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Oded Hubert
Vice President
Regulatory Affairs

BY COURIER

April 3, 2017

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
P.O. Box 2319
Toronto, ON
M4P 1E4

Dear Ms. Walli,

EB-2016-0201 –Hydro One Networks Inc. RPP Roadmap Pricing Pilot

On July 18, 2016 the Ontario Energy Board ("OEB") issued its "Regulated Price Plan Roadmap: Guideline for Pilot Projects on RPP Pricing" ("Guideline") inviting distributors to participate in developing and implementing pricing pilots identified by the OEB.

In response to the OEB's request for proposals contained in the Guideline, Hydro One Networks Inc ("Hydro One") submitted an application entitled "Hydro One RPP Roadmap Pilot" on August 19, 2016. The OEB released a Decision and Order under EB-2016-0201 on September 23, 2016, to extend Hydro One's existing Smart Grid Fund Dynamic Energy Pricing ("SGF") pilot until April 30, 2017 and approving a deferral account for costs associated with extending this existing pilot.

On September 29, 2016, Brian Hewson, Director of Strategic Policy at the OEB, wrote an email to Hydro One's CDM Manager and key contact for this pilot proposal, Sahar Mishriki, inviting Hydro One to submit a full project proposal to the OEB. Hydro One submitted its proposed RPP Roadmap Pilot ("the Pilot") to the OEB on October 28, 2016.

Based on further discussions with OEB staff on the contents of its proposed Pilot, Hydro One is submitting the attached amended Pilot proposal. The amended Pilot proposal includes the following key changes to the October 28th submission:

- Reduced the Pilot duration from 18 to 12 months.
- Significantly reduced the cost of the Pilot by eliminating the need to modify Hydro One's billing system to process Pilot participants' bills.

- Updated the electricity pricing rate structures to be considered in response to OEB staff feedback. Hydro One's amended Pilot proposal offers three commodity-only rate plans as well as two other rate offerings that draw on the lessons learned from Hydro One's current SGF and IESO Pricing pilots. This is especially important given the government's recently announced Fair Hydro Plan which will significantly reduce the commodity portion of the bill, and thus, reduce the incentive for customers to shift their usage.
- Replaced the 12 month rate guarantee for Pilot participants with an optional monthly rate insurance to enhance enrollments and offset customer risk associated with choice.
- Increased the proposed sample size from 3,600 to about 4,500 participants to account for potential increased attrition as a result of removing the rate guarantee.
- Extended the current SGF pilot participants from May 1 to November 2017. Please note that in order to to communicate next steps with existing SGF pilot participants whose commitment is scheduled to end April 30, 2017, ***Hydro One will need to receive approval from the OEB to extend these customers by April 24, 2017.***

As indicated in our previous submissions, Hydro One assumes the Pilot will not be funded through its distribution rates given that this work is being undertaken for the benefit of all regulated price plan customers in Ontario.

We look forward to working with the OEB to develop electricity rates that better serve customers and the needs of the electricity system in Ontario. Please do not hesitate to contact Sahar Mishriki, CDM Manager, at (416) 345-4324 or at sahar.mishriki@hydroone.com if you have any questions.

Sincerely,

ORIGINAL SIGNED BY HENRY ANDRE

Henry Andre on behalf of Oded Hubert

Ontario

Regulated Price Plan Roadmap Pilot Program Project Proposal

A. Key Information

Project Title:	Hydro One RPP Roadmap Pilot
Distributor(s):	Hydro One Networks Inc.
Submission Date:	March 27, 2017

Applicant's Designated Contact (e.g. project lead, project manager, etc.)	
Name:	Sahar Mishriki
Title:	Manager, Strategy & Conservation
Mailing Address:	483 Bay St 6th Floor South Tower, Toronto ON, M5G 2P5
Phone:	416-345-4324
Email:	Sahar.Mishriki@HydroOne.com

Applicant's Executive with Signing Authority (e.g. CEO, CFO, ED, etc.)	
Name:	Giuliana Rossini
Title:	Director and Conservation Officer
Mailing Address:	483 Bay St 6th Floor South Tower, Toronto ON, M5G 2P5
Phone:	416-345-6035
Email:	G.Rossini@HydroOne.com

PLEASE READ THROUGH THE ENTIRE TEMPLATE PRIOR TO COMPLETING TO ENSURE THAT YOU UNDERSTAND THE QUESTIONS AND CAN PLACE YOUR ANSWERS IN THE RIGHT SECTIONS TO AVOID REPEATING INFORMATION.

