Approved RPP Pilot Structures and Prices

As originally approved August 24, 2017[1], amended October 3, 2017[2], amended October 31, 2017[3] and amended January 30, 2018

The structure of the Regulated Price Plan (RPP) pricing pilots and associated prices that have been approved by the Ontario Energy Board (OEB) are set out below. Note that, for the sake of brevity, the term "weekdays" refers only to weekdays that are not holidays[4] and the term "weekends" refers to weekends and holidays.

Pricing pilots A-G and M follow the price-setting methodology described in *Approved Prices and Structures for Electricity Pricing Pilots*, issued August 24, 2017.

Pricing pilots H-K were designed by Hydro One based on a survey and conjoint analysis of Hydro One customers. The pilots were submitted to and approved by the OEB. The pilot prices have been designed so as to be revenue neutral relative to the existing RPP prices if the prices and structure used in the pilot were to be implemented among all of Hydro One's RPP customers.

Additionally, for pricing pilots H-K, Hydro One is offering pilot participants the option to purchase monthly rate protection. The cost of rate protection varies between the various price plans as shown below. Customers who buy monthly rate protection would be charged the status quo time-of-use electricity prices that are in effect for the period if the commodity-related portions of their bill would otherwise be higher under the prices that apply to the pilot in which they are enrolled.

For pricing pilot L. Flat Prices, also designed by Hydro One and approved by the OEB, an additional premium was added to the price required to achieve revenue neutrality. The value of the premium is derived from a survey-based estimation of how much more a Hydro One customer would be willing to pay in order to receive a single electricity price charged in all hours.

A. Enhanced Time-of-Use

- Increases the on- to off-peak price differential from 2:1 (status quo) to 4:1
- Increases the mid- to off-peak price differential from 1.5:1 to 3:1

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[1] See Approved Prices and Structures for Electricity Pricing Pilots published August 24, 2017.
[2] https://www.oeb.ca/sites/default/files/letter-rpp-roadmap-approved-supplementary-price-structure.pdf
[3] https://www.oeb.ca/sites/default/files/approved-rpp-pilot-structures-prices-20171031.pdf
[4] Days that are considered holidays for pilot pricing purposes are the same as those that are considered holidays for the purposes of the application of RPP time-of-use prices; namely: New Year's Day, Family Day, Good Friday, Christmas Day, Boxing Day, Victoria Day, Canada Day, Civic Holiday, Labour Day, and Thanksgiving Day. When any such 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.

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am and 7pm – 12am Weekends: All day	Weekdays: 12am-7am and 7pm – 12am Weekends: All day	4.4
Mid-Peak	Weekdays: 7am – 11am and 5pm – 7pm	Weekdays: 11am – 5pm	13.2
On-Peak	Weekdays: 11am – 5pm	Weekdays: 7am – 11am and 5pm – 7pm	17.6

B. Low Overnight

- Creates a low-priced overnight rate between midnight and 6am
- Slightly lowered mid-peak rate and increased on-peak rate

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Overnight Off-Peak	12am to 6am	12am to 6am	2.0
Off-Peak	Weekdays: 6am – 7am and 7pm – 12am Weekends: 6am – 12am	Weekdays: 6am – 7am and 7pm – 12am Weekends: 6am – 12am	6.5
Mid-Peak	Weekdays: 7am – 11am and 5pm – 7pm	Weekdays: 11am – 5pm	9.2
On-Peak	Weekdays: 11am – 5pm	Weekdays: 7am – 11am and 5pm – 7pm	18.4

C. Variable Peak Pricing with CPP

- Price periods are the same throughout the year (no difference between summer and winter)
- Removal of mid-peak price period
- On-peak price period occurs later in the day
- On-peak prices vary depending on system demand
- 12 CPP events throughout the year

Price Period	Hours	Price (¢/kWh)
Off-Peak	Weekdays: 12am-3pm and 9pm-12am Weekends: all day	4.9
Low On-Peak	50% of Weekdays: 3pm-9pm	10.0

