

# Ontario Smart Price Pilot Pilot Design

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### Contents

1	Introduction	1
	1.1 Document Scope and Purpose	1
	1.2 Background	1
	1.3 Pilot Objectives	2
2	Participating Distributor	3
3	Price Design	5
-	3.1 RPP Time-of-Use (TOU) Prices	5
	3.2 Critical Peak Pricing	6
	3.3 Critical Peak Rebate	6
	3.4 Critical Peak Trigger	9
	3.5 Tiered Prices for Control Group	10
4	Customer Participation	11
	4.1 Experimental sample	11
	4.2 Recruitment	11
	4.3 Incentive Approach	12
	4.4 Customer Service and Education	13
	4.5 Critical Peak Notification	13
	4.6 Billing	13
	4.7 Evaluation	14
5	Program Schedule	16
6	Communications Plan	18
Ar	opendices	
- 'r	A. Recruitment Communications Material	
	B. Confirmation Package	
	C. Critical Price Trigger	

D. Analysis of Critical Peak Rebate Concept

# **List of Figures**

Figure 1. RPP TOU prices are unchanged from the existing Board set prices	5
Figure 2. The off-peak price is reduced under CPP prices	6
Figure 3. A participant's CPR baseline is the average of usage during the same hours over the participant's last five, non-event weekdays, increased by 25%. The rebate is calculated as the kWh difference between the participant's CPR baseline and their actual usage on the day (the rebate base) multiplied by the 30¢	8
Figure 4. In the CPR prices, the RPP TOU prices are unchanged	9
Figure 5. Monthly usage strata for target participants	.11
Figure 6. Target number of participants and number of letters sent	.11
Figure 7. Pilot program schedule	.16
Figure 8. Key pilot milestones	.17

### **1** Introduction

#### 1.1 Document Scope and Purpose

This document consolidates the design elements completed for the Ontario Smart Price Pilot initiated by Ontario Energy Board (the "Board") in June 2006. It is intended to serve as a baseline for the project team in undertaking the pilot and to provide information to any others interested in details about the pilot's scope and approach.

Future related key documents from the pilot are expected to be:

- A survey design and execution plan in October 2006
- A preliminary report in October 2006, which summarizes initial results and participant feedback obtained primarily through focus groups
- A final report in January 2007, which consolidates the final outcomes of the pilot.

#### 1.2 Background

The Government of Ontario has committed to install a smart electricity meter in 800,000 homes and small businesses by 2007 and throughout Ontario by 2010. The continued installation of smart meters will ultimately enable the application of flexible, time-of-use (TOU) pricing, as set by the Board, to all electricity consumers on the Regulated Price Plan (RPP).

The Board initially committed to making TOU prices available for consumers on the RPP as they received smart meters. The RPP TOU prices are currently available on a mandatory basis for consumers with a smart meter, where RPP TOU prices have been voluntarily implemented by the electricity distributor. Originally, the Board established May 1, 2006 as the date on which TOU prices would have been mandatory for all RPP consumers with eligible time-of-use (or "smart") meters. However, a Standard Supply Service Code ("SSS Code") amendment was necessary to delay the date of mandatory implementation until such time as the smart meter entity (SME) becomes operational. The SME is intended to perform a number of functions associated with TOU data. Mandatory RPP TOU pricing will therefore go into effect on a date yet to be determined by the Board. It appears this will be sometime in 2007 depending on the timing of the SME.

Of Ontario's 90 electricity distributors, currently, only Milton Hydro has volunteered to implement RPP TOU pricing for all of its customers with smart meters. Chatham-Kent Hydro is also in the process of rolling out RPP TOU pricing. Other distributors

currently have smart meters already installed, however, they are not currently being used for the application for RPP TOU pricing.

In the Board's RPP Proposal issued in December 2004, the Board also made a commitment to investigate the feasibility of implementing a critical peak pricing (CPP) component for the RPP to potentially supplement the TOU prices. The Board committed to complete this feasibility assessment within a reasonable period of time to permit the potential formulation of a CPP component to coincide with the large-scale introduction of smart meters. This commitment specifically identified pilot projects as part of this assessment.