ⓘ MAXIMUM 25 PAGES EXCLUDING "ATTACHED ITEMS" described in Section 6

B. Brief Project Description

In no more than two sentences, describe the pilot:
The Hydro One RPP Roadmap Pricing Pilot ("the Pilot" or "RPP Roadmap Pilot") will recruit a sample of residential customers with the opportunity to select from a menu of alternative price options and enabling technologies that inform and provide customers with incentives to shift usage to lower cost periods which can lead to increased system efficiencies and customer bill savings. The Pilot will examine the impact of customer rate choice and rate protection/risk that is more reflective of potential future real price offerings as may be directed by the OEB. Through this project, we aim to help determine the levels of customers' satisfaction, electricity usage, load shifting and bill savings for each rate treatment, as well as price responsiveness (elasticities) across a variety of customer characteristics while maintaining revenue neutrality.

Expected Project Duration: 24 **Months**

Project Overview

Regulated Price Plan Roadmap Category	
☒ Price	☒ Non-Price
Target Market(s): Residential Market Only	
☒ Existing Homes	☒ High Usage Customers
☐ New Homes	☒ Other: multiple geographic areas; multiple usage levels; multiple income levels
☐ Multi-family	
☒ Single-family	
☒ Low Income Customers	
Project Type	
☒ Time-of-use	☒ Other Pricing
☒ Critical Peak Pricing	
☒ Appliance/Household Automation	
☒ Information Provision	

Budget Overview

Complete the table below following the example provided. Please list the names of any and all third party contributors and indicate whether or not their funding is confirmed. "Funding Request" represents your funding request to the OEB.

In addition to the budget outline below, Applicants must complete the Budget, Work Plan and Measuring Results excel template provided in Appendix A.

Funding Request				
	Approximate total contribution (over full project duration)			
	Cash ($)	Cash (% of total project)	In-kind ($)	In-kind (% of total project)
Hydro One contribution	$0	0%	$60,000	1%
McMaster University contribution	$0	0%	$20,000	0%
Subtotal (non-OEB funding)	$0	0%	$80,000	1%
OEB contribution: McMaster costs	$4,949,630	83%		
OEB contribution: Hydro One costs	$940,000	16%		
Total Funding Request	$5,889,630	99%	$80,000	1%
Total project value (all cash costs + in kind)	$5,969,630			

* Note: Provide actual name
**Note: Add rows as necessary

Payment Schedule – This schedule (similar to other IESO Conservation Fund funded pilots)	
Deliverable	**Payment due - % of Total Pilot Budget**
OEB Approval	**30%**
Pilot Launch	**35%**
Interim Status Report	**15%**
Final Report	**20%**

1. PILOT CONCEPT AND RATIONALE

In this section, fully describe the proposed project by addressing each of the points below:

A. Describe the project concept and scope (max. 1 paragraph).

Dynamic Energy Pricing (DEP) refers to new electricity rate structures that include changing the on-peak to off-peak price differential and the timing/duration of peak hours. In general, these rate structures provide customers with incentives to shift usage to lower cost periods which can lead to increased system efficiencies and customer bill savings. This project will build on the existing and extended Smart Grid Fund Dynamic Energy Pricing Pilot ("SGF Pilot") and the IESO Smart Thermostat Pricing Pilot ("IESO Pilot") that includes smart thermostat and dynamic pricing. In addition, it will examine the impacts of customer rate choice and the introduction of customer risk exposure to DEP rates that they choose. Participants will be given the opportunity to choose from a menu of rate options along with complimentary enabling technologies such as smart thermostats, in-home displays ("IHDs"), and thermal energy storage ("TES") units. The pilot will assess the impact of risk with respect to customer rate choice. Through this project, we aim to help determine the levels of customers' satisfaction, electricity usage, load shifting and bill savings for each rate treatment, as well as price responsiveness (elasticities) across a variety of customer characteristics including geography, income, and usage level. In addition to testing customer benefits, this pilot will provide information which will assist future analysis of utility revenue neutrality.

B. Describe the target market(s) (e.g., segment, electricity consumption and demand, and % of segment reached through the pilot), the energy issues it faces, how the project is to expected result in savings (demand and/or consumption), and/or expected consumer energy literacy benefits from this project.

