

# **Smart Grid Advanced Metering Annual Implementation Progress Report**

**Submitted by:  
Commonwealth Edison Company**

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## I. INTRODUCTION AND OVERVIEW

ComEd presents this Annual Implementation Progress Report (“Report” or “AIPR”) of its Smart Grid Advanced Metering Infrastructure (“AMI”) Deployment Plan (“AMI Plan” or “Plan”) to the Illinois Commerce Commission (“Commission” or “ICC”). ComEd’s original proposed AMI Plan was filed on April 23, 2012 in ICC Docket No. 12-0298. The Commission entered an Order approving ComEd’s AMI Plan with certain modifications on June 22, 2012 in ICC Docket No. 12-0298 (“June 2012 Order”). ComEd filed a modified AMI Plan in compliance with the June 2012 Order on July 13, 2012 (“Modified AMI Plan”). On October 3, 2012, ComEd submitted a revised Modified AMI Plan on rehearing in ICC Docket No. 12-0298 (“Revised AMI Plan”). The Revised AMI Plan was approved by the Commission in its Order on Rehearing in ICC Docket No. 12-0298 dated December 5, 2012 (“December 2012 Order”). On April 1, 2013, ComEd submitted the 2013 AIPR, which included certain updates to the Revised AMI Plan. On April 9, 2013, the ICC opened Docket No. 13-0285 to investigate the AIPR. After the passage of PA 98-0015, the ICC entered an Interim Order on June 5, 2013 approving an accelerated deployment schedule in conformance with the new law. The 2013 AIPR was approved in the final Order entered on June 26, 2013 (“2013 AIPR Order”).

This Report summarizes the activities and achievements accomplished in 2013 and the activities and goals planned for 2014 in the areas of AMI Operational Deployment, Customer Applications, Customer Outreach and Education, and Metrics and Milestones.<sup>1</sup> There are five numerical attachments to this Report that are referenced in the Metrics and Milestones section. Additionally, there are six appendices to this Report. Appendix A addresses issues and topics beyond those specified for inclusion in this Report by Section 16-108.6(e) of the Public Utilities Act (“PUA”),<sup>2</sup> that the Commission originally directed ComEd to submit with its 2013 AIPR, and that ComEd has voluntarily chosen to update in this AIPR for informational purposes only. Appendix B is the first Biannual Report required by ComEd’s Rider NAM -Non AMI Metering (“Rider NAM”). Appendices C and D contain changes to the Revised AMI Plan in legislative “redline” and clean form, respectively, to reflect updates for the deployment schedule approved in the Interim Order entered on June 5, 2013 in ICC Docket No. 13-0285, to provide additional detail as discussed in this AIPR regarding the vision and goal for ComEd’s planned activities to facilitate customer applications, and to correct some minor typographical errors.

On March 13, 2014, ComEd filed a petition with the Commission seeking approval to accelerate the deployment of AMI meters. That petition is pending in Docket Nos. 14-0212, 13-0285, 12-0298 (Cons.) (“Deployment Acceleration Proceeding”). Since the outcome of that petition is

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<sup>1</sup> This Report refers to various systems, standards, groups, teams, organizations, and processes described in more detail in the Revised 2013 AMI Plan. While acronyms used in this Report are defined when introduced, readers can refer to the Revised 2013 AMI Plan for more detailed information and background on such terms and acronyms.

<sup>2</sup> 220 ILCS 5/16-108.6(e)

uncertain at this time, this AIPR will discuss the activities and goals for 2014 under both the currently approved deployment schedule and under the proposed accelerated deployment schedule currently under review in the Deployment Acceleration Proceeding. Appendices E and F show changes to the updated Revised AMI Plan in legislative “redline” and “clean” form, respectively, to reflect the incremental updates to be made if the Commission approves the proposed accelerated meter deployment schedule currently under review in Docket Nos. 14-0212, 13-0285, 12-0298 (cons.).

### **Operational Deployment**

In 2013, ComEd’s AMI team accomplished several project activities in the Operational Deployment area, including: (1) the evaluation and selection of key professional service providers and technology solutions; (2) the foundational activities of a Project Management Office (“PMO”) under the direction of the AMI Vice President, which is responsible for providing management and oversight to the AMI Program; (3) the development of plans and strategies for the full service territory AMI deployment that began in 2013; (4) the planning and implementation of high-priority system enhancements and business process redesigns that focus on the deployment and operation of additional AMI meters and the development of core business processes; and (5) development of an AMI call center focusing on customers’ AMI inquiries, appointment setting and meter Delay Lists.

In 2014, the AMI team plans to complete a number of operational objectives, including: (1) complete the technical architecture and Meter Data Management System (“MDMS”) replacement work; (2) ramp-up business process design work; (3) continue the planning of field deployment and cross dock operations; (4) complete the implementation of system enhancements and processes to continue the improvement of system operations; (5) continue the use of data analytics tools and processes to improve the effectiveness of revenue protection and the system operations; and (6) implement Rider NAM, approved by the ICC in Docket No. 13-0552 on February 5, 2014 (“Meter Refusal Docket”).

### **Customer Applications**

In 2013, the AMI team also accomplished a number of key Customer Applications activities, including: (1) the development of the Peak Time Rebate (“PTR”) program, which has been renamed the Peak Time Savings (“PTS”) program; (2) the provision of provisional access for all residential customers to the web portal that securely provides them with their detailed account information; (3) the completion of research regarding technologies enabled by AMI that could directly touch customers; and (4) the development of a partnership with Whirlpool Corporation (“Whirlpool”) in support of the proposed regional launch of smart appliances in ComEd’s service territory.

The AMI team has a number of Customer Applications goals planned for 2014, including: (1) the development of technology research on Direct Load Control (“DLC”) devices in preparation for a 2014 DLC pilot; (2) the commencement of design work on the web portal to provide customers with increased access; (3) the renewal of technology research; (4) the continuance of the partnership with Whirlpool; and (5) the upgrade and replacement of systems to accommodate the

lifting of the 15,000 customer cap under Rider RMUD – Residential Meter Usage Data (“Rider RMUD”) in 2015.

### **Customer Outreach and Education**

In 2013, the AMI team conducted Customer Outreach and Education programs related to AMI and its associated benefits, including: (1) the provision of general information to customers in order to educate them regarding the uses and benefits of AMI meters through programs such as the Smart Youth Ambassador Program and ComEd.com; (2) the research-driven development and external stakeholder feedback of a staged messaging program intended to provide customers with general information and education in a timely manner; (3) the customization of education programs to fit specific customer segments as identified by demographic data; and (4) the development of financial assistance programs, also known as ComEd Administering Relief on Energy (“CARE”) programs, designed to assist low-income customers with the payment of their utility bills.

The AMI team has a number of goals for 2014 related to the development of Customer Outreach and Education programs, including: (1) the continuing focus on general customer education and an effort to provide information on the use and benefits of AMI meters; (2) the refinement and use of the staged messaging system to provide information to customers related to the smart grid and AMI meters, CARE programs, energy efficiency, and alternative provider options; (3) the development of staged messaging to utilize direct mail and community events; (4) the on-going customization of education programs to fit specific customer segments as identified by demographic data; and (5) the on-going development of financial assistance programs designed to assist low-income customers.

### **Consultation with Smart Grid Advisory Council (“SGAC”)**

As required by Section 16-108.6(e) of the PUA, 220 ILCS 5/16-108.6(e), ComEd consulted with the SGAC regarding this AIPR. ComEd provided a complete draft of the AIPR to the SGAC in advance of its March 7, 2014 meeting. ComEd also made a presentation on its AIPR at that meeting, and personnel were present that were knowledgeable on each relevant subject. The SGAC offered no written or formal comments on the AIPR.

### **Accelerated Deployment**

The accelerated deployment schedule being proposed by ComEd in the Deployment Accelerated Proceeding will increase the number of AMI meters to be deployed in 2014 from 160,000 to 500,000. It will also increase the amount of network devices, such as access points and relays, that will need to be deployed. However, other than increasing the scope of other activities and goals planned for 2014, there would be no other substantive changes to the actual activities and goals that are currently planned.

### **AMI Plan Revisions**

The edits to implement the updates to the Revised AMI Plan as discussed above are contained in Appendices C, D, E and F, which are attached to this AIPR.

## **II. AMI OPERATIONAL DEPLOYMENT**

### **A. 2013 Activities and Accomplishments**

The following section highlights the project work that was accomplished by ComEd in 2013. This includes key activities in the areas of Procurement, the Project Management Office (“PMO”), AMI Network and Meter Deployment, AMI Operations, Customer Experience, AMI Information Technology (“IT”), Business Transformation, and Change Management.

#### **1. Procurement**

ComEd made progress on procurement activities throughout 2013. One of the key activities completed was the selection of a Change Management Vendor for the planning and execution of efforts to support organizational readiness for AMI, including communication, coordinated training efforts and close partnership with the business process design team. ComEd also selected vendor partners that will provide ongoing project management services for the overall AMI Program and the AMI IT work stream. Additional procurement activities took place across the project throughout the year in the support of ongoing deployment and back office activities.

#### **2. Project Management Office**

A major accomplishment of the PMO was a redesign of the AMI organizational structure. The previous virtual project structure was replaced with a centralized structure, consisting of three core functions (AMI Deployment, AMI Customer Strategy, and Business Transformation) reporting to a dedicated ComEd Executive with overall management responsibility and accountability for the program. Over the course of 2013, the PMO also continued to execute the core function of ongoing management of scope, schedule, budget, issues and risks.

#### **3. AMI Network and Meter Deployment**

ComEd safely and successfully launched AMI Network and Meter Deployment in 2013, completing all 2013 work with no Occupational Safety and Health Administration (“OSHA”) recordables. The AMI Network was designed and built in the initial deployment area of Maywood, which included the installation of 21 access points (“APs”) and 36 relays, which was the planned target. Over the course of 2013, 70,882 meters were deployed in Maywood, which was above the target of 60,000. Including the AMI Pilot, as of December 31, 2013, the total number of AMI meters deployed in the ComEd service territory was 198,740.

Following Maywood, the next Operating Center planned for deployment is Chicago South. In 2013, the AMI Network and Meter Deployment team was active within the Chicago South footprint, including development of the design of the first component of the AMI network and the deployment of 39 APs and 3 relays, which was the planned target. Meter deployment began in this area in February of 2014.

Throughout 2013, new processes were developed to improve meter installation in three specific areas. First, processes were developed and launched to improve the existing condition of the customer-owned meter fittings and associated equipment. Second, the quality and timeliness of

completing required electrical repairs discovered during the installation process were improved by establishing the efficient coordination and execution of repair work completed by ComEd-hired electricians. Third, a series of field and back-office processes were established to improve the quality of meter exchanges and the processing of orders through the computer systems. Along with process improvements, the team continued to refine and execute the complex planning efforts associated with deployment, including completion of the detailed 2014 plan.

#### **4. AMI Operations**

The AMI Operations team supported the initial launch of meter deployment in September, and continued to manage and operate the growing population of AMI meters and network devices. Additionally, the AMI Operations team, in conjunction with AMI IT, supported the launch and operation of the upgrade to UtilityIQ (“UIQ”), the Silver Spring Networks (“SSN”) AMI head-end system for AMI network monitoring and operations.

#### **5. Customer Experience**

The Customer Experience team successfully designed and launched a specialized AMI deployment call center in 2013. This group of dedicated customer service representatives focuses on customer inquiries related to the deployment of AMI, including the appointment setting process for meter installation. The team also established and rolled out a ‘Delay List’ process for customers that did not wish to receive an AMI meter, which is now being adapted to align with the ICC order entered in the Meter Refusal Docket.<sup>3</sup>

#### **6. AMI Information Technology**

The AMI IT team had numerous accomplishments throughout 2013, including the delivery of tactical system improvements in the form of two separate IT system releases. These releases enhanced functionality and improved business processes in the areas of AMI Operations, AMI Deployment, and AMI Customer Experience. The AMI IT team also drove the upgrade of UIQ, the SSN AMI head-end system for AMI network monitoring and operation. Additionally, the AMI IT team completed the technical architecture design and initial build-out of the system components and points of integration tied to the MDMS implementation, scheduled for completion in August of 2014.

An AMI IT-focused project management function was also established in 2013 for the ongoing monitoring of scope, schedule, budget, issues, and risks. Lastly, the team worked closely with the Business Transformation team in the process and system design for the future-state AMI operating environment.

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<sup>3</sup> The Delay List was established pending the approval of Rider NAM in Docket No. 13-0552; Rider NAM was approved by the Commission on February 5, 2014. *See* Docket No. 13-0552 (final Order, Feb. 5, 2014).