Within the window before the SME becomes operational and TOU pricing becomes mandatory, the Board decided to use this period of time as an "opportunity" to initiate the Ontario Smart Price Pilot to test different time-sensitive price structures for RPP consumers and gain further insights into how consumers respond to TOU prices. The Board also issued SSS Code amendments that will permit other Ontario distributors to implement similar TOU pricing pilots where they are complementary in nature to the Ontario Smart Price Pilot. A summary of available results of other such pilot projects (e.g., the Newmarket Hydro DR and TOU Pilot) will be included in the final report on the Ontario Smart Price Pilot.

#### 1.3 Pilot Objectives

The Ontario Smart Price Pilot is intended to assess:

- The demand response of consumers to various pricing structures (e.g., RPP TOU with/without CPP or Critical Peak Rebates [CPR])
- The extent to which each price structure noted above causes a change in consumer behaviour with respect to shifting of electricity consumption to off-peak periods as measured by the reduction in peak demand. Any change in total monthly consumption will also be assessed.
- The understandability for residential consumers of each pricing structure and the communications associated with each
- Consumer acceptance of each price structure

Based on the evaluation of the pilot results, the Final Report will provide conclusions as to the relative effectiveness of each tested pricing structure.

The results in the Final Report are intended to further inform the Board with respect to future decisions associated with CPP and CPR as well as whether refinements are needed to the current RPP TOU pricing construct and associated consumer communications.

### 2 Participating Distributor

To conduct the pilot, the Board needed a participating Ontario electricity distributor to provide candidate customers, interval meter data, and ongoing communications support. Among a variety of candidates, Hydro Ottawa was selected as the participating distributor for the following reasons:

- Hydro Ottawa has a sufficient number of smart meters currently installed and operating, thus providing a suitable population from which to recruit participants by August 2006.
- Hydro Ottawa is expected to be a key contributor in the implementation of smart meters in Ontario, with plans to install some 130,000 meters by the end of 2007. This means that the results will be directly applicable to a large number of consumers in the same area expected to be on time-sensitive prices next year.
- Two characteristics of Hydro Ottawa mean that results can be appropriately generalized to RPP-eligible consumers of other Ontario distributors, particularly those installing smart meters in 2007 (mostly in the Greater Toronto Area or GTA):
  - The candidate customers are in a variety of neighbourhoods with a range of monthly electricity consumption, major appliance holdings, housing types, housing ages, and family incomes. This variation in attributes is critical for extrapolation purposes.
  - The Ottawa area climate supports the pilot objectives: summertime temperature highs are nearly identical to those in the GTA the area with the greatest population in the province and wintertime lows are lower. This is crucial, because the literature indicates that the greatest response to time-based pricing occurs at extreme temperatures.<sup>1</sup> These responses are greater in both absolute and relative terms. Moderate weather also occurs in Ottawa. The pilot is designed to measure response on an hourly basis, taking advantage of the hourly data available from the smart meters. The hourly analysis allows for estimating the demand response (and extrapolation to other locations) on moderate days and extreme days. To the extent one area, such as the GTA, has more of the extreme days, this can be accounted for in the extrapolation through weighting the results by the number of extreme days vs. moderate days.

<sup>&</sup>lt;sup>1</sup> See for instance, Charles River Associates, "Impact Evaluation of the California Statewide Pricing Pilot, Final Report," February 11, 2005.

#### Ontario Smart Price Pilot

Hydro Ottawa management has committed to support the pilot, funding necessary internal operations and the thank you payments of \$75 being provided to participating customers plus/minus any savings/losses for participants on TOU prices vis-à-vis RPP tiered prices. Two-thirds of that thank you payment (or \$50) is conditional on the participant simply remaining on the pilot for the full period. The residual \$25 is conditional on the participant completing a pilot survey.

4

### 3 **Price Design**

Three different commodity price structures will be tested during the pilot:

- The existing RPP TOU prices
- The existing RPP TOU prices with a critical peak price
- The existing RPP TOU prices with a critical peak rebate

Participant usage on these three price plans will be compared with the usage of customers in a fourth "control" group who also have smart meters but remain on the RPP tiered prices.

The three price structures are designed to be as revenue neutral as possible relative to each other. This is defined such that a participant whose electrical usage is distributed across the hours in the same way as the provincial average for all RPP consumers will pay approximately the same bill on all three options in the absence of any change in usage. This revenue neutral approach is the same design used in the California Statewide Pricing Pilot and the SmartPowerDC<sup>™</sup> pilot in Washington D.C. By controlling for total bill amounts prior to demand response to the prices, the revenue neutral design allows for a more accurate estimate of the price effects.

