

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

COMMONWEALTH EDISON COMPANY :  
 : No. 13-0495  
Approval of the Energy Efficiency and Demand :  
Response Plan Pursuant to Section 8-103(f) of the :  
Public Utilities Act :

**APPENDICES TO THE**  
**INITIAL BRIEF OF COMMONWEALTH EDISON COMPANY**

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**Appendix A – ComEd Data Request Response to REACT 8.01**

**Appendix B – ComEd Response to Staff Data Request JLH 1.02**

**Appendix C – ELPC Responses to ComEd Data Requests ComEd-ELPC 2.01, 2.02**

**Appendix D – ELPC Responses to ComEd Data Requests ComEd-ELPC 2.04, 2.05, 2.06, 2.07**

**Appendix E – ComEd Data Request Response to REACT 2.05**

**Appendix F – REACT Response to ComEd Data Request ComEd-REACT 2.09**

**Appendix G – ELPC Responses to ComEd Data Requests ComEd-ELPC 2.08, 2.09**

**Appendix H – ComEd Data Request Response to ELPC 1.52, 1.53**

**Appendix I – REACT Response to ELPC Data Request ELPC-REACT 1.7**

**Appendix J – ComEd Data Request Response to REACT 1.11**

**Appendix K – AG Response to REACT Data Request REACT-AG 1.01**

**Appendix L – ComEd Data Request Response to ELPC 1.23**

**Appendix M – AG Response to ComEd Data Request ComEd-AG 2.09**

**Appendix N – ComEd Data Request Response to NRDC 2.16**

**Appendix O – NRDC Response to Staff Data Request Staff JLH-NRDC 1.02**

# Appendix A

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
The Coalition to Request Equitable Allocation of Costs Together ("REACT") Data Requests  
REACT 8.01 – 8.02  
Date Received: December 11, 2013  
Date Served: December 11, 2013**

**REQUEST NO. REACT 8.01:**

Please refer to the attached documents describing the modified framework for a Large C&I Pilot Program. The first document is a "clean" version of the modified framework for a Large C&I Pilot Program. The second document "tracks" refinements that have been incorporated into the framework for a Large C&I Pilot Program since ComEd introduced the Large C&I Pilot Program concept in this proceeding in ComEd Ex. 1.0 at Pages 82-83. Recognizing that implementation details of the described framework for the modified Large C&I Pilot Program will be formulated during final program design following the approval of ComEd's 2014-2016 Plan, does ComEd support the implementation of a Large C&I Pilot Program as described in the attached modified framework documents?

**RESPONSE:**

Yes. ComEd supports the implementation of a Large C&I Pilot Program as described in the modified framework documents, which are attached hereto, in clean and redline version, as REACT 8.01\_Attach 1 and REACT 8.01\_Attach 2, respectively.

**MODIFIED COMED LARGE C&I PILOT PROGRAM**

<b>Program Name</b> <b>Program Description</b>	<b>Large C&amp;I Pilot</b> <p>The Pilot is intended to stimulate the implementation of large scale energy efficiency measures by ComEd’s Largest (i.e., over 10 MW) customers, with a specific emphasis on increased and improved coordination between ComEd and program participants, increased flexibility to accommodate the complexity of large scale energy efficiency projects, expedited approval mechanisms, and increased certainty in funding availability. Pilot participants enroll for the three-year Plan 3 cycle. ComEd continues to collect Rider EDA charges from pilot participants, but tracks the amount of EDA charges paid by the participant during Plan Years 7 through 9. Subject to the parameters described below, the participant will be permitted to apply the amount of EDA charges it has paid as a credit to the cost of implementing energy efficiency measures. Specifically, participants are able to use their contributions to fund energy efficiency improvements on their sites, subject to the following:</p> <ul style="list-style-type: none"><li>• Projects must be cost-effective on TRC basis. ComEd will review the project application and, working with the pilot participant, will determine the project’s cost-effectiveness. ComEd and the pilot participant will integrate the independent evaluator in the review process and will defer to them for final acceptance of savings methodology, savings estimates, and evaluation procedures. The parties will develop an agreed upon project review process and will make best effort to abide by this timeline.</li><li>• Identified potential participants should submit notice of intent to participate in this pilot within the first three months of the plan cycle. Once accepted, tracking of participants’ Rider EDA fund contributions will commence, and participant will no longer be eligible to participate in any other Smart Ideas programs funded under Rider EDA. A participant may withdraw from the pilot at any time, at which time the participant’s funds will revert to the applicable EDA pool and the participant will regain eligibility to participate in other Smart Ideas program. Reapplying for the pilot will not be allowed.</li><li>• Participants further acknowledge that 40% of their Rider EDA contribution shall be used to fund portfolio costs, including DCEO programs (25%), M&amp;V (3%) and program administration (12%). A key component of this pilot will be to monitor and track program administration costs so that the cost allocation can be recalculated based on actual results for future implementation of this program.</li></ul>
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- The final number of participants shall be limited to ensure that total project incentive disbursements during the pilot do not exceed the Plan 3 budget over the three-year pilot window.
- Participants may submit a project at any time within the 3 year planning period, provided that the project will be completed within the 3-year planning period. Upon submission of a project application, ComEd and its independent evaluator shall review the application to ensure it satisfies regulatory and statutory requirements. Best efforts shall be used to complete the review within 30 business days, subject to complete and sufficient data being provided by the participant on a timely basis,. Funds associated with the proposed project shall be reserved upon the approval of a project application by ComEd.
- Participants must co-fund projects at a minimum of 33% of total project costs. However, operational optimization projects may not require any co-funding by the participant, which is consistent with current Smart Ideas programs. This determination will be up to the discretion of ComEd.
- Project funding comes from the tracked amount of EDA charges paid by the participant to date. Additionally, advanced funding may occur under the "grant" approach outlined in ComEd's Rebuttal Testimony (ComEd Ex. 3.0 at 51:1171-1180). In no event will actual cash disbursement exceed the cumulative tracked EDA charges for the participant.
- No more than 20% of funds will be spent on non-project costs (*e.g.*, engineering studies, design work).
- Progress payments will be allowed with sufficient support documentation.
- Approved projects must be completed by May 31, 2017.
- Project savings are subject to ComEd's normal EM&V process that is lead by the independent evaluation.
- Any changes to the scope of a project shall be brought to ComEd's attention immediately. Participants acknowledge that any scope change that would render a project as non-qualifying under the original scope approval criteria may result in a forfeiture of any incentives and repayment to ComEd of any progress payments already issued.
- Unused funds at end of three-year pilot are returned to the general

	pool.
<b>Program Duration</b>	June 2014 through May 2017. ComEd recognizes that large C&I energy efficiency projects often have extended planning and implementation periods. ComEd will make best efforts to accommodate those longer implementation periods within the three-year Plan period.
<b>Collaboration</b>	Because this program offers primarily electric-only energy savings, it is not being offered as a coordinated program. However, measures that are incentivized by both ComEd and one or more of the gas companies are flagged as such in our application documents ( <i>e.g.</i> , “Your gas company may offer an additional prescriptive or custom rebate for this measure”). Co-funding from both this program and other natural gas programs is permitted, subject to the total incentives can not exceed 100% of the project cost. We also will continue to leverage opportunities from consumer education on this program and other joint gas program customer outreach and engagement activities.
<b>Delivery Strategy</b>	As a pilot program, this is still under development.
<b>Target Market</b>	This program is designed for a limited number of the largest electric C&I customers in the ComEd service territory. ComEd expects to reach out to specific customers for participation in this pilot. This will not be open to the general population at this time. ComEd believes there must be a fair and equitable selection process and will work with other parties, including REACT and IIEC, to ensure a good representation of customers are included in the program.
<b>Marketing Strategy</b>	As a pilot program, this is still under development.
<b>Eligible Measures</b>	Any standard or custom projects that save electricity and otherwise comply with statutory requirements vis-à-vis cost-effectiveness and evaluated savings determinations.

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<b>Program Targets</b>	As a pilot program, this is still under development. Energy savings from this pilot will be included in the Incentives Program for tracking and reporting purposes. Program costs for this pilot will be included in the Incentives Program costs.
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MODIFIED COMED LARGE C&I PILOT PROGRAM

<b>Program Name</b>	<b>Large C&amp;I Pilot</b>
<b>Program Description</b>	<p>The Pilot is intended to stimulate the implementation of large scale energy efficiency measures by ComEd's Largest (i.e., over 10 MW) customers, with a specific emphasis on increased and improved coordination between ComEd and program participants, increased flexibility to accommodate the complexity of large scale energy efficiency projects, expedited approval mechanisms, and increased certainty in funding availability. Pilot participants enroll for the three-year Plan 3 cycle. ComEd continues to collect Rider EDA charges from pilot participants, but tracks the amount of EDA charges paid by the participant during Plan Years 7 through 9. Subject to the <del>restrictions</del> parameters described below, the participant will be permitted to apply the amount of EDA charges it has paid as a credit to the cost of implementing energy efficiency measures. Specifically, participants are able to use <del>a pre-specified percentage of</del> their contributions to <del>fully</del> fund energy efficiency improvements on their <del>site</del>sites, subject to the following:</p> <p><del><input type="checkbox"/> Projects must be cost-effective on TRC basis.</del></p> <p><del><input type="checkbox"/> Participants have 6 months to develop and submit projects. Clock starts when ICC approves pilot as part Plan 3 on or before Feb 1, 2014.</del></p> <ul style="list-style-type: none"><li><input type="checkbox"/> <u>Projects must be cost-effective on TRC basis. ComEd will review the project application and, working with the pilot participant, will determine the project's cost-effectiveness. ComEd and the pilot participant will integrate the independent evaluator in the review process and will defer to them for final acceptance of savings methodology, savings estimates, and evaluation procedures. The parties will develop an agreed upon project review process and will make best effort to abide by this timeline.</u></li><li><u>Identified potential participants should submit notice of intent to participate in this pilot within the first three months of the plan cycle. Once accepted, tracking of participants' Rider EDA fund contributions will commence, and participant will no longer be eligible to participate in any other Smart Ideas programs funded under Rider EDA. A participant may withdraw from the pilot at any time, at which time the participant's funds will revert to the applicable EDA pool and the participant will regain eligibility to participate in other Smart Ideas program. Reapplying for the pilot will not be allowed.</u></li><li><u>Participants further acknowledge that 40% of their Rider EDA contribution shall be used to fund portfolio costs, including DCEO programs (25%), M&amp;V (3%) and program administration (12%). A key component of this pilot will be to monitor and track program administration costs so that the cost allocation can be recalculated based on actual results for future implementation of this program.</u></li><li><u>The final number of participants shall be limited to ensure that total project incentive disbursements during the pilot do not exceed the Plan 3 budget over the three-year pilot window.</u></li></ul>