This project will target residential customers in Hydro One's service territory. Customers will be segmented based on their rate class, geographic location, and consumption level based on annual kWh usage. The program aims to involve about 4,450 participants, which is about 0.4% of Hydro One's residential customers. To allow pilot roll-out by November 1, 2017, we plan to end recruitment by that date as long as we are within 15% of the recruitment target which would still provide for a statistically viable customer sample.

Many Hydro One customers have expressed frustration over the mandatory TOU pricing. We believe that through offering a choice of rate structure, customers can choose rates that better meet their lifestyle needs and help them save on their electricity costs. This can be enhanced by providing customers with powerful enabling technologies – such as smart thermostats and thermal energy storage for customers with electric baseboard heating - that make it easier through a "set and forget" feature to respond to dynamic rate structures.

Based on preliminary indicators from the existing SGF Pilot, it has been observed that customers do respond to new rate structures that provide an appropriate incentive to shift consumption patterns. On average (after 15months of field experience) bills were reduced by approximately 7%. We expect that customer rate choice would enhance this result.

C. Identify the number of expected number of participants per treatment. Describe the experimental design of the pilot and the sampling plan to recruit participants (and, if applicable, specific customer groups) in sufficient quantities to allow for statistically valid conclusions and insights.

In total we are anticipating about 4,450 participants would take part in this Pilot. This will include a mix of customers currently participating (about 930) in Hydro One's existing SGF Pilots as well as new participants (3,520) recruited prior to the pilot launch. The project team will provide targeted marketing materials to a sufficient number of customers to enable the recruitment of enough new participants to have a statistically significant sample.

This sample size allows us to analyze price elasticity as stipulated in the OEB Guideline. To measure price responsiveness, a variation in price structures associated with a sufficiently large number of sample participants in each treatment is needed. The mix of existing and new participants would inform us about the difference in customers' response to dynamic pricing, where we would test the impact of no dynamic rates experience of new recruits on their participation. Given the new participants' unfamiliarity with dynamic rates and possible negative reaction to assuming risk during the pilot, in the form of higher attrition, a larger sample size is required for new participants. A larger sample size is also required to test how thermal energy storage (TES) technology for

electric heating participants interacts with dynamic rates with potentially lower off-peak rates. There will also be a subgroup of participants with smart thermostats with a 'set and forget' feature to test for the value added benefits of this feature. The expanded sample would make insights from the pilot results more translatable to a potential province-wide roll out of DEP rates.

Hydro One would be able to launch its proposed pricing pilot within about six months from the date it receives OEB approval. This time is required to launch a conjoint analysis, determine rates, secure resources and establish customer communication and data handling processes, and enroll customers to the pilot, all required to allow for a smooth pilot launch. While Hydro One was aiming to launch its proposed pilot by May 1, 2017 as required by the OEB Roadmap Guideline, it is our understanding from Board staff that this deadline is no longer in effect. However, it is critical that Hydro One receives Board's decision by no later than April 24, 2017 in order properly communicate the enrollment status of their SGF Pilot customers who have been extended by the Board's Decision and Order # EB-2016-0201 to April 30, 2017 and IESO Pilot customers. This will allow an uninterrupted transition of existing participants to enroll in the new pricing pilot.

Hydro One's amended RPP Roadmap Pilot will focus on four dynamic rate structures plus one flat rate structure. Subject to the timing of Board approval, the field pilot will begin on November 1, 2017 and end on October 31, 2018. The Pilot will also explore the impact on price responsiveness (price elasticity) of information feedback. It will examine how IHDs or a web portal, which provides feedback on aggregate household usage information, influence price responsiveness. It will also examine the impact of having very detailed disaggregated load feedback on appliances. Finally, we will quantify the impact of enabling technologies (such as thermostats with conservation setting features and thermal energy storage for electric heating) on price responsiveness.

