

Con Edison and Orange & Rockland Utilities
Smart Home Rate REV Demonstration Project
RFI Clarification Questions and Answers
Question submission deadline: July 21, 2017
Q&A posted: August 4, 2017

| TRACK 1 AND 2 | | |
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| | Question | Answer |
| 1 | Is the purpose of this RFI to award the contracts for these projects, or will there be an additional process for that purpose? | The final projects will be selected directly from the RFI process with no additional RFP. For those selected responses, Con Edison will provide the respondents with details on next steps and timelines when the Companies notifies the respondents of their selection. Consequently, proposals should estimate program costs as accurately as possible. |
| 2 | With respect to Section 3 (RFI response outline) of both RFIs, will the Companies please clarify if the CVs required should be included as a single separate file containing all proposed team members' CVs or if they should be included as separate documents for each team member's CV? | The CVs should be attached as a <u>single</u> separate file containing all proposed team members' CVs. |
| 3 | Has the M&V/analysis provider been chosen for the SHR Demos? If so, who is that provider? | We have not chosen an M&V/analysis provider nor are we seeking M&V/analysis providers as part of this RFI. |
| 4 | How exactly do the Companies plan to send price signals? Will the signals be communicated through a standard-based protocol such as OpenADR? Will vendors be expected to integrate directly with NYISO for purposes of receiving LMP prices? | <p>The non-event-based components of the rates will be tariffed and will therefore not change day to day. Price signals concerning the event-based components of the rates (including information such as type of event, event start and end times, and affected networks or network groups) will be communicated by the Companies one day ahead. Respondents should propose the type of protocol to be employed by their platform, which will be evaluated on their capability and scalability. A standard-based protocol is preferred, and as stated in the RFI, if an open communication protocol cannot be supported please explain why not.</p> <p>Vendors will be expected to integrate directly with the NYISO for purposes of receiving LMP prices.</p> |
| 5 | Can customers already enrolled in a Con Edison or O&R demand response program participate in the Smart Home Rate Demos? | Customers who are already enrolled in a Con Edison or O&R demand response program will be eligible to be recruited from and enrolled into the SHR Demonstration (a current assumption that may be subject to further vetting by the Companies). However, they may not participate in both the SHR demo and the Companies' demand response programs simultaneously. |
| 6 | If vendors do not integrate with the Companies' AMI networks, and the SHR Demo solution chosen does not have visibility into the entire home's energy consumption (e.g., only controls CAC), how do the Companies plan on notifying the chosen vendor of each participating home's max kW for purposes of calculating demand charges? How quickly will the Companies send this information to the vendor (1 hour later, 24 hours later, etc.)? | The Companies do not currently plan to make an interface available from the smart meter for monitoring usage from the meter directly. 15-minute interval data will be streamed to customers through the Companies' web portals. The Companies will be deploying web portal meter data capabilities using a phased approach. In the first year of AMI deployment, the customer's meter data will be available on the web portal 24-hours later. By September 2018, meter data will be streamed closer to real-time, no more than 30 minutes later. |
| 7 | Will the Companies provide funding for a customer incentive to sign up for the SHR Demos? | Respondents' budget estimates must account for, among other things, all that respondents believe is required to meet the customer acquisition target of each track (2,250 participants in Track 1, and 100 participants in Track 2). Responses should describe and give a rationale for the package that participants would be signing up for and the terms by which they would accepting the package. |

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| 8 | If required, will the Companies fully fund the SHR Demo projects chosen from this RFI? | Responses should state the cost of the proposed solution to the Companies, and whether other sources of funding, such as any secondary revenue streams or third-party funding sources, will be secured to offset that cost. |
| 9 | Have the Companies evaluated the potential impact of the SHR Demo Rates on customers' bills, and how much behavior change will be necessary for customers to reduce their bills vs. their typical bill on their current rates? | The Companies have done some evaluation of the potential impact of the SHR Demo Rates on customers' bills, however, the amount of behavior change necessary for customers to reduce their bills vs. their bills on their current rates is highly dependent on the customer's existing load profile, and will therefore vary from customer to customer. |
| 10 | What team/teams will specifically be responsible for this demonstration project? One team each for ConEd and one for O&R? Or one for both? | One team will be responsible for managing this project for both Con Edison and O&R. |

