this being 25% less than \$161.61), inclusive of HST. The difference between Total Invoice Amount A and the target Total Invoice Amount B is therefore \$40.40, after tax. This is shown in line 12 of Table 4 below.

The first step in delivering this reduction is to account for the impact of the 8% ORECA rebate. As shown on line 11 in Table 4, applying the 8% ORECA rebate reduces the total of Invoice B for the proxy customer by \$9.24. (The 8% ORECA rebate is applied to the pre-tax subtotal). Taking both the 8% ORECA rebate into account together with the 13% HST rate leads to a pre-tax subtotal of \$115.44 for Invoice B, or a reduction of \$27.58 in the pre-tax subtotal for Invoice B relative to Invoice A as shown on line 9 of Table 4.

The next step in delivering the 25% reduction is the removal of the OESP charge. The removal of the OESP charge further reduces Invoice B by \$0.86 before tax, as shown on line 6 in Table 4.

The third step is the change to the RRRP charge borne by all customers in Ontario. On June 22, 2017, the OEB revised the RRRP charge to reflect the shift of most of the RRRP costs from Ontario electricity ratepayers to the provincial tax base. As noted in the OEB's Decision and Order (EB-2017-0234), while the large majority of RRRP funding costs are no longer recovered from ratepayers, the cost of RRRP funding for Hydro One Remote Communities Inc., Algoma Power

and the three distributors in the James Bay area will continue to be recovered from electricity ratepayers. In accordance with that Decision and Order, the RRRP charge will decline to \$0.0003 per kWh for consumption on and after July 1, 2017. This reduces Invoice B by \$1.40 before tax as shown on line 7 in Table 4.

Table 4: Total Invoice Amount A and target Invoice Amount B for the proxy customer (\$)

		Total	Target	
		Invoice	Invoice	Net
		Amount	Amount	Reduction
		A	В	
	Electricity			
1	Off-peak	44.36	To be det	termined to
2	Mid-peak	16.96	achie	eve 25%
3	On-peak	24.98	reduction	n in Invoice
	Delivery		B relative to Invoice	
4	Cost of losses	3.24	A	
5	Distribution and	47.04	47.04	0.00
3	Transmission	47.94	47.94	0.00
	Regulatory			
6	OESP	0.86	0.00	-0.86
7	RRRP	1.63	0.23	-1.40
8	Other	3.05	3.05	0.00
9	Subtotal	143.02	115.44	-27.58
10	HST	18.59	15.01	-3.58
11	8% Rebate	0.00	-9.24	-9.24
12	Total	161.61	121.21	-40.40

Of the \$27.58 reduction to be delivered for the subtotal of Invoice B, the removal of the OESP charge and the reduction in the RRRP charge account for \$2.26. This leaves \$25.32 in further reductions to be achieved through the new RPP prices.

Accordingly, new RPP prices have been set such that the total charges on lines 1-4 in Table 4 provide, as close as is feasible, a pre-tax reduction of \$25.32 to Invoice B relative to Invoice A for the proxy customer given the prescribed consumption profile for that customer. The results are shown in Table 5.

The OEB has derived new, lower TOU prices by altering the amount of the Global Adjustment (GA) cost embedded in the price for each time-of-use period. This is in line with the broader approach under the OFHP Act of funding much of the electricity bill mitigation through the

refinancing of a portion of GA costs, and the overall objective of spreading a portion of the cost of investments in Ontario's electricity supply over a longer period of time.

Table 5: Average supply cost and resulting TOU prices

	Invoice A	Invoice B	Net
			Reduction
Average Supply Cost	¢/kWh	¢/kWh	¢/kWh
Load-weighted average wholesale electricity price	2.5	2.5	0.0
Global Adjustment	8.8	5.5	-3.3
Adjustment to Address Bias Towards Unfavourable	0.1	0.1	0.0
Variance	0.1	0.1	0.0
Adjustment to Clear Existing Variance	0.1	0.1	0.0
Average Supply Cost for RPP Consumers	11.5	8.2	-3.3
Resulting Time-of-Use RPP Prices	¢/kWh	¢/kWh	¢/kWh
Off-Peak	9.1	6.5	-2.6
Mid-Peak	13.3	9.5	-3.8
On-Peak	18.5	13.2	-5.3

The new RPP TOU prices shown in Table 5 maintain the overall on-, mid- and off-peak price ratios that pre-date the OFHP Act. This is in keeping with the comparative nature of the exercise and consistent with providing price relief relative to what RPP prices would otherwise have been. Furthermore, this approach continues to provide customers with opportunities and incentives to reduce their peak demand and shift consumption to off-peak periods, consistent with policy objectives.

When applied to the proxy customer's bill using the prescribed TOU consumption profile and Toronto Hydro's OEB-approved loss factor, the resulting electricity line cost is \$61.62 and the cost of losses is reduced to \$2.32, as shown on lines 1-3 and line 4, respectively, in Table 6. In combination, these two reductions yield \$25.60 in pre-tax reductions in the proxy customer's electricity bill. These reductions are slightly greater than the \$25.32 required to achieve a precise 25.00% reduction in the proxy customer's bill due to the fact that RPP prices are, for practical implementation reasons, rounded to the nearest 0.1¢/kWh. The resulting after-tax Total Invoice Amount for Invoice B is \$120.92, or a 25.18% reduction in the proxy customer's bill as shown on line 12 in Table 6.

These TOU prices apply to the time of use periods defined in Appendix A to this report.