- Participants may submit a project at any time within the 3 year planning period, provided that the project will be completed within the 3-year planning period. Upon submission of a project application, ComEd and its independent evaluator shall review the application to ensure it satisfies regulatory and statutory requirements. Best efforts shall be used to complete the review within 30 business days, subject to complete and sufficient data being provided by the participant on a timely basis,. Funds associated with the proposed project shall be reserved upon the approval of a project application by ComEd.

Participants must co-fund projects at a minimum of 33% of total ~~cost.~~

- ~~Project~~ project costs. However, operational optimization projects may not require any co-funding -by the participant, which is consistent with current Smart Ideas programs. This determination will be up to the discretion of ComEd.
- Project funding comes -from -the- tracked -amount -of- EDA charges paid by the participant to date. **No advance funding is allowed** Additionally, advanced funding may occur under the "grant" approach outlined in ComEd's Rebuttal Testimony (ComEd Ex. 3.0 at 51:1171-1180). In no event will actual cash disbursement exceed the cumulative tracked EDA charges for the participant.
- ~~Project~~ No more than 20% of funds ~~can~~ will be spent on non-project costs (e.g., engineering studies, design work).
- ~~Project~~ Progress payments will be allowed with sufficient support documentation.
- ~~Project~~ Approved projects must be completed by May 31, 2017.
- ~~Project~~ savings are subject to ComEd's normal EM&V process that is lead by the independent evaluation.
- Any changes to the scope of a project shall be brought to ComEd's attention immediately. Participants acknowledge that any scope change that would render a project as non-qualifying under the original scope approval criteria may result in a forfeiture of any incentives and repayment to ComEd of any progress payments already issued.
- Unused funds at end of three-year pilot are returned to the general pool.

**Program Duration**

~~June 2014 through May 2017~~ June 2014 through May 2017. ComEd recognizes that large C&I energy efficiency projects often have extended planning and implementation periods. ComEd will make best efforts to accommodate those longer implementation periods within the three-year Plan period.

**Collaboration**

Because this program offers primarily electric-only energy savings, it is not being offered as a coordinated program. However, measures that are incentivized by both ComEd and one or more of the gas companies are flagged as such in our application documents (e.g., "Your gas company may offer an additional -prescriptive or custom rebate -for -this -measure"). Co-funding from both this program and other natural gas programs is permitted, subject to the total incentives can not exceed 100% of the project cost. We

also will continue to leverage opportunities from- consumer education on this program and other joint gas program customer outreach and engagement activities.

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<b>Delivery Strategy</b>	As a pilot program, this is still under development.
<b>Target Market</b>	This program is designed for a limited number of the largest electric C&I customers in the ComEd service -territory. ComEd expects to reach out to specific customers for participation in this pilot. This will not be open to the general population at this time. <a href="#"><u>ComEd believes there must be a fair and equitable selection process and will work with other parties, including REACT and IIEC, to ensure a good representation of customers are included in the program.</u></a>
<b>Marketing Strategy</b>	As a pilot program, this is still under development.
<b>Eligible Measures</b>	Any standard or custom projects that save electricity and otherwise comply with statutory requirements -vis-à-vis cost-effectiveness and evaluated savings determinations.
<b>Program Targets</b>	As a pilot program, this is still under development. Energy savings from this pilot will be included in the Incentives Program for tracking and reporting purposes. Program costs for this pilot will be included in the Incentives Program costs.

# Appendix B

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
Illinois Commerce Commission ("STAFF") Data Requests**

**JLH 1.01 – 1.06**

**Date Received: September 10, 2013**

**Date Served: September 23, 2013**

**REQUEST NO. JLH 1.02:**

Please provide all work papers, analyses, data sets, and other documents used or relied upon in the preparation and presentation of the Commonwealth Edison Company's 2014-2016 Energy Efficiency and Demand Response Plan, ComEd Ex. 1.0 ("Plan"). Please provide documents in their native file format with working formulae intact.

**RESPONSE:**

Please see the attachments contained in the file folders labeled as JLH 1.02\_Attach 01 through JLH 1.02\_Attach 11. Due to large file sizes the attachments have been provided on a CD-ROM labeled as 2013CEE 0000007 and two (2) DVDs labeled as 2013CEE 0000008 and 2013CEE 0000009. The CD-ROM contains file folders labeled as JLH 1.02\_Attach 01 through JLH 1.02\_Attach 09. The file folders labeled as JLH 1.02\_Attach 10, JLH 1.02\_Attach10A and JLH 1.02\_Attach 10B are provided on the DVD labeled as 2013CEE 0000008, and the file folders labeled as JLH 1.02\_Attach 10C and JLH 1.02\_Attach 11 are located on the DVD labeled as 2013CEE 0000009.

The following table sets forth the program that corresponds with each of the attachments:

<b>Attachment</b>	<b>Program</b>
JLH 1.02_Attach 01	Complete System Replacement Program (CSR)
JLH 1.02_Attach 02	Energy Education Kits Program
JLH 1.02_Attach 03	Multi-Family Home Energy Savings Program
JLH 1.02_Attach 04	MidStream Incentives Lighting Program
JLH 1.02_Attach 05	New Construction Program
JLH 1.02_Attach 06	Residential Lighting Program
JLH 1.02_Attach 07	Residential New Construction Program
JLH 1.02_Attach 08	Single Family Home Energy Savings Program
JLH 1.02_Attach 09	Study-Based Programs
JLH 1.02_Attach 10	Incentive Programs
JLH 1.02_Attach 10A	Batch Custom Programs
JLH 1.02_Attach 10B	Batch Incentive Programs
JLH 1.02_Attach 10C	Batch Standard Programs
JLH 1.02_Attach 11	Appliance Recycling Program

# Appendix C

ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.01  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.01:** With regard to the recommendation in Mr. Crandall’s Direct Testimony (“Crandall Dir.”) that “the modified goal be set at no less than two-thirds of the statutory goal” (Crandall Dir., page 6, line 19):

- (a) Please explain how the budgets within the ComEd’s proposed portfolio would be reallocated to achieve this increased goal.
- (b) Please provide the modification to each budget line item and state the associated increase or decrease in associated kWh savings for each item.

**Answer:**

I have not made any recommendations that ComEd’s budgets should be reallocated at this time, and therefore I cannot provide a recommended change to each budget line item. My recommendation is that ComEd could achieve the modified goals of no less than two-thirds of the statutory requirement by implementing a variety of strategies outlined in my testimony that, to the best of my knowledge, ComEd has either not developed or not considered. I recommend requiring that ComEd and the SAG consider these strategies and develop plans and budgets to implement them. The only specific budget reallocation that I have put forward, as a last resort if my other recommendations fail to meet my proposed goals, would be that ComEd work with Staff and the SAG on how to reallocate budgets among customer classes to rely more heavily on lower first-year cost per kWh saved in the industrial/commercial sector. (See Crandall Dir., pages 30-32).

**Witness Contact Information:**

Geoffrey Crandall  
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ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.02  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.02:** Mr. Crandall makes the following assertions in his direct testimony: (1) “I recommend that the modified goal be set at no less than two-thirds of the statutory goal” (Crandall Dir., page 6, lines 18-19), and (2) “I am not recommending a budget reallocation at this time” (*Id.*, page 31, line 11). Please reconcile these statements and explain in detail how increased modified goals can be achieved without any budget reallocations.

**Answer:**

As described in response to ELPC 2.01, I believe that a number of alternatives ComEd had not considered could contribute to achieving the recommended modified goal of no less than two-thirds of the statutory goal. Some of these may require a reallocation of the budgets after consideration by SAG and ComEd. Some of them extend the budget by amortizing the costs, rolling funds back into the energy efficiency budgets, or leasing equipment. Others augment the budget by leveraging third party resources. Others enhance incentives without adding to the budget by implementing tariffs. Thus, there is a wide array of alternatives to increase energy efficiency savings without exceeding the budget cap.

In my statement, “I am not recommending a budget reallocation at this time” on page 31, line 11 of my direct testimony I refer to an alternative that ComEd did consider, namely rebalancing ComEd’s portfolio to rely more heavily on program elements that achieved greater savings per dollar invested. Rebalancing the portfolio of existing energy efficiency programs would require reallocating the budget among its existing programs/customer classes. I further stated, “The reason I am not proposing significant budget reallocations now is that I am also proposing a number of other solutions or partial solutions (identified above) that may obviate the need to significantly reallocate program budgets. Until those options are reviewed and analyzed in the coming months prior to the filing of the revised plan or plan supplement, it is premature to recommend the significant reallocation of program budgets in accordance with a different definition of optimal energy savings.” (Crandall Dir., page 32, lines 1-6)

**Witness Contact Information:**

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# Appendix D

ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.04  
Page: 1 of 2  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.04:** With respect to Mr. Crandall's proposal regarding amortizing/capitalizing energy efficiency and demand response resources (Crandall Dir., page 18, line 19 through page 20, line 2):

- (a) Please provide all studies, analysis and data concerning the concept of amortizing/capitalizing energy efficiency and demand response resources.
- (b) Please describe in detail how this concept could be incorporated into ComEd's 2014-2016 Energy Efficiency and Demand Response Plan, including the cost to include such a concept and a quantification of any savings that would be achieved as a result.

