

AMI networks can increase the value of energy storage applications for both utilities and for customers. On the distribution side, storage is capable of providing valuable ancillary services to keep the grid functioning efficiently and reliably. Especially as intermittent renewable resources become more prevalent, applications that can quickly store and discharge energy with minimal energy loss will prove more important for grid operators in keeping load and supply balanced. On the customer side, storage will provide an opportunity for customers to fully monetize the benefits of renewable DG systems by storing energy when the resource is available. And as a simultaneous benefit to the customer and the utility, distributed energy storage applications will provide a key demand response and frequency regulation resource that will improve system reliability and bring a monetary benefit to the consumer.

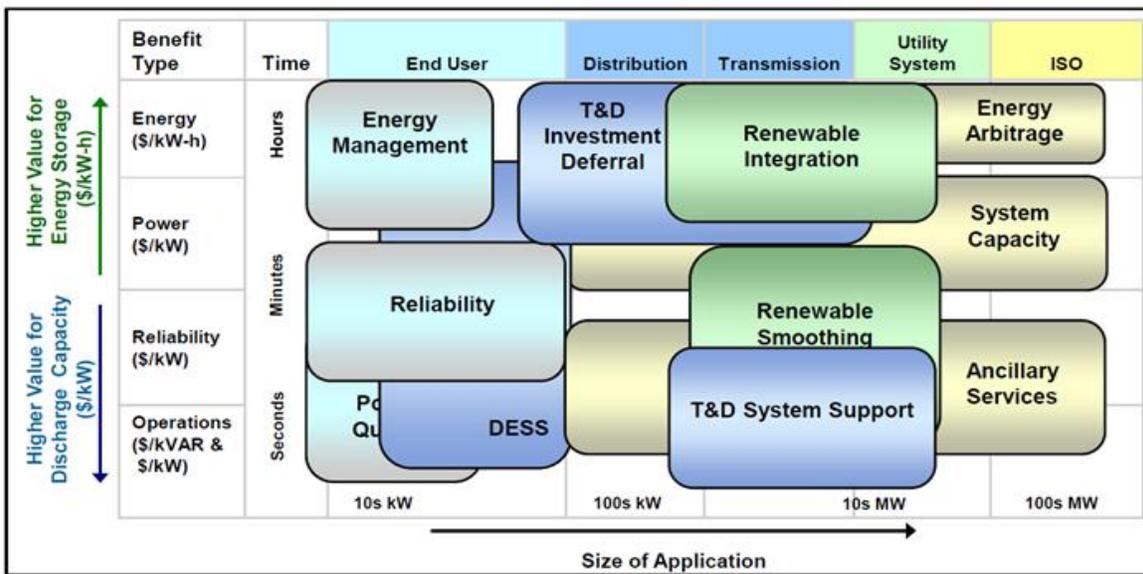


Figure 32 - Energy Storage Benefits Summary. Source: EPRI, "Electricity Energy Storage Technology Options: A White Paper Primer on Applications, Costs, and Benefits"

The technology options available for energy storage are also very diverse, and have benefits for different applications (as summarized in Figure 32). That said, AMI networks are capable of integrating all types of storage applications.

Technology Option	Maturity	Capacity (kWh)	Power (kW)	Duration (hrs)	% Efficiency (total cycles)	Total Cost (\$/kW)	Cost (\$/kW-h)
Energy Storage for Distributed (DESS) Applications							
Advanced Lead-Acid	Demo-Commercial	100-250	25-50	2-5	85-90 (4500)	1600- 3725	400- 950
Zn/Br Flow	Demo	100	50	2	60 (>10000)	1450-3900	725-1950
Li-ion	Demo	25-50	25-50	1-4	80-93 (5000)	2800-5600	950-3600
Energy Storage for Residential Energy Management Applications*							
Lead-Acid	Demo-Commercial	10	5	2	85-90 (1500-5000)	4520-5600	2260
		20		4			1400
Zn/Br Flow	Demo	9-30	3-15	2-4	60-64 (>5000)	2000-6300	785- 1575
Li-ion	Demo	7-40	1-10	1-7	75-92 (5000)	1250- 11,000	800-2250
<p>1. Refer to the full EPRI report for important key assumptions and explanations behind these estimates. All systems are modular and can be configured in both smaller and larger sized not represented. Figures are estimated ranges for the total capital installed cost estimates of "current" systems based on 2010 inputs from vendors and system integrators. Included are the costs of power electronics if applicable, all costs for installation, step-up transformer, and grid interconnection to utility standards. Smart-grid communication and controls are also assumed to be included. For batteries, values are reported at rated conditions based on reported depth of discharge. Costs include process and project contingency depending on technical maturity. The cost in \$/kW-h is calculated by dividing the total cost by the hours of storage duration.</p> <p>2. For CAES and Pumped Hydro, larger and smaller systems are possible. For belowground CAES the heat rate may range from ~3845-3860 Btu/kWh and the energy ratio is 0.68-0.78; for aboveground CAES the heat rate is ~4000 Btu/kWh and the energy ratio is ~1.0.</p>							

Figure 33 - Energy Storage Characteristics by Application (Kilowatt-scale). Source: EPRI, "Electricity Energy Storage Technology Options: A White Paper Primer on Applications, Costs, and Benefits"

How ComEd's AMI network enables these capabilities:

ComEd's AMI network enables energy storage applications through three key channels: net metering for distributed applications, measuring interval energy usage to enable dynamic rates, and through two-way communication and control of storage devices through the AMI network. All of the AMI meters will be net metering enabled, so in combination with a dynamic rate offered by a supplier, a customer could benefit by storing energy during off-peak periods and discharge energy during the more expensive peak period. The hourly intervals measured by the AMI meters will also be critical to enabling such dynamic rate offerings (as discussed earlier in this chapter). Finally, the two-way communications capabilities of the AMI network will enable DLC and other demand response or ancillary services programs that utilize energy storage applications.

C. Data Privacy

1. ComEd's Plan to Protect Customers' Data Privacy

ComEd is dedicated to maintaining the highest level of communications security to help ensure that customer-related energy data remains confidential and secure at all times.

As noted earlier, the AMI meters do not store or transmit any personal identification information about customers, do not identify electrical devices within a home, do not identify an occupant's specific behavior or activities, and do not determine physical locations of persons within a home. These AMI meters record only information about electricity usage at a premises – just as existing mechanical meters do; they are not surveillance devices.

ComEd will also permit consumers to consent to the disclosure of personal energy information to third parties through electronic, web-based, and other means in accordance with state and federal law and regulations regarding consumer privacy and protection of consumer data. Therefore, any applications discussed previously that will provide individual data to third parties, such as the “Green Button” web initiative, will require direct consent from the customer before any data is transmitted by ComEd to the third party.

In particular, the “Green Button” web initiative mentioned earlier in this chapter provides an example of how ComEd will provide for customer control of data regarding their electricity usage. . On March 22nd, ComEd joined a number of other utilities across the US to announce their participation in the “Green Button” initiative, a voluntary effort by utilities to provide energy usage data to customers in a standard format to help them make informed decisions about how to reduce energy consumption and save money. Launched in January, “Green Button” is based on a consensus industry standard that was created through a public-private partnership with the Commerce Department's National Institute of Standards and Technology.⁴⁴ “Green Button” is expected to foster innovation by third-party apps developers and providers of energy management services. This will enable customers to take advantage of the following:

- customizing thermostats for savings and comfort;
- community and student energy efficiency competitions;
- improved decision-support tools to facilitate energy efficiency retrofits;
- measurement of structural energy efficiency investments; and
- optimizing the size of rooftop solar panels.

Customers can provide energy usage data to energy suppliers and other energy companies to participate in programs that can further reduce their energy costs. While the “Green Button” provides a standardized and easy manner for the customer of provide this data to third parties, these third parties aren't able to access this data without express permission from the customer.

The Illinois Consumer Fraud and Deceptive Business Practices Act requires that an electric service provider maintain customers' personal information “solely for the purpose of generating the bill for such services”. This requirement will not change under ComEd's AMI

⁴⁴ <http://www.whitehouse.gov/blog/2011/11/21/empowering-customers-green-button>

plan. Furthermore, in accordance with relevant laws and regulations, ComEd will not disclose or sell any personally identifiable information about a customers’ energy use without approval, except as required by regulatory agencies or governmental authorities. If ComEd is able to track vulnerable customers for the purpose of milestones and metrics set forth in this Plan, this data will remain confidential and secure at all times. ComEd will not disclose or sell any personal information about vulnerable customers, or their self-identified vulnerability, except as required by regulatory agencies or governmental authorities.

Additionally, ComEd will fully comply with the Illinois Personal Information Protection Act. This Act states that: “any data collector that owns or licenses personal information concerning an Illinois resident shall notify the resident at no charge that there has been a breach of the security of the system data following discovery or notification of the breach.” ComEd will fully comply with this requirement by contacting all customers to inform them if there is a breach of data security

D. Plan to Enable Existing and Future Smart Grid Technologies and Applications that Deliver Value to Customers

While ComEd’s AMI system will enable all of the Smart Grid functionalities identified above, there are still many uncertainties about what level of additional action ComEd will need to take in the future to facilitate yet-undeveloped, cost-effective technologies and applications. In order to enable these future applications once they become mature enough to deliver customer value, ComEd has developed a process for researching and tracking future customer-side Smart Grid applications in order to identify those in which ComEd should invest more heavily to provide additional functionalities directly to customers.

1. ComEd’s Process for Enabling Future Smart Grid Applications

Specifically, ComEd has developed a three-stage process to identify, evaluate, and implement customer applications that will unlock key functionalities of the Smart Grid.



First, ComEd proposes to track the availability and demand for potential customer applications through customer-centric technology research. ComEd also proposes to conduct a detailed technology market assessment and technology provider analysis for the various customer-side technologies. This type of analysis is designed to help ComEd understand where potential customer applications fall on the maturity curve (see Figure 34). This knowledge will also enable the development of service offerings in a manner that is most beneficial to customers.

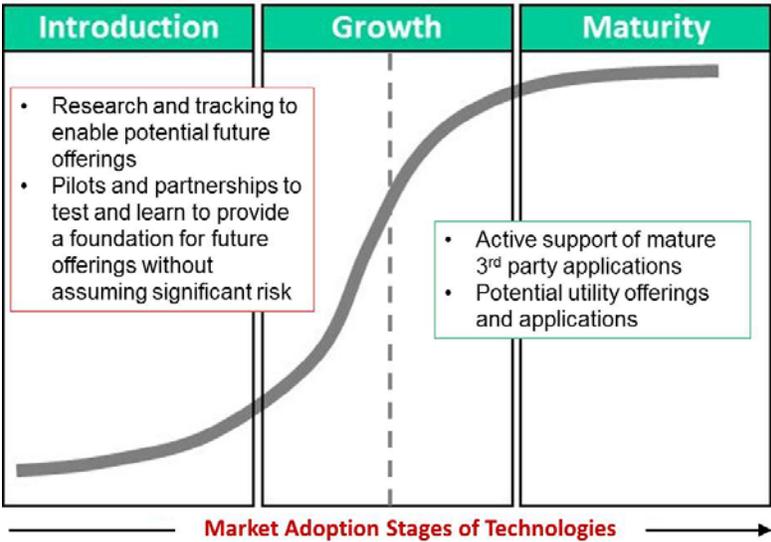


Figure 34 - Maturity Curve for Smart Grid Applications

This market assessment and research identifies technologies that demonstrate potential to unlock Smart Grid functionalities for customers and will allow ComEd to test Smart Grid applications through pilots to learn how to best enable them for the benefit of customers. In addition, ComEd proposes to develop a model to help systematically identify entities interested in testing and deploying AMI-enabled technologies in the introduction and growth phases. Furthermore, ComEd proposes to develop a roadmap to facilitate piloting a broad range of customer-side technologies, including: distributed renewable generation, battery storage technologies, plug-in electric vehicles, and HAN technologies.

Third, ComEd will facilitate future customer applications as they become required or prove to deliver value. The primary way that ComEd will accomplish this goal is working with third parties that want to leverage ComEd’s AMI network to enable key Smart Grid functionalities for the benefit of ComEd’s customers. ComEd’s Test Bed will allow third parties to use ComEd’s system to test programs, technologies, business models, and other Smart Grid-related activities, provided those third parties qualify to use the AMI system.

Furthermore, as discussed earlier in this chapter and in the previous chapter, ComEd has already begun to deploy a number of programs designed to deliver immediate value from its AMI system investment. For example, ComEd is enhancing a web portal that allows customers to view and manage their interval electricity usage, as well as view tips and tricks to help them set an energy reduction goal and save energy. In addition, ComEd is designing an opt-in, market-funded, Peak-Time Rebate (PTR) program (as explained in earlier in Chapter 3).