All three price structures to be tested in the pilot are described in more detail below.

#### 3.1 RPP Time-of-Use (TOU) Prices

The existing RPP TOU prices and hours will be used as one of the price structures for the pilot.

Time	Summer Hours (May 1-Oct 31)	Winter Hours (Nov 1-Apr 30)	Price/kWh
Off-peak	10 pm-7 am weekdays; all day weekends and holidays	10 pm-7 am weekdays; all day weekends and holidays	3.5¢
Mid-peak	7 am-11 am and 5 pm-10 pm weekdays	11 am-5 pm and 8 pm- 10 pm weekdays	7.5¢
On-peak	11 am-5 pm weekdays	7 am-11 am and 5 pm- 8pm weekdays	10.5¢

Figure 1. RPP TOU prices are unchanged from the existing Board set prices

Under the RPP, these prices may change effective November 1, 2006.

### 3.2 Critical Peak Pricing

As with RPP TOU prices, the CPP price was designed to be as revenue neutral as possible. The critical peak price was determined to be the average price of the highest 93 hours between June 2005 and June 2006, based on the hourly Ontario electricity prices or the HOEP (per kWh).

The existing RPP TOU prices and hours will be used for all other hours during the pilot; however, the Off-Peak price was adjusted to offset the effect of the Critical Peak Price. The Off-Peak price was reduced by 11% to 3.1 cents per kWh, while the CPP represents a 186% increase in the On-Peak price. The reason for the different percentage amounts is that CPP prices are in effect less than 100 hours per year, while Off-Peak prices are in effect for over 4,700 hours (or over half of all hours). Critical Peak pricing will only be in effect when Critical Events are declared. CPP prices will also be in effect for only three to four hours per applicable day and only during On-Peak hours

Time	Summer Hours (May 1-Oct 31)	Winter Hours (Nov 1-Apr 30)	Price/kWh
Off-peak	10 pm-7 am weekdays; all day weekends and holidays	10 pm-7 am weekdays; all day weekends and holidays	3.1¢
Mid-peak	7 am-11 am and 5 pm- 10 pm weekdays	11 am-5 pm and 8 pm- 10 pm weekdays	7.5¢
On-peak	11 am-5 pm weekdays	7 am-11 am and 5 pm- 8pm weekdays	10.5¢
CPP	3 to 4 hours during On- Peak, dispatched up to 15 days per year	3 to 4 hours during On- Peak, dispatched up to 15 days per year	30.0¢

The resulting prices are shown Figure 2.

Figure 2. The off-peak price is reduced under CPP prices

Again, under the RPP, TOU prices are subject to a potential change every six months, with the next review scheduled for November 1. The pilot CPP price is not expected to change during the pilot.

#### 3.3 Critical Peak Rebate

The existing RPP TOU prices and hours will be used during the pilot. As for CPP above, Critical Peak rebates will be in effect only when Critical Events are declared and are limited to only three to four hours during On-Peak hours.

In contrast to the CPP, the Critical Peak Rebate (CPR) provides a rebate to participants for reductions below their "baseline" usage during the critical peak hours.<sup>2</sup> To strive for revenue neutrality (defined above), the rebate amount was set to be the same as the CPP price during critical peak hours. Also, since the incentive during the critical peak hours is a rebate, there is no adjustment in the Off-Peak price. A participant making no change in response to the critical peak events will pay the same bill on TOU plus CPR as they would if they were a participant on TOU prices only.

For a participant to receive a rebate, their consumption would have to be below a baseline. This means that the higher the baseline, the easier it is for a customer to earn a rebate (i.e. use an amount of electricity less than the baseline amount). The baseline methodology was developed by reviewing other baseline methodologies used for residential CPR programs, as well as baselines used for large commercial consumer curtailable programs. Baseline methods considered were the following:

- PJM: Usage for the same hours in the three highest of the ten previous non-event, non-holiday weekdays
- NYISO: Five highest of the ten previous non-event, non-holiday weekdays
- Anaheim Public Utilities: Three highest non-event, non-holiday weekdays in the first half of summer
- SmartPowerDC<sup>™</sup> pilot in Washington D.C.: Three highest non-event, non-holiday weekdays in the previous month
- San Diego Gas & Electric (SDG&E): Average of previous five non-event, nonholiday weekdays

The SDG&E approach is the most recently developed and based on a detailed analysis of residential consumer data. Its advantage is its computational simplicity. However, because critical days are, by definition, the most extreme, SDG&E's baseline approach understates what the consumer would have otherwise used on critical days.<sup>3</sup> This artificially low baseline means that a customer would have to reduce peak consumption on critical days just to reach the baseline level — then further reduce consumption to earn a rebate.