TRACK 1

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| 11 | Will you consider potentially more than one technology provider? The reason I ask is that after several decades of experience in this area, I believe that one popular DR technology (smart thermostat) may be ok for Rate Option A, but another DR technology (demand controllers to a kW threshold) may be necessary under Rate Option B. | Responses may include more than one technology provider. However, the Companies will only consider one technology solution under Track 1, that is, the same technology should be applied to both Rate options A and B. |
| 12 | Are you willing to consider international experience and international references? Europe is ahead of the US on some activities. | Yes. |
| 13 | As part of the RFI response, is it mandatory to include the final list of partners and subcontractors who will be involved in project delivery? | Yes. |
| 14 | What is the long term plan of scaling the demonstration project past the demonstration phase? | The Companies view the REV Demonstration projects as part of a longer term pipeline for bringing innovative solutions to the market. The Demo project is designed with the objective of gathering data and building experience that will allow the Companies, stakeholders, and market participants to assess the scaling potential of Smart Home Rate/Technology concept. The Companies' AMI rollout will continue to progress beyond the initial SHR Demo, so to the extent that Demo results support continuation, the Companies could potentially scale up by opening the rates to a broader set of customers (including more customer segments). The long term view is that if the SHR and technologies prove scalable, the concept may evolve to an established rate option that customers can choose along with a variety of enabling technology options. |
| 15 | Will the metrics of customer satisfaction for this pilot be defined by the Companies or the respondent? | The Companies' will define the metrics, but will look to do so in coordination with the partner. |
| 16 | What source of protocols will be utilized for Demand Response? What are your Demand Response API requirements? | <p>This project is distinct from traditional Demand Response in that the device would act to respond to price signals instead of being called to respond by the utility. There is no settlement process since the events are built into the rates. However, the Smart Home Rates include events that would occur during times of peak demand or constraints on the system, similar to the event concept in traditional Demand Response, and which would be communicated using similar methods.</p> <p>The companies do not currently use a DRMS for residential DR nor have a preferred DR API. The respondent should propose and describe the protocol that their technology uses for the utility to communicate SHR event information (including information such as type of event, event start and end times, and affected networks or network groups). A standard-based protocol is preferred, and as stated in the RFI, if an open communication protocol cannot be supported please explain why not.</p> |