Medium On-Peak	30% of Weekdays: 3pm-9pm	19.9
High On-Peak	20% of Weekdays: 3pm-9pm	39.8
Critical Peak Price	On the top six system peak days in summer and winter respectively, each event lasting four hours. Start time of events determined by peak demand hour of event day.	49.8

D. Quick-Ramping CPP

- Discounted off-peak rate
- 48 Quick-Ramping CPP events, each two hours in duration
- Participants equipped with load control devices to respond to Quick-Ramping CPP events

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	5.5
Mid-Peak	Weekdays: 7am – 11am and 5pm – 7pm	Weekdays: 11am – 5pm	9.5
On-Peak	Weekdays: 11am – 5pm	Weekdays: 7am – 11am and 5pm – 7pm	13.2
Quick-Ramping Critical Peak Price[5]	On the top eight system peak days in July and August, and the top four system peak days in June and September: two highest consecutive demand hours between 4pm-8pm	On the top eight system peak days in January and February, and the top four system peak days in December and March: two highest consecutive demand hours between 4pm-8pm	49.9

E1. Seasonal Time-of-Use with CPP

- Removal of mid-peak price period
- Discounted off-peak rate
- Introduction of a flat rate in the shoulder months of September-November and March-May

[5] The number of critical peak price events for each month are provided as targets in order to reflect the intent of distributing events over each season. In practice, the number of events in a given month may vary from the projected frequency in the interest of matching events as closely as is feasible to system conditions. Nevertheless, the total number of CPP events that are called in both summer and winter seasons are expected to be the same as those listed in the section associated with each respective pilot employing critical peak pricing.

- 20 CPP events, each four hours in duration

Price Period	Summer Hours (June through Aug)	Winter Hours (Dec through Feb)	Shoulder Hours (Sept through Nov, Mar through May)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	N/A	5.3
On-Peak	Weekdays: 7am – 7pm	Weekdays: 7am – 7pm	N/A	13.2
Shoulder	N/A	N/A	All hours	7.9
Critical Peak Price[5]	On the top four system peak days in July and August, and the top two system peak days in June: 4pm-8pm	On the top four system peak days in January and February, and the top two system peak days in December: 4pm-8pm	N/A	26.4

E2. Seasonal Time-of-Use[6]

- Removal of mid-peak price period
- Discounted off-peak rate
- Introduction of a flat rate in the shoulder months of September-November and March-May

Price Period	Summer Hours (June through Aug)	Winter Hours (Dec through Feb)	Shoulder Hours (Sept through Nov, Mar through May)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	N/A	5.4
On-Peak	Weekdays: 7am – 7pm	Weekdays: 7am – 7pm	N/A	13.6
Shoulder	N/A	N/A	All hours	8.1

F. Super-Peak Time-of-Use

- Removal of mid-peak price period
- Introduction of a Super-Peak period on summer weekday afternoons

[6] This index of approved prices and structures for RPP pilots was amended January 30, 2018 to include this pricing pilot as per the Letter Re: Approved Prices and Structures for Electricity Pricing Pilot.

Price Period	Summer Hours (June through Aug)	Winter Hours (Sept through May)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	6.3
On-Peak	Weekdays: 7am – 1pm	Weekdays: 7am-7pm	9.5
Super-Peak	Weekdays: 1pm-7pm	N/A	25.3

G. Alternative Quick-Ramping Critical Peak Pricing[7]

- Discounted off-peak rate
- 36 Quick-Ramping CPP events, each one hour in duration
- Participants equipped with load control devices to respond to Quick-Ramping CPP events

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	6.0
Mid-Peak	Weekdays: 7am – 11am and 5pm – 7pm	Weekdays: 11am – 5pm	9.5
On-Peak	Weekdays: 11am – 5pm	Weekdays: 7am – 11am and 5pm – 7pm	13.2
Quick-Ramping Critical Peak Price[5]	On the top six system peak days in July and August, and the top three system peak days in June and September: highest demand hour between 4pm-8pm	On the top six system peak days in January and February, and the top three system peak days in December and March: highest demand hour between 4pm-8pm	59.6