2. ComEd’s Planned Activities to Facilitate Future Customer Applications

ComEd’s current plan for enabling future customer applications includes the following:

Peak Time Rebate Program	Opt-in, market funded rebate for customers with AMI meters that reduce usage during peak events
Web Portal	Website that displays interval usage, energy saving tips and tricks, and comparison of energy usage to anonymous neighbors.
Smart Grid Test Bed	Platform for third parties to test applications over ComEd’s AMI network
Smart Grid Technology Tracking	Track development of technologies capable of enable Smart Grid functionalities for consumers
Customer Research: Smart Grid Technology Value Proposition to Customers	Understand customer demands and value from developing technologies
Contracts with Vendors of Maturing Smart Grid Technology	Executed when technology that will deliver Smart Grid functionalities to customers is identified
Implementing New Programs to Facilitate Future Customer Applications	Executed when application/program that will deliver Smart Grid functionalities to customers is identified

Figure 35 - ComEd Planned Activities to Facilitate Smart Grid Functionalities

ComEd’s approach to enabling future customer applications and technologies focuses on shifting the cost for developing these applications to the third-party vendors where possible. The Test Bed, for example, provides third-parties vendors with access to the AMI network, provided those third-party vendors qualify to use the Test Bed. The Test Bed is designed to let outside parties test new technologies and services that leverage the AMI network to deliver value to customers without cost to the customer for that development.

E. Milestones and Metrics

Many of the functionalities unlocked through ComEd’s deployment of AMI will be available to the customer as soon as the AMI meter is installed at their premises and activated pursuant to the AMI deployment schedule described in Chapter 2. ComEd’s AMI meters will unlock key functionalities as described earlier in this chapter, including:

- Suppliers’ ability to offer dynamic rates and PEV charging rates
- Net metering for DG and storage
- Wireless communication from the AMI meter through the ZigBee® standard

- Interval data available for viewing and download on the web portal
- Ability to enroll in the PTR program
- Faster and simpler enrollment for the RRTP program

Therefore, the milestones for enabling these foundational capabilities will be realized immediately as AMI meters are deployed and activated pursuant to the AMI deployment schedule (see Figure 36).

Year	# of Meters Deployed	Operating Center(s) Centers
2012	-	N/A
2013	710,000 -	Maywood N/A
2014	-	N/A
2014 2015	500,000	Maywood, Chicago South, <u>Glenbard</u> , <u>Mount Prospect</u>
2016 2015	833 846,000	<u>Maywood</u> , Chicago South, Glenbard, Mount Prospect, Chicago North, <u>Crestwood</u>
2017 2016	930 846,000	Mount Prospect, Chicago North, Crestwood, <u>Skokie</u> , Bolingbrook, <u>Aurora</u>
2018 2017	930 700,000	<u>Chicago North</u> , Bolingbrook, <u>Aurora</u> , <u>Libertyville</u> , University Park, <u>Elgin</u> <u>Skokie</u> , Joliet
2019	485 ,000	Joliet , Aurora , Elgin , Crystal Lake
2020	377 ,000	Crystal Lake , Libertyville , Rockford
2018 2021	765 6275,000	<u>Libertyville</u> , <u>Elgin</u> , <u>Joliet</u> , <u>Dekalb</u> , <u>Crystal Lake</u> , Rockford, <u>Streator</u> Dekalb , Dixon , Freeport, <u>Dixon</u> <u>Streator</u>
TOTAL	4,029,000	

Figure 36 - Meter Deployment Rollout

Key AMI Meter Deployment Milestones and Metrics (see Chapter 2 for full list)

- IT Release 1 scheduled for completion by the end of July 2012
- First AMI meter installed Q3 2013~~Q1 2015~~
- From approximately ~~70~~275,000 to 930846,000 meters installed each year as per roll out schedule set forth in Figure 36.

- Last non-AMI electro-mechanical meter replaced with AMI meter in ~~2018~~2021
- IT Release 2 to support Full Deployment scheduled to start in August of ~~2013~~2012 and be completed by the end of 2016
- IT releases 3 through “n” to support Full Transformation to be completed by the end of 2016 (see Figure 11 in Chapter 2 for full details)

Key Research Milestones and Metrics

- Quarterly: Provide refresh of technology tracking outlook
- Quarterly: Update customer research to understand how preferences and demand for Smart Grid-related applications are developing

Key PTR Milestones and Metrics

- Key milestone: A proposed tariff will be filed with the ICC within 60 days of the ICC’s approval of ComEd’s AMI Plan
- Key milestone: Customers with installed and certified AMI meters will be eligible to enroll in PTR consistent with the PTR tariff when approved by the ICC
- Key milestone: The first PTR event is expected take place in the summer of 2015
- After the fourth year of the PTR program, ComEd will submit a report detailing:
 - Number of customers eligible for the PTR program
 - Number of customers enrolled in the PTR program
 - Average peak reduction for enrolled customers
 - Average rebate for enrolled customers
 - Total events called by year
 - Total program energy and bill savings by year

Key Web Portal Milestones and Metrics

- Customers will have access to a monthly usage web portal in 2012 and an interval usage web portal as soon as their AMI meter is installed and certified
- Customers will have access to “Green Button” functionality as soon as they have access to the web portal

- Key milestone: launch the following new web features by Q4 2014:~~web portal will be integrated with ComEd.com by the fourth quarter of 2012~~
 - Launch new mobile-friendly version of Weekly Energy Breakdown emails
 - Fully integrate My Energy Tools into customers' ComEd.com accounts
 - Integrate My Energy Tools functionality into the ComEd mobile app and mobile site for smart phone access
 - Launch Unusual Usage Alerts via SMS (text)

Metrics Related to “Vulnerable” Customers to Track Impact of Costs, AMI Deployment and Customer Benefits

The Commission’s Order in Docket No. 12-0298 directed ComEd to discuss with stakeholders and Staff the methodology to define and identify “vulnerable” customers. ComEd met with numerous stakeholders in the second half of 2012 to exchange views on defining and identifying vulnerable customers. Consistent with the consensus reached with stakeholders in these meetings, vulnerable customers are defined for purposes of this Plan as customers belonging to the following customer groups:

- (1) Low income
- (2) Very young (from birth to age 5)
- (3) Older individuals (age 65 and older)
- (4) Those who have limited English proficiency or literacy
- (5) Individuals with a functional disability, such as impaired mobility
- (6) Persons who are socially isolated

Also consistent with the consensus reached with stakeholders in these meetings, metrics reported for each of the above-named subgroups will be conducted or presented individually for each of the six subgroups. ComEd will identify customers as belonging to each of the subgroups based on information available to ComEd from customer energy assistance programs. Information is not currently available for all subgroups, but ComEd will report data for the metrics identified herein based on data that is or becomes available and can be verified at the account level.

The Commission’s Order in Docket No. 12-0298 also states that “[i]f further information is 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.” ComEd interprets this directive to require such information to be included in this Plan. There remain significant barriers to tracking vulnerable populations. ComEd’s customer files do not include income, age, disability, or other information placing

customers into the subgroups used to define vulnerable customers. Such “vulnerability” indicators would be considered highly personal and private by customers. One method to attempt to compile this personal information would be surveys conducted among customers. Customers would have to identify themselves as “vulnerable” based on their responses to the questions. A census survey of all 3.4 million residential customers would likely be very costly. Further, ComEd assumes that stakeholders and the Commission would intend for responses to the survey to be voluntary, meaning customers would not be obligated to complete the survey. Thus, many customers will elect to not answer questions posed on behalf of ComEd that reveal personal information. Many customers may find certain questions of a personal nature to be intrusive or offensive. Therefore, such a survey may be impractical as well as costly, and ComEd will continue to explore other more efficient and productive means of obtaining this data. These and other issues will need to be addressed in ongoing discussions with stakeholders and Staff.

For purposes of this Plan, ComEd will track the following metrics for all customers by customer class, by usage level for the residential, watt hour, and small load delivery service classes, and for the six vulnerable customer subgroups that are potentially identifiable through energy assistance programs. For purposes of this Plan, “low income customers” will be defined as those customers participating in the Low Income Home Energy Assistance Program (LIHEAP), the Residential Special Hardship Program, the CHA All Clear program, or the Percentage of Income Payment Program (PIPP). For purposes of this Plan, “customer class” will be defined as ComEd's 15 delivery classes as defined in its General Terms and Conditions (Sheets 135 -138).

- ComEd initially will report the following metrics on an annual basis:
 - Bill impacts associated with the costs for implementation of ComEd’s Smart Grid Advanced Metering Infrastructure Deployment Plan for 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.
 - Number of customers that have created 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.
 - Number of customers with ComEd.com accounts that have viewed the web portal – by usage levels, customer class, and low income customers.
 - 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.

- 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.
- Number of customers enrolled in any future Time of Use (TOU) program that ComEd might offer by usage levels, customer class, and low income customers.
- Number of customers enrolled in ComEd’s Peak Time Rebate (“PTR”) program by usage levels, customer class, and low income customers.
- 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.

Of course, these metrics are subject to further revision and refinement based on discussions with Staff and stakeholders regarding the tracking of “vulnerable” populations. ComEd plans to ensure that any data used to further identify accounts as belonging to the vulnerable customer groups will be accurate, sufficiently detailed, and maintained as customer confidential information.

Chapter 4: Customer Outreach and Education

A. Overview

ComEd's AMI deployment initiative, enabled by PA 07-0616, will impact the ~3.8 million customers served by ComEd for the next 10 years and beyond. As the AMI Deployment Plan investment begins in 2015, the objective of the education and outreach effort is to help customers capture value from the investment, enhance the customer experience by providing actionable information, easy access to information and simple enrollment in Residential Real Time Pricing (RRTP)⁴⁵ or Peak Time Rebate (PTR) programs, and proactively address negative experiences and perceptions.

The customer education and outreach plan has been developed to take customers through a journey that seeks to build awareness, strengthen understanding, promote engagement through participation, and encourage customers to advocate beneficial programs facilitated by the advanced meter technology such as RRTP and PTR. We recognize that not all customers will complete the entire journey, but we are committed to engaging as many customers as possible, and helping them move through the steps of the journey over the next ten years to facilitate the realization of customer benefits.

This education and outreach plan leverages customer research, best practices and lessons learned from previous implementations of advanced meter technology by the Pilot and by other utilities. The key audiences in this plan are residential and small business customers. We will utilize readily available data such as type of building and energy usage at the onset of our education and outreach program. As implementation progresses, audiences will be differentiated by demographics, geography and behavioral data, allowing us to test the effectiveness of both benefit messaging and marketing methods.

The education and outreach plan will use a targeted messaging strategy to deliver the messages that will most easily resonate with residential and small business customers, with initial message themes of control / empowerment, savings, reliability, service, and future preparedness for future technology enabled by smart meters.

Messages will be delivered via a staged messaging approach. Initial customer messages are intended to enhance comprehension of smart meters and explain the benefits of the pricing programs. Messages will also be tailored to audiences based on data and ethnic composition. Targeted messages delivered via strategies by audience with specific methods will support our efforts to move customers along their journey. The outreach and education will communicate to customers the benefits of the smart meters by signing up for pricing plans, such as residential real time pricing (RRTP) and Peak Time Rebate (PTR) or a pricing program developed by a RES, and how they can manage their energy with these programs and save money.

⁴⁵ The Residential Real-Time Pricing (RRTP) program is currently under review in Docket No. 11-0546 where the Illinois Commerce Commission is considering the modification or termination of the program

Leveraging other utilities' best practices, methods have been identified to support each of the strategies in this plan. Chapter 2 contains the anticipated smart meter deployment schedule by year and operating center. In addition, an extensive program of primary and secondary research will be employed to support planned initiatives, as well as to measure the overall success of the customer education and outreach initiatives.

B. Background

As a result of PA 97-0616, AMI deployment is expected to impact virtually all ~3.8 million ComEd customers through meter upgrades, infrastructure upgrades in the community, system improvements and new information and programs. This section summarizes the key learnings from the Pilot and the information about other advanced meter deployments.

1. AMI Pilot Lessons

ComEd deployed "advanced meters" and an AMI Network for approximately 130,000 residential and non-residential customers as part of the Pilot from November 2009 through May 2011.

The meter installation communication protocol for the pilot included four steps: a pre-installation letter sent out three weeks prior to the week of installation, a pre-installation automated outbound call one week prior to installation, a personal notification immediately prior to meter exchange, and a door hanger after the installation of the advanced meter was completed explaining the benefits of advanced meters (or explaining why a new meter couldn't be installed).

