



DEMAND REDUCTION SUBCOMMITTEE MEETING MINUTES

Wednesday October 5, 2016
100 Cambridge St., 10th Floor
Boston, MA 02114

Attendees: Eric Belliveau, Donald Boecke, Amy Boyd, Austin Brandt, Brian Buckley, Mona Chandra, Joe Dorfler, Tracy Dyke-Redmond, Eugenia Gibbons, Michael Goldman, Jodi Hanover, Lyn Huckabee, Paul Johnson, Craig Johnson, Emmett Lyne, Richard Malmstrom, Ezra McCarthy, Jeremy Newberger, Jerrold Oppenheim (via phone), Thomas Palma, Aimee Powelka, Matt Rusteika, Jeff Schlegel (via phone), Arah Schuur, Steve Venezia, Eric Winkler (via phone)

1. Call to Order

Schuur called the meeting to order at 1:05 PM.

2. National Grid Update

McCarthy began by noting that National Grid has demand response demonstration projects for both the residential and commercial and industrial (C&I) sectors. He noted that for the residential project, National Grid spent the summer recruiting customers and calling demand response events. He noted that they had a couple of pathways to recruit customers. One way was through a built connected solutions platform where customers were able to bring their own device to respond and react to a signal. The second way was to work with Nest through their Rush Hour Rewards platform. McCarthy indicated that they had about 1,400 customers sign up and participate in the project. He noted that they called 28 events throughout the summer and that the average opt-out rate for customers who overrode the auto-setback was 5-10%. Lastly he noted that they were planning on scaling up the residential offering in the summer of 2017. He noted that the C&I project is not planned to go into effect until the summer of 2017. He indicated that they are looking to offer interruptible load for large customers of greater than 250 kW. He suggested that the 250 kW class represents 1,000-1,500 customers in their territory. Finally, McCarthy noted that they are looking to partner with solutions providers and that they are looking to sign up customers in the fall, winter, and spring for events starting in the summer of 2017.

Malmstrom asked if interruptible meant complete shutdown. McCarthy indicated that that was not the case.

Schuur asked if the opt out numbers on the residential project were where they expected them to be. Chandra indicated that those numbers were preliminary and that they would have more in-

depth evaluation results later in the fall. Schuur also noted that DOER tested Nest for the winter season peak demand reduction and asked if National Grid was considering doing that as well as part of their demonstration project. Chandra indicated that they have considered that and that they have had conversations with Nest. Goldman added that the discussions have mainly been about data availability.

3. Cape Light Compact Update

Brandt began by noting that Cape Light Compact's (CLC) demonstration project involved direct load control with residential WiFi thermostats. He indicated that as part of this project, CLC provided customers with thermostats and load monitoring equipment. He indicated that they called 9 events and that they were based on weather forecasts and not price events. Brandt noted that at the time of the events they 26 participants enrolled with 37 thermostats installed. Brandt highlighted that although the results are preliminary, they found that they experienced very low opt-out rates for the events and that overall the concept was well received by customers. He also noted that they did have a limited pool of participants that had a central air conditioning unit controlled by a wall thermostat. He indicated that in 2017 they would like to expand the project by allowing customers to bring their own technology, expanding eligible technology, and leveraging home energy audits to encourage people to participate. He also noted that they would be working on an algorithm to determine when to call events rather than doing so manually. Lastly, Brandt indicated that they are also looking to deploy their first thermal storage demonstration in 2017.

Johnson asked what was meant by thermal storage. Brandt indicated that the technology would shift the peak by freezing water at night and then using that ice for cooling during the day.

4. PA Update on the Analytical Framework

Goldman gave an update on the PAs analytical framework, focusing in particular on their areas of focus for demonstration projects. He began by noting that the PAs learned through the avoided cost study that capacity costs are the highest costs that they can target and so that is where their focus has been. He presented a variety of data to highlight why the PAs are focusing on summer as opposed to winter. These data included comparisons between locational marginal prices (LMPs) and system load. Ultimately they decided it makes more sense to go after load than LMP, which is why they are focused on the summer months as opposed to winter. Brandt added that the PAs have put together a variety of projects that cover a range of technologies and customer types.

Judson noted that most of the data that was presented was recent and that she thought that they should expand their data so that they have more than just one or two years. Goldman noted that they have that data and that they could incorporate it in their framework.

Judson noted that the price per retail energy always used to be highest in the summer, but that recently that has changed and it is higher in the winter. She noted that having aggressive programs for the summer is great, but that she did not think they should stop there and that they should pursue winter efforts. Goldman agreed and noted that this effort was more of a

prioritization effort where they looked at the highest value streams. Schuur added that PAs that are testing technologies that involve thermostats should do winter efforts in addition to their summer ones.

5. Eversource Update

Goldman gave an update on Eversource's plans for demonstration projects and budgets. He began by acknowledging the need to go after multiple rate classes. He noted that Eversource was planning on focusing on various C&I classes and learning from others on the residential side. He noted that they had six approaches that they were planning on testing, including demand response for small C&I, demand response for large C&I, software and controls, thermal storage, battery, and evaluation, measurement, and verification (EM&V). For each strategy, he highlighted the anticipated number of customers, budget, timeline, and anticipated savings per project, per year. He also described each strategy, the reason for testing, what they would be testing, and what the budget will pay for. In addition to presenting on their strategies, Goldman discussed why demonstration projects are necessary, how they could contribute to the 2019-2021 Plan, and examples of metrics they would use to evaluate the projects. Lastly, Goldman noted that a large portion of their proposed schedule is dependent on EEAC approval and the DPU's timeline.

Johnson asked why they were waiting until 2018 to do their thermal storage and battery projects. Goldman noted that they would begin the process of rolling it out before then, but that 2018 was when they thought they could get the technology on the ground and running. McCarthy added that some of these technologies are similar to CHP in that they can take 300-500 days from start to finish.

Judson noted that there are companies that are working on some of the technologies already and that with storage in particular there are already projects being worked on. She asked if there would be some way to leverage that. Goldman indicated that they are cautiously optimistic that things like that will help them getting things into the field faster.

Judson noted that she was pleased to see the PAs moving forward with more projects. She also recommended that when they look at battery technology that they find ways to maximize the value of it and not use it just for demand response.

6. Unutil Update

Tom Palma gave an update of Unutil's plans for demonstration projects and budgets. He noted that they plan to do two projects, one each for the C&I and residential sectors. For each project he described what it was and noted the anticipated number of customers, budget, deployment and assessment schedules, and the purpose of the project. He added that they have an expedited schedule and some of their primary considerations for these projects were customer acceptance, projected performance, and reliability.

Boyd noted that each project had noticeably small customer participation targets. She asked if low customer counts would be problematic when going to scale. Palma indicated that they

thought they would have enough customers to gain useful insights into their projects and that if the projects work then the results can be used by the other PAs.

Schuur asked what the PAs would be asking the EEAC to do. Lyne indicated that they would be receiving a package that would include a draft of an approval for an MTM and a supporting attachment to that. He noted that it would build on the proposals discussed at the present meeting. He added that it would look something like a request for the EEAC to endorse the projects at which point the PAs would bring them to the DPU to have them act on it in an expedited manner. Schlegel added that the main difference between MTMs that the Council has acted on in the past and this proposal is that this proposal would contain new activities that were not laid out in the Plan.

7. Adjournment

Schuur adjourned the subcommittee at 2:40 PM.