## **7. Business Transformation**

In 2013, the Business Transformation team was focused on the facilitation of internal business process workshops. These workshops concentrated on the identification of gaps and risks for initial launch of AMI deployment, and the design of future-state business processes. In total, 216 workshops were conducted, 12 as-is processes were documented, and 12 to-be processes were designed, which were all on-target according to the established plan for the year.

Additionally, the team implemented Architecture of Integrated Information Systems (“ARIS”), the business process analysis system that will retain and manage business process documentation. This system will also support the development and tracking of AMI business and technical requirements, the initial set of which were identified over the course of the year in coordination with the AMI IT team.

## **8. Change Management and Business Readiness**

In 2013, AMI change management activities kicked off in July with a planning effort and the selection of an external partner through a competitive bidding process. In September, activities began in earnest with a focus on near-term employee communications and operating area readiness as residential AMI meter installations prepare to complete in the pilot operating area (Maywood) in early 2014 and begin for the first time in our Chicago South operating area.

### **B. 2014 Activities and Goals**

The following section highlights the project work that is planned to be completed by the AMI team in 2014.

#### **1. Under the Currently Approved Deployment Schedule**

##### **a. Procurement**

ComEd will continue to make progress on procurement activities throughout 2014, including the increased purchase of AMI meters, network equipment, and supporting vendor services tied to the deployment volume increase to 160,000 meters. Additional procurement activities include the selection of a long-term electrician repair partner for full deployment, and a service provider for the completion of retro-fits tied to A-base meter installations.

##### **b. Project Management Office**

In 2014, the PMO will be focused on the ongoing management of the program scope, schedule, budget, issues and risks. Additionally, the team will be responsible for overseeing the 2015 plan for AMI deployment.

##### **c. AMI Network and Meter Deployment**

The AMI Deployment team will be responsible for the safe deployment of network devices and AMI meters in two ComEd Operating Centers:

Maywood Operating Area:

- No additional APs or relays are needed in 2014 at this time based on the completed design.
- An additional 30,000 meters will be installed in Maywood, thereby completing the residential component.

Chicago South Operating Area:

- An estimated 35 APs and 4 relays are planned to be installed.
- Installation of 130,000 AMI Meters is planned.

The team will also be responsible for developing the detailed plan for the deployment of AMI network devices and meters in 2015, which ramps up to 680,000 per the currently approved plan.

**d. AMI Operations**

In 2014, the AMI Operations team will continue to manage and operate the growing population of AMI network devices and meters. The currently approved plan calls for an additional 160,000 meters to be installed, which the team will assume responsibility for once they are activated over the course of the year.

**e. Customer Experience**

The Customer Experience team will continue to support customer inquiries, schedule meter installation appointments, and handle escalated customer issues. The team will also implement the AMI meter refusal process, as approved by the ICC in Docket No. 13-0552.

**f. AMI IT**

In 2014 the AMI IT team will focus on completing the implementation of the new MDMS. This team will also be driving the launch of the Peak Time Savings enrollment system, as described in Chapter 3 of the AMI Plan, leading the UIQ upgrade, and continuing to develop a roadmap for the integration of the outage management system with AMI technologies. The AMI IT team will also be driving the prioritization, design, and build-out of future business enhancements to leverage the MDMS and supporting AMI systems based on the business process requirements provided by the Business Transformation team.

**g. Business Transformation**

The Business Transformation team will continue to focus on the facilitation of internal process workshops in 2014. These cross-functional workshops will drive the design of future-state business processes that will transform day-to-day operations by leveraging improved AMI technologies. The team will continue to work closely with the AMI IT team in the identification of business and technical requirements that will be incorporated into future system and process design.

**h. Change Management and Business Readiness**

Throughout 2014, the focus of Change Management activities will be on developing and delivering communications and training materials to drive awareness and to prepare and train impacted employees with the tools to effectively do their job in a new and changing environment. Specifically, identified employees include field employees that encounter AMI meters as part of normal business in the Chicago South and Maywood operating areas and employees in the back-office functions such as the Care Center and Billing.

**i. Budget Update**

The section below compares the updated spend profile for the 10-year AMI deployment under the currently approved plan<sup>4</sup> with the budget values from the 2013 AIPR. The charts contain both Budget values and the associated variances for capital (“Capital”) and operation and maintenance (“O&M”) projections.

Capital (\$M)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
<b>2013 AIPR</b>	0.3	3.8	36.7	163.5	176.9	161.1	141.4	107.5	82.3	62.3	935.9
<b>Updated Budget</b>	0.3	42.6	82.7	163.4	157.6	144.5	141.4	72.3	67.9	63.1	935.8
<b>Variance</b>	0	-38.8	-46.0	0.1	19.3	16.6	-0.0	35.2	14.4	-0.8	-0.1

O&M (\$M)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
<b>2013 AIPR</b>	18.4	23.1	30.6	37.2	43.9	45.9	51.8	55.5	54.1	56.9	417.4
<b>Updated Budget</b>	18.4	29.3	35.9	40.8	46.4	48.0	51.2	46.2	49.2	51.9	417.3
<b>Variance</b>	0	-6.2	-5.3	-3.6	-2.5	-2.1	0.6	9.3	4.9	5	0.1

The annual fluctuations in capital are attributable to the change in the meter deployment schedule that was not planned nor approved at the time of the filing of 2013 AIPR in April 2013. The annual fluctuations in O&M are also attributable to the change in the meter deployment schedule, as well as to the operating costs tied to having more meters installed sooner.

**2. Under the Proposed Accelerated Deployment Schedule**

In the Deployment Acceleration Proceeding, ComEd is proposing to deploy 500,000 meters in 2014, compared to the 160,000 meters in the current plan. Additionally, ComEd is proposing to complete the entire deployment of over 4 million AMI meters throughout the ComEd service territory by the end of 2018, which is three years sooner than the currently planned completion of 2021.

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<sup>4</sup> See the Interim Order entered on June 5, 2013 in Docket No. 13-0285.

Under the accelerated plan, the network and deployment scope is as follows:

Maywood Operating Area:

- No change compared to the current plan of 30,000 meters

Chicago South Operating Area:

- An estimated 69 APs and 7 relays would be installed, compared to the 35 APs and 4 relays required under the current plan.
- A total of 261,000 AMI Meters would be installed via two separate cross docks, launched in February and September, respectively, compared to 130,000 meters out of a single cross dock in the current plan.

Glenbard Operating Area:

- An estimated 56 APs and 67 relays would be installed; under the current plan, Glenbard network deployment would require the same estimated device counts, but would start later in the year.
- A total of 173,000 AMI meters would be installed, from May through November; under the current plan, meter deployment does not begin in Glenbard until 2015.

Mount Prospect Operating Area:

- The estimated number of APs and relays will be determined once the engineering design is complete in 2014; under the current plan, Mount Prospect network engineering design would not take place until 2015.
- A total of 35,000 AMI meters would be installed, from November through December; under the current plan, meter deployment does not begin in Mount Prospect until 2015.

Acceleration of deployment also has an impact on a significant set of procurement activities. Due to the increased volume of deployment, supplementary labor will be required, in the form of a meter installation vendor. Specific activities required will include gathering and prioritizing ComEd requirements, assessing potential vendors based on capability and price, selecting the vendor(s) that best fits the desired ComEd and EIMA criteria, and completing contract negotiations.

Deployment acceleration also impacts other areas of the project, but the 2014 activities outlined above do not fundamentally change. Planned adjustments based on deployment pace, quantity of meters and devices installed, and the impact on a larger number of employees and customers would be accounted for within each team's plans, but significant changes to scope and schedule are not anticipated.

The overall spend profile of the project does change as a result of accelerated deployment. The table and subsequent variance explanation below outline those changes:

Capital (\$M)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Current <sup>5</sup>	0.3	42.6	82.7	163.4	157.6	144.5	141.4	72.35	67.9	63.1	935.8
Accel.	0.3	42.6	154.8	195.8	196.1	187.4	149.9	2.9	3.5	3.6	936.9
Variance	-	-	-72.1	-32.4	-38.5	-42.9	-8.5	69.4	64.4	59.5	-1.1

O&M (\$M)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Current	18.4	29.3	35.9	40.8	46.4	48.0	51.2	46.2	49.2	51.9	417.3
Accel.	18.4	29.3	48.9	50.9	56.1	58.8	67.1	44.6	46.4	47.3	467.8
Variance	-	-	-13	-10.1	-9.7	-10.8	-15.9	1.6	2.8	4.6	-50.5

As shown in the tables above, the total Capital Cost requirement of the currently approved plan and the accelerated plan has slight variation over the 10-year project period. The annual spend requirement has some variation, tied primarily to the meter deployment volume differences, and associated purchasing and staffing profiles. The O&M spend for the accelerated plan is \$50.5 million higher than the currently approved plan. This increase is primarily attributed to the operation of more meters installed sooner, which also explains the annual spend fluctuations that begin in 2014.

### III. CUSTOMER APPLICATIONS

#### A. 2013 Activities and Accomplishments

##### 1. Peak Time Savings

ComEd has made significant progress on its PTS<sup>6</sup> program, which it plans to launch in the fall of 2014. On February 21, 2013, the ICC entered an Interim Order in ICC Docket No. 12-0484 (“PTR Order”) that approved ComEd’s Rider PTR - Peak Time Rebate (“Rider PTR”) with certain modifications. The most significant modification was the Commission’s order for ComEd to design a DLC pilot and to submit a proposal for such a pilot along with supporting testimony to the Commission by February 1, 2014 to review for approval.<sup>7</sup>

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<sup>5</sup> These long-term budgeted amounts represent the best forecasted costs currently available to ComEd and are subject to updates and revisions as actual costs and additional information become available.

<sup>6</sup> ComEd plans to market the program described in Rider PTR as the PTS program. Any reference to “Peak Time Savings” or “PTS” in this or subsequent documents refers to the program being developed under Rider PTR.

<sup>7</sup> Interim Order, pp. 30-1.

Throughout the summer and fall months of 2013, ComEd met with stakeholders and the SGAC to discuss and develop many elements of the PTS program. ComEd presented stakeholders with its analysis of the Customer Baseline Methodology (“CBL”) that it was considering proposing to use to calculate rebates for customers. ComEd commissioned Freeman Sullivan Group (“FSG”) to analyze hundreds of CBL methodologies that other utilities had used for their demand response programs. Based on the FSG analysis, ComEd discussed the use of the Temperature Humidity Index method with stakeholders.

Additionally, ComEd discussed its continued work on the IT, marketing design and implementation aspects of the PTS program with stakeholders. Work focused on designing the enrollment system and marketing campaigns that will launch in the fall of 2014, enabling customers to enroll in the first season of events in the summer of 2015. Lastly, ComEd also reviewed potential options for DLC pilot program designs with stakeholders.

After reviewing plans with stakeholders, ComEd submitted a Request for Proposals (“RFP”) for various elements of the DLC Pilot including: hardware, software, installation, marketing, and measurement and verification. After reviewing RFP responses from vendors, ComEd designed a program with the primary focus of assessing the impact of the offering of enabling technology on customer enrollment in the PTS program and on the magnitude of demand response. ComEd finalized the DLC pilot design, and submitted its proposal, along with supporting testimony, on January 31, 2014 as required by the Interim Order. The proposal is currently being considered by the Commission in Docket No. 12-0484.

Lastly, ComEd helped educate stakeholders on its participation in the PJM Capacity Market, which will be necessary in order for ComEd to raise revenue for the PTS program. ComEd participated in the first Incremental Auction (“IA”) for the PJM Capacity Market for the 2015/16 Delivery Year (“DY”), which was held on September 9, 2013. ComEd cleared approximately 5.2 megawatts (“MW”) of capacity for PTS in this auction, which at the auction price of \$43/MW-day will enable ComEd to call approximately ten hours of events in the summer of 2015.

## **2. Web Portal**

Throughout 2013, ComEd continued to provide all residential customers with access to the My Energy Tools web portal through their ComEd.com account via a single sign-on process. My Energy Tools is a suite of online tools that provides customers with detailed information regarding their personal energy usage. Customers can use that information to manage their home energy consumption to achieve cost savings. In addition, ComEd continues to support the Green Button feature, which allows a customer to download a report of their meter usage data based on a customer-specified time frame. This data can also be downloaded in a format that is easily uploaded to third party applications.

In March 2013, ComEd launched Unusual Usage Alerts through the My Energy Tools web portal. Unusual Usage Alerts are available by automated phone call or email and are triggered when a customer is on-track to use 30% more energy than they typically do in a billing period. This alert is based on a customer’s actual usage at points during a billing period and projected to the end of that period. Not only do these alerts warn customers of a possible high bill, but they

also allow customers enough time to potentially adjust their behavior to reduce energy usage prior to receiving their bill.