Recommendations Based on Key Customer Communication Learnings from the AMI Pilot:

- Recommendation to continue the pre and post meter installation communication methods used, as customer satisfaction with the installation process was high at 90%.
- Reinforcement of the use of the door hanger even if the customer is home at the time of the installation.
- Revision to the treatment of multiple occupancy buildings to include leaving multiple door hangers at the main entrance.
- The web site, www.comed.com\smartmeter, was updated for usability and contained information including: the installation process, a pilot overview, FAQ, and how to read the new meters.
- Community advanced meter awareness and education events should take place prior to and during advanced meter deployment to raise awareness of the meter installations within communities

2. Information from Other U.S. Deployments

Many U.S. utilities have already embarked upon mass deployments of advanced meters in their service territories. A number of the utilities recognize the importance of communicating effectively with their customers about the benefits of AMI deployment. Each utility faces a different political and cultural environment, ComEd will consider the strategies and methods employed by other utilities to identify approaches to better educate and engage its customers.

As a result, interviews were conducted with subject matter experts in education and outreach at some of the larger utilities that deployed advanced meters (and grid modernization) in their service territory including CenterPoint Energy (CPE), Detroit Edison (DTE), Florida Power & Light (FPL), Oncor, Pacific Gas & Electric (PG&E), Portland General Electric (PGE), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E). ComEd obtained information about deployment messaging, general communication methods, meter installation communication methods, issue management methods, meter accuracy and high bill mitigation methods, media efforts and employee communication methods.

Deployment Messaging

- FPL’s key messages focused on customer benefits, emphasizing reliability and control
- Oncor’s messaging emphasized customer control; secondary messages revolved around environmental savings and energy efficiency
- SCE’s messages that focused on cost savings resonated with customers
- SCE, Oncor and CPE provided messaging to target specific regions (e.g., demographic) of their service territory and / or segments

Communication Methods

- SDG&E developed a 90/60/30/7/0 day communications plan to educate each community prior to meter deployment.
 - At 90 days, SDG&E met with community leaders and influencers; at 60 days, they attended community events; at 30 days, direct mail was sent to citizens; at 7 days, outbound calls were made to residents
 - SDG&E also had an “in-field team” (made up of retirees) that went door to door after the meter installation to survey them about their experience and answer questions (e.g., energy efficiency).
- CPE’s deployment communication methods included publishing a quarterly customer newsletter, website updates, automated emails to customers before meter installation, pre and post meter installation door hangers, and instructional videos and brochures.

- CPE’s installers took pictures of the final reading on a customer’s old meter before exchanging it with a two-way communicating digital meter as part of their installation process.
- CPE hosted online public chat forums for customers to ask questions regarding their deployment.
- FPL’s post-installation communications demonstrated how to get value from its Energy Dashboard.
- SCE’s communication material (e.g., notice letters, door hangers) had a 3-layered approach: two-second tagline, elevator pitch, detailed fact sheet. SCE also developed and offered a budget assistant tool to provide customers with energy use data, budget goals and alerts.
- PGE developed and used four separate door hangers during the installation process; “successful installation,” “we missed you,” “we’ve caused a problem on your property and will fix it,” and “we need to talk to you.”

Media Efforts

- SCE issued a press release to the local media shortly before deployment in every community that received the new meters.
- Oncor was able to better address customer concerns when they were more proactive with correcting and educating the media.
- SDG&E and CPE actively monitored traditional and social media sites for issues and addressed them directly as they arose.
- After re-vamping its communications strategy in 2010, PG&E started using several media outlets including broadcast, newspapers, social media and bus station kiosks for its “advanced meter” (and subsequently grid modernization) communications

C. Objective

The **objectives** of the Education and Outreach Plan are to:

- Provide customers with practical instruction, analysis, and information to enable and encourage customers to capture economic benefits as quickly as possible, especially to produce immediate bill savings to customers.
- Provide customers with the information that will help them capture value from the AMI deployment

- Enhance the customer experience by providing actionable information, easy access to information, and simple enrollment in pricing programs such as (PTR and RRTP)

To support these objectives ComEd will increase customers' awareness, acceptance and engagement in the AMI deployment initiative through education and outreach activities employing targeted messages throughout the implementation.

D. Strategy

To support the objectives stated earlier, several strategies will be utilized based on audience and the implementation cycle. Methods will be aligned with audience specific strategies. Strategies will drive the selection of which methods should be utilized, to which audience, and at what time based on the customers' knowledge of advanced meters.

1. Core Strategies

- Build awareness of the value and benefits of advanced meter deployment among customers.
- Inform about benefits of advanced meters and pricing programs (such as PTR and RRTP).
- Educate to ensure that customers understand how to manage energy from advanced meters.
 - Focus customer education on specific actions customers with AMI meters can take to realize economic benefits from AMI meters (e.g., how to use the meter's capabilities) and actions that customers without meters can take to offset their AMI-related charges while awaiting AMI meter installation. Customer education content will include specific information on how customer can use their AMI data to produce immediate bill savings.
- Increase engagement with planned implementation activities.
- Collaborate with community leaders to ensure customers are engaging in PTR and RRTP

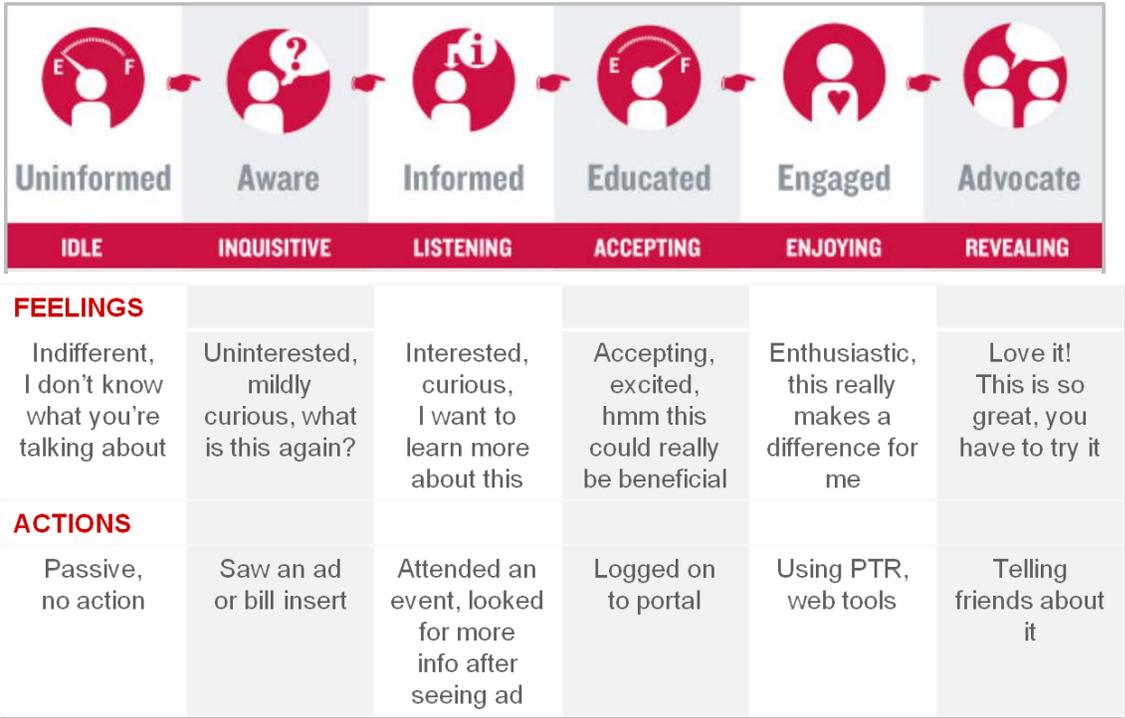
2. Guiding Principles

The following guiding principles apply to residential and small business customers, and are based on what we have learned from our benchmarking and discussions with other utilities and independent parties.

- **Build Relationships to Facilitate Engagement** – Establish platforms for ongoing dialogue to ensure that customers are aware of the **AMI deployment**.

- **Gain Customer Acceptance** –Through collaborative work with stakeholders, improve customer utilization and acceptance.
- **Tap into the Power of Community** – Understand the power of human social networks. Personal learning comes through communication with friends, neighbors and coworkers.
- **Commit to Creating Mutually Beneficial Outcomes** – Build “what’s in it for me” messages to ensure that we are focusing on customer’s needs.
- **Demonstrate Responsiveness** – Be transparent through continual education and information provided to customers and communities.
- **Proactively and Responsibly Engage** –Provide information on potential issues that may arise and suggested responses to external facing teams, employees, community leaders and organizations.
- **Meet People Where They Are** – Don’t wait for customers to connect, rather, take AMI deployment information to them to effortlessly take them on the journey leading to engagement and advocacy.
- **Be Open to Feedback and Continued Improvement** – Expect requests for communication and process improvements, and be flexible to accommodate continual change.

3. Customer Journey



A customer journey is an illustration of the steps customers experience in engaging with a company, whether it is a product, an experience, or a service. Sometimes customer journeys are “cradle to grave” looking at the entire arc of engagement. At other times, customer journeys are used to look at very specific customer-company interactions (for example, the purchase of an iPad™). We have developed a customer journey for ComEd’s AMI deployment initiative. As advanced meters are deployed by city and neighborhood, ComEd will take customers through a journey that seeks to build awareness, strengthen understanding, engage through participation and collaborate with community leaders to ensure customers are engaging in mutually beneficial programs facilitated by advanced meters, like RRTP and PTR, or other pricing programs delivered by a RES. Not every customer will complete the entire journey. In some cases simple neutrality or indifference will be as far as some customers are able to move. However, we would like as many customers as possible to move through most steps on the journey through participation in programs facilitated by advanced meters over ten years. The goal of the journey is to demonstrate value and enhance the customer experience. Through the journey the customer will see the growth of local business and innovative new products and services such as new pricing programs.

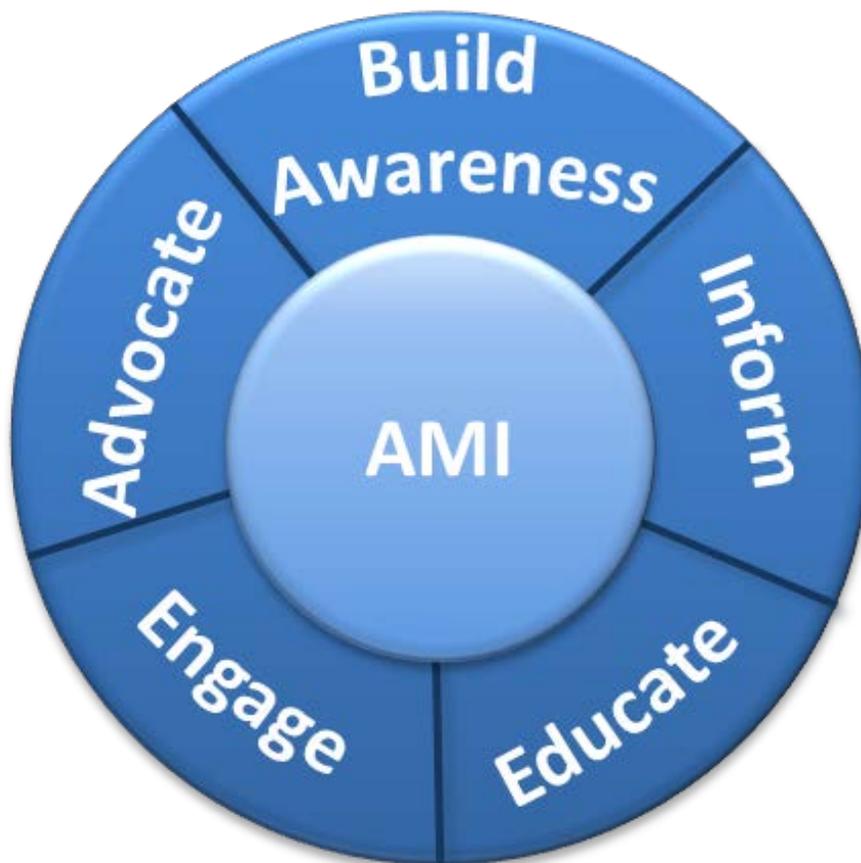
4. Customer-Specific Strategies

- Utilize a phased communication approach so that customers receive relevant information when it counts; customers are most often responsive when they receive information that they can immediately act on.