Based on early findings, Hydro One, together with McMaster University, are assessing which rate options and technologies have provided the greatest benefits to customers under the existing SGF Pilot. The analysis of the SGF Pilot responsiveness will be completed by Spring, 2017. Specific offerings for RPP Roadmap Pilot will be tailored based on these findings. Proposed dynamic rate structures include:

(i) Treatment 1 - a TOU enhanced status quo treatment (with aspects similar to scenario 5 of Appendix A, Table A-2 in the Guideline),
(ii) Treatment 2 - a TOU two part rate structure (with aspects similar to scenario 2 of Appendix A, Table A-2 in the Guideline),
(iii) Treatment 3 - a Variable Peak Pricing(VPP) rate structure (with some aspects similar to scenario 1 of Appendix A, Table A-2 in the Guideline),
(iv) Treatment 4 - a Real Time Pricing (RTP) rate structure (with some aspects similar to discussion in Appendix A, in the Guideline). Treatment
(v) Treatment 5 - a flat rate which includes a premium above the average price of other dynamic rates.

Of the above five rate structures, three will have dynamic rates that apply to the commodity portion of the bill ("commodity only") and two to all of the bill ("all-in"). All structures are designed to be revenue neutral with respect to average Hydro One residential load profiles. The exact rate treatment, corresponding to each of the above five categories, will be selected after executing a conjoint analysis to determine the proportion of households selecting their preferred rate. The objective will be to offer a portfolio of five rate treatments to potential pilot participants (non-control group), which will yield an equal number of participants choosing each rate treatment. The pilot would also include a control group against which results from the non-control group would be assessed. For the sample of current SGF and IESO Pilot participants, with dynamic pricing experience offering will be viewed as an opt-out selection. In addition, another new 3,520 participants will be recruited on an opt-in basis. These new participants will be randomly stratified by annual kWh usage level and by geographic region. A two-step recruiting process is planned. Approximately 125,000 customers will be approached about participating in a pricing pilot. Interested participants will be asked to register online. Registration will occur on an opt-in basis. By offering more than one rate structure, the take–up rates of different price structures can be

modeled. Each treatment offered will be matched with a particular form of information feedback. The targeted sample sizes are included in Appendix B.

D. Describe the specific pricing treatment(s), and/or the technology (HVAC, lighting, etc.), and/or information treatment(s) that will be targeted by this project to reduce and/or shift electricity consumption and/or increase energy literacy to be piloted.

On the basis of data analysis of the results of the existing SGF Pilot, customer surveys, and conjoint analysis, McMaster and Hydro One will determine the rate offerings for the Hydro One RPP Roadmap Pilot. Their analysis will also determine which rate structures provide customers with optimal bill savings opportunities and maximum satisfaction. It is expected that the final rates for treatment groups identified in section C above will be determined in Summer 2017. For the RPP Roadmap Pilot, new rate offerings may be included to complement rates from the existing SGF Pilot. The intent is to offer a suite of rate offerings that address customers' needs and improve customer uptake and satisfaction, especially for low income customers, while at the same time provide benefits to the electricity system.

This Pilot will include the provision of enabling technologies that complement dynamic rates. Existing SGF Pilot participants with In Home Displays (IHDs), access to energy disaggregation information and/or WiFi thermostats will retain these technologies as part of the pilot. In addition to these enabling technologies, new participants will be offered smart thermostats and TES for customers with electric heating.

E. Describe any new/ unique program elements/ measures this project features.

The Hydro One RPP Roadmap Pilot will test several unique elements/features of dynamic pricing, including:

Customer Rate Choice:
During the recruitment phase (August 1, 2017 – October 31, 2017), participants can choose the rate that most suits their needs and lifestyle from a menu of rate options. Customers have expressed that choice is important and we expect that this will be a key driver for enhanced customer satisfaction and lead to increased pilot participation. Due to a number of considerations, once they make their choice, customers will not be allowed to switch among the rate plans for the 12 months of the pilot. This will replicate a real-life program offering where traditionally participants must stay with their plan for at least one year.

Rate Protection:
For the 12 month pilot, all pilot participants would be offered the choice to buy "Monthly Rate Protection" (MRP) for the cost to be determined by the Conjoint Analysis. In implementing a program in the future we want to know what the take-up rates will be for the protection fee. Therefore, all participants (rather than a subset) are offered rate protection. (The decision making is quite different in making a decision about (i) taking a dynamic rate with rate protection or staying with the current TOU rate, versus (ii) taking a dynamic rate with rate protection versus taking a dynamic rate without rate protection.) Customers who buy MRP will benefit if their cost under the price plan that they chose is higher than their Hydro One bill; in which case they would be charged the current TOU rates for the electricity that they use. Revenue from MRP would be tracked separately. It, along with extra revenue coming from premiums collected of flat rate participants, will go towards serving revenue neutrality or offering enhanced offerings to customers.