**Answer:**

- (a) Amortization and capitalization is a commonly accepted regulatory treatment for generation, transmission, distribution energy efficiency resources, demand management resources. The capitalization of resource acquisition is a traditional and accepted accounting method that recognizes the longevity and the productivity value of resources lasting beyond the current year. The Michigan Public Service Commission allowed the deferred accounting treatment and the amortization of program developmental costs to be recovered over a five-year period because the program and the attributes were expected to continue beyond the first year of the program. This was included in the Michigan Public Service Commission Order U-6700 and then implemented in each utility docket that initiated energy efficiency programs pursuant to the U-6700 Order, which set forward a residential energy efficiency program. In addition, ComEd has capitalized certain demand response program costs in conjunction with its air conditioning cycling program since 1996.

Both the Michigan Public Service Commission and ComEd have found that the public interest is served by allowing the amortization of energy efficiency programs and demand response measure costs. Therefore, it is appropriate for ComEd, in conjunction with the Staff and the SAG, to investigate this potential funding methodology for Plan 3 programs. This methodology has the potential to make additional funds available for rebates and customer incentives that would assist ComEd to better meet the legislatively imposed energy efficiency targets.

- (b) My recommendation is that the Commission require ComEd to coordinate with the Staff (in conducting a workshop) and the SAG to review the amortization of energy efficiency

and demand response technologies in conjunction with Section 8-103 related measures and programs. Because this could be implemented in variety of different ways, I have not developed a specific approach to the amortization of energy efficiency and demand response resources. The workshops, SAG discussions, and working papers would provide an in-depth review and a quantification of various approaches. After consideration by ComEd, Staff and SAG as I recommend, some changes to the budgets and funding could be recommended and may be found to be appropriate by the Commission.

**Witness Contact Information:**

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ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.05  
Page: 1 of 2  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.05:** With respect to Mr. Crandall’s proposal regarding the use of third party performance contracts (Crandall Dir., page 20, line 20 through page 21, line 12):

- (a) Please provide all studies, analysis and data concerning the concept of using third party performance contracts.
- (b) Please describe in detail how this concept could be incorporated into ComEd’s 2014-2016 Energy Efficiency and Demand Response Plan, including the cost to include such a concept and a quantification of any savings that would be achieved as a result.

**Answer:**

- (a) I relied on on the following resources, which provide considerable detail on the merits positive attributes of performance contracting:
  - US Department of Energy Building Technologies Department “A Guide to Performance Contracting with ESCOs”  
([http://www.pnnl.gov/main/publications/external/technical\\_reports/PNNL-20939.pdf](http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-20939.pdf))
  - JP Morgan “Energy Performance Contract Financing as a Strategy: Transforming Healthcare Facilities Maintenance”  
(<https://www.jpmorgan.com/cm/BlobServer/JPM-Healthcare-EnergyPerformanceContracting.pdf?blobkey=id&blobwhere=1320603368719&blobheader=application/pdf&blobheadername1=Cache-Control&blobheadervalue1=private&blobcol=urldata&blobtable=MungoBlobs>)

Based on the JPMorgan report, the largest problem customers have in getting energy efficiency improvement projects accomplished is access to capital. This is the void that Energy Service Companies are trying to address. Increasing ComEd customers’ access to more private capital for energy efficiency projects would likely assist ComEd in obtaining more of its legislatively mandated savings targets without exceeding the budget cap.

- (b) In my testimony I recommend that Staff conduct a workshop and that ComEd and the SAG (along with Staff input) review and prepare recommendations to the Commission regarding the use of alternative financing options. Until those options are reviewed and

analyzed, it is premature to recommend a specific approach to third party performance contracting by ComEd. (Crandall Dir., page 23, lines 1-3)

**Witness Contact Information:**

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ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.06  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.06:** With respect to Mr. Crandall's proposal regarding the concept of energy efficiency or demand response measure leasing (Crandall Dir., page 21, lines 14-21):

- (a) Please provide all studies, analysis and data concerning the concept of energy efficiency or demand response measure leasing.
- (b) Please describe in detail how this concept could be incorporated into ComEd's 2014-2016 Energy Efficiency and Demand Response Plan, including the cost to include such a concept and a quantification of any savings that would be achieved as a result.

**Answer:**

- (a) See the following information on leasing lighting equipment and services provided by Duke Energy. Duke serves North Carolina, South Carolina and Ohio (and perhaps other areas as well). There is also information regarding leasing water heating systems by a cooperative utility company.

<https://www.progress-energy.com/carolinas/business/products-services/outdoor-lighting/index.page>

<https://www.progress-energy.com/assets/www/docs/home/pricingncalsstandard.pdf>

<http://www.woodruffelectric.com/content.cfm?id=2045>

- (b) In my testimony I recommend Staff to conduct a workshop and ComEd and the SAG (along with Staff input) review and prepare recommendations to the Commission regarding the use of alternative financing options. Until those options are reviewed and analyzed, it is premature to recommend a specific approach to leasing energy efficiency and demand response technologies by ComEd. (Crandall Dir., page 23, lines 1-3)

**Witness Contact Information:**

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ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.07  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.07:** With respect to Mr. Crandall’s proposal concerning the “Tariffed Installation Program approach” (Crandall Dir., page 22, lines 1-12):

- (a) Please provide all studies, analysis and data concerning the “Tariffed Installation Program approach.”
- (b) Please describe in detail how this approach could be incorporated into ComEd’s 2014-2016 Energy Efficiency and Demand Response Plan, including the cost to include such approach and a quantification of any savings that would be achieved as a result.

**Answer:**

- (a) See the following information on Tariff Installation Program that is operated in Kansas by Midwest Energy.

<http://www.mwenergy.com/howsmart.aspx>

Also, see the attachment regarding the Midwest Energy program.

- (b) In my testimony I recommend Staff to conduct a workshop and ComEd and the SAG (along with Staff input) review and prepare recommendations to the Commission regarding the use of alternative financing options. Until those options are reviewed and analyzed, it is premature to recommend a specific approach to a tariff supported energy efficiency and demand response technologies effort by ComEd. (Crandall Dir., page 23, lines 1-3)

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## Status Report for programs based on the Pay As You Save<sup>®</sup> (PAYS<sup>®</sup>) system

February 24, 2013

**New Hampshire:** The New Hampshire Public Service Commission (NHPUC) in its November 29, 2001 Order No. 23,851 approved the first PAYS<sup>®</sup> pilots at Public Service of New Hampshire (PSNH) and New Hampshire Electric Co-op (NHEC). PSNH offers the tariff to municipal customers seeking to implement energy efficiency projects. NHEC offered the tariff to all its customers, but appears to have suspended the program. Since inception, these two utilities have used PAYS<sup>®</sup> to implement energy efficiency projects costing more than \$6.4 million with less than \$100 in bad debt resulting from measure failure or missed payments (less than two thousandths of one percent).

In its December 30, 2004 Order No. 24,417, the NHPUC ended the pilot phase and ordered both utilities to continue offering the PAYS<sup>®</sup> tariff to their customers as they had been with minor changes to their programs (e.g., allowing a greater portion of estimated savings to cover project costs). Although this order was effective through 2007, PSNH continues to offer a PAYS<sup>®</sup> tariff to their customers in a program called SmartStart and advertise its availability. NHEC staff have indicated that the coop is no longer operating a SmartStart program even though the program is still advertised on the coop's website: (<http://www.psnh.com/Business/Efficiency/Paysave.asp>; [http://www.nhec.com/business\\_energysolutions\\_smartstart.php](http://www.nhec.com/business_energysolutions_smartstart.php)).

After 8 years, demand has remained high. PSNH's June 30<sup>th</sup> 2010 second quarter report stated the entire budget for 2010 had already been committed. However, in 2010, in response to a significant reduction of overall efficiency program funding, the NHPUC authorized PSNH to take its entire SmartStart revolving fund allocation to use for its rebate programs. PSNH continues to operate SmartStart using repayments from previous year's projects to fund new projects.

In the last fully funded year of operation, 2009, PSNH completed 59 municipal energy efficiency projects with contractor costs averaging \$15,032 (for a total of \$866,879). PSNH received \$37,451 as a shareholder incentive and \$15,757 to cover their administrative and implementation costs. These costs to ratepayers (from PSNH's 2009 efficiency budget) were offset by program fee charges of \$31,208 (to cover bad debt that since the program's inception has been zero). According to PSNH estimates, lifetime kWh savings for 2009 projects will be 20,268,741 kWh. Lifetime bill savings from these projects are estimated to be \$3,254,339. In 2009, PSNH ratepayers paid \$22,010 to get 59 municipalities to invest \$866,879 and save more than \$3.2 million – a ratepayer cost of just over a tenth of a cent per kWh saved (\$0.00109).

Measures installed in the PSNH program include street lighting; lighting upgrades; and heating, ventilating, and air conditioning (HVAC) improvements. Up-front costs are paid with system benefit funds through a revolving loan fund. Participants are allowed access to the same rebates offered to customers who are not allowed access to the PAYS<sup>®</sup> tariff. Although PSNH envisioned its account executives contacting customers to let them know about the PAYS<sup>®</sup> tariff, by 2004, half of the participants were notified of PAYS<sup>®</sup> through contractors seeking to increase sales of their services.