In addition, in September 2013, ComEd launched Weekly Energy Breakdown emails through My Energy Tools. This feature allows customers to sign-up for a weekly email to allow them to track and manage their usage throughout the month without having to log in to their account. The email features the prior week's usage details and analytics along with ways to save.

### **3. Technology and Customer Research**

In 2013, ComEd continued its extensive primary and secondary research of technologies enabled by Smart Grid that could directly touch customers. A significant amount of this research was conducted as part of the DLC program design, which included evaluations of central and window air conditioner load switches and programmable communicating thermostats ("PCTs"). Additionally, ComEd conducted primary and secondary research on the customer energy storage market in its territory. ComEd also continued its ongoing assessments of PCTs, in-home displays ("IHDs") of real-time electricity usage, and other connected appliances. The results of the research conducted provided ComEd with insight into shaping the proposed DLC pilot ComEd intends to launch in the fall of 2014 and conduct in the summer of 2015.

Lastly, ComEd continued to work with Whirlpool and other connected "smart" appliance vendors through the installation of such appliances in the four Smart Grid Home Showcase premises. In addition to the Whirlpool appliances, Smart Grid Home Showcase premises feature solar panels and battery storage equipment, a Nest PCT, and an IHD. These premises also demonstrate how the AMI network enables these technologies that help customers save money, improve reliability, and be more environmentally sustainable.

#### **B. 2014 Activities and Goals**

##### **1. Under the Currently Approved Deployment Schedule**

###### **a. Peak Time Savings**

As mentioned above, ComEd filed its proposal for executing a DLC pilot in conjunction with the PTS program on January 31, 2014. Based on the speed of the approval process and the extent of any modifications required to ComEd's proposal, ComEd will spend the remaining portion of 2014 designing and implementing the DLC pilot in conjunction with the PTS program. ComEd plans to offer enrollment and to begin marketing the PTS program to residential customers with AMI meters starting in the fall of 2014. Depending on the timing of the DLC pilot approval, ComEd may also start enrollment for that pilot at the same time.

Additionally, ComEd plans to bid into the PJM capacity market Base Residual Auction for the DY 2016/17 in April of 2014.

**b. Web Portal**

In 2014, ComEd will launch a new mobile-friendly version of the Weekly Energy Breakdown emails. In addition, My Energy Tools will be more fully integrated into the customer's ComEd.com account. Along with this integration, ComEd will integrate My Energy Tools functionality into the ComEd mobile app and site for mobile device access. At that time, ComEd will also work to open a text message channel, in addition to the currently available automated call and email options, for Unusual Usage Alerts. Further, ComEd will also work to enable the next phase of the Green Button feature called Green Button Connect. Green Button Connect builds upon the Green Button Download feature and allows authorized 3rd party providers (requiring authorization by the customer) to directly receive a customer's meter usage data based on a specified time frame.

**c. Technology and Customer Research**

In 2014, ComEd will continue to review technology research on a regular basis and complete updates as the vendor landscape evolves. In addition, ComEd will continue to build out its AMI Customer Applications Lab and use it for the testing and evaluation of new customer equipment enabled by the AMI network.

**d. Provision of Customer Interval Data**

As discussed in Appendix A, in 2013 the ICC approved ComEd's Rider RMUD – Residential Meter Usage Data ("Rider RMUD").<sup>8</sup> This tariff established a pilot program whereby ComEd would provide a customer's hourly interval data to a Retail Energy Supplier ("RES") for each customer that the RES enrolled in a time-of-use ("TOU") rate or on a demand response ("DR") product. Due to current system constraints, this pilot program had a limitation of 15,000 customers.

During 2014, ComEd will be upgrading and replacing certain facilities, equipment and systems in order to eliminate the current cap in Rider RMUD by May 1, 2015. Initially, ComEd will build the capacity to accommodate the projected increase in RES customers on TOU or DR products, as discussed in ICC workshops. ComEd will work closely with workshop participant in the coming year, and thereafter, to understand demand and make prudent and appropriate investments to incrementally add capacity that is used and useful.

Among the activities planned for 2014 are:

- Technical improvements to the current production retail market systems;

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<sup>8</sup> See Appendix A to this AIPR, section III(B)(2) at A-5.

- Changes to the electronic data interchange (“EDI”) system and other downstream technologies to allow for EDI enrollment and un-enrollment (814 transactions) and hourly intervals (867 transactions);
- Replacement of the AMI pilot MDMS and related modifications to related systems and interfaces;
- Internal systems and process testing; and
- Developing plans for testing these modifications with suppliers, and, if time permits, begin testing.

The new and upgraded systems are being designed to accommodate requests for customer interval data under Rider RMUD or any additional or successor tariffs. While ComEd is planning the above activities in anticipation of lifting the 15,000 cap under Rider RMUD by May 1, 2015, the activities planned and the target date are contingent on being able to establish the requirements to support RES enrollments under Rider RMUD early in the second quarter of 2014. ComEd is currently engaged in workshops with the RES to come to terms with those requirements.

In addition, pursuant to workshop discussions, ComEd expects to continue working with stakeholders through workshops later this year to explore costs, benefits and feasibility of additional data support services to enable additional RES service offerings, including:

- On-Demand requests for interval data or other Supplier Portal type capabilities;
- Requests for historical interval data;
- Current hourly interval data through any other channel than EDI;
- Interval data in increments smaller than one hour; and
- Delivery of bill-quality interval data other than at the time of bill creation.

Finally, ComEd will begin to explore the use of interval data in the wholesale settlement process for residential and small commercial customers that are not billed with interval data (i.e. non-Rider RMUD customers with AMI meters).

**e. Focusing on the Value Delivered to Customers from the Deployment of AMI**

ComEd recently launched an initiative, framed around the concepts described in the Revised AMI Plan Chapter 3 – Customer Applications, to emphasize the benefits and value customers receive from the AMI deployment. ComEd believes it is in a position to establish itself as a leader in setting the vision of an AMI-enabled customer and to clearly articulate these messages to its customers. Further, ComEd believes its role will vary by each product or service and will be aligned to one of these five strategies:

- Enable – support third party development of new applications (products/services) that run on the ComEd platform. ComEd will enable this in a variety of ways – e.g. providing data, or technology (test bed);

- Partner – work with third parties to demonstrate their products and services;
- Facilitate – make it easy for customers to find and make use of third party products and services that are compatible with the ComEd AMI network. For example, we could adopt the approach used by San Diego Gas & Electric Company, which is to provide a consumer’s guide to in-home devices on the company’s website;
- Promote – actively market programs that are available in the market that can benefit ComEd customers;
- Deliver – ComEd designs and delivers projects (i.e. PTS, demand response, energy efficiency).

In addition, ComEd intends to establish a “Co-Creation” process to engage customers and third parties in enablement of new products and services. In 2014, we intend to sponsor one or more design competitions for products and services that can help hard-to-reach customers access the value of the AMI network.

As stated previously, ComEd has committed to delivering a number of products and services in 2013 – 2014 that directly deliver value to customers derived from the AMI Implementation. ComEd is actively looking to expand the number of products and services offered in 2014, having identified over 75 products or services that could be enabled, offered through partnership, promoted or delivered. Of this inventory, ComEd is exploring an initial set of approximately 20 products and services for potential development through partnerships, promotions, or direct delivery that will have a meaningful impact across the various ComEd customer segments. ComEd is currently reviewing the initial set, developing project charters, identifying partnerships and establishing a 2014 release schedule for these products and services.

## **2. Under the Proposed Accelerated Deployment Schedule**

Acceleration of deployment impacts the scope of the 2014 Customer Application activities, but the 2014 activities outlined above do not fundamentally change. The primary impact will be to the number of customers to whom the DLC Pilot is offered and marketed, but significant changes to scope and schedule are not anticipated.

## **IV. CUSTOMER OUTREACH AND EDUCATION**

In 2013, the AMI team conducted Customer Outreach and Education programs related to AMI and its associated benefits, including: (1) the provision of general information to customers in order to educate them about the uses and benefits of AMI meters through programs such as the Youth Ambassador Program and ComEd.com; (2) the development of a staged-messaging program that provides customers with awareness information and education utilizing results from market research activities and feedback from external stakeholders; (3) the development of messaging and communication for those specifically scheduled for AMI deployment; (4) the customization of education programs to fit specific customer segments as identified by demographic data; and (5) the development of financial assistance programs, also known as ComEd’s CARE programs, designed to assist low-income customers with the payment of their

electric bills. The AMI team has a number of goals for 2014 related to the development of Customer Outreach and Education programs, including: (1) the continuing focus on general customer education and an effort to provide information on the use and benefits of AMI meters; (2) the continued use of research to enhance customer outreach efforts; (3) the on-going use of staged-messaging to support deployment; (4) the on-going customization of education programs to fit specific customer segments as identified by demographic data; and (5) the on-going development of financial assistance programs designed to assist low-income customers.

## **A. 2013 Activities and Accomplishments**

### **1. Customer Education and Awareness**

Throughout 2013, ComEd continued to provide customers with general information to build awareness and educate them about what AMI meters are and the associated benefits.

Channels included localized community events at summer festivals (such as Taste of Melrose Park, Fiestas Patrias in Cicero, and North Lake Days), high school sporting events (such as Westchester Tip Off Classic Basketball Tournament, Norridge Park District Basketball Games, and Franklin Park Thunder Soccer) and street teams (trained personnel that interact with customers in high-foot traffic areas); printed collateral such as brochures and videos; and online channels including emails, ComEd.com and social media. ComEd continued with teacher partnerships by offering online curriculum and free field trips to the Rockford Training Center where participants learned about “what energy is all about and how energy is changing to improve the way we work and play”. These field trips were offered to students ranging from kindergarten through high school and to senior citizen groups.

ComEd also increased the participation in the Youth Ambassador program, from 70 students in 2012 to 106 students in 2013, by working with After School Matters. Students completed curricula about energy management, how electricity works, and the smart grid and AMI meters. The youth became advocates of the new technology and educated the public on smart grid, AMI meters and energy efficiency. They demonstrated understanding of ComEd’s grid modernization plan through various mediums such as visual art, digital media or design. Youth had opportunities to meet engineers and industry leaders that work in energy facilities throughout Chicago.

Through all of these channels, ComEd focused its education efforts on specific actions that all customers can take, regardless of whether customers have AMI meters, to better manage their energy usage. ComEd’s customer education broadly addressed energy management, including AMI meter information, as well as ComEd’s CARE programs, energy efficiency programs and tips, Residential Real Time Pricing (“RRTP”), and other tools available to ComEd customers to manage their electric bills such as My Energy Tools. These tools include mobile applications and videos that instruct customers on practical cost savings tips such as turning off lights, programming their thermostats, and adjusting the temperature of their refrigerator.

Moreover, ComEd sought to enhance the customer experience by providing actionable, easy-to-access information and by using the guiding principles outlined in ComEd’s Modified AMI Plan

to facilitate customer engagement. For example, at local events, ComEd communicated how to utilize My Energy Tools to access customer-specific information to reduce their energy usage and lower their electric bills. ComEd also demonstrated how My Energy Tools offered enhanced features to customers with AMI meters, including high-usage alerts and weekly emails that summarized daily usage that can help them manage their electric bills.

ComEd also demonstrated the benefits of AMI meters by showing customers how smart technologies utilize AMI meter data. In late 2012, ComEd announced the Smart Home Showcase Contest to identify four customer homes that would receive a smart-appliance and smart-technology makeover. The contest targeted homeowners who had AMI meters already installed. Contestants submitted essays and photos explaining why their home should be selected, and how they might make a great ambassador for the smart grid. Each home won a smart fridge, dishwasher and range, a smart clothes washer and dryer, a Nest learning thermostat, an in-home energy usage display, and a rooftop electricity generating solar panel with back-up battery storage (one home elected to not have the solar panel technology installed at their residence). Throughout the second half of 2013, the winning families leveraged social media to regularly communicate about the impact these smart technologies had on their lifestyle – and their electric bill. Several videos were also created and posted to social media platforms to help customers see the technologies in action and understand the benefits. ComEd also regularly re-tweeted or re-posted the families’ social media comments on ComEd’s own Facebook and Twitter pages. Information was also regularly shared through ComEd’s monthly newsletter, *Energy@Home*.

ComEd also utilized municipal outreach channels to inform municipal leaders about the educational events and to update them on how their residents can realize the benefits of AMI meters. ComEd did so through the use of a toolkit that included fact sheets, brochures and deployment communications. External affairs managers met with municipal leaders to discuss AMI program details, including when AMI meter deployment will occur in their towns, and customer communications.