Understanding the Impact on Rate Choice of Previous DEP Experience vs. No DEP Experience:

Inclusion of participants from the existing SGF Pilot as well as new pilot participants will help provide an understanding of how previous experience with dynamic pricing in a non-choice environment may influence customers' rate choices. Further, involving customers that have been part of the existing SGF Pilot for up to 20 months will allow for a unique understanding of the persistence of behavioral action in a dynamic pricing environment.

Thermal Energy Storage as a Non-Rate Offering with Dynamic Rates:

The inclusion of Thermal Energy Storage (TES) technology with dynamic pricing is unique and complementary. TES provides the opportunity to reduce demand for electricity during peak hours through load shifting

capabilities, while maintaining consumer comfort levels. High peak prices during the day in the winter season could have significant adverse cost effects on low income residents. For example, residents in low income rental housing with electric heat cannot afford to convert to natural gas or other less expensive forms of heating and in some of their dwellings conversion to gas is prohibitively expensive or not available. As well, in order to save on electricity costs during the peak weekday hours, some low income customers, including seniors may resort to cutting back on their heating to reduce their electricity costs, negatively impacting their daytime comfort and health.

Hydro One and McMaster have completed a two year pilot on TES technology which demonstrated that customers were able to shift their heating usage to off peak hours while enjoying more comfort during the winter season. These customers expressed a high level of satisfaction with the performance of the TES technology.

We anticipate that combining dynamic energy pricing with TES would further incent the shifting of electricity usage to off-peak, significantly increasing the benefits to vulnerable, low-income customers, especially those with electrically heated homes.

Extension of Current Pilots

Currently there are two dynamic pricing pilots in the field, the extended SGF Pilot and the IESO Pilot. The in-field participation of the SGF Pilot and the IESO Pilot end on April 30, 2017 and June 30, 2017, respectively. Until the proposed RPP Roadmap Pilot begins on November 1, 2017, enrollment of the current in-field dynamic participants will be extended. The extension will:

- Facilitate retaining existing recruitments until the launch of the RPP Roadmap pilot on November 1, 2017.
- Enable transitioning to the new pilot by maintaining current recruitments, avoiding expensive future recruitment, maintaining customer experience by preventing a stop-and-go approach
- Assess persistence based on a longer time frame for customer data monitoring and analysis.

F. Describe the main risks that could prevent this project from being successful and how these risks will be addressed.

There are several risks that could impact the success of this project. These include:

Achieving Recruitment Target
While recruitment of a large number of customers may be challenging, it can be mitigated through:
- leveraging participants from the existing SGF Pilot sample
- optimizing Hydro One recruitment experience gained from other pilots
- targeting a large customer sample
- marketing customer rate choice and enabling technologies in a manner that responds to customer needs
- offering customer incentives; etc.

Customers' Uptake of Enabling Technologies Under a Cost-sharing Scenario:
To identify the extent of customer cost-sharing appetite, a conjoint study will be conducted to help guide the cost of enabling technologies customers are willing to accept under various rate plans.

2. PROJECT TEAM & PARTNERS

A. In this section, please outline the composition of the project team and list any project partners. Note the role that each person and organization participating in the project will play. Include the applicant organization in this table. If a 3rd party is not yet part of the team, please identify the accountability they will be responsible for and enter TBD for the name and organization. Please attach CVs for project team members as an appendix.

PROJECT TEAM		
Project team member	**Organization and job title**	**Major accountability**

Sahar Mishriki	Hydro One, Manager, Strategy and Conservation	Project lead
David Zavarise	Hydro One, CDM Analyst	Analyst
TBD	Hydro One, Technical Support	Technical Transition
TBD	Hydro One, Customer Support	Pilot Support
Dean Mountain	Professor, McMaster University	Experimental Design, EM&V
Ken Deal	Professor, McMaster University	Experimental Design, EM&V
Frank Denton	Emeritus Professor, McMaster University	Experimental Design, EM&V
Byron Spencer	Professor, McMaster University	Experimental Design, EM&V
Ivor da Cunha	Field Coordinator, McMaster University	Project Coordinator

PROJECT PARTNERS		
Organization	**Project role (e.g. participant, funder)**	**Financial or in-kind contribution (indicate if confirmed).**
Hydro One Networks Inc.	Project Lead, In-kind Contributor	$60,000
McMaster University	Project Administrator, EM&V, In-kind Contributor	$20,000

*Note: Add rows as necessary

3.1 PROJECT PLAN (Appendix A)

Using the space provided in this section, fully describe how the work for this project will be undertaken and what the outcomes of the work will be.