NHEC's program demonstrated that customers preferred to buy compact fluorescent light bulbs (CFLs) using the PAYS<sup>®</sup> tariff and pay the full cost over time rather than buy highly subsidized CFLs in point-of-sale programs. PAYS<sup>®</sup> was also used to facilitate the weatherization of gas-heated homes at NHEC and to improve lighting and HVAC in commercial buildings.

NHEC funded the upfront cost for measures by borrowing from its primary lender or from operations and using a small portion of its system benefit funding as a guarantee fund. However, NHEC forced customers to choose between available rebates of 50% - 80% of measure costs or paying the full cost of measures through PAYS<sup>®</sup>. This program design flaw limited customer interest in PAYS<sup>®</sup>.

**Kansas:** The Kansas Corporations Commission (KCC) in its December 20, 2007 Order in Docket No. 07-MDWG-784-TAR approved the application of Midwest Energy, a natural gas and electric cooperative utility, to use a tariff with almost all of the essential PAYS<sup>®</sup> elements to promote the installation of resource efficiency measures, primarily in residential housing (HowSmart<sup>®</sup> program). Because the program required owners of rental housing to assume the risk of measure failure while all savings benefits accrued to tenants (i.e., landlords might pay and save nothing) Midwest Energy is not licensed to use the trademark "PAYS<sup>®</sup>."

Through 2012, there has been continued strong demand for Midwest Energy's HowSmart<sup>®</sup> program. (<http://www.mwenergy.com/howsmart.html>). In fact, on September 5, 2008, in its order in Docket No. 08-MD-1128-TAR, the KCC approved Midwest Energy's request to make HowSmart<sup>®</sup> a permanent program available to all customers.

As of December 31, 2012, HowSmart<sup>®</sup> projects have been completed at 858 locations. Midwest Energy has invested almost \$5.0 million in efficiency improvements (including program fees of almost \$207,000). These funds will be repaid by participating customers through the HowSmart<sup>®</sup> tariff. The projects at 858 locations were implemented by 716 homeowners, 114 residential rental properties, and 28 commercial businesses. In order to qualify installation of additional measures that would not qualify for the tariff, customers paid an additional \$1.4 million, making participants' average project size \$7,489. Homeowners completed 17 HowSmart<sup>®</sup> geothermal loop projects. Although Midwest offers no rebates or other incentives besides the tariff, to date, fewer than 45% of customers making decisions on projects, declined to implement retrofits. Midwest is awaiting customer decisions or contractor bids on an additional 200 projects. Measures include new heating systems, geothermal loop projects, air sealing and insulation. In addition, a version of HowSmart<sup>®</sup> for commercial and industrial lighting applications has resulted in 9 lighting retrofits. Portable measures (e.g., refrigerators and CFLs) are not included in HowSmart<sup>®</sup>. Midwest Energy utilizes its own capital for investment in HowSmart<sup>®</sup> projects. However, as opportunities to access low-cost capital avail, Midwest utilizes the low-cost funding and passes the lower debt costs through to customers. Midwest has utilized low cost funding from the Kansas Housing Resources Corporation, stimulus funds through the Efficiency Kansas program, and most recently a Rural Economic Development Loan (REDL) from the U.S. Department of Agriculture to lower embedded debt costs associated with HowSmart<sup>®</sup> projects.

In 2009, the KCC purchased the rights to use all of the forms and contracts developed by EEI with the intention of making them available at no cost to Kansas utilities interested in operating

programs based on the PAYS® system.

**Hawaii:** Implementing PAYS® legislation signed by the governor the previous year, the Hawaii Public Utilities Commission (HPUC) in its June 29, 2007 Order No. 23531 approved three PAYS® pilots proposed by the Hawaiian Electric Company, Hawaiian Electric Light Company, and Maui Electric Company for the installation of solar hot water heating systems. These utilities decided to offer tariffs that included all key PAYS® elements while the HPUC did not require them to do so.

None of the utilities advertised this pilot on their websites. However, during the Program Year 1 of their pilots (2007-2008), according to independent evaluation by the Johnson Consulting Group, the utilities' SolarSaver Programs received a total of 203 applications (the pilot's target was 200). A total of 185 applications were approved with the remainder having been either declined or canceled by the customer after the initial screening was complete (more than a 90% offer acceptance rate). Two of the utilities (Hawaiian Electric Company and Hawaii Electric Light Company) exceeded their target for approved installations; the other (Maui Electric Company) had staffing issues and was able to approve only 16 of the 50 targeted solar installations.

Forty-three of the 203 applications for the SolarSaver program (21%) were by customers who had previously refused installations, suggesting that PAYS® is transforming the market.

In Program Year 2 (2008-2009), as contractors learned how customers who rejected other offers would accept PAYS® offers, demand for the SolarSaver program surged. The number of customers who participated in the SolarSaver program who had previously refused a non-PAYS® offer increased to 74% of those participating in Program Year Two. Despite no marketing of the SolarSaver Programs, a total of 328 applications were approved and 299 were processed after 29 were cancelled (still more than a 90% offer acceptance rate). To meet the increased demand, HECO and HELCO applied for and received HPUC permission to tap into Program Year 3 funding. This accelerated the spending of Program year 3 funds and the program exhausted these two utilities' three-year budgets for the installation of SolarSaver SWH systems by August 2009.

On February 1, 2013, Hawaii's Public Utilities Commission in Order No. [30974](#) closing Docket 2011-0186 made Hawaii the first state in the nation to authorize a state-wide tariffed on-bill financing program. The order reads: "The commission concludes that any on-bill financing program should be structured as a service and tariff-based 2011-0186 30 program, rather than a loan-based program (pp. 30 – 31).

**Kentucky:** How\$martKY™ is a pilot program based on the How\$mart® program at Midwest Energy (KS). Kentucky's Public Service Commission in Case. No. 2010-00089 approved the pilot in December 2010 to run for two years providing assistance to 200 to 300 utility customers starting in Spring 2011.

Four rural utility cooperatives in Eastern Kentucky (Big Sandy RECC, Fleming-Mason RECC, Grayson RECC, and Jackson Energy) are implementing the pilot to be managed by the Mountain Association for Community Economic Development (MACED) to provide energy retrofits

(insulation, duct sealing, air sealing, and heat pump upgrades) as part of utility service under the KY Energy Retrofit Rider.

After completing a free energy assessment of the property and estimating the potential savings, a program Energy Specialist oversees the contractor installation of the energy efficiency upgrades and provides assurance that the improvements have been correctly installed.

As of December 2012, 166 assessments had been done and 90 customers had implemented retrofits totaling \$687,517 (\$484,011 was financed through the HowSmartKY™ tariff). Almost 30% (\$203,506) of the total invested in retrofits was paid upfront with rebates or by participants in order to qualify for the tariff. Fifty-nine participants who had assessments done did not proceed with the program (there is currently no way to determine if these potential participants refused to participate or were in fact not eligible because of structural problems with their homes, bad billing history, or not enough energy usage to enable energy saving measures to “pencil out”), creating an offer acceptance rate of 64%. Three of the four utilities implementing the pilot have decided to move forward with a permanent tariff program.

**California:** The Sonoma Regional Climate Protection Authority (RCPA) is working with a Sonoma County municipality, the Town of Windsor, to design and implement a tariffed on-water bill pilot program based on the PAYS® system. The design of this pilot is being funded with federal funds, however, private capital will fund operations and all installation costs. This pilot will be the first demonstration using the PAYS® system at a municipal water utility. It targets both energy- and water-saving measures. The first-year goal of the pilot is for 2,000 residential customers (approximately 25% of this utilities’ residential customers), both homeowners and renters, to purchase an array of resource efficiency measures that meet customers’ end use needs (e.g., showering, clothes washing, refrigeration, lighting, attractive landscaping) while using less water and/or energy. In one year, the goal for this pilot is to serve approximately 4 times the number of customers that the town’s programs have reached during the past 5 years.

Reaching this percentage of a utility’s customers in one year with a program that charges participants for resource-saving measures would be unprecedented in California. The pilot began implementation in October of 2012. It appears likely that the pilot will exceed its goal of having 10% of the 2,000 homes be multi-family units within the first six months of operation. The pilot also uses a unique self-funding mechanism that eliminates the water utility’s revenue erosion. However, implementation delays and decisions made by the Lead Contractor required adding a second Lead Contractor in January 2013 in order to meet the pilot program’s ambitious goals. The annual Windsor budgeting and revenue process may require the pilot to cease operations after only 9 months of operation. Evaluation by California’s Better Buildings Program is currently underway.

# Appendix E

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
The Coalition to Request Equitable Allocation of Costs Together  
("REACT") Data Requests  
REACT 2.01 – 2.16  
Date Received: October 3, 2013  
Date Served: October 16, 2013**

**REQUEST NO. REACT 2.05:**

Please refer to Section 8-103 of the Public Utilities Act.

- a. Has ComEd achieved the statutorily mandated incremental annual energy savings standards set forth in Section 8-103(b) of the Public Utilities Act in Energy Efficiency and Demand Response Plan Years 1 through 6? If ComEd did not achieve such standards in any one Plan Year, please explain fully and in detail why not.
- b. Does ComEd expect to meet the statutorily mandated incremental annual energy savings standards set forth in Section 8-103(b) of the Public Utilities Act in Energy Efficiency and Demand Response Plan Years 7 through 9? Please explain fully and in detail why it expects to meet such standards or why it does not expect to meet such standards.

**RESPONSE:**

ComEd objects to this request to the extent it seeks to impose obligations not otherwise imposed by applicable law or Commission orders. ComEd further objects to this request to the extent it calls for speculation or seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence in this docket. Without waiving this objection or any of ComEd's General Objections, ComEd states as follows.