- Incorporate customer behavioral and demographic data points to target messaging; not all customers have the same concerns about advanced meters.
- Foster customer goodwill through community outreach, environmental events, and partnering with trusted community groups.
- Set clear expectations about what customers can expect through a steady feed of relevant news and information.
- Leverage public influencers to deliver messages to constituents.
 - Partner with local community organizations and advocacy groups to communicate the grid modernization messages and to provide trusted third parties as additional voices. Work with the public influencers to educate customers on smart meters, pricing programs and tools to reduce energy use and cost
- Customize education to focus on key customer segments based on available demographic data.
 - Deliver low-income education and support programs to help seniors and economically disadvantaged understand how to manage energy effectively using smart meters and pricing programs (such as RRTP and PTR)
 - Because some customers may not have access to a computer and / or internet access, ComEd is exploring the ability to also facilitate information and data access through personal mobile devices, which may provide less expensive internet access for customers most in need of savings opportunities, by incorporating internet applications that accommodate use of smart phones or other mobile devices.
 - Further, for customers who may not have means to receive information through electronic channels, ComEd will facilitate information and data access through face to face communications. That will be done with the Speakers Bureau, teacher partnerships, small business neighborhood canvases, and outreach through faith-based and environmental non-profits. Each of these programs is described in more detail below in section I(6).
 - Make sure that education regarding cost savings under AMI is reaching all customers including low-income customers participating in PIPP, LIHEAP or a DPA. Include education around PTR, RRTP and web tools. If a TOU rate becomes available in the future, ComEd will also include that tariff in its education efforts. How ComEd will educate customers is detailed below in subsection F under the marketing campaign for low income and senior customers. How ComEd will measure the effectiveness of these education efforts is described in subsection J.

- Utilize traditional (out-of-door, print and online media, public relations), non-traditional (grassroots, community events, social media) and one-to-one channels (direct mail and email) to reach customers throughout the communication cycle.

The communication wheel below illustrates the core strategies and how they will be implemented at each stage of deployment. As this plan is further developed, additional sections will be added to the wheel to illustrate how each component of the plan ties together.



E. Audiences

The objective of the customer education and outreach plan will be realized through strategies tied to specific residential and small business audiences. The audiences will be approached based on their current state of understanding, their interest in further education, and their receptivity to engage and realize the benefits of advanced meters. This section will describe

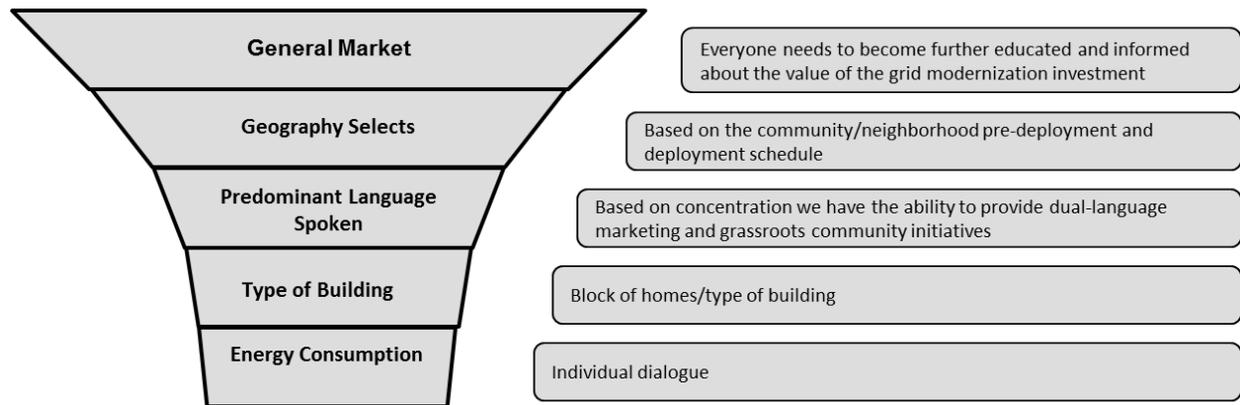
how ComEd plans to utilize the current data available on our customers, and the behavioral data that will be available in the future, to target outreach and education efforts.

Audience Approach

The customer journey overlaps with the operational and implementation activities that customers will experience. Regardless of who the customer is, where they live and how they consume energy, they need to hear the same basic, informational messages at the beginning of the program touching their community.

ComEd will differentiate the audiences based on geographic and demographic data. ComEd will test the effectiveness of utilizing various data or different segments to target communications at each phase of the customer’s journey. What works in traditional energy efficiency education and outreach may not be as effective with this plan due to the diversity of the customer base and the complexity of tailoring messaging to different customer segments. In addition, ComEd will consider the fact that all customers will eventually have an advanced digital meter and many will experience a lag time between messaging and meter deployment over a 10-year deployment schedule.

The approach that will be used to define audiences and link the tactical marketing plan can be visualized as a funnel and supported by the readily available internal data. The graphic shown below is for illustrative purposes only, and suggests a way available data will be used to target communications.



Readily Available Data for Initial Audience Segments

The table below provides a partial listing of readily available data that can be captured from internal database systems and then overlaid with geographic information in the advanced meter deployment plan. This data will allow for a deeper understanding of customers’ experiences with ComEd, particularly with energy usage, bill payment and power outage experiences. The following information will likely be used for the initial audience segmentation for both residential and business customers.

Data from Internal Systems	
Residential Customers	Business Customers
<ul style="list-style-type: none"> • Address • Single Family / Multi-Family • kWh Usage 	<ul style="list-style-type: none"> • Address • kWh Usage

F. Low Income Customer Assistance Programs

The data and programs provided by AMI meters have the potential to change the way we relate with customers who are on the verge of disconnection by helping them reduce their energy consumption. However if customers find themselves experiencing a hardship, there are customer assistance programs for low-income customers for the primary purpose of avoiding imminent disconnection.

ComEd will provide \$10M per year for five years pursuant to Section 16-108.5(b-10) to fund low income programs which are listed below. These programs will be designed to assist customers who are either in arrearages or who are about to be disconnected, as well as customers who have been disconnected. The allocation for the \$10M for these programs in 2012 is expected to be as follows:

- \$8M for Residential Special Hardship: This program will provide relief to the customers who need it most by assisting them to regaining the ability to manage their electricity bills successfully. Eligible⁴⁶ residential customers who are experiencing a hardship (senior hardship, job loss, medical issue, etc) can receive a grant of up to \$500 each. ComEd will educate customers about no-cost and low-cost ways they can decrease their future electric bills.
- \$1M for Non-Profit Special Hardship: This program will focus on assisting non-profit organizations in need that provide basic life needs (senior centers, homeless shelters, Veteran organizations). A requirement to participate will include participating in energy management education.
- \$0.5M for C.H.A.M.P. (ComEd Helps Active Military Personnel); This program serves our nation’s active military, and veterans (including disabled veterans) experiencing a hardship. Grants up to \$1000 and/or various other benefits (deposit refund, late payment charges waived etc). We will identify and partner with military organizations, such as the American Legion and Marine Corps League that have existing touch points and utilize their communication channels to reach eligible customers. We will use a channel mix of marketing and communications to increase program awareness and enrollment. Methods will include: newsletter content, brochures, posters/counter cards, fact sheets, email

⁴⁶ Customers eligible if income is at or below 250% of poverty level (\$57,625 for family of four), and if they are not PIPP participants. LIHEAP customers are eligible for grants *after* LIHEAP funds have been applied.

templates, talking points and events. These methods will also provide information about no-cost and low-cost ways to decrease future electric bills

- \$0.25M for Educational Classes: ComEd will conduct first time homebuyer classes through the Chicago Urban League and LUCHA organizations. In addition, non-profit energy management education will be developed and implemented with CNT.
- \$0.25M for Outreach and Marketing: Outreach will entail targeted participation with a variety of communities. This includes the following: participation in Energy Fairs with LIHEAP, participation in local community events, Energy Fairs participation with local community agencies, partnerships or pilots with local housing authorities to target senior population on energy management. Specifically ComEd will expand the outreach efforts to include the City of Chicago Department of Aging. For marketing, traditional communications methods to include: general and minority market radio, press conferences in key communities & news releases, face book & twitter, ComEd CARE website, a monthly fact sheet and a program fact sheet for community distribution in municipalities and with legislators.

In addition, the statutorily-authorized Percentage of Income Payment Plan (“PIPP”) will be available to an estimated 260,000 of ComEd’s low income customers.

- The PIPP is administered by the Department of Commerce and Economic Opportunity (“DCEO”) who also administers the Low Income Home Energy Assistance Program (“LIHEAP”).
- PIPP is designed to attempt to change and reward the good payment behavior of low-income customers with program participants paying no more than 6% of their income for home energy charges. Each customer can receive up to \$1,800 in energy assistance benefits per year.
- DCEO subsidizes a participant’s remaining service charges year-round with funding from State and Federal Appropriations. The State component is partially funded through the Supplemental Low-Income Energy Assistance Fund, a component of the ComEd customer charge.
- PIPP includes an Arrearage Reduction Program (ARP) component that rewards participants for regular, on-time bill payments – “arrearage forgiveness”. This results in a 1/12 credit toward pre-program arrears for each on-time monthly payment up to \$1,000 per year for each utility. ARP is limited to maximum funds available per utility. In addition, Section 16-108.5(b-10) funds will be used to assist customers in arrearages.

In order to proactively provide for the foreseeable effects on low-income customers from increased disconnections for nonpayment in an effective and focused manner, the following enhanced communication methods will be available for low income customers:

- **CARE** – ComEd will add reference to the availability of the customer assistance programs in existing outgoing collection activity communication channels. The enhanced communication will direct customers to ComEd.com/CARE or to call ComEd’s CARE hotline at 888-806-2273:
- **Proactive Call** – ComEd will change the call message script on the existing proactive calls to state the availability of customer assistance programs, including LIHEAP, PIPP, and Residential Special Hardship.
- **Written Disconnection Notice** – While the current disconnection notice does mention the availability of Customer Assistance Programs, the reference to the programs will be modified to include the website and CARE hotline phone number to use to apply for the programs. Additionally, ComEd will improve the visibility of this language on the disconnection notice.
- **Field Notification Call** – ComEd will change the call message script on the field notification calls to identify the availability of customer assistance programs, including LIHEAP, PIPP, and Residential Special Hardship.
- **Municipal Notification** – ComEd will notify the City of Chicago and other municipalities of impending disconnections on a zip code (or comparable) basis after developing a business process to accomplish same, as permitted by customer information privacy constraints. ComEd is currently exploring its capability to report impending service disconnection information on a zip code by zip code basis. ComEd will solicit input from the City of Chicago and other municipalities on a new process to provide notice of disconnection of customers for nonpayment on a geographic basis for customers who have received an AMI meter, as permitted by customer information privacy constraints.

The company will take the following actions to enhance communication for situations where the customer contacts ComEd:

- **Phone Greeting:** The Call Center and Revenue Management will work together to determine how the IVR and CSR call scripts could be altered to better proactively provide customer assistance information over the phone to customers in credit distress, including communication regarding the availability of LIHEAP, PIPP, and Residential Special Hardship.
- **Web:** Customer Operations will change existing web messaging to better emphasize the availability of customer assistance programs, including PIPP, LIHEAP, and Residential Special Hardship.

ComEd will also coordinate with social service agencies, local governments and other sources of customer assistance via the following:

- ComEd Customer Assistance has engaged and will continue to engage the following organizations in discussion to develop the Customer Assistance Program guidelines (i.e., customer eligibility, program design, timing of program rollout, etc.):
 - DCEO
 - Housing Authorities (CHA, Aurora, Rockford, Metropolitan, Kankakee)
 - CNT Energy

Additionally, Customer Assistance has engaged and will continue to engage in the following outreach efforts in connection with the availability of assistance programs:

- ComEd held media awareness events in Chicago, Rockford and Will County
- In partnership with Ameren and DCEO, ComEd participated in the Housing Authority Conference held April 2012 for the purpose of providing Customer Assistance information
- Program information English/Spanish has been shared with the Chicago Housing Authority for distribution to their residents
- ComEd will be hosting a senior night in Saratoga Towers (Kendall-Grundy) with participants receiving Customer Assistance Program information, energy efficiency information, and entertainment
- Customer Assistance, Marketing, Corporate and Communications are coordinating efforts to provide Customer Assistance program and energy efficiency information to seniors through the meals on wheels program throughout the territory (Dept of Aging)
- LAA's will receive energy efficiency packets via a marketing drop shipment. Customers applying for Residential Special Hardship will be provided with a packet for their use.
- External Affairs will work with United Way to distribute information regarding the Non-Profit Special Hardship program.
- Coordinating a conference with St Vincent De Paul, Lake County LAA and Lake County Housing authority to align efforts to get information to customers seeking assistance.
- The Customer Assistance team participated in the Welcome Home Celebration for Military Veterans in May. CHAMP information was distributed along with giveaways for military families

The marketing plan for low income and senior populations will also include energy management to help customers manage and reduce their energy usage.

- As part of the promotion on CARE, ComEd will educate low income customers on energy management providing customers with information to help them lower their

future energy bills. Energy efficiency tips will be included on all CARE collateral, such as brochures and flyers, and at events where CARE is promoted.