## **2. Market Research Efforts**

Research conducted in 2012 indicated low customer awareness of AMI meters as well as limited knowledge of AMI meter capabilities among customers who were aware of the AMI meter programs, such as PTS. A quantitative awareness/education tracking research study was launched in the fourth quarter of 2013. This study monitors customer awareness of ComEd’s AMI meter communications messages to assess the effectiveness of those communications in shaping attitudes and behaviors. Results will be tracked and reported regularly, with findings available later in 2014.

When meter installation began in 2013, ComEd began communicating to individual customers and communities where meters were being installed. Messaging research conducted in Spring 2013 confirmed customers had low awareness of AMI meters, as noted in the 2012 research. Customers want to know “what’s in it for me,” including factual operational details as well as specific ways the AMI meters can benefit them. Customers also want to know, after meters have been installed, what they can do with the new meter to save money and energy, such as using My

Energy Tools and enrolling in PTS. Similar to findings from 2012, customers only want detailed information once they know they would soon be having a AMI meter installed at their location. AMI program information was also tested. For example, the Peak Time Rebate name testing resulted in changing the program name to Peak Time Savings based on feedback from focus groups.

A quantitative post-installation tracking satisfaction study was initiated in December 2013. This study will be conducted throughout the meter installation timeframe. The purpose of the study is to measure and track customer satisfaction with the installation process and communications surrounding the experience. ComEd will use the findings to help calibrate activities and promote a positive customer experience. The study was launched in 4th quarter 2013. Results will be tracked and reported regularly, with findings available later in 2014.

### 3. AMI Deployment Communications

An AMI deployment communication series was developed to incorporate the aforementioned key learnings into the messaging. Per the AMI filing,<sup>9</sup> ComEd developed a staged-messaging approach for outreach and education efforts to communicate information to customers about the AMI meter installation process. After building awareness, customers are informed of the installation process, educated about how it would impact them, and engaged on how they could realize AMI meter benefits. The table below describes how ComEd initially implemented the staged-messaging approach for meter deployments in 2013.

Stage	Channel	Message
Awareness Pre-installation	<ul style="list-style-type: none"> <li>•Bill Insert</li> <li>•Direct Mail</li> <li>•Events</li> <li>•Street Teams</li> <li>•Social Media</li> </ul>	<ul style="list-style-type: none"> <li>•Awareness about smart meters and benefits</li> <li>•Awareness that meters will soon be installed in area</li> <li>•EE and CARE programs are available</li> </ul>
Inform Pre-installation	<ul style="list-style-type: none"> <li>•Pre-deployment letter</li> <li>•Phone calls</li> <li>•Events</li> <li>•Street Teams</li> <li>•Social Media</li> </ul>	<ul style="list-style-type: none"> <li>•Letter informs customer that a smart meter will be installed in the next 30-45 days</li> <li>•Automated call reminds customer of meter installation in one week</li> <li>•EE and CARE programs are available</li> </ul>
Educate Day of installation	<ul style="list-style-type: none"> <li>•Door knock at customer premise</li> <li>•Meter installation door hanger</li> <li>•"Missed you" install door hanger</li> <li>•Social Media</li> </ul>	<ul style="list-style-type: none"> <li>•Inform customer of meter installation</li> <li>•Inform that meter has been installed or "sorry we missed you" and need to reschedule</li> <li>•Educate about Energy Tools</li> </ul>
Engage Post-installation	<ul style="list-style-type: none"> <li>•Welcome Direct Mail</li> <li>•Peak Time Savings Direct Mail</li> <li>•Faith-based Events</li> <li>•Community Workshops</li> <li>•Social Media</li> </ul>	<ul style="list-style-type: none"> <li>•Educate customers about smart meters</li> <li>•Encourage participation in energy management tools and optional pricing programs</li> <li>•Educate customers about available EE and CARE programs</li> </ul>

<sup>9</sup> Revised AMI Plan at 104-5.

Detailed information on each of the communication touch points is outlined below.

a. Awareness Stage:

- i. Pre-Installation Open Houses. Coordinated by the local municipality and ComEd’s external affairs managers, open houses were scheduled at the local town hall. Speakers explained why AMI meters were being installed, how they work, and how customers can benefit from them. Typically, municipal leaders and a variety of ComEd employees were present to answer questions and address concerns. A description of CARE programs was also provided.
- ii. Pre-Installation Events. Leading up to meter installation in a particular municipality, ComEd attended local events and encouraged one-to-one dialogues with customers about the AMI meter installations scheduled for their municipality. Descriptions of CARE programs and energy efficiency (“EE”) tips were also provided.
- iii. Pre-Installation Bill Insert. Sent prior to meter installation, this insert in customer bills introduced and provided a description of AMI meters and their benefits.
- iv. Advertising. Print ads in local community publications, radio remotes and billboard/out-of-home advertising were utilized to generate awareness of meter installation planned for the local municipality.
- v. Pre-Installation Introductory Mailing. Sent prior to meter installation, this piece generated awareness about the upcoming AMI meter installation. Simple, direct language was used with a few high-level facts and minimal marketing to inform customers that AMI meters are coming.
- vi. Street Teams. Prior to meter installation, trained personnel greeted customers in high foot-traffic areas. The “street teams” interacted with customers in a short, fun, engaging way and distributed information encouraging them to visit ComEd’s website to learn more.
- vii. Website and Social Media. ComEd.com/SmartMeter was updated with information regarding AMI meter deployment schedules, electronic versions of customer communications, and Frequently Asked Questions (“FAQs”) as well as fact sheets and videos about AMI meters. ComEd.com/SmartMeter also provided customers with a direct phone number for the AMI Call Center for any questions regarding the AMI meters. CARE information and EE tips and programs were also available on the website.

b. Inform Stage:

- i. Letter and FAQs Mailing. Sent shortly prior to AMI meter installation, this mailing informed customers they will soon be having an AMI meter installed and directed them on what they needed to do to prepare. The benefits messages were provided at a very high level and the tone was informational and factual. The FAQs covered high-level information and referred customers to the website for more information.
  - ii. Automated Phone Call. Occurring shortly prior to meter installation, customers received an automated call reiterating the actions customers needed to take in a short, succinct manner.
  - iii. Website and Social Media continued to be used at this stage.
- c. Educate Stage:
- i. Doorhanger. On the day of meter installation, customers received a door knock, followed by a doorhanger left at or near their door. At this stage, customers were more likely to take action and be receptive to learning more. The doorhanger introduced customers to the new AMI meter. Benefits were mentioned briefly, with a focus on taking action, which includes looking at the meter, logging in to My Energy Tools or learning about the other programs, such as RRTP and PTS.
  - ii. Website and Social Media was also used to educate customers.
- d. Engage Stage:
- i. Post-Installation Welcome Mailing. Sent after meter installation, this mailing provided specific actions customers could take to save money and energy using the new AMI meter. Customers were encouraged to access My Energy Tools and enroll in RRTP. This mailing also referenced that PTS was coming soon.
  - ii. Post-Installation Workshops. After meter installation, workshops were held at local municipal libraries that explained to customers how they can benefit from AMI meters and answered any questions they had following meter installation.
  - iii. Post-Installation Faith-based Community Outreach. “Train the trainer” workshops were held where local community church members were trained about AMI meters and energy management and how to host coffee hours to educate their congregation members who were receiving AMI meters. Trained church members then hosted coffee hours facilitated by ComEd at local community churches. Descriptions of CARE programs and EE tips were also provided.

Leading up to, during, and following AMI meter installation, ComEd’s external affairs managers had meetings with local municipal officials and leaders to address any questions and to explain the benefits of AMI meter deployment. These meetings aligned with the aforementioned communications.

For customers whose primary language is Spanish, ComEd made Spanish-language brochures and Spanish speakers available at events and workshops. The Pre-Installation Introductory Mailing, Letter and FAQ Mailing, Doorhanger, and Post-Installation Welcome Mailing were bilingual.

Business customers received similar mailings and notifications as described above, but with information about Energy Insights Online (“EIO”), a tool for businesses that allows them to manage their electric bills, similar to My Energy Tools for residential customers.

As described above, ComEd has initiated a satisfaction study to assess how effective these communications were. ComEd will use that study to evaluate any changes to the staged messaging approach it used in 2013.

#### **4. Audience Segmented Customer Education & Awareness**

Audience segmentation is an important component of launching effective marketing efforts. In launching AMI meter outreach and education in 2013, ComEd customized education to focus on specific customer segments based on available demographic data.

##### **a. Seniors**

For seniors, ComEd created materials that will be utilized in 2014, including brochures and fact sheets that educated seniors on benefits of AMI meters and energy management that are most important to them. These topics include specific AMI meter benefits, such as eliminating nearly all estimated bills and the need for meter readers to visit their homes; how to identify a AMI meter; how to log in to My Energy Tools to manage energy usage; and no-cost energy saving tips that can be utilized immediately.

ComEd also participated in meetings with key senior community and advocacy groups to identify ways to provide seniors with energy management information as part of AMI meter deployment. Meetings were held with Illinois Department on Aging, West Suburban Senior Center and Estelle Sieb Community Center. As a result of these meetings, ComEd plans to utilize each organization’s existing marketing channels to educate seniors. These channels included in-person workshops with presentations, email and website content, as well as distributing brochures or other printed materials at events. ComEd hosted bingo and/or presentations at various community senior centers such as West Suburban Senior Center, Estelle Sieb Community Center, Meals on Wheels, and the Dan Lapinski Senior Fair. For customers who do not have the means to receive information through electronic channels, ComEd provided information in a variety of paper methods, including bill inserts via mail and brochures at community centers.

## **b. Low Income**

For economically disadvantaged customers, ComEd provided specific information about CARE programs, as well as EE tips appropriate for their homes and communities by enhancing a variety of communication methods available for low-income customers.

This information was communicated through CARE program references that are mentioned during the outgoing collection activity process, including the proactive call script (customer notification that a payment is not received), the written disconnection notice, the field notification call script (customer notification that the account will be disconnected if payment is not received) and the municipal notification of disconnections. ComEd also enhanced the incoming customer contact phone greeting and website. Additionally, ComEd implemented a variety of outreach efforts, such as participating in conferences, hosting senior luncheons with Meals on Wheels, distributing CARE information to Local Administering Agencies (“LAAs”) that administer LIHEAP, and Community and Economic Development Association (“CEDA”) offices. ComEd has built advocacy relationships with partners such as St. Vincent DePaul, Refugee One, local housing authorities, and other organizations. Throughout these efforts, ComEd communicated EE tips to help customers manage and reduce their energy use.

## **5. Financial Assistance**

Pursuant to the June 2012 Order, the Revised AMI Plan includes directives to provide assistance to customers through low-income and support programs for purposes of paying past due arrearages and avoiding disconnection.<sup>10</sup> In 2013, ComEd utilized its CARE programs to help customers who face financial hardships and have difficulty paying their electric utility bills. Through December 2013, ComEd successfully distributed funds as follows:

- \$6.3 million for Residential Special Hardship, a program designed to help eligible residential customers pay their electric bills. Customers participating in this program also received education about no-cost and low-cost ways to decrease their future electric bills.
- \$179K for Nonprofit Special Hardship, which focuses on assisting nonprofit organizations who have fallen behind on their electric bills. Organizations receiving a grant as part of this program are required to attend an educational workshop/webinar on energy management to help lower their future electric bills.
- \$59K for ComEd Helps Activated / Veteran Military Personnel (“C.H.A.M.P.”), a program to help military personnel experiencing hardship in paying their electric bills. Participating military personnel also received education about no-cost and low-cost ways to lower their future electric bills.

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<sup>10</sup> Revised AMI Plan at 95-6.

- \$53K for Educational Classes, conducted through the Chicago Urban League and Latin United Community Housing Association (“LUCHA”) organizations for first-time homebuyers and energy management education for nonprofits developed and implemented with the Center for Neighborhood Technology (“Elevate Energy”).
- \$2.3 million for Chicago Housing Authority (“CHA”) All Clear program, a partnership between CHA and ComEd to assist CHA residents and Housing Choice Voucher (“HCV”) participants with their electric bills.
- \$245K for outreach, marketing and advertising, which included energy fairs, local community events, senior outreach and partnerships with local housing authorities. Other methods of communication included radio, newspaper and billboard ads, press conferences and news releases, Facebook and Twitter, ComEd.com, brochures, fact sheets and talking points for distribution in municipalities and with legislators.
- \$806K for cost to administer CARE programs with Elevate Energy and Illinois Association of Community Action Agencies.