- a. Consistent with Section 8-103 of the Public Utilities Act, ComEd interprets this request to ask whether ComEd has achieved the statutorily-mandated incremental annual energy savings goals set forth in Section 8-103(b) of the Public Utilities Act, as modified by subsections (d) and (e) of Section 8-103 of the Act, and approved by the Commission for Plan Year ("PY") 1 through PY6. In response, ComEd states that, based on the findings of the independent evaluator for Plan Year 1 through Plan Year 4, it has achieved the energy savings goals approved by the Commission in ICC Docket No. 07-0540 and ICC Docket No. 10-0570. While the evaluation results from PY5 are not yet available, ComEd's own estimate shows that it achieved the PY5 energy savings goal approved by the Commission in ICC Docket No. 10-0570. Plan Year 6 is currently underway.
- b. Please see ComEd's 2014-2016 Energy Efficiency and Demand Response Plan, ComEd Ex. 1.0, at 1-2, 4-5, 7-9, 12-13, 16. Please also see the Direct Testimony of Michael S. Brandt, ComEd Ex. 2.0, 5:100-12:241.

# Appendix F

**RESPONSE OF REACT  
TO COMED DATA REQUEST REACT 2.09**

**ICC DOCKET NO. 13-0495**

ComEd → REACT 2.09      With respect to Mr. Fults' statement that "[t]he amount of overhead associated with ComEd's administration of the energy efficiency portfolio is staggering ..." (Fults Dir., pages 13-14, lines 283-84):

- (a) Please explain the basis for such statement and provide any supporting studies, analyses or data concerning such statement.
- (b) Please explain Mr. Fults' experience, if any, in designing, implementing or administering a portfolio of energy efficiency programs.
- (c) Please identify and explain what Mr. Fults believes to be an appropriate level of administrative costs related to an energy efficiency portfolio and provide any supporting studies analyses or data to support his position.

**RESPONSE:**

REACT objects to this request on the grounds that it is vague, overly broad, repetitious, and unduly burdensome. REACT also objects to this request to the extent that it seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence in this docket. REACT also objects to this request to the extent it seeks information subject to the attorney-client privilege. REACT also objects to the extent that any quotation is incomplete or is presented out of context. Without waiving the foregoing objections and subject to all General Objections, REACT states as follows.

- (a) Please see Mr. Fults' Direct Testimony at 13:280-17:348.
- (b) Please see Mr. Fults' Resume at REACT Ex. 1.01.
- (c) Mr. Fults' has not formed an opinion regarding the specific level of administrative costs for an overall energy efficiency portfolio.

# Appendix G

ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.08  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.08:** With regard to the “light bulb turn-in” program that Mr. Crandall recommends (Crandall Dir., page 29, lines 7-23), please provide all studies, analyses or data relating to this program and identify any other utilities that have implemented such a program.

**Answer:**

As I indicated in my testimony, I recommend that ComEd use a marketing strategy that includes light bulb turn-in. This marketing strategy would synchronize with key program messaging (i.e., don't wait until an old bulb burns out before installing a high efficiency bulb). I suggested that four functional and operational 100 watt bulbs could be redeemed for either Compact Fluorescent bulbs or a single LED bulb. I did not perform an analysis on this concept because it was offered as a marketing strategy as opposed to a program, however, from a customer's perspective, if one assumes a 100 watt bulb costs \$1 and lasts for 1,000 hours and that an LED equivalent costs \$10 and lasts 25,000 hours, a customer would save in the range of \$147 per LED bulb used or \$588 if the customer installs four LED bulbs to replace incandescent bulbs.

ComEd currently offers an appliance recycling program that takes older, less efficient appliances out of service, just as this approach would take older, inefficient incandescent lighting out of service. ComEd has a disposal component to its residential lighting program, so a mechanism exists now that might be amenable to an incandescent turn-in marketing program. The Lansing Board of Water and Light at one time had a light bulb turn in and exchange program. I do not know if that program is still in existence.

**Witness Contact Information:**

Geoffrey Crandall  
crandall@msbnrg.com  
608-831-1127

ICC Case No: 13-0495  
Respondent: Geoffrey Crandall  
Requestor: ComEd  
Question No: ComEd→All 2.09  
Page: 1 of 1  
Date: November 14, 2013

**Question:**

**ComEd→ELPC 2.09:** With regard to the “light bulb turn-in” program that Mr. Crandall recommends (Crandall Dir., page 29, lines 7-23), please provide three year budget estimates of the costs required to implement this program. Also, please identify which budget lines of ComEd’s 2014-2016 Energy Efficiency and Demand Response Plan would need to be reduced and by how much to fund this program.

**Answer:**

In my testimony, I recommend that ComEd integrate this concept into its marketing strategy along with its traditional marketing and promotional efforts. I did not specifically quantify the cost of this marketing strategy. I recommend it as a new concept that could be piloted or used on a limited basis to test its effectiveness.

**Witness Contact Information:**

Geoffrey Crandall  
crandall@msbnrg.com  
608-831-1127

# Appendix H

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
Environmental Law & Policy Center ("ELPC") Data Requests**

**ELPC 1.01 – 1.57**

**Date Received: October 1, 2013**

**Date Served: October 14, 2013**

**REQUEST NO. ELPC 1.52:**

According to Mike McMahan's presentation before the Illinois Commerce Commission Joint Electricity and Consumer Affairs Policy Committee Meeting on 8/30/13, ComEd expects to deploy at least 2 million AMI meters during the Plan Years of Plan 3 (2014-2017). What is ComEd's vision for how these AMI meters will enable increased customer energy efficiency?

**RESPONSE:**

ComEd objects to this request to the extent it seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence in this docket and calls for speculation. ComEd also objects to this request to the extent it seeks to impose obligations not otherwise imposed by applicable law or Commission orders. Without waiving these foregoing objections or any of ComEd's General Objections, ComEd states as follows.

ComEd's AMI deployment is separately governed by Section 16-108.6 of the Public Utilities Act and the proceedings held and orders entered thereunder. In general, while the deployment of AMI meters is still nascent, ComEd expects that the availability of real-time and interval data facilitated by AMI will eventually lead to development and deployment of additional useful energy management tools for customers. ComEd also anticipates that AMI will facilitate commercialization of appliances and controls that can use such data to programmatically modify energy consumption profiles at the end-use level.

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
Environmental Law & Policy Center ("ELPC") Data Requests**

**ELPC 1.01 – 1.57**

**Date Received: October 1, 2013**

**Date Served: October 14, 2013**

**REQUEST NO. ELPC 1.53:**

In reference to the previous question, please explain how ComEd's residential and commercial energy efficiency programs might be enhanced under Plan 3 to incorporate the AMI meter data and functionality and to increase customer energy savings.

**RESPONSE:**

ComEd fully incorporates herein by references its objections to ELPC 1.52. Without waiving these foregoing objections or any of ComEd's General Objections, ComEd states as follows.

Please see ComEd's Data Request Response to ELPC 1.52. ComEd will monitor marketplace developments vis-à-vis data management tools, AMI-enabled appliances and controllers as part of its Emerging Technologies function, and will explore opportunities for mid-cycle program enhancements as they present themselves.

# Appendix I

**RESPONSE OF REACT  
TO ELPC DATA REQUEST REACT 1.7**

**ICC DOCKET NO. 13-0495**

ELPC → REACT 1.7      At p. 21 line 460 of Mr. Fults's direct testimony, he states, "All it takes is a single bad experience for management of an organization to decide that it is not worth even making the initial expenditure to attempt to participate in a program." Please list and describe each bad experience REACT members have had with ComEd's program, including the names of the parties involved, the date of the experience and a description of the experience.

**RESPONSE:**

REACT objects to this request on the grounds that it is vague, overly broad, repetitious, and unduly burdensome. REACT also objects to this request to the extent that it seeks information that is neither relevant nor likely to lead to the discovery of admissible evidence in this docket. REACT also objects to this request to the extent it seeks information subject to the attorney-client privilege. REACT also objects to the extent that any quotation is incomplete or is presented out of context. Without waiving the foregoing objections and subject to all General Objections, REACT states as follows:

The quoted statement is based upon Mr. Fults' regular interactions with multiple representatives of customers in the ELLC and HV Over 10 MW classes in ComEd's service territory since the inception of the ComEd energy efficiency program. Mr. Fults has not compiled a complete list of bad customer experiences with the ComEd energy efficiency program and does not have records of the particular dates or parties to such discussions, but has no recollection of any customer relating that the experience with ComEd's program was positive. Please also see Mr. Flowers' testimony -- REACT Exs. 2.0 and 4.0.

# Appendix J

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
The Coalition to Request Equitable Allocation of Costs Together ("REACT") Data Requests  
REACT 1.01 – 1.21  
Date Received: October 3, 2013  
Date Served: October 16, 2013**

**REQUEST NO. REACT 1.11:**

Please refer to ComEd Ex. 2.0, the Direct Testimony of Michael S. Brandt, at Lines 1089-1100, wherein Mr. Brandt describes the proposed "Large C&I Pilot."

- a. What customer classes or type of customers are eligible for the Large C&I Pilot? Please explain fully and in detail the basis for the definition of eligible customers.
- b. Is there a limit on the number of customers that can take service under the "Large C&I Pilot"? If so, please explain fully and in detail the basis for that limitation.
- c. Please refer to Lines 1093-1094, wherein Mr. Brandt states that ComEd "...would track that amount of EDA charges paid by the participant during Plan Years 7 through 9." Does ComEd currently track the EDA charges paid by individual customers?
- d. Please refer to Lines 1096-1097, wherein Mr. Brandt states, "...ComEd is still working out the details for this pilot..."
  - i. Have those details been worked out? If so, please explain fully and in detail the substance of those details. If not, please identify when ComEd anticipates those details will be worked out.
  - ii. Please explain fully and in detail what program "details" still are in development.
  - iii. Please explain fully and in detail what ComEd's plans are to develop those "details," including the names, titles, and contact information for all persons who will be working to develop those "details."
  - iv. Please explain fully and in detail why ComEd was unable to work out those details prior to filing its Plan.
  - v. Did ComEd investigate any other structure for the pilot program? If so, please explain fully and in detail the structure of each such alternative, and why it was not included in ComEd's Plan. If not, please explain fully and in detail why not.

