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February 21, 2013

1-800-646-0400

Mr. Greg Scheck Public Utilities Commission of Ohio 180 East Broad St. Columbus, OH 43215

*RE:* Staff Report on the Application for Approval of Ohio Site Deployment of the Smart Grid Modernization Initiative, Case Nos. 09-1820-EL-ATA, 09-1821-EL-GRD, 09-1822-EL-EEC, and 09-1823-EL-AAM

Dear Greg,

We have reviewed the Staff report filed on February 8, 2013 in the above referenced matter. Based upon this review, Ohio Edison Company, The Cleveland Electric Illuminating Company ("CEI" or "Company") and The Toledo Edison Company (collectively, "Companies") offer the following comments or clarifications for the record:

1. The report states that "Phase 2 would expand the initial test phase to 44,000 customers" (Staff Report, page 1, paragraph 1)

The Companies agree that Phase II will expand the pilot area to the full project footprint and CEI will provide marketing to those customers. As indicated in Exhibit C, pages 5 and 10 of the Motion filed on October 19, 2012 ("Motion"), the participation projections for Phase II are approximately 34,020 residential customers and 3,400 commercial customers.

2. The report says "the Company contacted approximately 6,500 residential customers in the pilot area and achieved an initial voluntary sign-up of almost 5,000 customers for advanced meters." (Staff Report, page 1, paragraph 2)

CEI contacted 15,000 residential customers with a pre-qualifying survey of which 6,688 responded. The Company chose 5,499 of these customers and informed them that their meter would be replaced with a smart meter but gave these customers a choice to "opt-out" of the meter replacement. 294 customers opted out of the meter replacement. The remaining 5,205 customers had their meters replaced with advanced meters.

3. The report states that "In the end, only a small number of customers who selected an advanced meter chose the peak time rebate, a programmable thermostat or inhome display (Staff Report, page 1, paragraph 2). The response rate for CEI's pilot was in the top quartile when compared to other pilot studies. (EPRI "Customer Participation in Behavioral Programs: A Review of Recruitment Experiences" Table 2-3). The Smart Grid Investment Grant CBS guidelines suggested that CEI conduct a randomized control trial of various combinations of peak time rebates and in-home technology. As a result, customers were either made an offer of technology and the peak time rebate based on their prequalifying survey results or, alternatively, they were randomly placed in a control group.

4. The report states that "The Staff believes only two of the cell treatment groups had participation significant enough to warrant valid statistical results." (Staff Report, page 1, paragraph 2)

CEI had statistically significant results in four treatment cells: (i) the Company controlled four hour treatment group; (ii) the Company controlled six hour treatment group; (iii) the customer controlled treatment group: and (iv) the in-home display treatment group. The Company designed the study to contemplate the fact that the summer weather might not accommodate calling all fifteen events. All events, however, were called and therefore there are sufficient observations to obtain statistically significant results for the four treatment groups. This assertion is corroborated by the EPRI findings that "All of the treatment groups reduced usage by statistically significant amounts during Peak event hours. (FirstEnergy's Consumer Behavior Study: Preliminary Evaluation Summer 2012 p. 6-3, Finding 1).

5. The report refers to a single control group of 500 customers. (Staff Report, page 1, paragraph 2)

CEI had two separate matching control groups (customers with the same characteristics as the treatment groups) -- one with 250 customers for the programmable thermostat; and another with 200 customers for the inhome display.

6. The report "recommends the Company proceed with the second phase of this pilot for Years 2 and 3…"

The project schedule submitted in the Motion (Exhibit C, page 12) included CBS program operations in Year 2 to all of the participating customers beginning in June, 2013. This schedule will be revised with program implementation beginning upon Commission approval of the Motion and issuance of an Order (and DOE schedule modification approval). Given the timing of the issuance of the Commission's Order, the Company can no longer guarantee full operation of the program by June. Therefore, program operation will now have to occur as equipment is deployed in 2013.

- 7. Specific Staff Recommendations<sup>1</sup>
  - A. Staff recommends that the customer snapback effect could be mitigated by either: 1) the Company scheduling the resumption of thermostats back to their normal levels gradually or 2) by offering overlapping time-based event windows. The Staff suggests that the Company move forward with the first option and if that does not work, then proceed with the second option in Year 3.
    - The Companies agree with the Staff's recommendation to schedule the resumption of Phase II pilot program participants' thermostats back to their normal levels gradually and included this in the proposal for Phase II as set forth in its Motion at Exhibit C p. 6.
  - B. The Company currently plans to offer a \$.40/kwh rebate for peak demand events called based on customer performance in the initial year. If it is necessary for the Company to offer a higher peak time rebate to achieve a significant amount of customer response, then the Company should put forward its proposal in consultation with the Staff for a different level of rebate. In the longer term, the goal should be to link peak time rebates to the value of energy (LMP's) and capacity in the ATSI energy and capacity market zone.
    - > The initial rebate was established by the capacity prices in effect at the time. In the longer term, rebate levels should be set by examining customer response at various levels of price response. This is the purpose of performing the Constant Elasticity of Substitution Models included in the EPRI analysis. EPRI compared CEI's rebate and achieved demand response similar to other pilot studies. The Company's elasticity of substitution was similar to or higher than other companies (Motion, Exhibit A p. 45). This would indicate that the \$.40 kWh rebate was sufficient to achieve the same level of demand response as other companies are achieving at a much higher per kWh rebate level. Based on these results, the Company proposes that the rebate level remain unchanged (Motion, Exhibit C, p 6). However, should response rates change significantly, the Companies will discuss the matter with Staff.
  - C. The Company should meet 3 times a year with all interested Competitive Electric Retail Suppliers about the ability of offering time-differentiated rates to their shopping customers. This is a necessary component of smart grids where customer choice of different generation suppliers is available in order for consumer benefits to be achieved.