- Energy efficiency tips will focus on low-cost and no-cost ideas that can help low income customers save money immediately.
- Build energy efficiency knowledge among existing low-income advocates and organizations (such as LIHEAP and CIDA offices) so they can help communicate energy management information to their constituents.
- Host speakers bureau events for low-income customers via low-income advocates and organizations offering in-person education about energy efficiency.
- Messages will be used as a supplement to primary messaging about CARE assistance in paying electric bills. Messaging will focus on no-cost and low-cost energy-saving tips and will include:
 - In addition to the financial assistance programs ComEd offers, here are some small changes you can make to have a noticeable impact on your energy bill.
 - Adjust your refrigerator settings
 - Keep your refrigerator's coils clean
 - Use a power strip to power off unused electronics
 - Use window shades
 - Turn off lights when you leave a room
 - You've got the power to save.
 - For more no-cost and low-cost energy-saving tips, visit ComEd.com/Tips

The table below outlines some methods and tactics to be used for low income audiences:

Tactic	Strategies	Description	Audience(s)
Enhanced Speakers Bureau	<ul style="list-style-type: none"> Use CARE channels Promote directly Build knowledge among advocates 	<ul style="list-style-type: none"> Partner w/LIHEAP and CEDA offices to host Speakers Bureau presentations to low income customers Partner w/Housing Authorities to host Speakers Bureau presentations 	<ul style="list-style-type: none"> Supporting orgs Customers
Brochures	<ul style="list-style-type: none"> Use CARE channels 	<ul style="list-style-type: none"> Distribute EE brochures (leave behind packets) to all LIHEAP and CEDA offices (quantity-31,700) – complete Distribute CARE brochure w/EE tips through Meals on Wheels program 	<ul style="list-style-type: none"> Supporting orgs Customers
Workshop/webinar	<ul style="list-style-type: none"> Build knowledge among advocates 	<ul style="list-style-type: none"> Develop workshop/webinar presentation on energy management for Non-profit Assistance program (required attendance for grant recipients) Attend LIHEAP conference (end of June), partake in panel discussion on energy management 	<ul style="list-style-type: none"> Non-profit orgs LAAs
Newsletter Templates	<ul style="list-style-type: none"> Use CARE channels 	<ul style="list-style-type: none"> Short template that can be sent by supporting organizations 	<ul style="list-style-type: none"> Supporting orgs Housing Authorities
Events	<ul style="list-style-type: none"> Use CARE channels 	<ul style="list-style-type: none"> Small number of select events to generate general awareness 	<ul style="list-style-type: none"> Customers

The following table provides additional details for Speakers Bureau for low income customers:

Audience	Description	Message(s)
LIHEAP/CEDA offices	<ul style="list-style-type: none"> Hold energy management sessions for LAAs to educate them and arm them with information to share with customers Partner w/LIHEAP and CEDA offices to host Speakers Bureau presentations to low income customers Attend LIHEAP conference (end of June), partake in panel discussion on energy management 	<ul style="list-style-type: none"> Low cost/no cost tips CARE programs
Housing Authorities	<ul style="list-style-type: none"> Partner w/Housing Authorities to host Speakers Bureau presentations 	<ul style="list-style-type: none"> Low cost/no cost tips CARE programs
CNT	<ul style="list-style-type: none"> Develop workshop/webinar presentation on energy management for Non-profit Assistance program (required attendance for grant recipients) 	<ul style="list-style-type: none"> Low cost/no cost EE tips Encourage employee participation
Senior Centers	<ul style="list-style-type: none"> Host Speakers Bureau presentations to senior citizens 	<ul style="list-style-type: none"> Low cost/no cost tips CARE programs
Faith-based Organizations	<ul style="list-style-type: none"> Host Speakers Bureau presentations to low income customers 	<ul style="list-style-type: none"> Low cost/no cost tips CARE programs
Community Centers (i.e., Urban League, LUCHA, etc.)	<ul style="list-style-type: none"> Host Speakers Bureau presentations to first-time homebuyers 	<ul style="list-style-type: none"> Low cost/no cost tips CARE programs Select Smart Ideas incentives

G. Vulnerable Populations

As noted in Chapter 3(E), the Commission’s Order in Docket No. 12-0298 directed ComEd to discuss with stakeholders and Staff the methodology to define and identify “vulnerable” customers. As noted in Chapter 3(E), ComEd contacted stakeholders and Staff to

attempt to initiate discussions, but there was insufficient time to resolve the methodology to define and identify “vulnerable” customers by the filing of this modified Plan, and ComEd will work with stakeholders and Staff to include a proposal for the methodology to define and identify “vulnerable” customers in the first annual report to be submitted on April 1, 2013. For purposes of this modified Plan, ComEd will track its education metrics for low income customers as defined above in Chapter 3(E).

Subject to the barriers to tracking vulnerable populations discussed in Chapter 3(E), one approach to measuring the effectiveness of the education and outreach efforts is to conduct a tracking survey among customers (as described in detail in Section J). This survey would include demographic questions that would allow us to evaluate the response by various vulnerable populations such as seniors and low-income customers. ComEd commits to protecting consumer privacy regarding any responses to demographic questions and personnel information provided by the consumer. The survey might also ask about awareness of PTR, the use of web tools and RRTP.

H. Messaging

Messaging will be developed to support the objectives and strategies outlined earlier in this plan. One of the keys to success will be delivering the right message, to the right person, at the right time. Targeted messaging works since it does not overwhelm customers with irrelevant information, but only provides them with what they need to know at the time they need to take action. Messaging for the education and outreach plan will be targeted by audience, but will continue to include general information about advanced meters and their benefits throughout the initiative.

The messaging used for AMI deployment education and outreach initiatives will revolve around the functions and benefits of advanced meters. Themes will focus on how customers can derive value from the advanced meters; controlling costs, giving customers choice and control, and an enhanced customer experience.

There are several distinct ways that targeted, relevant messaging will be used:

- Messaging will be used to communicate the benefits of advanced meters, as a way to educate customers but also as a way to address potential negative perceptions/beliefs, ideally before they occur or become ingrained.
- Messaging will be used to communicate specific, factual information about AMI deployment details – for example, when a specific customer’s meter is being installed.
- Messaging will be used to clearly articulate the tangible customer benefits and value derived from advanced meters, RRTP and PTR.

A key purpose of the messaging is to reiterate the benefits of AMI deployment which fall into several themes, developed using secondary research and prior ComEd market research:

- Control/Empowerment
- Savings
- Reliability
- Service
- Future Preparedness

Research is underway to understand which themes, and their associated benefits statements, resonate most with customers. The research will enable us to refine the content and tone of benefit statements. Both qualitative and quantitative customer research will be conducted in three phases.

- Phase I: In December 2011 initial research was conducted via the Customer Roundtable and an e-newsletter survey. This initial research was used to guide early education and awareness communication planning, offer support for rollout of smart meter research activities, and screen out those messages that do not resonate from further, more robust research activities planned in early 2012.
- Phase II: Leveraging the findings from Phase I, a series of focus groups was conducted among customers In March 2012. Initial findings are as follows:
 - Marketing by electricity suppliers, municipality's role in choice, and outages are top-of-mind issues in electric utility space. Grid modernization is not.
 - Customers know little about the smart grid and smart meters and do not envision spending much time to inform themselves, not surprising given electricity's low-involvement category. Customers may not learn much more unless impelled by self-interest or concerns.
 - Customers will not credit claims about grid modernization's prospective benefits. ComEd will have to earn trust by improving performance, as it did prior to launching the Recommitted campaign.
 - Unsure if the smart grid and smart meter would actually benefit them and skeptical of what their actual costs would be, customers want to know "what's in it for me." ComEd will need to improve comprehension by communicating benefits rationally, not emotionally.
 - Customers expect future communications to coordinate with ComEd's physical work of improving reliability. Informational graphics help customers visualize the grid modernization work.

- Recommendation: Deliver a staged messaging approach. Offer customers messages that are rational and enhance comprehension while offering more aspirational messages to employees, legislators and community officials in the early years.
- A quantitative online study will be fielded that leverages the findings from the Phase II focus groups.
- Phase III: Awareness and education quantitative tracking research will be conducted to monitor customer awareness of AMI deployment work and assess the effectiveness of the information communicated to customers.

Over the ~~7+0~~-year course of the AMI deployment project, ComEd may continue to conduct research to refine messages and proof points, especially as new issues of importance emerge.

Current messages are under development and research review. Preliminary examples of messages that will be validated include:

- We're improving our customers' experience by giving them more information, more power to control their electric bills and more ways to save money.
- At ComEd, we are changing the way we operate in order to provide our customers with better service, more choices and greater control over the size of their electric bill.
- Two-way communication through smart meters will eventually mean customers won't have to call when they're without power, ComEd can restore power more quickly.

Proof points, Q&A and other information are under development and will also be validated by customer research. Preliminary examples of the information that will be used for customer education and outreach efforts are:

- What is a smart meter?
 - A smart meter is a digital electric meter that is equipped with wireless communication capabilities to allow customers to track their electricity consumption more frequently.
- How will this benefit customers?
 - With more timely information on electricity usage, customers can better manage their energy use to save money on their electric bills. Customers can take advantage of pricing plans that will include rebates to reward customers for reducing consumption during peak usage times.
- Are there other benefits?

- Eventually, smart meters will be able immediately signal to ComEd when power in a home or business has been lost, enabling ComEd to respond to outages more quickly and efficiently.
- Smart meters will make it easier to incorporate renewable energy sources, such as wind and solar power.
- When is this happening?
 - The installation of smart meters will begin in 2015 with four million meters installed through 2021.
 - ComEd will provide customers and local municipalities with updates prior to any improvements taking place.
- I won't get a smart meter right away. How will I benefit?
 - All customers will immediately realize savings due operational efficiencies and reduced cost. As customers receive smart meters, they will have the ability to monitor their electricity usage more frequently and enroll in new incentive programs. This new technology will help customers manage their electricity use better and reduce their monthly electric bills.
- Compared to analog meters, smart meters provide a wider range of benefits:
 - They reduce utility operating costs (e.g., manual meter reading, manual meter disconnections and reconnections, manual bill creation)
 - They help pinpoint outages and verify power restoration to allow faster outage restoration
 - They make move-in/move-out changes in service much faster and more efficient
 - They reduce unbilled electricity usage that occurs between tenants
 - They reduce electricity theft by identifying irregularities
 - They provide customers with hourly energy-usage data that can help them manage electric bills

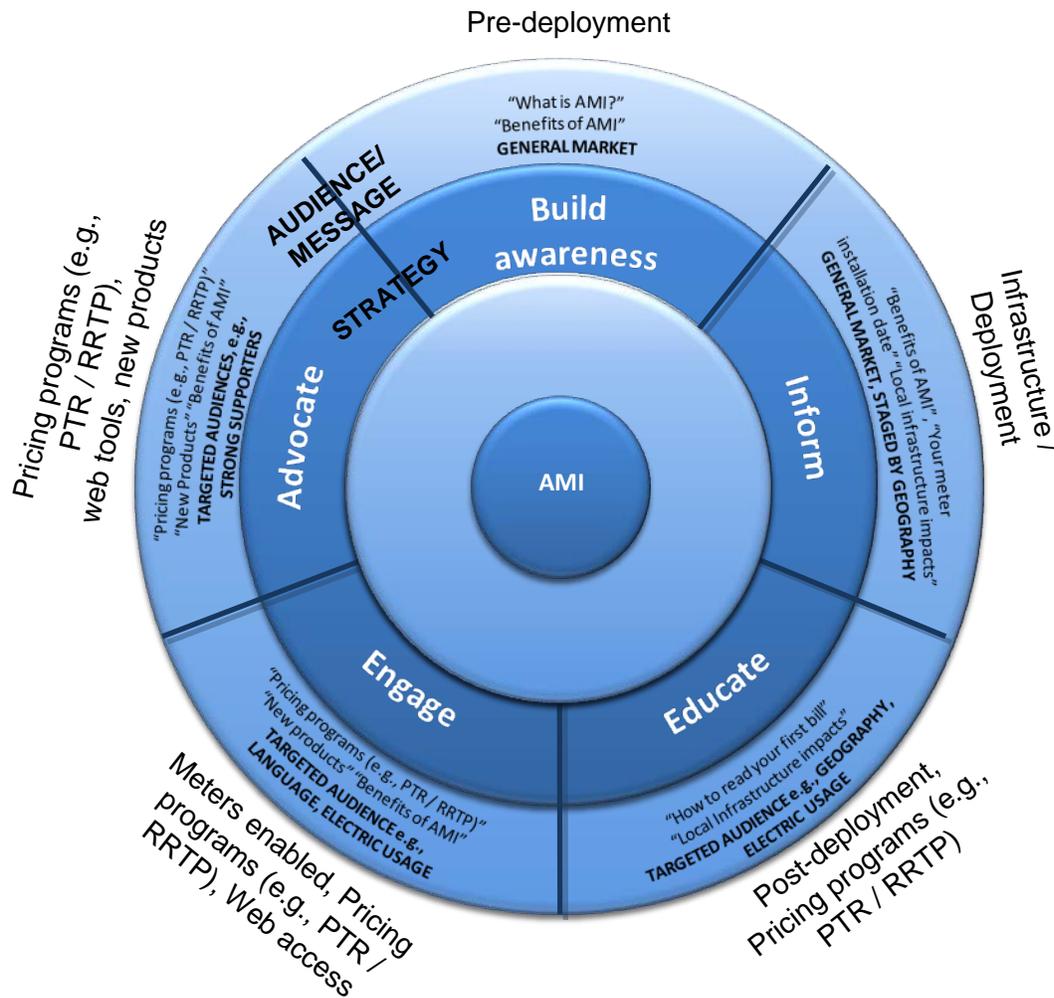
1. Staged Messaging Approach

Studies have shown that utilizing a “staged messaging approach” effectively addresses customer expectations during pre-deployment, deployment and post-deployment implementation phases. When the education and outreach campaigns focus on the “what, when and how” of the deployment and installation, implementation occurs with few issues. Staged messaging should

follow specific timed period outreach initiatives such as 90, 60, 30 and 7 days prior to deployment to educate and inform customers about specific activities they will experience, and reiterate initial or near-term benefits. Post installation, messages will be tailored for AMI customers to focus on pricing programs such as RRTP and PTR; others will receive general energy efficiency messaging.