**RESPONSE:**

ComEd objects to this request to the extent it seeks to impose obligations not otherwise imposed by applicable law or Commission orders. Without waiving this objection or any of ComEd's General Objections, ComEd states as follows.

As an initial matter, the Large C&I Pilot program template set forth in ComEd's 2014-2016 Energy Efficiency and Demand Plan (ComEd Ex. 1.0) notes that many elements of the pilot are "still in development". As reflected in ComEd's Data Request Response to REACT 1.08, the development of the Large C&I Pilot program occurred only shortly before the Plan's filing.

- a. Please see ComEd's Data Request Response to REACT 1.21.
- b. Please see ComEd's Data Request Response to REACT 1.21.
- c. No, ComEd does not currently track the EDA charges paid by individual customers.
- d.
  - i. No. The current details regarding the proposed Large C&I Pilot program are set forth in ComEd Ex. 1.0, the Direct Testimony of Michael S Brandt (ComEd Ex. 2.0), and ComEd's Data Request Response to REACT 1.08, REACT 1.11, REACT 1.13, REACT 1.14, REACT 1.15, REACT 1.16, REACT 1.17, REACT 1.18, REACT 1.19, REACT 1.20, REACT 1.21 and NRDC 2.07. As explained in these responses, ComEd expects to address the remaining details of the Pilot during final program design, which will occur following approval of ComEd Ex. 1.0.
  - ii. All program elements are still in development as outlined in the Large C&I Pilot program template set forth in ComEd Ex. 1.0 and as described further in ComEd's Data Request Response to REACT 1.13, REACT 1.14, REACT 1.15, REACT 1.16, REACT 1.17, REACT 1.18, REACT 1.19, REACT 1.20, and REACT 1.21.
  - iii. Please see ComEd's response to paragraph (i) of subpart (d), above. ComEd has not yet set a schedule for the full development of the Large C&I Pilot program, but expects that the majority of the work will occur following Commission approval of ComEd Ex. 1.0. Although ComEd has not identified at this time which ComEd employees will work on the Pilot, ComEd expects that the personnel listed in ComEd's Data Request Response to REACT 1.09 will be involved.
  - iv. The proposed Large C&I Pilot program is just that – a pilot, and no energy savings are associated with the pilot at this time. Because the Pilot is not, at this time, a core program element of ComEd Ex. 1.0, ComEd intended only to present the framework for the Pilot, which is fully set forth in ComEd Ex. 1.0.
  - v. Although ComEd does not understand what is meant by "other structure", ComEd did not consider any alternative large C&I pilot programs for inclusion in ComEd Ex. 1.0.

# Appendix K

**REACT's First Set Of Data Requests To the AG**  
**ICC Docket No. 13-0495**

1.01 Please refer to the attached documents describing REACT's Proposed Framework for an Electric Self-Direct Energy Efficiency Pilot Program. The first document is the most recent version of REACT's Proposed Framework for its proposed Pilot Program, and the second document "tracks" all of the refinements REACT has incorporated into the Proposed Framework for the proposed Pilot Program since the version of the proposed Pilot Program was served in this proceeding as REACT Ex. 3.02. Recognizing that implementation details of the described Pilot Program could be further refined through a stakeholder-driven process, does the description of the proposed Pilot Program address the concerns of Attorney General witness Mr. Mosenthal regarding REACT's proposal?

**RESPONSE:**

REACT's revised Proposed Framework for its proposed Pilot Program, as referenced and attached to the above data request 1.01 presents a proposed framework for a "self-direct" program that addresses some but not all concerns expressed by AG witness Mr. Mosenthal in AG Ex. 2.0, in the DCEO Docket No. 13-0499. Mr. Mosenthal appreciates the willingness to modify its original proposal and the flexibility shown by REACT to accommodate other parties concerns. As a result, Mr. Mosenthal believes that the details of any self-direct program can be sufficiently worked out to the mutual satisfaction of all parties through a SAG process, as suggested by the proposal, and he supports REACT engaging with the other SAG parties to achieve this. However, there are still a few areas discussed in the proposed framework that might be problematic. These are listed below and are subject to the following general objection:

To the extent that this request calls for a legal conclusion, the People object. Further, Mr. Mosenthal is not a lawyer and makes no judgment regarding whether the REACT proposal is consistent with Section 8-103 of the Public Utilities Act and/or any other applicable regulatory or legislative requirements.

1. Mr. Mosenthal supports development of a streamlined mechanism to ensure prompt access to funds for time sensitive efficiency investments, so long as proper controls are in place to ensure funds are only spent on qualifying expenditures. The proposed framework calls for large customers to "self-direct" funds in "their own reserve accounts." However, it also notes that ComEd would be responsible for deposits to these accounts. It is unclear from this language whom (either singularly or jointly) retains control over these reserve accounts. To the extent REACT is proposing that its customers have unfettered access to the funds in the reserve accounts without any approval by ComEd, Mr. Mosenthal believes this is a concern. While Mr. Mosenthal is not a lawyer, he believes it is not clear whether this can be done within the constraints of Section 8-103 of the Public Utilities Act. Mr. Mosenthal is concerned about whether this approach might undermine the process of requiring ComEd approval of qualifying projects before funds are accessed, and complicate procedures for recovery of funds if a project was found to not qualify after funds had already been disbursed. Mr. Mosenthal supports the idea of working with

the SAG parties to identify if there is an adequate solution that ensures the protection of these funds for all parties and that is consistent with Section 8-103 of the Act.

2. The proposed framework suggests “the named members of REACT shall be considered to have signed up as a result of their participation in ICC Docket No. 13-0495.” Mr. Mosenthal is not a lawyer and makes no judgment whether this is appropriate and/or consistent with Section 8-103 of the Public Utilities Act and/or any other applicable regulatory or legislative requirements. However, Mr. Mosenthal suspects it would not be burdensome for named REACT members to subsequently submit a formal application for the Pilot if necessary. Again, these sorts of details would ideally be addressed through the SAG collaborative process.
3. REACT proposes self-direct customers can apply “up to a maximum of 10 years’ worth of funds” to retroactively reimburse themselves for costs of completed past projects. Mr. Mosenthal does not support this and believes 10 years is inappropriately long. Further, while Mr. Mosenthal is not a lawyer he believes it may be problematic to encumber future funds when there is no certainty the rider will continue for a full 10 years and for which no formal rider is in place or approved.. Certainly, any use of future funds would need to be structured to protect other ratepayers in the event that the Rider EDA were discontinued or substantially reduced. Mr. Mosenthal is, however, supportive of the overall REACT proposal of a “rolling five-year calendar” whereby funds are available and only lost if unused 36 months after they were accrued. That being said, it is unclear whether this five year window would be permitted under Section 8-103 of the Public Utilities Act, which is predicated on Commission approval of three-year program plans. Given this rolling fund balance, Mr. Mosenthal suggests that a similar 36 month allowance of future contributions could be accessed toward qualifying investments, subject to any legal or regulatory restrictions that may exist. Mr. Mosenthal is hopeful this proposal could be further addressed within the SAG process.
4. REACT proposes that “ComEd's *most senior engineer* would be tasked with reviewing the [monitoring and verification] Plan and data.” Mr. Mosenthal does not support REACT specifying a specific job title or individual at ComEd to perform this function. Further, this “title” is ambiguous, undefined, and subject to disagreement. Finally, Mr. Mosenthal believes it may be more appropriate for the Independent Evaluator to be responsible for review and approval of M&V Plans and data, under ComEd direction. Mr. Mosenthal suggests this be modified to allow ComEd “staff and/or contractor(s)” to perform the review.
5. REACT proposes that any funds unused by the expiration date would revert to ComEd. However, it indicates these funds would then be made available only to the “Extra Large Load or High Voltage Over 10 MW classes participating in the Self-Direct Pilot Program.” Mr. Mosenthal believes any unused funds should revert to the general pool of efficiency program funds for ComEd to use to support the non-self-direct programs in its portfolio.
6. REACT proposes participating self-direct customers would not lose any unused reserve funds after the 36 month expiration “if they can demonstrate to the Independent Evaluator that there are no current cost-effective energy efficiency investments to be

made at their facilities.” Rather, REACT proposes these funds continue to remain available indefinitely, to be used whenever “cost-effective energy efficiency projects become feasible.” In Mr. Mosenthal’s experience it is extremely unlikely that over a 36 month period, a large customer could not identify any cost-effective efficiency opportunities. Further, Mr. Mosenthal believes it could be burdensome, costly and contentious to establish this criterion definitively, and could require expenditures by the Independent Evaluators that would require other ratepayer funds to support. There are also issues around access to large customer facilities and how this determination would be made. Mr. Mosenthal believes this issue can be satisfactorily worked out by the parties in the SAG process.

# **Proposed Framework**

## **For An**

# **Electric Self-Direct Energy Efficiency Pilot Program**

### **Program Overview**

- An Electric Self-Direct Energy Efficiency Pilot Program would encourage robust participation in energy efficiency projects by the largest energy users.
  - **This is not an "opt-out" program.**
  - Rather, it would allow eligible customers to "self-direct" funds earmarked for energy efficiency projects from their own reserve accounts, using those funds to directly implement energy efficiency projects at their facilities.
  - Achieved energy efficiency would be counted toward ComEd's statutory energy efficiency requirements.
  - Details not finalized in the context of ICC Docket No. 13-0495 would be addressed in a 45-day collaborative process, including ComEd, ICC Staff, and interested parties.