A. Use the templates provided in **Appendix A** to provide additional details about your project's budget and workplan.

Note: There are two budget templates in Appendix A that must be completed. The budget overview document must provide information regarding the cost of each individual milestone. The detailed project budget should provide information about all activities undertaken as part of the project and reflect the in-kind and cash contributions of the applicant and any and all project partners.

Please fill out the Work Plan tab according to the instructions in the file. The items that you include in this document must match the deliverables and major task areas described in the milestone section 3.2A.

3.2 PROJECT PLAN

A. Using the milestone table provided below, provide a milestone schedule listing the deliverables and major activities in each task area. Describe each of the major task areas for this project as described in Section E of the OEB's Pilot Guideline for Electricity Distributors and Section III of the OEB Pilot Plan Technical Manual. The Technical Manual provides information on best practices related to experimental design, recruitment, survey design and pilot outputs that must be incorporated into pilot design and implementation.

Describe each of the major deliverables that will be provided to the OEB as part of this project. Please indicate which 3rd parties will also receive these deliverables, where applicable.

Milestones typically occur 3-5 times throughout the course of the project. For approved projects, milestone deliverables are submitted with a milestone report to the OEB. Funding of the project can be delayed or will be disallowed until all deliverables for that milestone have been satisfactorily completed.

The milestone schedule should be aligned with the project budget, work plan, and measuring results tables in Appendix A.

Milestone # and Date	Milestone Description
1. OEB approval of Submission April*, 2017*	**Brief description of how this milestone advances the project**: Hydro One will need a six-month period from the date it receives OEB approval of this submission to roll out this phase of the RPP Roadmap Pilot. This time will be required to undertake several key tasks including: - Contractual agreements (HONI and McMaster; contracting with equipment and installation vendors) - Vendor procurement (RFPs, vendor and technology selection) Customer recruitment for Conjoint Study
2. Extension of Existing SGF & IESO Pilots – November, 2017	**Brief description of how this milestone advances the project**: The extension will: - Facilitate retaining existing recruitments until the launch of the RPP Roadmap Pilot on November 1, 2017. - Enable transitioning to the new Pilot by maintaining current recruitments, avoiding expensive future recruitment, maintaining customer experience by preventing a stop-and-go approach - Allow for assessment of persistence based on a longer time frame for customer data monitoring and analysis. **Deliverable:** - Retention of majority of current SGF Pilot participants along with their corresponding historical consumption and demographic/dwelling information In order to communicate next steps with existing SGF pilot participants whose commitment is scheduled to end by April 30, 2017, Hydro One will need to receive approval from the OEB to extend these customers by April 24, 2017
3. Pilot Launch – November*, 2017*	**Brief description of how this milestone advances the project**: This milestone will encompass tasks required for the pilot launch including: - Roll out of Conjoint Study - Prepare marketing and educational material for customer recruitment - Customer recruitment for Pilot - Contracting with vendors and service providers - Design new rate plan offering(s) that leverage outcome of SGF Pilot, introduce new plans as may be needed, package enabling technologies with respective rate plans to target specific customer segments, and reflect system and customer needs as part of rate design.