\$10 million was allocated for 2013 and was dispersed by the end of year.

## **B. 2014 Customer Outreach & Education**

### **1. Under the Currently Approved Deployment Schedule**

#### **a. Customer Education and Awareness**

ComEd plans to continue the initial customer outreach and education described above in Section IV.A.1. As learnings are derived from customer research and in-market findings, ComEd will continue to revise, adjust and modify these efforts.

In addition to the work outlined above, ComEd will collaborate with the Energy Foundry and Illinois Science and Energy Innovation Fund (“ISEIF”) by investigating new opportunities as they arise among those awarded grants by these organizations. 2014 ISEIF grantees that ComEd intends to coordinate with include:

- Citizens Utility Board (“CUB”) - a statewide program of consumer education including a small technology pilot for some households;
- Elevate Energy - a statewide program of community based social marketing including a faith-based component by Faith in Place;
- City of Chicago - a staff position to coordinate smart grid education and activity to Chicago residents and among City departments;
- Energy Policy Institute at Chicago (“EPIC”) at the University of Chicago - consumer survey and metric and survey design for other ISEIF grantees;

- Foresight Design - working alongside ISEIF grantees to push innovation in approaches based on best available program designs nationally;
- Historic Chicago Bungalow Association - consumer education in South Shore among bungalow owners;
- Illinois Green Economy Network (“IGEN”) - statewide program of smart classrooms and smart grid kiosks at community colleges;
- Illinois State University (“ISU”) - design and implementation of K-12 curriculum in school districts along the roll-out plans;
- Village of Oak Park - grant to supplement marketing and education connected to larger project connecting 200 smart homes in community;
- Galvin Center at the Illinois Institute of Technology (“IIT”) - stipend to participate in meetings and conference calls while they continue to develop grant proposal.

In addition to these organizations, ComEd plans to collaborate with other organizations in communicating energy management and AMI meter benefits to their audiences, constituents and citizens. These organizations include the Illinois Department on Aging, Sierra Club, Chicago Public Schools, El Valor, National Latino Education Institute (“NLEI”), and the Chicago Urban League. ComEd will work with each of these organizations to develop a customized plan to take key messages to each of their audiences.

#### **b. Market Research**

ComEd will continue the awareness/education tracking study and the post-installation satisfaction study throughout 2014, as described in Section IV.A.2.

In 2014, ComEd will initiate research on the topic of PTS to determine message content and method of communication for customers with AMI meters.

#### **c. AMI Deployment Communications**

ComEd will continue the AMI deployment communications described above in Section IV.A.3.

Residential customers will be able to enroll in PTS beginning in Fall 2014 with events occurring in 2015. ComEd will modify deployment communications to include more information about PTS and how to enroll. The communication series will be developed based on the aforementioned research. In addition, ComEd will modify materials to include language that builds awareness about pricing programs available from RESs.

To better provide customers access to information, ComEd will investigate making the Smart Grid/Smart Meter web site and My Energy Tools mobile-enabled.

As AMI meter installation continues to non-residential customers, ComEd will continue to incorporate appropriate messaging for non-residential customer segments.

**d. Audience Segmented Outreach & Education**

ComEd will continue the Audience Segmented Customer Outreach and Education described in Section IV.A.4.

**e. Financial Assistance**

ComEd will continue to provide financial assistance through the programs described in Section IV.A.5. Additionally, ComEd's low-income and support programs will provide assistance to aid customers in paying past due arrearages, therefore avoiding disconnection of electric service. ComEd will accomplish this by coordinating expenditures and ongoing efforts with other providers of customer education and assistance, such as the CHA, LAAs, and social service agencies to increase awareness of assistance programs and to explore new approaches to customer financial assistance program planning and design.

Additionally, ComEd may have the capability to notify the City of Chicago and other municipalities of impending disconnections on a zip code (or comparable) basis, as permitted by customer information privacy constraints. The details of the report, including its frequency, will be determined and agreed upon by ComEd and the requestor.

**2. Under the Proposed Accelerated Deployment Schedule**

If deployment were accelerated in 2014, ComEd would continue to perform all planned customer education and outreach activities including providing all customers the staged-messaging AMI deployment materials prior to, during and after installation of AMI meters. In addition, post-installation efforts and activities will continue to be utilized in the same manner to continue educating customers about tools and programs enabled by AMI meters and engage customers to take action to realize their benefits. ComEd will accelerate AMI customer outreach and education utilizing the same amount of resources to match accelerated deployment levels.

## V. METRICS AND MILESTONES

The following table contains the set of tracking measures the Commission approved for inclusion in the AMI Plan, including measures that ComEd agreed to report on via collaborative sessions with external stakeholders. The purpose of the table is to provide the required information and demonstrate the progress made during the prior calendar year regarding these measures. Results will be refreshed in the AIPR filing over the ten-year deployment period. The June 2012 Order also directed ComEd to include in the AIPR a baseline for each measure.<sup>11</sup> ComEd proposes to use the 2012 results for each measure as the baseline. ComEd obtained consensus with CUB, Environmental Law & Policy Center (“ELPC”), and Environmental Defense Fund (“EDF”) on the tracking measures to be used for year one, and will continue collaborating with these and other stakeholders to refine the measures for future years.

As also noted in Section II.A of this Report, the data in the table below indicates that the overall AMI meter program is progressing as scheduled, and the plan for full deployment is being executed on-time and in-budget. None of the data points captured indicate an inability for ComEd to execute the deployment according to the approved plan. As meter deployment progresses throughout the service territory, many of the measures identified will become more meaningful and indicative of quantitative progress towards completing full deployment of AMI meters.

ComEd mapped the measures below to the Revised AMI Plan to the extent possible given that all the measures in the Revised AMI Plan are not centrally located in one section. Additionally, multiple measures that are tracked relating to a single issue are all identified under one number consistent with the numbering in the June 2012 Order and the Revised AMI Plan. For example, there are four items tracked under Measure 1. For ease of identification, letters are used to differentiate these related items (e.g., 1a, 1b, 1c, and 1d are used). Further, Attachments 1-5 are specifically referenced when they can provide additional information regarding a certain measure.

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<sup>11</sup> June 2012 Order at 19.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
1A	Customers enrolled in Peak Time Rebate, Real Time Pricing, and other dynamic/time variant prices	Residential Customers Number of customers on a time-variant or dynamic pricing tariff offered by ComEd. Expressed also as a percentage of customers in each delivery class.	The number of customers on a time-variant or dynamic pricing tariff offered by ComEd are as follows:  Residential - Single: 8,473 (0.4%) Residential - Multi: 605 (0.1%) Residential - Single (Space Heat): 157 (0.5%) Residential - Multi (Space Heat): 155 (0.1%)	The number of customers on a time-variant or dynamic pricing tariff offered by ComEd are as follows:  Residential - Single: 8,595 (0.4%) Residential - Multi: 615 (0.1%) Residential - Single (Space Heat): 189 (0.5%) Residential - Multi (Space Heat): 179 (0.1%)
1B	Customers enrolled in Peak Time Rebate, Real Time Pricing, and other dynamic/time variant prices	Residential Customers Number of customers served by retail electric suppliers for which the supplier has requested monthly Electronic Data Interchange delivery of interval data. Expressed also as a percentage of customers taking supply from a retail electric supplier in each delivery class.	The number of residential customers served by retail electric suppliers for which the supplier has requested monthly Electronic Data Interchange delivery of interval data is zero (0% of customers taking supply from a retail electric supplier in each delivery class.)  ComEd will work with the external stakeholders and Ameren in a workshop forum to determine how to track the number of TOU customers related to this measurement; the result will be included in the AIPR submitted in 2014.	The number of residential customers served by retail electric suppliers for which the supplier has requested monthly Electronic Data Interchange delivery of interval data is zero (0% of customers taking supply from a retail electric supplier in each delivery class.)  As result of several workshops with external stakeholders, ComEd has filed and the Commission has approved Rider RMUD, which provides interval data to retail electric suppliers upon request for the purposes of billing TOU rates and

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
				offering demand response products. A process has been created for suppliers to request this service for AMI meters, up to a cap of 15,000 meters. This service became effective in January 2014.
IC	Customers enrolled in Peak Time Rebate, Real Time Pricing, and other dynamic/time variant prices	Small Commercial Customers Number of customers on a time-variant or dynamic pricing tariff offered by ComEd. Expressed also as a percentage of customers in the delivery class.	Zero Watt-Hour customers are taking hourly service from ComEd out of 91,275 total customers in the Watt-Hour class (0% of the class.)  1946 (1,923)* <sup>12</sup> Small Load Delivery (0-100kW) customers are taking hourly service from ComEd out of 247,581 total customers in the Small class (0.78% of the delivery class.)	Zero Watt-Hour customers are taking hourly service from ComEd out of 90,334 total customers in the Watt-Hour class (0% of the class.)  1,988 Small Load Delivery (0-100kW) customers are taking hourly service from ComEd out of 253,968 total customers in the Small class (0.78% of the delivery class.)
1D	Customers enrolled in Peak Time Rebate, Real	Small Commercial Customers Number of customers	The number of small commercial customers served by retail electric suppliers for which the supplier has	The number of small commercial customers served by retail electric suppliers for which the supplier has

<sup>12</sup> Further review of the metrics contained in the 2013 AIPR uncovered inaccuracies in several of metrics. Metrics 1C, 2, 38 and 45 are being updated in this AIPR. The corrected information appears in bold, while the data from the 2013 AIPR appears in parenthesis. All four appear with an asterisk denoting them as the updated metrics.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. “Baseline Data”	2013 Annual AMI Metrics Data
	Time Pricing, and other dynamic/time variant prices	served by retail electric suppliers for which the supplier has requested monthly Electronic Data interchange delivery of interval data. Expressed also as a percentage of customers taking supply from a retail electric supplier in the delivery class.	requested monthly Electronic Data interchange delivery of interval data is zero (0% of customers taking supply from a retail electric supplier in the delivery class.).	requested monthly Electronic Data interchange delivery of interval data is zero (0% of customers taking supply from a retail electric supplier in the delivery class.).
2	Customer-side-of-the- meter devices sending or receiving grid related signals	Number of ComEd AMI meters with consumer devices registered to operate with the Home Area Network (“HAN”) chip by tariffs under which customer receives delivery.	<p>The number of ComEd AMI meters with consumer devices registered to operate with the HAN chip by tariffs under which customer receives delivery are as follows:</p> <p>Residential – Single: 684</p> <p>Residential – Multi: 144 (146)</p> <p>Residential – Single (w/Space Heat): 2 Residential – Multi (w/Space Heat): 11</p> <p>TOTAL: 841</p> <p>Number of customer applications/devices registered with the meter that connect to a 3rd party</p>	<p>The number of ComEd AMI meters with consumer devices registered to operate with the HAN chip by tariffs under which customer receives delivery are as follows:</p> <p>Residential – Single: 182</p> <p>Residential – Multi: 55</p> <p>Residential – Single (w/Space Heat): 0</p> <p>Residential – Multi (w/Space Heat): 2</p> <p>TOTAL: 239</p> <p>Number of customer applications/devices registered with the meter that connect to a 3rd party</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			(e.g. CUB) is 7,357. Consumer devices registered through the Green Button Initiative is zero.	are: CUB: 8,292 (of which 310 have an AMI meter) University of Illinois: 3,057 (of which 154 have an AMI meter) Consumer devices registered through the Green Button Initiative is zero.
3	AMI Meter failures	Number of advanced meter malfunctions where customer electric service is disrupted. (A "malfunction" is a malfunction that causes the meter to become inoperable but does not include cases of tampering, service panel and service entry equipment, house fires, etc.) ComEd will be able to determine which of the advanced meter malfunctions were due to voltage outside design criteria.	The number of advanced meter malfunctions where customer electric service is disrupted is zero.	There was one meter malfunction. The number of advanced meter malfunctions where customer electric service is disrupted is one.
4	AMI Meters	Number of ComEd	The number of ComEd advanced	The number of ComEd advanced

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	replaced before the end of their expected useful life	advanced meters replaced annually before the end of their expected useful life, including reasons for replacement that include ComEd errors. ("Replaced" means a replacement due to a malfunction that causes the meter to become inoperable, including tampering.)	<p>meters replaced annually before the end of their expected useful life, itemized by tamper versus non-tamper is as follows:</p> <p>334 meters replaced before the end of their expected useful life due to tampering</p> <p>164 meters replaced before the end of their expected useful life due to reasons other than tampering</p> <p>TOTAL: 498 meters replaced before the end of their expected useful life</p> <p>Note: ComEd worked with the external stakeholders, and it was determined that ComEd does not have the system capability to show detailed reason codes by type. If this is needed in the future, an IT enhancement would be required.</p>	<p>meters replaced annually before the end of their expected useful life, itemized by tamper versus non-tamper is as follows:</p> <p>473 meters replaced before the end of their expected useful life due to tampering.</p> <p>1399 meters replaced before the end of their expected useful life due to reasons other than tampering.</p> <p>TOTAL: 1872 meters replaced before the end of their expected useful life<sup>13</sup></p>