Table 6: Total Invoice Amounts A and B for the proxy customer (\$)

		Invoice Amount A	Invoice Amount B	Net Reduction
	Electricity			_
1	Off-peak	44.36	31.69	-12.67
2	Mid-peak	16.96	12.11	-4.85
3	On-peak	24.98	17.82	-7.16
	Delivery			
4	Cost of losses	3.24	2.32	-0.92
5	Distribution and	47.94	47.94	0.00
3	Transmission	47.74		
	Regulatory			
6	OESP	0.86	0.00	-0.86
7	RRRP	1.63	0.23	-1.40
8	Other	3.05	3.05	0.00
9	Subtotal	143.02	115.16	-27.86
10	HST	18.59	14.97	-3.62
11	8% Rebate	0.00	-9.21	-9.21
12	Total	161.61	120.92	-40.69

F. Tiered Prices

Nearly all RPP residential customers and many small business customers pay TOU prices. However, a comparatively small number of RPP residential customers have tiered pricing because their electricity use is not billed using a smart meter, and the same is also true of some RPP small business customers.

RPP tiered prices are set such that the weighted average price will come as close as possible to the average supply cost for RPP consumers (RPA), based on the forecast ratio of Tier 1 to Tier 2 consumption, and maintaining a 15-17% difference between Tier 1 and Tier 2 prices. This difference aligns with the ratio between the upper and lower tier prices that were set out in regulation before the OEB started to set RPP prices (i.e., the ratio between 4.7 and 5.5 cents per kWh). As shown in Table 5, the new RPP TOU prices reflect an RPA of 8.2 cents per kWh overall, a reduction of about 3.3 cents per kWh. Using these design criteria, an RPA of 8.2 cents per kWh yields the following tiered prices:

- Tier 1 price 7.7¢/kWh
- Tier 2 price 9.0¢/kWh

These tiered prices apply to the tiers defined in Appendix A of this report.

2. The GA Modifier

A. Overview of the legislative framework

The OFHP Act provides bill mitigation to all customers that are "specified customers" as defined in the OFHP Act. In addition to customers that are eligible for and paying RPP prices, "specified customers" include:

- customers that are eligible for the RPP, but have opted out for a retail contract or for market-based pricing; and
- customers that are not eligible for the RPP but are eligible for the 8% ORECA rebate.

Because these customers are not paying RPP prices, a different mechanism is required to provide them with bill relief under the OFHP Act.

Unlike RPP customers, whose share of the GA is included in their RPP prices, these customers pay their share of the GA separately based on the GA (or the GA rate) that is calculated monthly by the Independent Electricity System Operator (IESO). Under the OFHP Regulation, these customers will receive bill relief in the form of a reduction to the GA charges that they would otherwise pay. To that end, the OEB is required to set an amount – the GA Modifier – that electricity distributors and others will apply to reduce the GA payable by these customers on electricity consumed between July 1, 2017, and April 30, 2018.

As set out in the OFHP Regulation, the GA Modifier is to be set by the OEB as a dollar per megawatt-hour amount that represents the difference between:

- the RPP prices that would have been effective May 1, 2017, if determined by the OEB in the normal course and without taking into account any forecasted impact of the OFHP Act (in other words, the RPP prices applicable to Invoice A); and
- the new RPP prices set by the OEB under the OFHP Act (in other words, the RPP prices applicable to Invoice B).

B. Determining the GA Modifier

As shown in Table 7, the difference in the resulting electricity price as between the two sets of RPP prices is \$24.68 for a customer using 750 kWh in a billing period. The OFHP Regulation requires that this difference be presented as a dollar per megawatt-hour (1,000 kWh) amount. This yields a value of \$32.90 per megawatt-hour, as also shown in Table 7. The GA modifier that will be in effect for electricity consumed between July 1, 2017, and April 30, 2018 is therefore -\$32.90/MWh.

Table 7: GA Modifier Calculation

	Electricity Cost in Invoice A	Electricity Cost in Invoice B	Change
Electricity Price (\$)	86.30	61.62	-24.68
GA Modifier (\$/MWh)			-32.90

The OEB expects that the GA modifier will be posted on the IESO's website together with other GA information.

Appendix A

A. Time of Use Prices

Consumers with eligible time-of-use (or "smart") meters that can determine when electricity is consumed during the day will pay under a time-of-use price structure. The prices for this plan are based on three time-of-use periods per weekday. These periods are referred to as Off-Peak, Mid-Peak, and On-Peak.

TOU pricing periods are:

- 1. Off-Peak period:
 - Winter and summer weekdays: 7 p.m. to midnight and midnight to 7 a.m.
 - Winter and summer weekends and holidays⁵: 24 hours (all day)
- 2. Mid-Peak period
 - Summer weekdays (May 1 to October 31): 7 a.m. to 11 a.m. and 5 p.m. to 7 p.m.
 - Winter weekdays (November 1 to April 30): 11 a.m. to 5 p.m.
- 3. On-Peak period
 - Summer weekdays: 11 a.m. to 5 p.m.
 - Winter weekdays: 7 a.m. to 11 a.m. and 5 p.m. to 7p.m.

B. Tiered Pricing

RPP consumers that are not on TOU pricing pay prices in two tiers; one price for monthly consumption up to a tier threshold and a higher price for consumption over the threshold. The threshold for residential consumers changes twice a year on a seasonal basis as follows:

- 600 kWh per month during the summer season (May 1 to October 31)
- 1000 kWh per month during the winter season (November 1 to April 30).

The threshold for non-residential RPP consumers remains constant at 750 kWh per month for the entire year.

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⁵ For the purpose of RPP TOU pricing, a "holiday" means the following days: New Year's Day, Family Day, Good Friday, Christmas Day, Boxing Day, Victoria Day, Canada Day, Labour Day, Thanksgiving Day, and the Civic Holiday. When any holiday falls on a weekend (Saturday or Sunday), the next weekday following (that is not also a holiday) is to be treated as the holiday for RPP TOU pricing purposes