	- Design additional new rate(s) as may be required (e.g.: flat rate for customers who would benefit from rate certainty or who could not shift or shave their electricity usage such as customers with medical equipment) - Finalizing the rate treatment and associated enabling technologies - Building back-office systems (e.g.: website, programming of rates/rate plans) - Equipment installation and testing; and - Execution of the recruitment plan. Hydro One requires six months to complete all the above tasks in advance of a November 1, 2017 launch date. Rate treatments will be available in Summer 2017 at the time of customer recruitment. Hydro One will share these treatments with the OEB before customer recruitment. . . Hydro One requires six months approval from the OEB by no later than April 24, 2017. If approval is not received by this date, it would result in a corresponding delay in the pilot launch date. Delays beyond April 24th would risk the enrollments of existing SGF Pilot participants in the new Pilot which would add to the recruitment cost. **Detailed activities in each major task area:** Many preparatory tasks are required in order to successfully launch the pilot on November 1, 2017. First and foremost, the final rate offerings will be determined. The design of the Rate Plan Offerings (including rate treatment and enabling technologies) is the foundation for this pilot. When tested, these Rate Plan Offerings will advise the Board on the impact of rate choice guarantees/non-guarantees on customer's uptake and satisfaction with the respective rate offerings. This will help the OEB in its decision to roll out dynamic pricing in Ontario if it chooses to do so. Design of the rate treatments will be led by McMaster University with input from Hydro One. Rate design will be informed by the EM&V results of the current SGF Pilot as well as the conjoint survey analysis. McMaster will deploy several techniques including a multivariate regression panel to inform this milestone. This milestone will also assess participants' energy consumption, shifting, and conservation from current SGF Pilot participant survey results, and conjoint survey results. A variety of marketing and educational materials, including a website, emails, and letters will be developed. Marketing materials including letters and emails will be sent to a targeted group of customers beginning in Summer 2017. Customers will be advised to visit the pilot website which will contain education on the purpose of the pilot and the rate treatment and technology offerings available to them. The marketing material will include detailed customer friendly information about the pilot and its benefits to participating to customers. Follow up material may be required (e.g.: reminder letters/e-blasts) to achieve targeted enrolment. Customers will be able to enrol online and contact the pilot team through the website to seek additional information as may be needed. Equipment installer and customer service representative training will be required to ensure delivery excellence and customer satisfaction as installers perform their duty and interact with customers. Beginning in August 2017, Hydro One will launch a recruitment plan which will involve targeted delivery of letters and emails to potentially participants. Interested customers will be able to view additional educational material and enrol in the pilot on the website. Pilot team members will be available to provide support and customer assistance. A contingency plan for additional recruitment measures including reminder letters/emails and new customer letters will be

	developed in the event initial recruitment efforts do not bring in our planned sample. Once customers enroll in the pilot, their participation will be verified by the pilot team and the customer will be asked to complete an initial survey. They will also co-ordinate and installation for enabling technology if applicable. Customers will receive a welcome letter or email shortly before the November 1st launch date reminding them of their participation and providing additional educational information. The Pilot will be considered launched as of the day participants begin being billed under the RPP Roadmap Pilot rates. **Deliverables:** - Rate treatment and enabling technologies finalized. - Marketing and educational materials developed. - Recruitment plan executed. - Initial survey administered - Participants begin billing under new rates.
4. Interim Status Report Delivered to OEB – *May 2018*	**Brief description of how this milestone advances the project**: Hydro One to deliver interim report to OEB within 7 months of the pilot launch date **Detailed activities in each major task area:** Interim Report will include a summary of the project status and a description of any strategic or operational actions that differ from the proposal. **Deliverable:** Interim Status Report to OEB
5. End of 12-month in field testing - *November 2018*	**Brief description of how this milestone advances the project**: Continue project operations until end of in-field testing **Detailed activities in each major task area:** Issue and monitor (until October 31, 2018) customers. Call critical peak pricing days. Maintain communication with participants and address any customer questions, concerns and/or attrition. Based on green button data provided by Hydro One, McMaster prepares and sends (electronically) to customers rate reports and bills based on new rates and rate protection fees (where applicable). Hydro One continues to be the collector of payments. Deliver and monitor rate protection for Pilot duration. Following the completion of the in-field Pilot, participants will complete an exit survey. **Deliverable:** - Participant exit survey complete. - Participant incentives paid

6. Final Report Complete – *May 2019*	**Brief description of how this milestone advances the project**: EM&V and final report to be completed within 6 months following the end of the Pilot period. This milestone marks the last step of the pilot and provides the outcome and results for it. **Detailed activities in each major task area:** Following the conclusion of the Pilot period, McMaster University will conduct an Evaluation, Measurement and Verification (EM&V) of the results. The final report will include an analysis of the conservation savings, load shifting, peak demand reduction, customer satisfaction, and other attributes over a variety of stratifications including income level, geographic location, and consumption level. The Report will also assess the impact of rate protection and optional choice of rate structures. **Deliverable:** Final Report to OEB.

4. MEASURING RESULTS: Evaluation Measurement and Verification (EM&V)

A. Use the information provided in Section 3.1 and 3.2 ("Project Plan") to develop a detailed account of how the progress and impacts of this project will be accurately assessed. Fill in this information in the Measuring Results Worksheet in Appendix A.