<sup>13</sup> ComEd worked with the external stakeholders, and it was determined that ComEd does not have the system capability to show detailed reason codes by type. If this is needed in the future, an IT enhancement would be required.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
5	Customers with net metering	Number of customers enrolled on Net Metering tariff and the total aggregate capacity of the group.	<p>The number of unique customers enrolled on Net Metering tariff, Rider POGNM – Parallel Operation of Retail Customer Generating Facilities with Net Metering (“Rider POGNM”), as of December 31st 2012 are as follows:</p> <p>TOTAL: 381 unique customers (3.450 MW)</p> <p>345 Residential</p> <p>59 commercial</p> <p>The breakdown of generators by customer class and generator type are as follows:</p> <p>Residential (Photovoltaic Source): 284 (1.216 MW)</p> <p>Residential (Wind Source): 61 (0.245 MW)</p> <p>Commercial (Photovoltaic Source): 49 (0.756 MW)</p> <p>Commercial (Wind Source): 10 (1.234 MW)</p> <p>Note: Some unique customers have both photovoltaic and wind source</p>	<p>The number of unique customers enrolled on Net Metering tariff, Rider POGNM, as of December 31, 2013 are as follows:</p> <p>TOTAL: 354 unique customers (3.491 MW).</p> <p>319 Residential</p> <p>53 commercial</p> <p>The breakdown of generators by customer class and generator type are as follows:</p> <p>Residential (Photovoltaic Source): 272 (1.347 MW)</p> <p>Residential (Wind Source): 47 (0.214 MW)</p> <p>Commercial (Photovoltaic Source): 44 (0.700 MW)</p> <p>Commercial (Wind Source): 9(1.231 MW)</p> <p>Note: Some unique customers have both photovoltaic and wind source generators</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			generators	
6A	Customer premises capable of receiving information from the grid	Number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system.	The number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system is 127,114.	The number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system is 176,144.
6B	Customer premises capable of receiving information from the grid	Number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system, divided by the total number of AMI meters installed.	The number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system, divided by the total number of AMI meters installed is 99.50%	The number of installed AMI Meters as of the last day of the calendar year that communicate back to the head end system, divided by the total number of AMI meters installed is 88.96%
6C	Customer premises capable of receiving information from the grid	Number of customers who have accessed the web-based portal as of the last day of the calendar year as a percentage of customers with AMI Meters and as a percentage of ComEd customers in that delivery class.	Please reference Attachment 1.	Please reference Attachment 1.
6D	Customer premises capable of receiving information from	Number of customers who can directly access their usage data as of the last day of the calendar year as	Please reference Attachment 1.	Please reference Attachment 1.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	the grid	a percentage of customers with AMI Meters and as a percentage of ComEd customers in that delivery class.		
7	Peak load reductions enabled by demand response programs	Load impact in MW of peak load reduction from the summer peak due to AMI enabled, ComEd administered demand response programs such as the PTS program as a percentage of all demand response in ComEd's portfolio.	<p>The load impact in MW of peak load reduction from the summer peak due to AMI enabled, ComEd administered demand response programs such as the PTS program as a percentage of all demand response in ComEd's portfolio is zero.</p> <p>The RRTP estimated peak load reduction is .5KW X 9,390 customers = 4,695 KW</p> <p>For the desired %, 4,695 KW is divided by 1,342.4 MW (the DR portfolios total peak load reduction potential): 4.695 MW / 1,342.2 MW = .35%</p>	<p>The load impact in MW of peak load reduction from the summer peak due to AMI enabled, ComEd administered demand response programs such as PTS, as a percentage of all demand response in ComEd's portfolio is zero.</p> <p>The RRTP estimated peak load reduction is .51KW X 9,800 customers = 4,998 KW</p> <p>For the desired %, 4,998 KW is divided by 1,287.2 MW (the DR portfolios total peak load reduction potential): 4.998 MW / 1,287.2 MW = .39%</p>
8	Customer Complaints	Number of formal ICC complaints, informal ICC complaints, and complaints escalated to ComEd's Customer Relations or Customer Experience departments	<p>Formal ICC Complaints: One Smart Meter Refusal; Complaint remains in progress with resolution pending.</p> <p>Informal ICC Complaints: Four Smart Meter Refusals; ComEd has completed process for customer</p>	<p>Formal ICC Complaints: Zero Formal Complaints were received</p> <p>Informal ICC Complaints: 13 Informal Complaints were received. ComEd has completed process for customer contact and resolution for</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		related to AMI Meter deployment, broken down by type of complaint and resolution. AMI Meter deployment includes AMI Meter installation, functioning or accuracy of the AMI meter, and HAN device registration.	<p>contact and resolution for each.</p> <p>Complaints escalated to ComEd AMI Customer Relations or Customer Experience departments: 52 smart meter refusals; ComEd has completed process for customer contact and resolution for 51; 1 remains open with clear next steps identified for resolution.</p>	<p>each.</p> <p>Complaints escalated to ComEd AMI Customer Relations or Customer Experience departments: 207 total complaints. 10 such complaints related to customer dissatisfaction: ComEd has completed the process for customer contact and resolution for 9, with 1 remaining open in which the customer has been contacted with clear next steps identified for resolution. 197 Smart Meter Refusals: ComEd has completed process for customer contact and resolution for all 197.</p> <p>Please reference Attachment 5</p>
9	Reduction in Greenhouse Gas Emissions enabled by smart grid	Reduction in Greenhouse Gas Emissions enabled by smart grid - ComEd will work collaboratively with CUB and EDF to operationalize this measure.	Please reference Attachment 1.	Please reference Attachment 1.
10A	Distributed generation projects	Number of locations and total MWs of customer owned distributed generation connected to	Number of locations of customer owned distributed generation connected to the distribution system, broken down by connection to the	Number of locations of customer owned distributed generation connected to the distribution system, broken down by connection to the

2013 Tracking Metrics																		
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data														
		the transmission or distribution system, broken down by connection to transmission and distribution system. ("Distributed generation" locations are those where customers take service under Rider POG – Parallel Operation of Retail Customer Generating Facilities ("Rider POG") or Rider POGNM or successor tariffs.)	<p>distribution system is 104 locations.</p> <p>Total MWs of customer owned distributed generation connected to the distribution system, broken down by connection to the distribution system is 2.40959 MWs.</p>	<p>distribution system is 103 locations.</p> <p>Total MWs of customer owned distributed generation connected to the distribution system, broken down by connection to the distribution system is 8.41758 MWs.</p> <p>Total Capacity/Type of Distributed Generation:</p> <table border="1"> <thead> <tr> <th>Energy Source</th> <th>Capacity (kw)</th> </tr> </thead> <tbody> <tr> <td>Bio-Diesel</td> <td>20</td> </tr> <tr> <td>Diesel</td> <td>2850</td> </tr> <tr> <td>Solar</td> <td>5305.82</td> </tr> <tr> <td>Solar/Wind</td> <td>211.76</td> </tr> <tr> <td>Wind</td> <td>30</td> </tr> <tr> <td><b>Grand Total</b></td> <td><b>8417.58</b></td> </tr> </tbody> </table>	Energy Source	Capacity (kw)	Bio-Diesel	20	Diesel	2850	Solar	5305.82	Solar/Wind	211.76	Wind	30	<b>Grand Total</b>	<b>8417.58</b>
Energy Source	Capacity (kw)																	
Bio-Diesel	20																	
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Solar	5305.82																	
Solar/Wind	211.76																	
Wind	30																	
<b>Grand Total</b>	<b>8417.58</b>																	
10B	Distributed generation projects	Number of locations and total MWs of customer owned distributed generation connected to the transmission or distribution system,	Regarding customer owned generation connected to the transmission system, there were zero in 2012. There was generation added to the transmission system in 2012, but these generators were all	<p>Regarding customer owned generation connected to the transmission system, there were zero in 2013.</p> <p>There are new wholesale generator interconnections which have signed</p>														