<sup>&</sup>lt;sup>2</sup> - See Appendix D, Analysis of Critical Peak Rebate Program Concept.

<sup>&</sup>lt;sup>3</sup> - For a detailed discussion of baseline issues see Xenergy, "Protocol Development for Demand Response Calculation," Prepared for California Energy Commission, August 1, 2002.



#### **Critical Peak Rebate Calculation**

Figure 3. A participant's CPR baseline is the average of usage during the same hours over the participant's last five, non-event weekdays, increased by 25%. The rebate is calculated as the kWh difference between the participant's CPR baseline and their actual usage on the day (the rebate base) multiplied by the 30¢.

The team analyzed data for 2005 from a similar Anaheim TOU pilot and determined that, on average, usage of control group consumers during critical peak periods was 23% higher than their average usage during the same hours of the five previous non-event, non-holiday weekdays. In other words, this data showed that the starting point for determining a load reduction should be 23% above the five-day average, giving the customer a greater (and appropriate) opportunity to earn a rebate. Based on this analysis, the Ontario pilot uses a rounded-off adjustment factor of 25%.

For the Ontario pilot, the baseline combines the benefits of the San Diego method with the adjustment factor to remove the inherent penalty in the San Diego approach.

The result is a baseline that is calculated as the average usage for the same hours of the five previous non-event, non-holiday weekdays, multiplied by 125%. The difference between the consumer's consumption during the Critical Event and the baseline would be subject to the CPR, creating a rebate of 30 cents/kWh times the amount by which the participant's usage was reduced.

The resulting prices are Figure 4.

	Summer Hours	Winter Hours	
Time	(May 1-Oct 31)	(Nov 1-Apr 30)	Price/kWh
Off–peak	10 pm-7 am weekdays; all day weekends and holidays	10 pm-7 am weekdays; all day weekends and holidays	3.5¢
Mid–peak	7 am-11 am and 5 pm- 10 pm weekdays	11 am-5 pm and 8 pm- 10 pm weekdays	7.5¢
On-peak	11 am-5 pm weekdays	7 am-11 am and 5 pm- 8pm weekdays	10.5¢
CPR	3 to 4 hours during On- Peak, dispatched up to 15 days per year	3 to 4 hours during On- Peak, dispatched up to 15 days per year	30.0¢

Figure 4. In the CPR prices, the RPP TOU prices are unchanged

#### 3.4 Critical Peak Trigger

The team considered two approaches for triggering critical peak events. The first was to dispatch in parallel with the Independent Electricity System Operator's (IESO) voluntary Emergency Load Reduction Program (ELRP), for which only large wholesale market consumers are eligible. For this program, the IESO forecasts day-ahead supply and demand and calls an event when forecast supply margins are very low. However, because this is designed to be an emergency program, it is intended to be triggered relatively infrequently (i.e., only a handful days per year are expected). While this may be appropriate for the long term, the short pilot schedule made it necessary to consider a temperature trigger to increase the likelihood that a sufficient number of events would be called during the five month pilot to provide the necessary data for analysis.

The temperature trigger is commonly used in critical peak programs. The trigger is calculated based on historical data. The historical data determines how many times a particular temperature was exceeded (on the high side in summer, low side in winter). The team reviewed historical data for the past five years and selected temperatures which would have provided an appropriate number of critical peak events in at least four of the past five years. The team's goal is to have approximately six summer events and three winter events during the pilot. The team took a conservative approach in selecting the trigger temperatures because, if the threshold is exceeded too many times, events need not be called (whereas if not enough events occur, insufficient data will be available for analysis).

The trigger temperatures selected were 28°C in summer and -14°C in winter. In addition, events will be called when the Humidex exceeds 30°C during peak times of the day, regardless of the temperature. See Appendix C for further details.

### 3.5 Tiered Prices for Control Group

The conventional meter RPP has prices in two tiers, one price  $(T_1)$  for monthly consumption under a tier threshold and a higher price  $(T_2)$  for consumption over the threshold. The threshold for residential consumers vary by season:

- 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).