<sup>&</sup>lt;sup>1</sup> As set forth in "A Report by the Staff of the Public Utilities Commission of Ohio", Case Numbers 09-1820-EL-ATA, 09-1821-EL-GRD, 09-1822-EL-EEC, 09-1823-EL-AAM. February 8, 2013, p. 3-4 III (A-K))

- The Companies will meet with CRES suppliers three times per year to gauge their interest in providing customers with dynamic pricing options and to discuss related electronic data interchange, billing and settlement issues, if any, that would need to be resolved prior to CRES offering timedifferentiated pricing to their customers. Costs, if any, associated with implementing this recommendation would need to be recovered from customers.
- D. In order to increase overall customer participation in the technology and pricing options, the Staff recommends that customers be given a menu of second and third alternative choices in the second phase of this pilot, instead of just being put into the non-participant group after rejecting the Company's initial offer. These choices would include offering other pricing choices to its SSO customers, e.g. a simple 2-part seasonal time-of-use of on and off peak pricing and a critical peak pricing period overlaid on this seasonal time-of-use pricing structure. An effective goal for the Company would be achieve [sic] an enrollment of at least 250 residential customers on this time differentiated rate. The staff is recommending that the Company work through the rate design and tariff timing with the appropriate stakeholders.
  - The Companies do not agree with this recommendation. Time of use and critical peak pricing options for residential SSO customers are generation related offers and should not be offered by the EDU. These generation price alternatives should be competitive service offers made by CRES suppliers. Please see the Companies' comments regarding dynamic pricing options in Case 12-150-EL-COI. The Companies' billing system does not currently support billing these types of tariffs for residential customers. If directed to implement this recommendation, modification to the billing system would be necessary as would recovery of all costs associated with such modifications. Further, the Companies do not believe that working with "appropriate stakeholders" on rate design and tariff timing is appropriate. Instead the Companies suggest working with the Staff on these issues.
- E. The Company shall offer the already Commission approved commercial time-of-use rate and critical peak price to those approximate 3,400 commercial customers in phase 2.

## The Companies agree with this recommendation, which was included in their proposal for Phase II included in the Motion in Exhibit C, p. 10.

F. In the event the Company has technologies that remain available after customers choose an option in the first instance, and some customers

would like to combine some technology offerings, the staff recommends that the Company provide those technologies to those customers, e.g. those customers who have already chosen a programmable thermostat could also select an in-home display.

## > The Companies agree with this recommendation.

- G. Staff would like for the Company to offer to any customer with central air conditioning a programmable thermostat in phase 2 of this pilot to maximize peak demand reduction benefits.
  - The Companies agree with this recommendation. The Phase II plan proposal included with the Motion (at p. 5) provides for offering Phase II customers a choice between the programmable thermostat, in-home display or power switch. CEI will set aside a group of Phase II customers who will not be offered the programmable thermostat (or any other technology) in order to test the effect of Education Only and Peak Time Rebate with Education Only.
- H. The Company should adopt all of the recommendations made by the Shelton Group to increase education and participation by those customers being added in the second phase of the pilot.
  - The Companies do not agree with this recommendation because they cannot accommodate all recommendations made by the Shelton Group. For example, the recommendation made by the Shelton Group Exhibit B p. 89 advised CEI to use a "geo-targeted media campaign using cable TV, radio, outdoor/transit and non-traditional placements like grocery carts and public restroom signage." Since the footprint for the project is based on substations and those customers served on certain circuits, it is not possible to geo-target campaign in the way that Shelton is describing without touching customers who are not in the sample population.

Instead, the Companies will endeavor to implement those Shelton Group recommendations that are cost effective and feasible within the guidelines of the study parameters.

- I. The Company shall meet with the Staff regarding the resolution of any issues/problems that may arise with cyber security and customer privacy of consumption data in this pilot.
  - The Companies agree with this recommendation, but note that this issue is not unique to CEI and suggest that uniform guidelines be established in these areas before full scale deployment of smart grid technology occurs.

- J. The Company shall provide all relevant improvement in distribution reliability of CAIDI, SAIFI, and customer minutes of outage as they relate to the geographical pilot area.
  - The Companies agree with this recommendation. However, in its April 30, 2010 letter to John Williams, the Companies stated that improvements in SAIFI need to be measured over a five year period due to changing conditions from year to year. The Companies also stated that measurable improvements in CAIDI are not anticipated.
- K. Since the Company has reduced the expected costs of the Ohio Project, Staff is in agreement with the Company that the estimated AMI Rider costs should be reduced by approximately \$3.35 million. An equal amount of USDOE ARRA matching funds would not need to be collected either.
  - The Companies agree with this recommendation that the amount eligible for recovery in Rider AMI be reduced by approximately \$3.35 million and that an equal amount of USDOE ARRA matching funds would not need to be collected for the Ohio Project.

Sincerely,

Pelen M Milhelson

Eileen M. Mikkelsen Director, Rates & Regulatory Affairs

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## Case No(s). 09-1820-EL-ATA, 09-1821-EL-GRD, 09-1822-EL-EEC, 09-1823-EL-AAM

Summary: Comments on the February 8, 2013 Staff Report on the Application for Approval of Ohio Site Deployment of the Smart Grid Modernization Initiative electronically filed by Ms. Tamera J Singleton on behalf of Mikkelsen, Eileen M and Ohio Edison Company and The Toledo Edison Company and The Cleveland Electric Illuminating Company