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		broken down by connection to transmission and distribution system. ("Distributed generation" locations are those where customers take service under Rider POG or POG-NM or successor tariffs.)	wholesale generators in the business of generation. Based on ComEd's assumptions, these would not count as customer owned generation connected to the transmission system.	PJM Interconnection Service Agreements (ISA's) and are planned to interconnect with the ComEd transmission system starting in 2015. There are currently over 980 MW of new wholesale generator interconnection connections to the ComEd transmission system that are in this phase. These include new natural gas fueled generation and new wind generation.
11	Load served by distributed resources	Total sales of electricity to the grid from distributed generation (Rider POG or POG-NM customers) divided by zone energy plus distributed generation sales, with all data provided in sortable format.	<p>Rider POG sold back to the grid from Distributed Generation:</p> <p>Rider POG Sales is 754,177 megawatt hours ("MWhrs") Residential Rider POG Sales is 100 MWhrs Non-Residential Rider POG Sales is 754,077 MWhrs</p> <p>TOTAL Zonal Energy plus Rider POG Sales is 102,367,754 MWhrs Percentage of Rider POG Sales to Total Zonal Energy is 0.74%</p> <p>The indicator of Distributed Generation that is behind the meter is going to be derived from the Annual</p>	<p>RIDER POG sold back to the grid from Distributed Generation:</p> <p>Rider POG Sales is 665,891 MWhrs Residential Rider POG Sales is 3 MWhrs Non-Residential Rider POG Sales is 665,888 MWhrs TOTAL Zonal Energy plus Rider POG Sales is 101,548,538 MWhrs Percentage of Rider POG Sales to Total Zonal Energy is 0.66%</p> <p>The indicator of Distributed Generation that is behind the meter is going to be derived from the Annual Net Metering Report for</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>Net Metering Report for Commonwealth Edison using the Average Capacity Factor data provided by EDF for 2013.</p> <p>Total Net Metering Solar Capacity = 1,460.14 kW * 18.5% Capacity Factor * 8760 Hours = 2,366 MWhrs</p> <p>Total Net Metering Wind Capacity = 1,462.31 kW * 18.5% Capacity Factor * 8760 Hours = 2,370 MWhrs</p> <p>Note: Further analysis and discussion will take place between ComEd and the external stakeholders to provide a fuller measure for future reports.</p>	<p>Commonwealth Edison using the Average Capacity Factor data provided by EDF for 2013.</p> <p>Total Net Metering Solar Capacity = 1,590.16 kW * 18.5% Capacity Factor * 8760 Hours = 2,577 MWhrs</p> <p>Total Net Metering Wind Capacity = 1,438.61 kW * 18.5% Capacity Factor * 8760 Hours = 2,331 MWhrs</p> <p>Note: Further analysis and discussion will take place between ComEd and the external stakeholders to provide a fuller measure for future reports</p>
12	System load factor and load factor by customer class	Total annual consumption for AMI meters (including, separately, small commercial customers) divided by the average demand across all AMI meters over the 5 peak hours multiplied by 8760 hours by customer	<p>Based on the AMI consumption data for 2012 and the 5 peak hours, the following results were calculated:</p> <p>Residential Load factor: 30.2%</p> <p>Commercial Load Factor: 50.5%</p> <p>Industrial Load Factor: 61.1%</p> <p>TOTAL Load Factor: 37.2%</p>	<p>Total Consumption for Res, Com, and industrial for meters installed for the entire 2013 calendar year:</p> <p>Residential: 636,885,934.7 kWh</p> <p>Commercial: 503,501,034.6 kWh</p> <p>Industrial: 97,542,393.4 kWh</p> <p>Total: 1,237,929,363.0 kWh</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		class.(ComEd will work collaboratively with CUB and EDF to establish a similar measure for all system load.)		<p>consumed by AMI meters in 2013</p> <p>Peak Consumption:</p> <p>Residential: 207,590.8 kWh</p> <p>Commercial: 101,015.5 kWh</p> <p>Industrial: 16,174.1 kWh</p> <p>Total: 324,780.4 kWh</p> <p>Calculated values using the formula (Total Consumption)/[(Average of 5 peak periods)(8,760)]:</p> <p>Residential: 35.02%</p> <p>Industrial: 56.90%</p> <p>Commercial: 68.84%</p> <p>Total: 43.51%</p>
13	Products with end-to-end interoperability certification	ComEd will conduct an annual survey through a third-party provider to evaluate how products are being introduced in the smart grid enabled marketplace.	In-depth interviews with industry participants on new product offerings of smart grid enabled products and secondary research will be conducted in 2013. This will be performed in lieu of a survey until the penetration of smart grid enabled products reaches a point that a survey produces meaningful data and becomes cost-effective. To date, no smart grid enabled products have been submitted	ComEd performed an industry assessment in 2013 for new product offerings of smart grid enabled products and services offered. This assessment was performed in lieu of a survey as the penetration of smart grid enabled products and services in the ComEd territory is still immature. To date, ComEd has received two applications to demonstrate technology in ComEd's Test Bed.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>for demonstration and evaluation through ComEd's Test Bed. Please reference Attachment 3 for HAN Device Interoperability.</p> <p>ComEd will continue to work with the external stakeholders to further evaluate how products are being introduced in the smart grid enabled marketplace.</p>	<p>One of these technologies was deemed not complete with ComEd's System. The other technology is currently in demonstration scoping.</p> <p>Please reference Attachment 3 for HAN Device interoperability.</p> <p>Please reference Attachment 1 for ComEd 2013 smart grid products and services industry assessment.</p> <p>ComEd will continue to work with the external stakeholders to further evaluate how products are being introduced in the smart grid enabled marketplace.</p>
14	Network nodes and customer interfaces monitored in "real time"	Network nodes and customer interfaces monitored in "real time"	<p>ComEd worked collaboratively with CUB and EDF to operationalize this measure, which yielded the following:</p> <p>Grid-side Network Nodes Measured as Total Number of DA Devices: 12kV DA = 2,125 and 34kV DA = 971 (DA devices) connected to the grid.</p> <p>Customer-side Network Nodes Measured as Total Number of Devices Registered to a Meter: 841</p>	<p>Grid-side Network Nodes Measured as Total Number of DA Devices: 12kV DA = 2,683 and 34kV DA = 1,006 (DA devices) connected to the grid.</p> <p>Customer-side Network Nodes Measured as Total Number of Devices Registered to a Meter: 11,349 HAN devices for all meters with 464 HAN devices connected to AMI meters, though they are not actively "Monitored."</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			HAN devices for meters, though they are not actively "Monitored."	
15A	Grid connected energy storage interconnected to utility facilities at the transmission or distribution system level	Number of locations and total MWs of utility owned or operated energy storage interconnected to the transmission or distribution system as measured at storage device electricity output terminals.	<p>The number of locations and total MWs of utility owned or operated energy storage interconnected to the distribution system as measured at storage device electricity output terminals is zero. ComEd has not installed any storage on either the transmission or distribution system in 2012, nor has any energy storage been certified, tested or deployed in the ComEd test bed.</p> <p>The storage installed on the transmission and distribution system that is part of the PJM wholesale market is 1.5 MW at one location, and it participates directly as a supply resource as part of a wind</p>	<p>ComEd has not installed any storage on either the transmission or distribution system in 2013, nor has any energy storage been certified, tested or deployed in the ComEd test bed.</p> <p>There are energy storage projects proposed to be connected to the ComEd transmission and distribution system through the PJM interconnection queue. These are not ComEd owned. They intend to be participants in the PJM wholesale frequency regulation market. There are currently proposals to connect approximately 112 MW of energy storage to the ComEd transmission</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>development for 2012.</p> <p>Please note: concerning measuring the storage installed on the transmission or distribution system participating in PJM wholesale markets, there are limitations in obtaining the information for proprietary reasons. Storage assets directly participating in PJM markets will require interconnection agreements and ComEd will have the information to track if or when these types of supply resources enter the market. For behind-the-meter storage assets participating in the PJM through the demand response program, there is currently no requirement that PJM will share that information with ComEd. ComEd will only have knowledge of the customers that are participating in demand response, but not how customers are achieving load reductions. In terms of measuring the storage installed on the distribution system as part of the PJM wholesale market (behind-the-meter) it may not be possible unless the installation</p>	<p>and distribution system to participate in the PJM wholesale frequency regulation market.</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			requires an interconnection agreement.	
15B	Grid connected energy storage interconnected to utility facilities at the transmission or distribution system level	Number of locations and total MWs of utility owned or operated energy storage interconnected to the transmission or distribution system as measured at storage device electricity output terminals.	The number of locations and total MWs of utility owned or operated energy storage interconnected to the transmission system as measured at storage device electricity output terminals is zero. ComEd has not installed any storage on either the transmission or distribution system in 2012.	<p>ComEd has not installed any storage on either the transmission or distribution system in 2013.</p> <p>There are energy storage projects proposed to be connected to the ComEd transmission and distribution system through the PJM interconnection queue. These are not ComEd owned. They intend to be participants in the PJM wholesale frequency regulation market. There are currently proposals to connect approximately 112 MW of energy storage to the ComEd transmission and distribution system to participate in the PJM wholesale frequency regulation market.</p>
15C	Grid connected energy storage interconnected to utility facilities at the transmission or distribution system level	ComEd will conduct an annual survey through a third-party provider to estimate similar measures of non-utility storage units.	In-depth interviews with industry participants in non-utility storage markets and secondary research will be conducted in 2013. This will be performed in lieu of a survey until the penetration of non- utility storage units reaches a size that a survey produces meaningful data and	ComEd performed an industry assessment in 2013 for non-utility owned storage units currently offered in ComEd territory. This assessment was performed in lieu of a survey as the penetration of non-utility owned storage units in the ComEd territory is still immature.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>becomes cost-effective.</p> <p>ComEd will continue to work with the external stakeholders to further estimate similar measures of non-utility storage units.</p>	<p>Energy storage solutions for end-use customers are beginning to gain market adoption in the US amongst large Commercial &amp; Industrial segments, but only in geographies with specific storage regulatory incentives and/or specialized use cases (high peak demand prices, need for uninterruptible power, etc.)</p> <p>At scale, end-use energy storage devices might affect how ComEd serves its customers, but significant market adoption isn't expected to occur before 2020.</p> <p>Of the 10 vendors interviewed, only one has sold energy storage units in Illinois/ComEd territory. ZBB Energy Storage – project with the Illinois Institute of Technology as a beneficiary of DOE grant. Illinois Institute of Technology was the grant recipient from the DOE to purchase energy storage. ZBB was the selected bidder to provide a 250 kW / 500 kWh ES system</p> <p>Please reference Attachment 4 for ComEd 2013 non-utility owned</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
				<p>storage unit assessment.</p> <p>ComEd will continue to work with the external stakeholders to further evaluate how non-utility owned storage units are being introduced in the smart grid enabled marketplace.</p>
16A	Time required to connect distributed resources to grid	ComEd's response time to a distributed resource project application, and time from receipt of application until energy flows from project to grid (distribution.)	<p>ComEd's response time to a distributed resource project application can be referenced in the ICC guidelines, as follows: Title 83: Public Utilities - Chapter I: Illinois Commerce Commission - Subchapter c: Electric Utilities - Part 466 - Electric Interconnection of Distributed Generation Facilities.</p> <p>Please reference Attachment 1 for the time from receipt of application (using the application complete date as the start date for 2012 reporting) until energy flows from project to grid (distribution.)</p>	<p>ComEd's response time to a distributed resource project application can be referenced in the ICC guidelines, as follows: Title 83: Public Utilities - Chapter I: Illinois Commerce Commission - Subchapter c: Electric Utilities - Part 466 - Electric Interconnection of Distributed Generation Facilities.</p> <p>Please reference Attachment 1 for the time from receipt of application (using the application complete date as the start date for 2013 reporting) until energy flows from project to grid (distribution.)</p>
16B	Time required to connect distributed resources to grid	ComEd's response time to a distributed resource project application, and time from receipt of application until energy flows from project to grid	This does not apply since there were zero projects to apply this measurement.	This does not apply since there were zero projects to apply this measurement.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		(transmission.)		
17	Voltage and VAR controls	Number and percentage of distribution lines using sensing from an AMI meter as part of ComEd's voltage regulation scheme.	The number and percentage of distribution lines using sensing from an AMI meter as part of ComEd's voltage regulation scheme is as follows:  Feeders that use sensing from an AMI meter as part of a voltage regulation scheme is 13 out of 5456 (0.24%).	The number and percentage of distribution lines using sensing from an AMI meter as part of ComEd's voltage regulation scheme is as follows:  Feeders that use sensing from an AMI meter as part of a voltage regulation scheme is 13 out of 5456 (0.24%).
18A	Grid assets that are monitored, controlled, or automated	Number and percentage of ComEd substations (Distribution Center Substations ("DCs"), Substations ("SSs") Transmission Substations ("TSSs") and Transmission Distribution Centers ("TDCs")) monitored or controlled via Supervisory Control and Data Acquisition ("SCADA") systems.	The number and percentage of ComEd substations (Distribution Center Substations ("DCs"), Substations ("SSs") Transmission Substations (TSSs) and Transmission Distribution Centers ("TDCs")) monitored or controlled via Supervisory Control and Data Acquisition ("SCADA") systems is as follows:  Number on SCADA: DC: 479  TDC: 115	The number and percentage of ComEd substations (Distribution Center Substations ("DCs"), Substations ("SSs") Transmission Substations ("TSSs") and Transmission Distribution Centers ("TDCs")) monitored or controlled via Supervisory Control and Data Acquisition ("SCADA") systems is as follows:  Number on SCADA: DC: 479  TDC: 115

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			SS: 51 TSS: 169 Generating Stations: 16 Relay Points: 5 Percentage on SCADA: DC: 99% TDC: 100% SS: 100% TSS: 100% Generating Stations: 100% Relay Points: 100%	SS: 51 TSS: 169 Generating Stations: 16 Relay Points: 5 Percentage on SCADA: DC: 99% TDC: 100% SS: 100% TSS: 100% Generating Stations: 100% Relay Points: 100%
18B	Grid assets that are monitored, controlled, or automated	Number and percentage of ComEd distribution circuits (4kV, 12kV and 34kV) equipped with automation or remote control equipment including monitor or control via SCADA systems.	The number and percentage of ComEd distribution circuits (4kV, 12kV and 34kV) equipped with automation or remote control equipment including monitor or control via SCADA systems is 5,168 distribution circuits (99% of total).  Specifically, circuits with 12kV DA = 1,169 circuits (24% of the system circuits.)	The number and percentage of ComEd distribution circuits (4kV, 12kV and 34kV) equipped with automation or remote control equipment including monitor or control via SCADA systems is 5,168 distribution circuits (99% of total).  Specifically, circuits with 12kV DA = 1,297 circuits (25% of the system circuits and 34% of the total 12kV circuits.)
19	Customers connected per	Average number of customers per automated	The average number of customers per automated three phase 12kV line	The average number of customers per automated three phase 12kV line

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	automated circuit segment	three phase 12kV line segment. (An "automated line segment" is a segment of 12 kV three phase mainline circuit between automated devices which include circuit breakers, reclosers, automated switches, etc.; A "customer" is a ComEd account connected on the automated 12kV three phase line segment.)	segment is 638.	segment is 591.
20	Improvement in line loss reductions enabled by smart grid technology	Improvement in line loss reductions enabled by smart grid technology - ComEd will research the uncertainty in line loss measurement collaboratively with CUB and EDF.	ComEd will work with CUB and EDF to develop a full and practical measure of Line Loss Reductions as enabled by smart grid investments, by exploring the capability of calculating Line Loss reductions realized through items such as the following:  More efficient equipment  Increased use of distributed generation that is located closer to the load  Optimized power flows	A stakeholder workshop to discuss potential practical, calculable measures of line loss reduction that are enabled by smart grid investments was held in December 2013. During 2014, ComEd will initiate a feasibility study regarding the use of Voltage Optimization. Voltage Optimization is combination of Conservation Voltage Reduction and Volt-VAR Optimization. These programs are intended to reduce end-use customer energy consumption and peak demand while also reducing