Currently, the tiered prices are:

- $T_1 = 5.8$  cents per kWh
- T<sub>2</sub> = 6.7 cents per kWh

The tier thresholds are set such that there is roughly a 50/50 split of forecast consumption at the lower tier price and at the higher tier price, resulting in tiered prices that are distributed symmetrically around the average RPP supply cost. <sup>4</sup>

It is important to note that the RPP tiered prices and the RPP TOU prices are established based on the same average RPP supply cost (or average RPP price) of about 6.3 cents per kWh.

<sup>&</sup>lt;sup>4</sup> - See Ontario Energy Board, "Regulated Price Plan Price Report May 1, 2006 to April 30, 2007," April 12, 2006, for details. It is available at <u>www.oeb.gov.on.ca/documents/cases/EB-2004-0205/rpp\_pricereport-may06-apr07\_120406.pdf</u>

### 4 **Customer Participation**

Participants have been randomly selected from the population that would have smart meters installed in Hydro Ottawa's territory by August 1, 2006; a total of approximately 5,000 customers. The experimental design is a classic side-by-side comparison of control vs. treatment groups. Participants were recruited for the three treatment options (TOU, CPP, and CPR), with other customers with smart meters acting as the control group. All potential participants are RPP consumers (i.e., not on a retailer contract).

#### 4.1 Experimental sample

The sample was drawn via a stratified random sample. The population was stratified into three groups — high, middle, and low — based on average monthly usage in the prior 12 months. This stratification ensured that representative number of eligible participants would be included at all three usage levels. Figure 6 below shows the distribution of eligible participants by usage level.

Monthly Usage Strata	Percent of Target Participants
0-500 kWh	36%
501-750 kWh	30%
750+ kWh	34%

Figure 5. Monthly usage strata for target participants

The three treatment groups correspond to the three price designs discussed in section 3. The targeted sample sizes are shown in Figure 6.

Price Group	# of Participants Targeted	# of Letters Sent
TOU	75	600
CPP	75	600
CPR	75	600

Figure 6. Target number of participants and number of letters sent.

#### 4.2 Recruitment

Recruitment was undertaken via direct mail, using a letter co-branded by Hydro Ottawa and the OEB. Subsequent pilot communications are branded as OEB communications. The initial letter notifies customers that they "have been selected as a participant." However, customers were not included in the pilot unless they returned the confirmation form included in the recruitment mailing. One reason confirmation was needed is to provide the correct telephone number or email address for critical peak event notifications.

Given the very short time frame, only a single mailing was made, and eligible participants were given a deadline of one week (from the initial mailing) in which to send or call in their confirmation to participate.

The recruitment packages consist of the following:

- Cover Letter: provides a brief introduction to the pilot, describes key features, and informs eligible participants how to confirm participation.
- Fact Sheet: provides an explanation of all the key features of the pilot, shows the specific prices, provides a sample of the monthly energy usage statement to be received by participants, and provides a sample of the final settlement that will be provided to participants.
- Confirmation Form: when signed, this form confirms the customer's participation and provides needed authorization for pilot data handling and analysis.

There are three versions of the Letter and Fact Sheet; one for price design group. All materials are provided in both English and French. Sample recruitment materials are included in Appendix B.

#### 4.3 Incentive Approach

As an incentive to recruit participants, participants will receive a "thank you payment" of \$75.00 at the end of the pilot. Such an incentive is consistent with incentive payments of \$75 to \$100 made in similar pilots. Numerous researchers have concluded that the incentive does not present an issue when analyzing the effect of prices on pilot participants. The reason is that the incentive payment is a fixed externality; participants receive credit for the \$75 simply by participating. Any savings or losses on their time-based pilot prices do not change the fact that they will receive the incentive payment, beyond reducing or increasing it. Specifically, \$50 is to be provided as an incentive for remaining on the pilot for the full five month period and \$25 is to be provided for completing the pilot survey.

In this pilot, for administrative, cost, timing, and other reasons, participants will not pay their time-based electricity charges each month (see Billing below). Instead, there will be a final settlement in January 2007 following the end of the pilot. At the time of this final settlement, participants will receive a cheque in an amount equal to the \$75 incentive (subject to the two conditions noted above) adjusted by the amount of their savings or losses on time-based pricing. Thus, participants will face actual economic gains or losses based on their response, or lack thereof, to time-based

prices. If, for example, a participant opts out of the pilot before completing the survey, that participant will receive no incentive payment.