The initial education and informational messages will lay the foundation for future dialogue about future benefits enabled by the technology. Promising too early or communicating misinformation can lead to lowering of expectations, and even lower future support and participation. For example, one of the first points of communication will include factual information about “what is an advanced meter”, and how the systems work.

The communication wheel below has been enhanced to include audience and messages. The messages provide an illustration of “what” will be communicated at each stage.



I. Methods

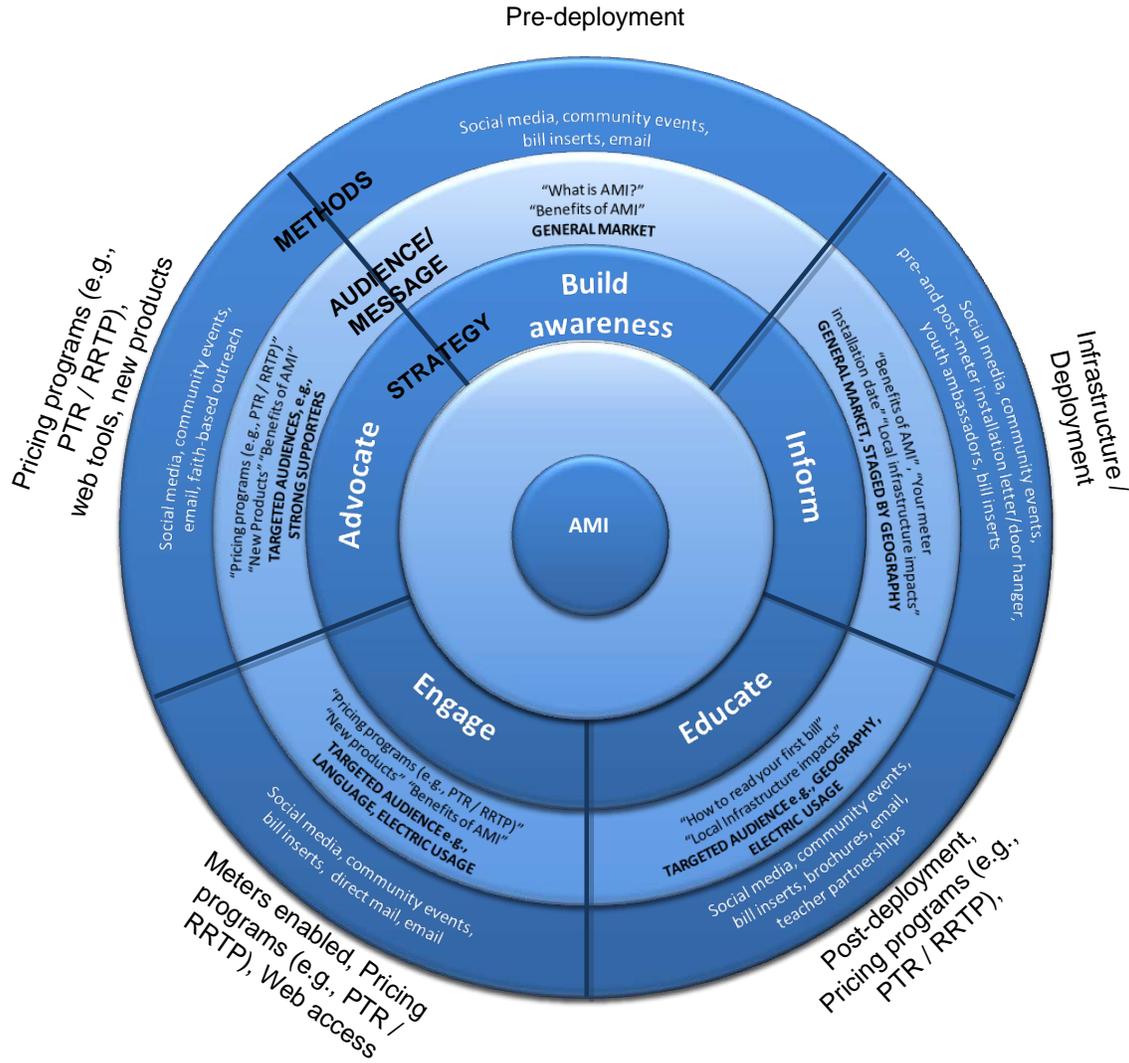
Using key lessons from the Pilot as well as best practices from other utilities, methods have been created to execute each core strategy as shown earlier in the plan. Messaging and audience segmentation will also be incorporated into these customer and small business methods.

ComEd will install advanced meters on homes and businesses throughout its entire service territory on a rolling geographic basis over a ~~7~~¹⁰-year period. ComEd will also offer customers the opportunity to participate in a voluntary pricing programs (such as PTR and RRTP) and take advantage of energy management tools and services on a parallel rolling geographic basis.

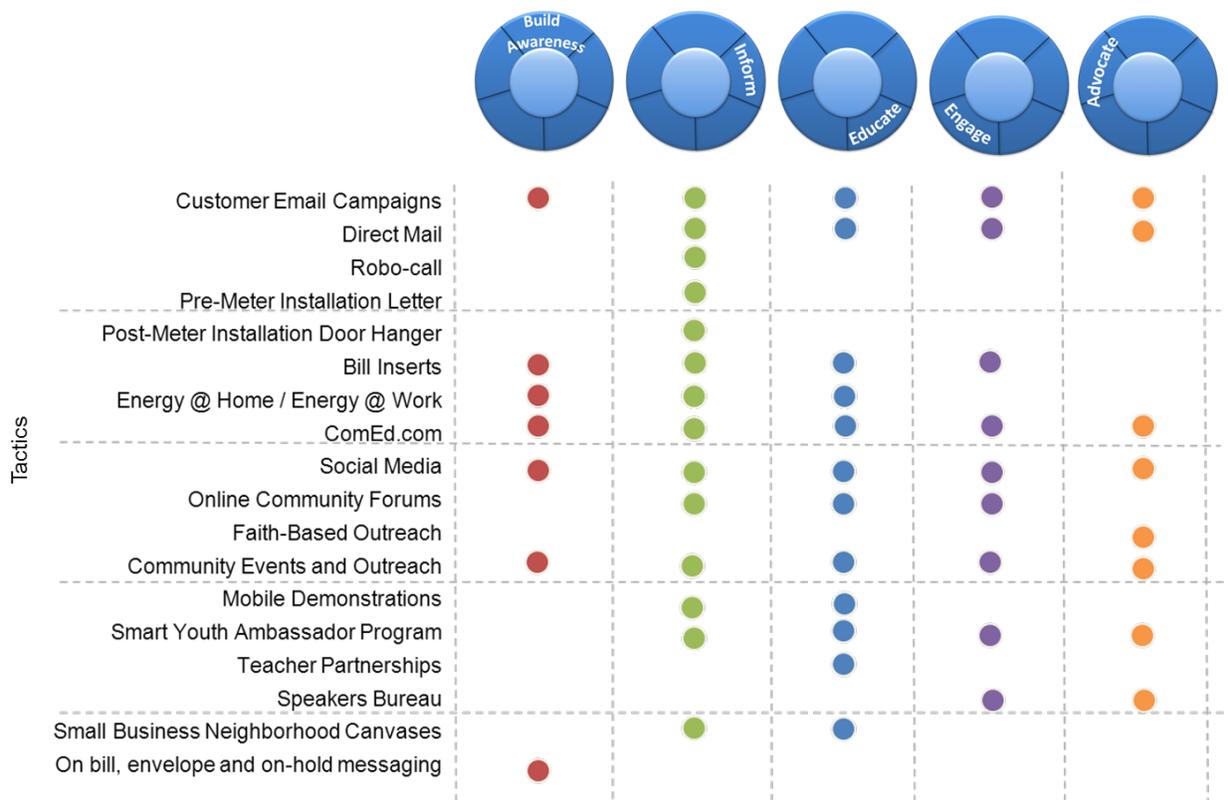
Given this geographic deployment plan, ComEd has the opportunity to tailor its messages about the meter exchange and the benefits of advanced meters, RRTP and PTR program participation to fit the unique characteristics of its customer base within defined geographic boundaries. Because deployment will occur over 10 years, there will be an opportunity to revise the methods and messaging based on experiences and results from the initial deployment. Details regarding timing of methods related to deployment and meter installation by geography is shown in the timeline section of this document.

This plan will be executed in a collaborative fashion with other internal ComEd departments as well as external vendors and partners.

The communication wheel shown earlier in this Chapter has been enhanced to include methods. The methods below provide an illustration of “how” messages will be communicated at each stage of deployment and to support each strategy. Messages shown will be modified based on research results and throughout the stages of deployment to avoid message fatigue. The methods shown in this communication wheel are illustrative (not comprehensive) of the methods that will be used at each stage.



A summary of methods by strategy is shown in the chart below, with details following.



1. Build Awareness

Building awareness is the first step in the education and outreach process. ComEd will promote AMI benefits and progress through paid and earned media.

Communication Topics and Targeting

Building awareness within ComEd’s service territory will occur prior to meter deployment and before much infrastructure work has begun, so communication messages will cover general topics such as:

- Value of AMI meters
- What is an advanced meter?
- Benefits of AMI “what’s in it for me?”
- How can I manage my energy information differently?
- Access to energy information and budget tools, including information specifically for customers without internet access

- Program progress/timeline
- Low-income customer assistance programs

Methods

Specific methods to support the Build Awareness strategy include:

- Customer email campaigns
- Direct mail
- Bill inserts, brochures, fact sheets
- Energy @ Home / Energy @ Work
- Updates on ComEd.com
- Social media including Facebook, Twitter, YouTube and blogs
- Community events and outreach
- No cost messaging including bill messaging, on-hold messaging and envelope messaging

2. Inform

This strategy involves informing customers about the benefits of AMI, RRTP and PTR. Informing customers will occur prior to and during meter deployment.

Communication Topics and Targeting

Customers within initial meter deployment areas may have already received specific information about grid modernization occurring in their area. Beyond those affected customers, the general market will also be informed about topics including:

- Benefits of AMI “what’s in it for me?”
- Customer commitment details
- Program progress/timeline/milestones
- Your meter installation date is approaching – for customers in affected geographies
- Coming soon – the ability to manage electricity use more effectively using PTR and other pricing programs such as RRTP.

Methods

Specific methods to support the Inform strategy include:

- Customer email campaigns
- Pre-meter installation letter
- Post-meter installation door hanger
- Unable to Complete installation (UTC) door hanger
- Bill inserts, brochures, fact sheets
- Energy @ Home / Energy @ Work
- ComEd.com
- Social media
- Online community forums
- Community events and outreach
- Mobile demonstrations
- Smart Youth Ambassador Program
- Small business neighborhood canvasses

3. Educate

As customers become aware and informed about AMI deployment, they are more receptive to education about implementation plan activities and the benefits of advanced meters. At this stage, deployment has occurred and customers have received their new meters. Infrastructure improvements are underway as well, so customers are ready to start the education process.