Note: Measuring results requires a performance indicator to be established for each project outcome and deliverable as well as a plan for how it will be measured. This enables the OEB to monitor not only the progress of the project, but its effectiveness at achieving its objectives. The project plan is a useful guide in completing this table.

Measurement and evaluation of the activities described in your measuring results worksheet should be accounted for in the project budget. Proper measurement and evaluation is critical element for RPP Roadmap projects, and therefore sufficient resources should be allocated for this purpose. For more details on EM&V consult Section E of the OEB's Pilot Guideline for Electricity Distributors and Section III of the OEB Pilot Plan Technical Manual.

PRINT AND SCAN THIS PAGE (REQUIRES SIGNATURE)

5. APPLICATION INSTRUCTIONS

Use this list to verify that the requested items have been completed and included in your electronic package. Please use the following labeling convention for your electronic submissions: Please scan statements and materials that require signatures, as electronic versions of all materials are preferred. Additional materials will not be considered in your review.

1_Cover Letter_Organization_Date
2_Proposal_Organization_Date (Word document only)
3_Appendix A_Organization_Date (Excel spreadsheet)
4_CV_Name_Date
5_Application Instructions_Organization_Date

Submit these files by 4:30pm on Friday, November 4, 2016 to: roy.hrab@ontarioenergyboard.ca ***AND*** anthony.ionno@ontarioenergyboard.ca **citing "EB-2016-0201: [Company Name] RPP Pilot Proposal" in the subject line.**

If you have questions you may reach the OEB by calling 1-888-632-6273 or by emailing brian.hewson@ontarioenergyboard.ca or roy.hrab@ontarioenergyboard.ca *citing "EB-2016-0201: RPP Pilot Program" in the subject line.*

Submission check list:

- ☐ Cover letter from applicant (signed by applicant executive with signing authority)
- ☐ Completed Proposal template (this file)
- ☐ Completed Appendix A, which includes the Budget, Timeline and Measuring Results template
- ☐ CVs of Project Team (max. 2 pages each)
- ☐ Signed final page of proposal (this page)

6. DECLARATION

I attest to the accuracy of the content of this proposal and the attached financial statements.

Name: BY Giuliana Rossini

Date: Oct 28, 2016

Disclaimer
Receipt of a proposal does not constitute a commitment by the Ontario Energy Board to approve the proposal. The OEB will make public the names of applicants, the title and a description of their proposed project, and the amount of funds applied for.

Appendix A

(see separate list of excel documents)

Appendix B

Sample Design

Pilot Design & Sample Size by Experimental Subgroup							
Experiment Subgroup	Rate Treatment	No Instantaneous Feedback	Aggregate load Instantaneous Feedback	Aggregate load Instantaneous Feedback + Enabling Technology	Disaggregated Instantaneous Feedback	Disaggregated Instantaneous Feedback + Enabling Technology	Total
Original Sample	1	42	42	18	70	32	204
	2	42	42	18	70	32	204
	3	42	42	18	70	32	204
	4	42	42	18	70	32	204
	Flat	12	12	0	20	0	44
	Control	12	12	8	20	18	70
	Total	192	192	80	320	146	930
OEB Expansion Group	1	388	68	37	40	23	556
	2	388	68	37	40	23	556
	3	388	68	37	40	23	556
	4	388	68	37	40	23	556
	Flat	418	98	0	90	0	606
	Control	418	98	47	90	37	690
	Total	2388[1]	468[1]	195	340	129	3520
	Grand Total	2340	780	275	780	275	4450

Notes: [1] Includes sample of 200 with Thermal Energy Storage distributed equally across rate treatments (not including flat).

Overall Pilot Design & Sample Size						
Rate Treatment	No Instantaneous Feedback	Aggregate load Instantaneous Feedback	Aggregate load Instantaneous Feedback + Enabling Technology	Disaggregated Instantaneous Feedback	Disaggregated Instantaneous Feedback + Enabling Technology	Total
1	430	110	55	110	55	760
2	430	110	55	110	55	760
3	430	110	55	110	55	760
4	430	110	55	110	55	760
Flat	430	110	0	110	0	650
Control	430	110	55	110	55	760
Total	2580	660	275	660	275	4450