#### 4.4 Customer Service and Education

The implementation team is providing both telephone and email support for participants. The phone support is staffed from 11 am-8 pm Ottawa time. Support is available in both English and French.

Initial participant education, beyond the material in the recruitment package, focused on a package mailed to each eligible participant following receipt of their enrolment form. This confirmation mailing included the following:

- Cover Letter: confirms that the participant is enrolled.
- Refrigerator magnet: provides a table of the prices, times, and seasons for the participant's price plan. The magnet to be sent is an adaptation of a design that was preferred by customers in focus groups conducted for a different pilot program by Hydro Ottawa. A sample magnet design is shown in Appendix A.
- Energy conservation brochure: this brochure provides a variety of conservation tips for electricity consumers that may be used during peak times or anytime. The brochure is included as Appendix B.

Going forward, each pilot participant will receive an *Energy Usage Statement* each month highlighting the key features of his or her price plan. The implementation team monitors and tracks all phone calls and emails for use in the program evaluation. In this tracking process, should issues arise concerning participant understanding of the program, additional educational mailings could be developed.

#### 4.5 Critical Peak Notification

Pilot participants will be notified by 3 p.m. the day before each critical peak event. The notification will state the time and length of the critical peak event (which vary between three and four hours) and remind the participant of the critical peak price or rebate, as applicable. Notification will be made via automated telephone, email, or text page, based on the preference expressed by the participant at the time of confirming enrolment. Notifications will be provided in both English and French.

#### 4.6 Billing

To accommodate the needs of the pilot, participants will continue to receive and pay their "normal" electricity bill from Hydro Ottawa. This bill is issued every other month at a different time during the month for any given customer. Separately, pilot participants will receive monthly *energy usage statements* that show their electricity supply charges on their respective pilot price plan. These statements emphasize the amount of electricity consumed (in each pricing period) and the TOU price of electricity (in each period). The statements will be mailed to participants monthly, and

13

all usage will be on a calendar month basis. Sample statements are included in the sample Fact Sheets in Appendix B.

Participants will not remit the dollar amounts shown on the energy usage statements. Instead, at the end of the pilot, participants will receive a final settlement comparing their electricity charges on the pilot prices with what their charges would have been on the tiered prices. Some participants will have higher electricity charges on the pilot TOU prices, others lower. If the results are similar to the experience of other pilots, the majority will see lower charges.

The savings or losses determined in the final settlement will be combined with the participant's incentive payment of \$75, such that the participant will receive a "netted" amount of more or less than \$75 reflecting actual performance on the pilot's time-based prices.

Given the above, only the incentive payment amount is affected. As such, the pilot has been designed to have no impact on the RPP variance account held by the Ontario Power Authority (OPA).

#### 4.7 Evaluation

The primary objective of the evaluation plan is to determine the extent to which participants respond to time-varying prices and to assess how demand responsiveness (i.e., shifting consumption to off-peak periods) varies with participant characteristics, weather and other determining factors. Econometric analysis will be used to measure the impact of price and other treatments on usage and peak demand patterns of participants who are subject to the three different price options and of a suitable control group. The data collected during the pilot will be used to estimate mathematical functions (e.g., demand equations) that relate usage during specific time periods and coincident peak demand to a variety of determining variables, including:

- Price level
- Housing type
- Participant size, measured by electricity usage amount
- Equipment holdings
- Variations in climate and weather conditions over time
- Demographic characteristics, including income.

The pilot will also provide insights into participant opt-out rates.

The degree of demand response by pilot participants will be determined by estimating demand equations, which relate usage by time period to price types and price levels, other experimental treatments, participant characteristics, and weather conditions. The primary data requirements for such an analysis include: (a) measurements of participant load shapes; (b) measurements of participant sociodemographic and economic characteristics; (c) price and other treatment effects; and (c) weather conditions. Participant load shapes will be obtained from the smart meters installed on all participant premises. Socio-demographic and economic information will be gathered through surveys of each participating consumer conducted during the experiment. Relevant characteristics include dwelling type; age of dwelling; size of dwelling; saturation of major electric appliances; number of people in the house; age of the head of household; and average income.