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| 17 | With respect to the Platform element of the Technology Capability and Scalability line item of the Evaluation Criteria in the Price Responsive Automation Technology section (4 (b)) of the Track 1 – Price Responsive Home Automation RFI, will the Companies please articulate the communication protocols they currently use and those they prefer? | See Q4 and Q16. |
| 18 | What percentage of the eligible customers will have AMI before the summer of 2018? | The estimated target populations are found in Table 5 of the RFI. These estimates are based on the eligibility criteria of: 1) being a single family home account, 2) having central AC, 3) having an AMI meter installed by the end of May 2018. Among SFH customers, the percentages with AMI meters before the summer of 2018 are: 95% in Staten Island, 12% in Westchester, and 52% in Rockland. The AMI deployment schedule is determined by factors such as existing meter reading routes, and the start dates of deployment in each county are different. |
| 19 | How did the Companies develop the 5% enrollment assumption for Track 1? | The Companies derived a target number of 750 customers for each of the three pilot test cells (resulting in a minimum recruitment target of 2,250 customers total) and estimated that approximately 69,400 customers would meet all of the eligibility requirements for participation (as shown in Table 5). It was anticipated that the overall eligible population would also have to accommodate another of the Companies' other research pilots that would take place simultaneously. The Companies used a 5% enrollment assumption to estimate how much of the overall eligible target population should be reserved, at minimum, for the SHR demo. |
| 20 | Does ConEd and Orange & Rockland have the number of Wi-Fi thermostats that customers have purchased particularly as a result of targeted marketing campaigns? | Con Edison launched an online marketplace in August 2016 that has been accompanied by targeted marketing campaigns which include an integrated mix of email, social and search tactics. 700+ thermostats have been sold on the Con Edison Marketplace since its launch. Note, enrollments/rebates associated with demand response program enrollment were optional to the purchase of the thermostat, so this is a tally of thermostat purchases, not program enrollments. Similarly, MyORU Store was launched January 2016 and 700+ thermostats have been sold there since launch. |
| 21 | Additionally, what is the breakdown of the number of thermostats by vendor that have been purchased/ installed/ registered in each service territory? | Among 2,200+ enrolled wi-fi thermostats in O&R territory, approximately 64% are with Nest, 18% with EnergyHub, and 18% with Honeywell. Among 6,200+ enrolled wi-fi thermostats in Con Edison territory, approximately 80% are with Nest, 12% with EnergyHub, and 8% with Honeywell. Note eligible devices enrolled under EnergyHub include devices from Ecobee, Emerson, Lux, Radio Thermostat, and Alarm.com. |
| 22 | Will there be an interface available from the ConEd Smart Meter to the Smart Home Technology Provider for monitoring usage in near real-time – especially the kW demand? If so, what is the protocol? | No, the Companies do not currently plan to make an interface available from the smart meter for monitoring usage directly from the meter. In general, 15-minute interval data will be streamed to customers through the Companies' web portals. See Q6. |
| 23 | What granularity of AMI data does each utility have? | We will have 15-minute interval AMI data. |
| 24 | Are you willing to provide extra credit for technologies/approaches that will provide a higher coverage and reliability of response? E.g., many smart thermostat strategies are dependent on the functioning of the homeowner's wi-fi system. If the homeowner does not have wi-fi, then the typical smart thermostat program would not apply. In a related note, the homeowner's wi-fi system is not always "up". If a certain technology off-sets the disadvantages of dependency on a homeowner wi-fi system, will special credit be allowed for that? (Of course home-owner based wi-fi systems may have other advantages.) | Technology capabilities will be evaluated holistically based on a mix of criteria. In their responses, respondents should describe how the devices will achieve connectivity and the benefits and drawbacks of their chosen approach in terms of their reliability of connectivity. Efforts should be made to relate responses to the customer population eligible for Demo participation. |

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| 25 | Given the rapid pace of technology evolution in the smart home market, are the Companies open to a response that includes what can be achieved with current technology capabilities with the flexibility to update it at a later date (if there is a newer/better technology at the time of deployment of the project)? | Yes. |
| 26 | How critical is it to respond with the technological capability to demonstrate control of smart home devices beyond the thermostat to also be price-responsive? | The Companies would prefer the price-responsive capabilities to be included among as many aspects of the solution as possible. Non-price-responsive devices beyond the price-responsive solution may be included if they are critical to the overall solution. Please include an explanation for why they are a critical part of the solution. See Q27. |
| 27 | Are the Companies interested in receiving, as part of the response, details on smart home related energy optimization that might not be directly price-responsive? | Yes, to the extent such features might enhance the customer experience. If such features were to be part of the response, please provide cost estimates for them as an option, separate from from the cost estimate to provide the price-responsive solution alone. |
| 28 | Our organization has a subscription based model, how does that play into this project? Monthly subscription with a 2 year contract. | The Companies welcome proposals on different potential pricing models from the respondent. Models may be inclusive of those where participating customers take on a share of costs. Such proposals must consider how the respondent plans to meet the recruitment targets among the populations described in the RFI. |
| 29 | What is the budget allocated toward track 1 of this demonstration? | Budget allocations have not been pre-determined. Proposals will be evaluated, in part, on their ability to deliver all of the goals of the project at the lowest cost to the Companies. In particular, budget estimates in the responses must account for all that is required to meet the customer acquisition target of 2,250 total Track 1 participants. |
| 30 | How will thermostats be full-filled, do we ship directly to the customer? | The respondent should propose and describe the method to feasibly distribute devices to participants and the means by which they would be installed and commissioned. |