### **Guiding Principles**

- The program should be simple.
  - The program should avoid the changing rules and "moving targets" that plague the current ComEd program.
  - The program should allow the largest Illinois electricity users to easily access their own earmarked energy efficiency funds to make more effective investments in energy efficiency projects.
- The "pilot program" approach is consistent with past practice.
  - ComEd has implemented several energy efficiency pilot programs that it has presented to the ICC.
  - ComEd has identified "*building upon pilot programs*" as a key plan objective.
  - If this pilot works for the largest energy users, ComEd could look to expand it to other categories of customers.

### **Program Administration**

- Eligibility shall be limited to the first 25 customers in ComEd's Extra Large Load and High Voltage Over 10 MW customer classes to sign up for this program. For purposes of determining eligibility, the named members of REACT shall be considered to have signed up as a result of their participation in ICC Docket No. 13-0495.
  - ComEd and interested parties also would collaborate with DCEO to ensure that state agencies and units of local government that are part of the Illinois public portfolio are eligible to participate, provided that they are customers in ComEd's Extra Large Load or High Voltage Over 10 MW classes.

- ComEd would collect 100% of the Rider EDA funds, and within 45 days of receipt, would deposit 70% of the funds received from each participating Self-Direct customer into the customer's energy efficiency reserve account.
  - 5% of the funds would be directed to ComEd for program administration, marketing, monitoring, and verification.
  - 25% of the funds would constitute the customer's contribution to DCEO (subject to refund based upon actual payout by ComEd to DCEO).
  - An eligible customer participating in the Self-Direct Pilot Program that has more than one facility in the ComEd service territory would be allowed to pool all reserve account funds in a single reserve account for purposes of funding its reserve account, and would be allowed to apply those funds to energy efficiency projects at any of its facilities within the ComEd service territory.
  - Reserve account funds could be used to cover up to 100% of energy efficiency project costs.
  - If available reserve account funds at time of project implementation are less than project cost, funds that otherwise would be put into the reserve account in the future could be applied against cost of completed past project, up to a maximum of 10 years worth of funds.
  
- ComEd account managers would serve as ComEd's main outreach arm for the pilot program. The Commission would retain oversight authority, just as it does for implementation of all other components of ComEd's Energy Efficiency Plan.

### **Upfront Project Approval**

- Each project would be required to meet the Total Resource Cost ("TRC") Test.
  - This is consistent with Section 8-103 of the Public Utilities Act.
  - Customers may perform upfront analysis using in-house engineering staff or contract consultants, and those costs would be paid from the reserve account. Customers must submit information to ComEd and the Independent Evaluator demonstrating that proposed projects meet the TRC test and that the project would not have been completed without the use of the reserve account funds. The Independent Evaluator shall have 30 days to note specific objections or deficiencies in the information provided by the customer; if Independent Evaluator has not objected after having the documentation (or supplemental information) for 30 days, the project will be deemed to be approved.

### **Measurement & Verification Protocols**

- Participating customers would be required to submit their own Monitoring and Verification Plan for each project.
  - The Plans would be required to provide for pre-installation monitoring and submission of data to ComEd.
  - ComEd's most senior engineer would be tasked with reviewing the Plan and data, and working directly with the customer regarding the data to be submitted to ComEd on an ongoing basis.

## **Unspent Balance Consequences**

- Accounting for Pilot Program funds would run on a rolling five-year calendar.
  - Participating customers would be required to spend the funds in their reserve accounts accumulated during months 1 through 24 by the end of month 60. Participating customers must spend the funds in their reserve accounts accumulated during months 25 through 48 by the end of month 84. This two-year pattern then would be repeated going forward.
  - If participants do not spend the reserve account dollars funds by the expiration date, then the funds would revert to ComEd. ComEd then would pool those funds, and those funds would be awarded to other members of the Extra Large Load or High Voltage Over 10 MW classes participating in the Self-Direct Pilot Program, as determined by the Independent Evaluator based upon merit.
  
- Participating customers would not be required to spend reserve account funds if they can demonstrate to the Independent Evaluator that there are no current cost-effective energy efficiency investments to be made at their facilities. In that case, the money would remain in the reserve account until cost-effective energy efficiency projects become feasible.

# Appendix L

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
Environmental Law & Policy Center ("ELPC") Data Requests**

**ELPC 1.01 – 1.57**

**Date Received: October 1, 2013**

**Date Served: October 11, 2013**

**REQUEST NO. ELPC 1.23:**

At p. 11 of the Plan, ComEd explains that changes to the definition of "Energy Efficiency" in PA 98-0090 allow for inclusion of combined heat and power (CHP) projects in an energy efficiency portfolio. Please explain the extent to which ComEd evaluated CHP for inclusion in their Plan 3 portfolio, the conclusions from the evaluation, and provide all relevant documents.

**RESPONSE:**

ComEd objects to this request to the extent it is overbroad, unduly burdensome, vague and ambiguous. Without waiving these foregoing objections or any of ComEd's General Objections, ComEd states as follows.

ComEd did not evaluate CHP for inclusion in this Plan. Indeed, PA 98-0090 did not become law until July 15, 2013. Prior to the effective date, ComEd attended a DCEO-sponsored workshop on June 5, 2013 whose topics included CHP. See the attachment labeled as ELPC 1.23\_Attach 1 for that workshop agenda.. During this workshop, it became clear that despite the then-proposed legislative change to the definition of "Energy Efficiency", critical policy issues still needed to be addressed. These include:

- 1) Joint delivery of program with natural gas utilities
  - a. Assignment of savings to electric versus natural gas
  - b. Load building benefits to natural gas utilities
  
- 2) Mitigation of performance and evaluation risk
  - a. High potential free ridership
  - b. Long project implementation lifecycle

Agenda  
Illinois Workshop on Combined Heat and Power (CHP)

Sponsored by:  
The Illinois Team  
National Governors Association Policy Academy on  
Enhancing Industry through Energy Efficiency & Combined Heat and Power

June 5<sup>th</sup>, 2013  
8:00 am – 3:00 pm  
Crowne Plaza Chicago Metro  
733 W Madison Street  
Chicago, Illinois 60661

8:00am Registration and  
Continental Breakfast

8:45am Welcome  
Agnes Mrozowski, Illinois DCEO  
Eric Heineman, Governor's Office

Key Note and Welcome  
Dan Seals, Assistant Director, Illinois Department of  
Commerce and Economic Opportunity

9:10am Attendee Introductions

9:30am **Session 1: Setting the Stage**  
Moderator Sue Gander, National Governors Assoc.

Industrial EE - The Opportunity  
Ethan Rogers, ACEEE

CHP/WHP Market Overview and  
EEPS Opportunity  
Bruce Hedman, Institute for Industrial Productivity

Open Discussion

10:30am Break

10:45am **Session 2: Program Design, Implementation and Evaluation (Guided Discussion)**  
Moderator Sue Gander, National Governors Assoc.

Opening Remarks  
Richard Sedano, Regulatory Assistance Project

**Topic 1: Program Design (What are the key needs and questions)**

- Electric, Gas, Shared Electric & Gas Funded

- Program Placement: Custom, Advanced Technologies, Separate CHP
- Fitting into 1 Year Budgets and Goals
- Performance Based Incentives
- Controlling Program Costs

Noon: Lunch Key Note Governor Pat Quinn (invited)

1:00pm **Session 2 Continued:**

**Topic 2: EM&V**

- Gross versus Net
- Free Ridership
- Metering Needs

2:00pm Key Note Anthony Star, Illinois Power Agency

2:25pm **Session 2 Continued:**

**Topic 3: Program Implementation**

- Calculating Allowable Savings
- Cost Effectiveness (TRC)

3:15pm Summary and Next Steps Sue Gander, National Governors Association  
Agnes Mrozowski, Illinois DCEO

3:30pm Adjourn

# Appendix M

**The People of the State of Illinois’  
Responses to  
Commonwealth Edison Company’s  
Second Set of Data Requests  
ICC Docket No. 13-0495**

ComEd → AG 2.09 On page 32, lines 24-25, and page 33, lines 7 and 14 of his direct testimony, Mr. Mosenthal refers to a SAG “consensus.” Please define exactly what would constitute a SAG “consensus.” If a consensus requires 100% agreement of the SAG, is it Mr. Mosenthal’s proposal that one party in the SAG always can always prevent a consensus from occurring?

Response: Consensus would constitute full agreement of all voting parties, as indicated in AG Exhibit 1.1.

# Appendix N

**ICC Docket No. 13-0495**

**Commonwealth Edison Company's Response to  
Natural Resources Defense Council ("NRDC") Data Requests**

**NRDC 2.01 – 2.20**

**Date Received: September 20, 2013**

**Date Served: October 3, 2013**

**REQUEST NO. NRDC 2.16:**

On p. 65, starting at line 1405, Mr. Brandt explains that the company is requesting the approval of a "realization rate framework" analogous to the NTG framework in which past evaluation-based realization rates would be deemed until new values were developed and that new values would only applied prospectively.

- a. What is the Company's rationale for such a framework? While there is certainly a risk that realization rates will not be as forecast, isn't that a risk that the Company itself controls since realization rates are often a function of the care taken by Company staff and/or contractors in estimating savings?
- b. Please provide a history of realization rates by program from PY1 through PY5 (or the most recent year for which such rates are available).