Communication Topics and Targeting

Several communication topics will be covered to educate customers about AMI deployment and how it will benefit them:

- How to read your first bill – to customers on a rolling basis as their new meters are activated
- Get acquainted with your advanced meter

- Access your usage details online and via personal mobile devices as new meters are activated
- Local infrastructure impacts
- Benefits of AMI “what’s in it for me?”
- Call to action: visit web to view data, analyze usage, and sign up for a voluntary pricing program (e.g., PTR or RRTP)

Messages about the bill and accessing usage data online will be targeted to specific geographies as the new meters are activated and as information becomes available. In addition, these messages and methods may be further customized by amount of electric usage or by type of home (single family or multi-family).

Methods

Specific methods to support the Educate strategy include:

- Customer email campaigns
- Direct mail
- Bill inserts, brochures, fact sheets
- Energy @ Home / Energy @ Work
- ComEd.com
- Social media
- Online community forums
- Community events and outreach
- Mobile demonstrations
- Smart Youth Ambassador Program
- Teacher partnerships
- Neighborhood canvases to small businesses

4. Engage

Engaging customers will occur as customers are continually exposed to advanced meter messages and improvements. This strategy focuses on how customers can use the advanced meters and become engaged through the tools facilitated by the advanced meter. At this stage, deployment has occurred and meters have been verified and are now fully functioning. PTR/RRTP and other web tools will be strongly promoted.

Communication Topics and Targeting

ComEd will strive to ensure all customers are informed about the new web tools and pricing programs, however not all customers will be able or willing to actually utilize every tool available. Methods and communications may be customized by language, electric usage, and type of home, and how customers will access the web tools (online or mobile). If additional behavioral data is available, this will also be used to further target customers most likely to be interested and receptive to engage in the new tools. Specific topics that will be communicated include:

- Benefits of PTR and RRTP
- How to view usage
- New innovative products and services
- Benefits of AMI “what’s in it for me?”
- Program progress/timeline/milestones

Methods

Specific methods to support the Engage strategy include:

- Customer email campaigns
- Direct mail
- Bill inserts
- ComEd.com
- Social media
- Online community forums
- Community events and outreach
- Smart Youth Ambassador Program

- Speakers bureau

5. Advocate

Personal learning comes from communication with friends, family, neighbors and co-workers. ComEd will encourage customers who realize the value of new tools and programs to talk to others about becoming active users and strong supporters.

Communication Topics and Targeting

Customers will receive messaging promoting ComEd's pricing programs (PTR/RRTP), web tools and new products. Additional behavioral data, if available, will be used to further target customers and small businesses. Specific topics communicated will include:

- ComEd's customer ePortal
- Use of a Home Area Network (HAN)
- Use of energy management tools
- Use of ancillary or supplemental energy management tools via other retailers
- Savings earned through PTR and RRTP
- Benefits of AMI "what's in it for me?"
- Program progress/timeline/milestones

As customers learn more about these tools and benefits, they will become empowered and supportive and naturally advocate concerning the benefits of AMI.

Methods

Specific methods to support the Advocate strategy include:

- Customer email campaigns
- Bill inserts, brochures, fact sheets
- Direct mail
- ComEd.com
- Social media
- Community events and outreach

- Smart Youth Ambassador Program
- Speakers' bureau
- Outreach to faith-based organization and environmental non-profits

6. Additional Information about Methods

Some methods require additional detail and explanation, provided below.

ComEd.com

ComEd's website will be used as a repository of content related to the AMI deployment program as a supplement to the information being disseminated through other channels. This will include general advanced meter details and customer benefits, as well as deployment and infrastructure details. ComEd will provide information from the website, in the form of hyperlinks and documents, to customers and others who wish to have more information about the program. In addition, customers and others will be able to go to a specific page on ComEd's site to obtain information in the form of fact sheets, frequently asked questions ("FAQs"), testimonials, videos and more. Customers will also have access to the energy management tools via ComEd.com and via mobile applications.

Online Community Forums

Online Community Forums will be used as another channel to inform and educate customers about AMI meters. ComEd would seek out or create specific "online communities" of like-minded customers that have a particular interest in smart grid, advanced meters, energy efficiency or new technologies. ComEd could post content in these forums to help customers learn more in an interactive environment.

Influential Moms and Parents Online Forums

Moms today are on the cutting edge of technology and are constantly seeking new tools to help them carry out their duties more efficiently and effectively in the home. A 2010 Forbes study found that 61% of women influence household technology buying decisions, and that nearly half want more green choices. ComEd will develop content appropriate blogs to engage these groups and initiate conversations pertaining to AMI. Blogs may include Mom Central, a national social media and blog network that engages influential moms to become brand ambassadors and evangelists for leading products and services.

Environmental Nonprofit Groups

We will also look to establish a dialog with environmental non-profit groups such as National Resources Defense Council, Environmental Defense Fund and Global Green USA. We will also identify and engage in a conversation with local green community groups such as Illinois Solar Energy Association, and the Sierra Club. By harnessing their credibility and

influence, we will help advance the smart grid in Illinois by reaching consumers through authentic and trusted advocates for environmental issues.

Community Events and Outreach

Education and outreach will be performed at community events throughout the course of AMI deployment. These events include festivals, fairs, and other events. Multi-cultural outreach activities will also be included. We will be mindful of languages spoken in specific geographies where events will be attended, and tailor the event staff and collateral to these and other cultural nuances. Event staff will be equipped with toolkits including FAQs, fact sheets, talking points, etc. in order to effectively communicate with customers regarding the benefits of the new meters. Interactive devices, brochures and fact sheets will be available to facilitate customer engagement. As part of community outreach, faith-based organizations will be engaged to discuss AMI benefits among their congregations through one-on-one conversations, hosted coffee hours, and distribution of educational leave-behind displays. Additional details are in development.

The **Mobile Demonstration Units** and the **ComEd Classroom** will support the ComEd education outreach program by providing customers with a hands-on opportunity to learn more about the advanced meter capabilities and energy efficiency.

Games

By building the games in an iPad application, the units can be used in combination with a kiosk to allow for higher visibility and branding at large events or as standalone assets at small events. This strategy allows for an equally effective experience, whether the event is large or small.

Follows is a description of two of the games to be deployed at events and also sit on ComEd.com and ComEd's Facebook page. The **Smart Home** game will focus on smart meters and Energy Efficiency. With the installation of Smart Meters, customers will be able to see exactly how they are using energy and where there are potential savings opportunities. In the Smart Home demonstration, players will interact in a fun and engaging way. They will learn exactly how the AMI Meter benefits them and how they can reduce energy use to save money.

HOW IT WORKS:

- The game begins in a "house" where the Smart Meter has recently been installed.
- As the months/climates change, players must manage a number of factors to minimize energy use including heating/cooling costs, lighting, television and computer use, while balancing their family's happiness at the same time (i.e., temperature is comfortable, they can watch TV when they want to, etc.).
- In order to maintain the balance of energy efficiency and family happiness, players must constantly check their energy usage while monitoring their family's happiness meter shown within the game.

- By referring to the meter, players will be able to see which electronics draw the most energy and can then make the necessary decisions/adjustments to use less energy, including unplugging the vacuum while the blender is running or turning off lights, etc.
- The more the players reduce their energy consumption in the cold and hot weather months, the larger the rebate they will receive at the end of the game. This rebate will be exchanged for an increase in their point total.
- Players can also determine how much electricity each appliance/electronic item draws by scrolling over the star located at these locations. *Smart Ideas for Your Home* tips and facts will also pop up to guide players through the experience and help them make the best decisions.
- Once time expires, the player's score will be posted on the screen. The top five highest scores at the end of each event day will receive a premium prize. The collection of contact information at the beginning of the game allows for identification of the winner and easy delivery of the prize when applicable.
- To replicate the onsite event experience, customers are able to access the Smart Home game from the ComEd Facebook page

The **Energy Efficiency** game will focus on providing customers with an opportunity to test and add to their energy efficiency knowledge.

HOW IT WORKS:

- Customers will attempt to answer a series of trivia questions relating to energy efficiency. If they don't know the answer, they can click "Hint" to receive an info-morsel to help them answer the question correctly.
- Based on the number of questions answered correctly, customers will receive a "score" in the form of a name identifying their level of energy efficiency knowledge (i.e., "Congratulations! You are an energy expert!").
- To further their commitment, customers will then be encouraged to sign a pledge showing their dedication to becoming more energy efficient by incorporating ComEd's "nudges" into their everyday lives. This pledge, along with their level of energy efficiency knowledge, will be uploaded and shared via their Facebook wall.
- Once posted on Facebook, friends can also sign up to take the pledge agreeing to ComEd's "nudges" for becoming more energy efficient.

Classroom

A portion of the space will be allocated to the ComEd Classroom (for demonstration areas with sufficient space). Here, customers can learn and ask questions about smart meters

from live ComEd experts. Customers will receive a premium (t-shirt, plugs for sockets, screen cleaner, seeds) for participation;

Signage, brochures and collateral (interchangeable given demographic) will supplement the experience and provide additional information

Social Media Integration

To drive traffic to ComEd's Facebook and website page, customers will have access to all mobile demonstration unit content and games online. This provides an added touch point and an opportunity to direct customers to additional online resources where they can learn more about smart meters.

All games will be highly integrated into social media platforms such as Facebook, with the ability to post game results, view leader boards and challenge friends to play.

To drive viral buzz and generate more awareness during the live events and beyond, prizes and sweepstakes will be integrated into each game.

Text-to-Talk

The Text-to-Talk display enables one-to-one communication by providing customers without Internet access a platform to text in their questions, concerns and feedback about Grid Modernization and Smart Meters directly to a ComEd representative. While some customers are currently able to text in power outage reports, the Text-to-Talk program takes it one step further by encouraging two-way dialog.

Smart Youth Ambassador Program

As part of the Customer Education and Outreach Plan, ComEd will utilize a Smart Youth Ambassador Program to help turn ComEd customers into advocates. The ambassador program will consist of primarily high-school students who reside within ComEd's service territory. The goal of the program will be to educate customers on energy efficiency and smart meters and dispel myths and concerns customers may have, ultimately creating advocates for energy management.

This program will be executed in collaboration with Faith in Place, The Chicago Urban League and ComEd. It will support the Smart Meter rollout schedule as determined by ComEd.

- Seventy students ages 15-19 will work from four sites (three Faith in Place partner congregations and The Urban League) located throughout the ComEd service territory.
- Students will participate in predetermined ComEd events scheduled during the summer.
- A core group of 15 students will continue through the school year with Faith in Place, and will provide the core of the summer 2013 Smart Youth Ambassador program.

- The program will also include a career day at ComEd, in which the youth will be invited to consider the different career options open to them in the field of energy and energy conservation. Career Day may include all 70 youth on a single day or be divided into smaller groups on different days, based on the needs of ComEd to coordinate.
- Each summer student will receive a stipend of \$800.
- Faith in Place will perform background checks on the students and supervisors.
- A photo authorization and a hold harmless agreement will be signed by each young person or their parent or guardian.
- On completion of the summer project, there will be a culminating celebration for all 70 youth at The Urban League.

Small Business Neighborhood Canvases

In addition to attending local events the local marketing teams will conduct Neighborhood Canvassing by delivering messaging and collateral to customers through local businesses where customers live.. These locations will include libraries, community centers, grocery stores and more. The neighborhood canvassing efforts also include creating partnerships with local restaurants to allow ComEd to include collateral on food packaging (ie. Pizza box). The collateral serves a dual purpose: 1. provides ComEd messaging about Smart Meters, and 2. Invites customers to a ComEd social at a local community center or church. As an added incentive for residents to attend the social and as a marketing opportunity for the local restaurant they will provide food for all to enjoy.

Teacher Partnerships

Through Teacher Partnerships, ComEd will educate students and teachers on advanced meters and PTR and how they address our energy challenges. Using a list of teachers interested in energy efficiency (collected from past energy efficiency work), ComEd will distribute emails to teachers soliciting interest in advanced meters and PTR, offering ways they can get involved. Options for their involvement include classroom involvement, teacher education, environmental student club participation, and events at the school. Packets of information will be provided to interested teachers for them to use when creating curriculum and student activities.

Speakers Bureau

The Speakers Bureau program already in place will be used as a method to engage communities in ComEd AMI deployment. ComEd receives regular requests from external affairs and local communities and organizations to attend an event and provide a speaker. Events are generally well attended and serve as another opportunity to provide information about AMI deployment. In addition, an enhanced Speaker's Bureau will target low-income customers through events hosted at low-income advocate organizations such as LIHEAP, offering them education on energy management tips and tools.