TRACK 2

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| 31 | With respect to the Response Evaluation Criteria in the Track 2 – Price Responsive Battery Storage RFI, in view of the statement in the RFI Objectives section that the Companies are looking for, "...a turnkey solution which covers all of the areas of responsibilities," will the Companies please clarify the scenarios in which they would pair vendors? Would the Companies pair vendors even if there were several comprehensive turnkey solutions? | Please note a mistake in the Track 2 RFI document in Section 1(f) Response evaluation criteria: under "Cost, funding, and contracting flexibility," the words "and openness to being paired by the Companies with another partner" should be deleted. In <u>Track 2</u> (unlike in Track 1), the Companies are only requesting responses with turnkey solutions that are inclusive of all of the areas of responsibilities in Table 1 and will <u>not</u> be pairing up vendors post-submission. Piecemeal responses (for example, a technology solution without the customer acquisition solution) will not be considered in Track 2. Vendors may form partnerships to submit a response that covers all of the required responsibilities. The Companies will maintain and provide, by request, a list of vendors interested in partnering with others to provide a response. If interested in being included on and receiving the list of prospective partners, please send an email to SHRDemo@coned.com with the company name and contact information by 8/8/17. The list will be distributed on 8/9/17. |
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| 32 | With respect to Figure 1 (SHR Demo Timeline) in the Track 2 – Price Responsive Battery Storage RFI, will the Companies please clarify what activities and deliverables are involved with the “Technology and project development phase”? | During the "Technology and project development phase," the activities involved would include: Developing and testing all aspects of the technology platform needed to deliver the functionalities required by the project (including developing new functionalities if they are not already ready off-the-shelf), developing the customer education, outreach, and messaging materials (including market research) that will be used for recruitment, preparing the customer recruiting strategy, and setting up the resources needed to manage customer communications during the "active pilot phase" (including managing enrollments, installations, and customer inquiries). |
| 33 | With respect to Table 1 (Roles and Responsibilities for Partner(s) and the Companies) in the Track 2 – Price Responsive Battery Storage RFI, in terms of the Customer Communications, will the Companies please clarify if this will be a utility-branded program or co-branded program between the aggregator and the utility? | The Companies are flexible in this respect. Respondents should describe their preferred approach to branding of the program and provide a rationale. |
| 34 | With respect to Table 1 (Roles and Responsibilities for Partner(s) and the Companies) in the Track 2 – Price Responsive Battery Storage RFI, in terms of the Companies’ responsibilities associated with Customer Acquisition, will the Companies please clarify if there will be a fee associated with providing the data (the sample from which to recruit)? | There will be no fee associated with providing the data on the sample from which to recruit. |
| 35 | Does a traditional battery (lithium ion) need to be utilized in this demonstration project or can a different form of a battery be utilized in the home for the demonstration project? For example, storing energy via a different means under the solar curve. | The project was envisioned to use batteries as the means for storing energy under the solar curve, but the Companies are open to other storage solutions to the extent they can deliver similar benefits to customers as traditional batteries can. To the extent that electric water heaters are being considered as part of the solution, customer acquisition may be an obstacle, as penetration of electric water heaters in Con Edison and O&R service territories is low (penetration is estimated in the 6% range). |
| 36 | What is the budget allocated toward track 2 of this demonstration? | Budget allocations have not been pre-determined. Proposals will be evaluated, in part, on their ability to deliver all of the goals of the project at the lowest cost to the Companies. In particular, budget estimates in the responses must account for all that is required to meet the customer acquisition target of 100 total Track 2 participants. |