**RESPONSE:**

- a. ComEd objects to this request to the extent it is based upon incorrect assumptions of law or fact or is based on facts that are not in evidence. Without waiving these foregoing objections or any of ComEd's General Objections, ComEd states as follows. In addition to the explanation provided on page 110 of ComEd's 2014-2016 Energy Efficiency and Demand Response Plan (ComEd Ex. 1.0), ComEd notes that its proposal merely seeks a continuation of the realization rate framework approved by the Commission in ICC Docket No. 10-0570, which has been applied during the last three (3) Plan years (Plan Year 4 through Plan Year 6).

Prior to approval of this realization rate framework, the independent evaluator would calculate the realization rate for each program element and apply that rate retrospectively to the program results. Under this approach, the risk associated with the realization rate was unmanageable because ComEd would not find out how the calculated realization rates would impact the program elements until the evaluation report was received 6-12 months after the Plan year had ended. As a result, there was no opportunity for ComEd to respond to the effect of the realization rate because the Plan year was already over.

To address these risks, ComEd proposed in ICC Docket No. 10-0570 a framework under which the realization rate would only apply prospectively. In other words, the newly calculated realization rates would not apply until the start of the next Plan year. This would provide ComEd with time to modify the program, or possibly the entire portfolio, if a dramatic shift in the realization rate occurs. For new program elements, the planning realization rate would be assumed until a realization rate is calculated, which would again

be applied prospectively at the start of the next Plan year (i.e., the next June 1st). The Commission approved this framework “with the following exception—Components of realization rates that are within the control of ComEd (E.g., data entry errors or custom engineering calculations) will not be deemed. Components of realization rates over which ComEd has no control shall be deemed as part of the deemed measure savings (e.g., in-service rates for CFLs).” *Commonwealth Edison Co.*, ICC Docket No. 10-0570, at 48-49 (Dec. 22, 2010). It is this framework, previously approved by the Commission, that ComEd requests again be approved in this docket for the same reasons.

- b. ComEd objects to this request because Plan Year 1 through Plan Year 5 are outside the scope of ComEd’s 2014-2016 Energy Efficiency and Demand Response Plan (“Plan 3”) at issue in this proceeding, and the information requested for these Plan Years is neither relevant nor likely to lead to the discovery of admissible evidence in this docket. Please see the attachment labeled as NRDC 2.16\_Attach 1. The attachment file provides three (3) worksheets – the first worksheet, “RR Summary” contains PY1-PY4 realization rates, the second worksheet, “PY4 Deemed RR”, contains the PY4 filed realization rates, and the final worksheet, PY5 Deemed RR”, contains the PY5 filed realization rates.

**Realization Rate (Ratio of Research Findings Gross to Ex-Ante Gross Savings)**

<b>Program</b>	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>PY4</b>
ES Lighting	70%	74%	71%	68%
Fridge Recycling	75%	73%	75%	85%
Freezer Recycling	59%	73%	65%	75%
Multi-Family	90%	77%	128%	91%
Single Family		107%	83%	107%
CACES		33%	103%	104%
Home Energy Report			NA	NA
Clothes Washer Rebates				149%
Joint Elementary Education				100%
Complete System Replacement				60%
Standard	133%	121%	101%	104%
Custom	79%	85%	85%	80%
Mid-Stream Incentives (BILD)			110%	139%
Retro Commissioning	90%	91%	95%	91%
Small C&I Intro Kit	20%			
New Construction		85%	100%	88%
Industrial Systems/Compressed Air				75%
Small Business				86%
Data Centers				80%

ComEd Deemed Parameters - PY4

Program	Measure Description	Gross Savings Parameter		
		Type	Value	Source
Res Lighting	Standard bulbs	RR	0.73	Category level; Table 3-14
	Specialty bulbs	RR	0.80	Category level; Table 3-14
	Fixtures	RR	0.89	Category level; Table 3-14
	All bulbs; fixtures	Delta Watts	varies by bulb	Calculate with Lumen Equivalence methodology; Table 3-14
	All bulbs- residential use	HOU	2.74	Average HOU PY3 Logger study
	Fixtures	HOU	2.57	PY3 lighting logger indoor HOU
Appliance Recycling	Refrigerators	RR	0.87	PY2 AR report; Table E-3
	Freezers	RR	0.89	PY2 AR report; Table E-3
	Window AC Units	RR	1.0	PY2 AR report; Table E-3 - no part use adjustment
Multi-Family	CFLs	RR	0.96	CFL RR; Table E-2
	CFLs	HOU	2.57	PY3 lighting logger indoor HOU
	Water measures (electric DHW)	RR	0.67	Other Measure RR; Table E-2
Single Family	CFLs	RR	0.97	CFL RR; Table E-0-3
	CFLs	HOU	2.57	PY3 lighting logger indoor HOU
	Water measures (electric DHW)	RR	0.84	Other Measure RR; Table E-0-3
CACES	Tune-up Measures	RR	NA	Savings based on formula
	Quality Installation Measures	RR	NA	Savings based on billing analysis
Prescriptive	Standard Measure Savings	RR	1.00	Individual measures updated to reflect PY2 evaluation -resulting RR's set to 1.0
Custom	All Measures	RR	NA	Custom realization rates not eligible for deeming at this time
Retro-Commissioning	Project Level	RR	NA	Retro-Commissioning RR not eligible for deeming at this time
C&I New Construction	Systems Track Projects	RR	0.85	Only Systems Track projects evaluated in PY2
	Comprehensive & Small Bus Track	RR	NA	
Compressed Air	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Midstream Incentives	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Small Business DI	Prescriptive based measures	RR	1.00	Some measures deemed per Prescriptive Program <sup>(2)</sup>
	All Other Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Energy Efficiency RFI	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Home Energy Report	All Savings	RR	NA	New Program - realization rates not eligible for deeming at this time
Appliance Rebate	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Res. New Construction	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time

(1) Table References are to Program Year 2 ("PY2") Individual Program Evaluation Reports

ComEd Deemed Parameters - PY5

Program	Measure Description	Gross Savings Parameter		
		Type	Value	Source
Res Lighting	Standard bulbs	ISR		TRM Based ISR
	Specialty bulbs	ISR		TRM Based ISR
	Fixtures	RR	0.87	Category level; Lighting Table 3-23
	Fixtures	HOU/day	2.57	PY3 Logger study; & PY3 Table 3-17
Appliance Recycling	Refrigerators	RR	0.90	PY3 AR report; Table E-3
	Freezers	RR	0.75	PY3 AR report; Table E-3
	Window AC Units	RR	1.00	PY3 AR report; Table E-3 - no part use adjustment
Multi-Family	CFLs	ISR		TRM Based ISR
	Water measures (electric DHW)	RR	NA	RR not consistent w/ model changes
Single Family	CFLs	ISR		TRM Based ISR
	Hot water Heater Turndown	kWh/home	188	SF Rpt. Table ES-9
	Weatherization Measures	RR	NA	New Models in use -not evaluated
	Water measures (electric DHW)	RR	0.73	Wtd Avg. Measure RR; SF Table ES-3
CACES	Tune-up Measures	RR	NA	Program being sunset - no parameters to be deemed
	Quality Installation Measures	RR	NA	
Home Energy Report	All Savings	RR	NA	New Program - realization rates not eligible for deeming at this time
Clothes Washer/ Appliance	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Joint Elementary Energy	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Joint Complete System	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Residential New Construction	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Prescriptive	Standard Measure Savings	RR	NA	RR's set to 1.0 <sup>(3)</sup>
Custom	All Measures	RR	NA	Custom realization rates not eligible for deeming at this time
Retro-Commissioning	Project Level	RR	NA	Retro-Commissioning RR not eligible for deeming at this time
C&I New Construction	Systems Track Projects	RR	0.997	System Track NTG; Table E-3
	Comprehensive & Small Bus Track	RR	NA	ComEd will not deem PY3 value as not being representative
Industrial Systems	Compressed Air	RR	NA	New Program - realization rates not eligible for deeming at this time
	Process Heating	RR	NA	
	Refrigeration	RR	NA	
Midstream Incentives	CFLs	RR	NA	ComEd will not deem PY3 value as not being representative
	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Small Business DI	Prescriptive based measures	RR	NA	Some measures deemed per Prescriptive Program <sup>(3)</sup>
	All Other Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Energy Efficiency RFI	All Measures	RR	NA	Program being sunset - no parameters to be deemed
Data Centers	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Commercial Real Estate	All Measures	RR	NA	New Program - realization rates not eligible for deeming at this time
Third Party Administration	All Programs	RR	NA	New Program - realization rates not eligible for deeming at this time

(1) Table References are to Program Year 3 ("PY3") Individual Program Evaluation Reports

# Appendix O

**Natural Resources Defense Counsel's**  
**Response to Staff of the Illinois Commerce Commission Data Requests**  
**Docket No. 13-0495**  
**Data Request Response Date: 12/3/2013**

JLH 1.02 Referring to the “Portfolio Evaluation” section of ComEd’s Plan (ComEd Exhibit 1.0, pages 108-111), do you agree that IL-TRM evaluation research should be considered a priority among the other evaluation priorities listed in the evaluation section of ComEd’s Plan? Please explain the basis of NRDC’s position.

**Response:**

I agree that collecting information to update TRM assumptions should be one of several priorities for future Com Ed evaluation efforts. TRM assumptions are an important component of efficiency program savings estimates and, as a result, should be updated periodically – particularly for measures that generate substantial amounts of savings and/or for which there are reasons to believe that current assumptions may be out of date.

That said, the relative importance of TRM assumption research – i.e. how it ranks relative to other priorities such as NTG research, process evaluation, program-level realization rate development and potentially other priorities – will vary from program to program and from time to time. As noted in my rebuttal testimony, in some cases (i.e. for some measures and programs), it might be the most valuable use of evaluation dollars; in other cases, it might be far down the priority list.

Person Responsible for Response: Chris Neme