H. Time-Of-Use Enhanced 3-Part Rate[8]

- Highly discounted off-peak price
- Increased mid-peak and on-peak price
- Optional rate protection fee: $8.00/month

[7] This index of approved prices and structures for RPP pilots was amended October 3, 2017 to include pricing pilot G as per the Letter Re: Approved Supplementary Price and Structure for Electricity Pilot Pricing.
[8] This index of approved prices and structures for RPP pilots was amended October 31, 2017 to include pricing pilots H-L as per the Letter Re: Approved Supplementary Price and Structure for Electricity Pricing Pilot

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	Weekdays: 12am-7am, 7pm – 12am Weekends: All day	0.6
Mid-Peak	Weekdays: 7am – 11am and 5pm – 7pm	Weekdays: 11am – 5pm	12.4
On-Peak	Weekdays: 11am – 5pm	Weekdays: 7am – 11am and 5pm – 7pm	33.2

I. Time-Of-Use 2-Part Rate

- Elimination of mid-peak price
- Modified on- and off-peak price periods
- Discounted off-peak price and increased on-peak price
- Optional rate protection fee: $3.00/month

Price Period	Summer Hours (May through Oct)	Winter Hours (Nov through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am – 1pm, 6pm – 12am Weekends: All day	Weekdays: 12am-4pm, 8pm – 12am Weekends: All day	4.9
On-Peak	Weekdays: 1pm – 6pm	Weekdays: 4pm – 8pm	28.0

J. Variable Peak Pricing (Hydro One version)

- Increased on-peak prices
- Modified on- and off-peak price periods
- Modified summer and winter periods
- Variable on-peak prices in summer
- Optional rate protection fee: $3.00/month

Price Period	Summer Hours (May through Sept)	Winter Hours (Oct through April)	Price (¢/kWh)
Off-Peak	Weekdays: 12am-1pm, 5pm – 12am Weekend Days: All day (excluding Super Critical and Critical periods)	Weekdays: 12am-5pm, 7pm – 12am Weekends: All day	6.4
Super Critical On-Peak	On the top 10 system peak days, 1pm - 5pm	NA	54.8
Critical On-Peak	On the top 25 non-super critical days, 1pm - 5pm	NA	33.7
Non-Critical On-Peak	Non-Super Critical and Non-Critical Weekdays: 1pm - 5pm	Weekdays: 5pm - 7pm	23.6

K. Real Time Pricing Rate Treatment

- Modified summer and winter periods
- Single price in all hours in winter period
- A price that changes each hour[9] in summer period
- Large range of price fluctuations on "high price days" (10% of days in summer)
- Optional rate protection fee: $3.00/month

Price Period	Summer Hours (May through Sept)	Winter Hours (Oct through April)	Price (¢/kWh)
Low Price Days	On 138 days with the lowest demand (90%)	NA	Hourly price between 6.9 and 11.5
High Price Days	On the 15 days with the highest demand (10%)	NA	Hourly price between 1.3 and 85.0
All Days	NA	All hours	8.0

L. Flat Prices

- A single price charged in all hours throughout the year, priced at a premium to the expected revenue-neutral price

Price Period	Price (¢/kWh)
All days, all hours	9.8

[9] As described by Hydro One in its RPP pilot application, an hourly rate profile for each day will be randomly drawn from groups of daily rate profiles for high price and low price days. High price days will be triggered as a function of weather and also the specified distribution of high price and low price days. The range of price on low price days is between 6.9 ¢/kWh and 11.5 ¢/kWh. The range of price on high price days is between 1.3 ¢/kWh and 85.0 ¢/kWh with at most 5% of hours above 75.8 ¢/kWh. The price movement from hour to hour will reflect smooth ramping up from low to high prices (at traditional peak times) and correspondingly smooth ramping down from high to low prices (at traditional off-peak times).