The unit of analysis will be kWh usage by time period, specifically hourly. Hourly data is preferable since the CPP price signals are day-specific and daily usage provides greater variation in weather conditions and, therefore, greater precision in the all-important weather parameters. The demand estimation will be based on observations for individual participants. A key result from the estimation process will be the estimation of coincident kW demand impacts due to the expected shifting of usage from on-peak to off-peak periods as well as an estimate of the total usage impact.

Once the pilot gets underway, there will be an opportunity to conduct market research (focus groups and surveys). The results of this research in conjunction with the quantitative demand response analyses discussed above will help inform future decisions by the Board associated with RPP TOU prices and the other complementary smart meter dynamic pricing options (i.e., CPP and CPR). The market research will include determining what price features are understood and valued by residential consumers.

Another goal is determining residential consumer understanding and fairness measures of various price features (e.g. relationship between retail price and wholesale cost or system conditions, relationship between demand response and monetary savings, relationship between appliance efficiency and monetary savings, etc.).

Finally, we will evaluate the recruitment process and attempt to identify factors affecting the response rate.

### 5 **Program Schedule**

The pilot was launched on August 1, 2006 and is currently expected to continue for five months. Usage tracking would then end on December 31, 2006, with the last of five Energy Usage Statements will be provided to participants in early January.

Participant surveys are planned for late November and early December, before the holiday season.

The final report will be then completed in January 2007.

Further details are illustrated in the schedule below (Figure 7 and Figure 8)

Activity	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Stage 1	Pilo	t coff						
Program Design								
Operational Setup								
Survey Design								
Participant Recruitment								
Stage 2	Billin	ng Period Starts		Usag Starts	e Report	ting	Billin	g Perioa
Pilot Operations			>					
Focus Groups								
Participant Survey								
Preliminary Report						Prelii Repo	minary ort	
Phase 3								Final An
Final Analysis								Report

Figure 7. Pilot program schedule

Date	Milestone
June 25, 2006	Pilot kick-off
July 11, 2006	Price design finalizes
July 14, 2006	Target customers selected and enrolment letters sent out
August 1, 2006	Pilot kick-off. Usage information begins to be captured
Week of September 4, 2006	Pilot Design document available
Week of September 4, 2006	First Energy Usage Statements produced and mailed
October 2006	Focus groups completed
November 2006	Preliminary Report
December 15, 2006	Participant survey completed
December 31, 2006	Pilot program ends
January 31, 2007	Final Report

Figure 8. Key pilot milestones

## 6 **Communications Plan**

The table below sets out the schedule for the key communication items with pilot participants. There are expected to be other stakeholder and media communication activities during and after the pilot.

	Contact			
ltem	Туре	Timing	Element	Notes
1. Initial Enrollment	Mailing	Week of July 17	Cover Letter One for each price structure	Notify customer of selection, get customer to read Fact Sheet, get customer to return release form.
			Fact Sheet - One for each price structure	Inform customer regarding basic program elements.
			Release Form - One for TOU only, one for CPP/CPR	Confirm participation, obtain customer's signed agreement to participate, obtain CP notification preference (if relevant) and complete enrollment survey.
2. Enrolment Confirmation	Mailing	Weeks of July 24 and 31	Letter - One for TOU only, one for CPP/CPR	Confirm that customer is on pilot
			Energy Savings Brochure	Provide basic program information, savings tips, and appliance energy usage data Using existing Hydro Ottawa brochure
			Fridge Magnet - One for each price structure	Provide a resilient reference of the TOU price periods for participants
3. Initial OEB Media Release	Web posting Media Release	Week of August 7	Media Release	Support general awareness in Ottawa to support enrolment Inform industry stakeholders of pilot Establish initial awareness among media

	Contact			
ltem	Туре	Timing	Element	Notes
4. Energy Usage Statement	Mailing	Monthly starting week of September 4	Usage Statement	Inform participant of charges, rebates, and account balance
5. Focus groups	In person	October 2006	Focus groups	To gauge participant's understanding, satisfaction, and attitude towards pilot
				Pilot participants will be recruited for focus groups via phone.
6. Survey	Email / Telephone	Late November to Early December 2006	Survey	All participants will receive survey request via email, with instructions to complete via the internet. Telephone surveys will also be conducted
7. Final Energy Usage Statement	Mailing	Week of January 8, 2007	Summary Usage Statement	Summary of all energy usage statements. Also provides participant with total amount of "thank you payment" net of any debits or credits