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>Volt/VAR optimization</p> <p>Improved power factor</p> <p>The parties will hold stakeholder workshops in 2013 to identify the best approach to achieve this measure in Illinois, including strategies for better data collection.</p>	utility distribution system energy losses.
21	Tracking Actual Costs	The actual cost of the AMI deployment costs that ComEd has incurred, including both one-time costs and on- going operating costs	<p>The actual cost of the AMI deployment costs that ComEd has incurred, including both one-time costs and on-going operating costs is as follows:</p> <p>Actual Costs Incurred (000's), not including PTR:</p> <p>One-time CAP - \$272,367</p> <p>One-time O&amp;M (if applicable) - \$12,410,487</p> <p>Ongoing CAP - \$21,907</p> <p>Ongoing O&amp;M - \$6,022,911</p> <p>TOTAL- \$18,727, 672</p>	<p>Actual 2013 Costs Incurred, not including PTS:</p> <p>One-time CAP: \$ \$42,581,690</p> <p>Ongoing CAP: \$ \$6,120</p> <p><b>TOTAL CAP: \$42,587,810</b></p> <p>One-time O&amp;M: \$ 17,249,394</p> <p>Ongoing O&amp;M: \$ 12,081,326</p> <p>TOTAL O&amp;M: \$29,330,719</p> <p><b><u>GRAND TOTAL: \$71,918,529</u></b></p>
22	Customer Applications	Bill impacts associated with the costs for implementation of ComEd's AMI Plan for	Please reference Attachment 1 for the metric data and Attachment 2 for supporting documentation.	Please reference Attachment 1 for the metric data and Attachment 2 for supporting documentation.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		low, average, and higher usage level customers pursuant to approved rates and surcharges. The usage level calculations will be values for a "typical" customer at the 25th, 50th, and 75th percentile of total usage for each applicable delivery service class.		
23	Customer Applications	Number of customers that have created and viewed an account on ComEd.com – by usage levels, customer class, and low income customers. An account on ComEd.com is necessary for viewing the web portal.	Please reference Attachment 1.	Please reference Attachment 1.
24	Customer Applications	Number of customers with ComEd.com accounts that have viewed the web portal - by usage levels, customer class, and low income customers	Please reference Attachment 1.	Please reference Attachment 1.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
25	Customer Applications	Change in customers' energy consumption for customers that have viewed the web portal. ComEd will work with the web presentment vendor to define the business processes necessary to track an energy usage impact of accessing the web portal.	The My Energy Tools web portal became available to all ComEd residential customers through their ComEd.com account in September 2012. Given the short timeframe this was available to customers and the time needed to discern savings from customer billing data following their access to the web tools and subsequent actions taken to reduce their usage, there are no savings to report at this time. More robust analytics are expected as a greater number of customers begin accessing the My Energy Tools web portal and additional billing data can be utilized to measure savings in the future.	With new meter installations beginning in September, ComEd only has access to a limited amount of additional meter data and plans to hold off on providing a savings report until the 2015 annual report. This will provide ComEd an opportunity to fully investigate and agree upon a measurement methodology for web savings that is agreeable by stakeholders, including as a potential contribution to the energy efficiency portfolio.
26	Customer Applications	Number of customers enrolled in the Residential Real Time Pricing ("RRTP") program (ComEd's hourly pricing program) by usage levels, customer class, and low income customers.	Please reference Attachment 1.	Please reference Attachment 1.
27	Customer Applications	Number of customers enrolled in any future	The number of customers enrolled in any future Time of Use ("TOU")	The number of customers enrolled in any future Time of Use ("TOU")

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		Time of Use ("TOU") program that ComEd might offer by usage levels, customer class, and low income customers.	program that ComEd might offer by usage levels, customer class, and low income customers is zero.	program that ComEd might offer by usage levels, customer class, and low income customers is zero.
28	Customer Applications	Number of customers enrolled in ComEd's PTR program by usage levels, customer class, and low income customers.	The number of customers enrolled in ComEd's PTR program by usage levels, customer class, and low income customers is zero.	The number of customers enrolled in ComEd's PTS program by usage levels, customer class, and low income customers is zero.
29	Customer Applications	Number of deposits required, disconnection notices, and disconnections for nonpayment for all customers and, if applicable, by low income customers. Other "key indicia associated with credit and collection activities targeted to low income customers" may be incorporated in the project plan's business process redesigns for future implementation.	Please reference Attachment 1.	Please reference Attachment 1.
30	Customer	If further information is	Please reference Section IV of	Please reference Section IV of

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	Applications	required to allow ComEd to track vulnerable populations and that information is not easily available (or only at significant cost) then ComEd should provide an explanation of the barriers to tracking vulnerable populations.	Appendix A to this Report - Vulnerable Customers.	Appendix A - Vulnerable Customers
31	Customer Applications	ComEd should further identify what measures would be necessary to protect consumer privacy in tracking vulnerable populations.	Please reference Section IV of Appendix A to this Report - Vulnerable Customers.	Please reference Section IV of Appendix A - Vulnerable Customers
32	Customer Applications	The definition and identification of such groups should be discussed with stakeholders and Staff to develop a methodology to be included with the modified AMI Plan. To the extent that is not possible, it should be included with the first	Please reference Section IV of Appendix A to this Report - Vulnerable Customers.	Please reference Section IV of Appendix A - Vulnerable Customers

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
		annual filing.		
33	Customer Outreach & Education	Awareness and Education - Awareness and understanding of AMI technology and benefits (survey metric)	6,032 surveys were collected for awareness and understanding of AMI technology and benefits.	2,360 surveys were collected for awareness and understanding of AMI technology and benefits.
34	Customer Outreach & Education	Customer Experience and Engagement - Understanding of AMI Technology (Customer Experience/Engagement Research and Customer Experience Tracking).	74 Community Events were conducted about Understanding AMI Technology.	156 Community Events were conducted about Understanding AMI Technology.
35	Customer Outreach & Education	Community Outreach - # of community events and # of direct interactions	Community Outreach included: 74 Community Events conducted and 50,871 direct interactions.	Community Outreach included: 156 Community Events conducted for 70,999 direct interactions, and 78 Street Team events conducted for 10,666 direct interactions.
36	Customer Outreach & Education	Local Media - # of articles that appear in local media	1,125 articles appeared in local media.	2,106 articles appeared in local media.
37	Customer Outreach & Education	Internal newsletter (# of articles in newsletter)	37 articles were included in the internal newsletter.	8 articles were written for the internal newsletter.

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
38	Customer Outreach & Education	Customer Experience and Engagement - Meter Installations complaints/claims (Rapid Response Situational Assessments)	55 (57)* Meter Installations complaints/claims.	Received in 2013: 224 Meter Installation Complaints, please reference Attachment 5 for additional information related to Meter Installation Complaints; 4 claims, 3 of which were denied, 1 of which was approved; Zero Rapid Response Assessments
39	Customer Outreach & Education	Customer Experience and Engagement - # of installation appointments (tracked by AMI Deployment team)	Zero installation appointments.	There were 1,412 installations made through appointments.
40	Customer Outreach & Education	Community Outreach - # of customer organizations contacted	1,098 organizations were contacted as part of Community Outreach.	1,289 organizations were contacted as part of Community Outreach.
41	Customer Outreach & Education	Community Outreach - # of customer communication methods deployed	17 communication methods employed as part of Community Outreach.	19 communication methods employed as part of Community Outreach.
42	Customer Outreach & Education	Awareness and Education - # of advocates and ambassadors informed	70 Ambassadors were contacted and informed.	106 Ambassadors were contacted and informed.
43	Customer	Awareness and Education	6,032 surveys were collected at	2,360 surveys were collected at

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	Outreach & Education	- # of surveys completed at events	events.	events.
44	Customer Outreach & Education	Measurement of Energy management Education & Outreach events + Interactive items	Community outreach included: 74 Community Events conducted and 50,871 direct interactions.	156 Community Events conducted for 70,999 direct interactions 78 Street Team events conducted for 10,666 direct interactions. 5 tactics (traditional billboards, moving billboards, newspaper ads, radio remotes, and a transit shelter) employed as part of an advertising plan, which garnered 11,458,607 impressions.
45	Customer Outreach & Education	Measurement of the Speaker's Bureau Program	3537 (3,631)* interactions related to the Speaker's Bureau Program.	5,131 attendees related to the ComEducation Workshop program.
46	Customer Outreach & Education	Measurement of the Youth Ambassador Program	2,332 direct contacts in the Youth program; 70 Youth Ambassadors.	3,165 direct contacts in the Youth program; 106 Youth Ambassadors.
47	Customer Outreach & Education	Measurement of Faith-based and Low Income Outreach	19 direct interactions; 900 organizations contacted for Faith-based and Low Income Outreach.	17 coffee hour workshops conducted for 1,361 direct interactions.
48	Customer Outreach & Education	Measurement of Email Marketing	378,315 email subscribers; 7 emails sent to customers; 6,287 clicks.	353,415 email subscribers; 9 publications with an AMI/EIMA piece; 3,170,250 emails sent to

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	Education			customers; 11,693 clicks
49	Customer Outreach & Education	Measurement of Energy @ Home and Bill Inserts program	1 article developed for newsletter; 3.1M bill inserts for residential; 295,000 bill inserts for commercial as a part of the bill insert program.	98,940 bill inserts were mailed to customers.
50	Customer Outreach & Education	Measurement of Direct Mail for PTR and Web Tools	This does not apply for 2012.	25,270 post deployment welcome mailers were sent to customers.
51	Customer Outreach & Education	Measurement of Videos and Brochures	5 videos created with 22,093 views.	90,182 intro mailers were sent to customers 72,568 pre deployment letters were mailed to customers
52	Customer Outreach & Education	Measurement of Online and Social Media Outreach	Online and Social Media Outreach Measurements: Number of Stories Promoted on ComEd Facebook page is 26. Number of Likes on Facebook is 295. Number of Times a Story was Shared on another Facebook page is 16. Number of Engaged Facebook Users (the # of people who have clicked on a post) is 375. Number of Facebook Users who saw a Post from ComEd in	11 events were promoted on the ComEd Facebook page for 196 direct interactions. 782 Facebook Interactions with Games. Number of people who visited ComEd.com/smartgrid is 4,932 Number of people who visited ComEd.com/smartmeter is 785

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
			<p>2012 is 72,789.</p> <p>Number of Blog Stories and Conversations with Mommy bloggers is 1. Number of Facebook Interactions with Games is 4,489.</p> <p>Number of People who Visited ComEd.com/Smart Grid is 9,560.</p>	
53	Customer Outreach & Education	Measurement of Teacher Partnership	This does not apply for 2012.	20 field trips were conducted at the Rockford Training Facility, which garnered 583 attendees.
54	Customer Outreach & Education	Measurement of Municipal Toolkit and Experimental Marketing Materials	Municipal Toolkit and Experimental Marketing Materials Measurement is 120 Direct interactions.	Municipal outreach totaled 653 informational meetings with customers, 562 informational meetings with local officials, and 38 field tours with local officials.
55	Customer Outreach & Education	Measurement of Municipal Event Speakers, Bureau Town Halls	<p>For Municipal Event Speakers and Bureau Town Halls there were: 2,601 informational meetings with customers.</p> <p>1,000 informational meetings with local officials.</p> <p>30 field tours with local officials.</p>	Municipal outreach totaled 653 informational meetings with customers, 562 informational meetings with local officials, and 38 field tours with local officials.
56	Customer	Measurement of	16,406 site visits to ComEd	9,481 site visits to ComEd's

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
	Outreach & Education	Municipal Online Web	Municipal Website.	Municipal Website.
57	Customer Outreach & Education	Measurement of Outreach Materials - Interactive items	38,752 interactive gameplay participants.	55,185 interactive gameplay participants.
58	Customer Outreach & Education	Measurement of Awareness Tracking	<p>The 2012 Baseline measurements for awareness tracking were:</p> <p>Percentage aware of Smart Grid: 43%</p> <p>Percentage aware of Smart Meter: 26%</p> <p>Percentage Knowledgeable among those aware of Smart Grid: 29%</p> <p>Percentage Knowledgeable among those aware of Smart Meter: 33%</p>	<p>The 2013 Baseline Study measurements for awareness tracking are as follows:</p> <p>Percentage aware of Smart Grid: 38%</p> <p>Percentage aware of Smart Meter: 31%</p> <p>Percentage knowledgeable among those aware of Smart Grid: 22%</p> <p>Percentage knowledgeable among those aware of Smart Meter: 33%</p> <p>Percentage valuable among those aware of Smart Grid: 48%</p> <p>Percentage valuable among those aware of Smart Meter: 41%</p>
59	Customer Outreach & Education	Measurement of Customer Experience and Message Testing	\$200,000 spent on market research and customer experience tracking.	<p>AMI Meter Installation Message Testing: \$81,937.50</p> <p>Grid Modernization Market Monitor</p>

2013 Tracking Metrics				
#	Issue	Tracking Metrics Description	2012 Annual AMI Metrics Data, i.e. "Baseline Data"	2013 Annual AMI Metrics Data
				Study: \$26,000  Smart Meter Installation Study: \$23,250  Total Spend: \$131,187.50
60	Customer Outreach & Education	Measurement of Staff dedicated to the program	4 dedicated FTE's for EIMA Program Customer Outreach.	2 dedicated FTE's for EIMA Program Customer Outreach.