Faith-Based and Environmental Non-Profit Outreach

A key component of advocacy involves leveraging existing, influential non-virtual networks to share information among customers and discuss the benefits of ComEd’s AMI and PTR programs. ComEd will provide these organizations with information such as fact sheets, talking points, research and testimonials about energy management and its benefits. Through this work, we hope to develop a network that becomes informed and tells others about the benefits of AMI deployment and its programs, products and services.

J. Metrics

ComEd will include metrics to measure the effectiveness of customer education and outreach. This will measure the use of community organizations, and awareness of AMI and customer engagement and experiences. ComEd’s key metrics will measure the following:

- Awareness of AMI technology and benefits (Awareness and Education study).
- Understanding of AMI technology (Customer Experience/Engagement Research and Customer Experience Tracking).
- Number of community outreach events and number of attendees (Event Tracking)
- Number of articles that appear in local media (traditional media tracking)
- Number of articles in internal newsletter
- Number of meter installations complaints/claims (Rapid Response Situational Assessments)
- Number of installation appointments (tracked by AMI deployment team)
- Number of customer organizations contacted
- Number of customer communication methods deployed
- Number of advocates and ambassadors informed
- Number of surveys completed at events

These metrics are outlined in the following chart:

Metric Category	Key Metric	Calculation	Results Year Y	Comment
Awareness and Education	Awareness and understanding of AMI technology and benefits (survey metric)	3rd party survey	x%, verbatims, etc	
Customer Experience and Engagement	Understanding of AMI technology (Customer Experience/Engagement Research and Customer Experience Tracking).	3rd party survey	x%, verbatims, etc	
Community Outreach	# of community events and # of direct interactions	Event Tracking	Conducted XX, Interactions YY	
Local Media	# of articles that appear in local media	Traditional media tracking; articles that appear as a result of press releases	xx	
Internal Media	# of articles in internal newsletter	Count of articles in newsletter	xx	
Customer Experience and Engagement	Meter Installations complaints/claims (Rapid Response Situational Assessments)	Count of installation complaints	xx	
Customer Experience and Engagement	# installation appointments (tracked by AMI deployment team)	Count of installation appointments	xx	
Community Outreach	# of customer organizations contacted	Count of number of organizations	XX	
Community Outreach	# of customer communication methods deployed	Count of number of items	XX	
Awareness and Education	# of advocates and ambassadors informed	Count of number of ambassadors	XX	
Awareness and Education	# of surveys completed at events	Count of number of surveys completed	XX	

The measures listed above will be tracked through the metrics listed in the table below to account for the \$27.7 million in customer education planning over the next ten years. The following table gives an example for year 2012.

Tactic	Target	Budget for 2012	Direct Interactions / Impressions ^a	Clicks	Organizations contacted	Premiums Given away	Articles internal newsletter	Enrollments	Surveys Collected	Emails Collected	Cost/per Interaction (CPI)
Energy management Education & Outreach events + interactive items	General Market (residential)	\$337,500	xx	n/a	n/a	xx	n/a	n/a	xx	xx	
Speakers' Bureau	General Market (residential)	\$5,000	xx	n/a	xx	n/a	n/a	n/a	xx	n/a	
Youth Ambassador program	Faith based organizations & End customers	\$111,000	xx	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Faith Based and Low Income outreach	Faith based organizations & low income populations	\$31,500	xx	n/a	xx	n/a	n/a	n/a	n/a	n/a	
Email Marketing	General Market (residential)	\$8,500	xx	xx	n/a	n/a	n/a	n/a	xx	n/a	
Energy @ Home & Bill inserts	General Market (residential)	\$145,000	xx	n/a	n/a	n/a	xx	n/a	n/a	n/a	
Direct Mail for PTR & web tools	General Market (residential)	\$95,000	xx	xx	n/a	n/a	n/a	xx	n/a	n/a	
Videos & Brochures	General Market (residential)	\$75,000	xx	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Online and Social Media outreach	General Market (residential)	\$17,500	xx	xx	n/a	n/a	n/a	n/a	n/a	n/a	
Teacher Partnership	General Market (residential)	\$20,000	xx	n/a	xx	n/a	n/a	n/a	n/a	n/a	
Municipal Toolkit & Experiential marketing materials	Municipalities, Legislators, Community Leaders	\$106,500		n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Municipal Events Speakers Bureaus Townhalls	Municipalities, Legislators, Community Leaders and constituents	\$61,000	xx	n/a	n/a	n/a	n/a	n/a	n/a	na	
Municipal online web	Municipalities, Legislators, Community Leaders and constituents	\$0	n/a	xx	n/a	n/a	n/a	n/a	n/a	n/a	
Outreach materials/interactive items	Municipalities, Legislators, Community Leaders and constituents	\$25,000	xx	n/a	n/a		n/a	n/a	n/a	na	
Awareness tracking	Market research	\$137,500	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Customer Experience + Message testing	Market research	\$200,000		n/a	n/a	n/a	n/a	n/a	n/a	n/a	
FTE's (4 people)	Staff	\$ 381,358	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Summary	\$1,757,358									

The Messaging section outlines qualitative and quantitative customer research that launched in December 2011 and follow-on research that is planned to commence in early 2012 to test and refine the content and tone of messages and benefit statements to potentially communicate to customers. This research will be used to develop a preliminary set of benefit statements that resonate most favorably with customers, supporting ComEd's overarching objective stated earlier.

An extensive program of primary and secondary market research will be employed to assist ComEd's AMI deployment initiatives and to measure the success of customer education and outreach efforts. Prior to conducting each primary research project, a research plan will be prepared to include the following elements:

- Explanation of the need for the research
- Description of specific research objectives
- Description of the intended uses of research findings
- Discussion of the research methodology
- Examples of topics and questions to be included in questionnaires and discussion guides
- Project timeline

- Estimated budget requirements

An integrated set of research projects has been identified as necessary to support meter deployment and PTR initiatives (broadly characterized as the installation of advanced digital two-way communicating meters, and the offer of a peak time rebate pricing program). These projects are designed to:

- Measure and track the success of customer education and outreach efforts
- Better understand customers and their evolving needs and service expectations
- Assess customer interest in, and the viability of, the PTR pricing program and other services and tools enabled by the presence of an advanced digital meter

1. Secondary Research

Secondary research is often based on information from studies previously performed by government agencies, industry organizations, trade associations, and other organizations. U.S. Census Bureau information and studies made available by other energy companies are examples of secondary market research. Secondary research data are typically easy to find and either free or available at a relatively low cost. For the purposes of this Plan, past ComEd primary market research and actual ComEd data, such as from public events and sponsorships, will be classified as secondary research.

Several forms of secondary research will be employed to support the objectives of this Plan.

1. Traditional Media Tracking – Monitor traditional media channels to capture reactions and feedback from customers and external stakeholders on matters pertaining to reliability improvement initiatives, advanced digital meters, and the PTR pricing program.
2. Audience Reach and Frequency Tracking – Measure the number of customers exposed to information in the media about the AMI deployment initiative as well as the number of exposures from each major communications channel.
3. Social Media Tracking – Monitor social media channels to capture reactions and feedback from customers and external stakeholders on matters pertaining to reliability improvement initiatives, advanced digital meters, and the PTR pricing program and to engage customers to allay concerns, dispel misconceptions, and foster positive impressions.
4. Benchmarking / Best Practices Assessments – Canvas the education and outreach efforts undertaken by other energy companies to capture lessons learned and best practices.

5. Macro-Environmental Assessments – Track broad, environmental developments to understand impacts on customers and how those impacts could shape or affect our communications messages.
6. Rapid Response Situational Assessments – Monitor the number and intensity of rapid response situations and how and how well they are handled.
7. Events Tracking – Track the number and types of events sponsored by the company, the number of people attending each event, and feedback from attendees.
8. Existing Body of Research – Build upon existing and newly completed research, such as segmentation research and customer satisfaction research, to guide future research efforts and jumpstart message platform development.

2. Primary Research

Primary market research typically refers to custom quantitative and qualitative research methods.

Quantitative research methods involve large numbers of randomly-selected respondents and yield results that are representative of the total population under study. Data collection methods commonly include telephone-administered surveys, mail surveys, web-based surveys or some combination of these methods. By contrast, qualitative research methods involve a small number of respondents and yield results that are viewed as directional, not conclusive. Common methods include focus groups led by a trained moderator and in-depth one-on-one interviews conducted in person or by phone by a highly skilled professional interviewer. ComEd anticipates employing an integrated body of primary research to support the company's AMI deployment initiatives and to assess and measure the success of customer education and outreach efforts.

A number of prospective primary research projects are outlined below. Recognizing this early stage of developing a multi-year research program of work, a partial list of preliminary research objectives and intended uses of research findings are also listed. Importantly, for cost management purposes, it may be possible to group individual projects into a single research project.

1. Message Testing Research – Employ qualitative and quantitative research techniques to define and hone the content and tone of communications messages.

Research Objectives:

- To gather customer perceptions and reactions to the company's more recent advertising and marketing messages related to AMI deployment and smart grid
- To assess the appeal of existing messages and themes, particularly with respect to dimensions of trust, believability and credibility

- To explore customer reactions to message themes pertaining to AMI deployment
- To test alternative benefit statements pertaining to AMI deployment and identify those that have the greatest appeal to customers
- To hone the content and tone of messages and benefit statements to potentially communicate to customers
- To test the appeal of advertisements and marketing communications materials
- To refine the content of advertisements and marketing communications materials

Intended Uses of Research Findings:

- To develop a message platform compatible with a value proposition that appeals to customers
- To help develop the key messages and benefit statements to communicate to customers on AMI deployment benefits of advanced digital meters, and the peak time rebate pricing program
- To help shape the development of advertisements and marketing communications materials

2. Awareness / Education Tracking Research – Employ a tracking survey to monitor customer awareness of the company’s main communications messages pertaining to AMI deployment and to assess the effectiveness of those communications in shaping attitudes and behaviors.

Research Objectives:

- To measure customer awareness of the company’s general AMI deployment plans, events and initiatives
- To measure customer awareness of the benefits of AMI
- To measure customer understanding and the appeal of AMI benefits
- To measure awareness of other messages and events that are not supported by ComEd
- To measure customers’ attitudes and beliefs regarding AMI
- To measure customers’ expressed intent to enroll in the PTR pricing program or to engage in other potential services enabled by advanced digital meters
- To measure the perceived value of the investment in AMI

Intended Uses of Research Findings:

- To uncover obstacles to the effectiveness of the company's communications to customers
 - To track the effectiveness of the company's communications in breaking through to customers with respect to awareness and resonance
 - To establish a basis for making mid-course adjustments in the messages communicated to customers
3. Customer Experience / Engagement Research – Employ qualitative research techniques to identify the optimal customer experience, such as dynamic pricing offer, as defined by customers, to incorporate into education and outreach activities.

Research Objectives:

- To identify the requirements for driving customer acceptance of the company's AMI deployment plans, particularly with respect to offering a PTR pricing program option
- To assess customer receptivity to having a digital meter and taking advantage of the PTR pricing program
- To understand customers' expectations, preferences and priorities around having a digital meter and participating in the PTR pricing program
- To capture customers' anticipated and expected touch-points in the experience of having a digital meter and participating in the PTR pricing program

Intended Uses of Research Findings:

- To identify the most critical touch-points in the customer experience
 - To define and map the experience most preferred by customers
 - To help shape the company's processes and programs to deliver a positive customer experience
4. Customer Experience / Engagement Tracking Research – Employ quantitative research techniques to measure and track customer satisfaction with new customer experiences and to use the findings to help calibrate activities and ensure a positive customer experience.

Research Objectives:

- To measure satisfaction with the PTR pricing program, ranging from the initial program offer through program stages of program participation and engagement

Intended Uses of Research Findings:

- To monitor the company's performance in managing the PTR pricing program
 - To support any needed course corrections in the administration and implementation of the meter exchange process and the PTR pricing program
5. Motivational Research – Employ qualitative research techniques to identify underlying motivators for customers to engage in the PTR pricing program or any other service enabled by two-way communicating digital meters.

Research Objectives:

- To uncover customers' underlying motivations for enrolling in the PTR pricing program or taking advantage of other services enabled by advanced digital meters
- To understand the benefits of PTR pricing as defined by customers
- To understand customers' decision to enroll in the PTR pricing program relative to other options that could achieve customers' goals

Intended Uses of Research Findings:

- To support the development of a messaging strategy in support of the company's PTR pricing program
- To help develop specific messages to communicate to prospective PTR pricing program customers that align with their needs

3. Data Collection Tool

ComEd will evaluate employing its Customer Roundtable as a vehicle for engaging customers in market research.

Customer Roundtable – Employ the existing Customer Roundtable program to enable a dedicated focus on topics pertaining to advanced digital meters, and the PTR pricing program and related information tools and services. Facilitated by an experienced moderator, the Customer Roundtable offers unique advantages:

- Provides a forum for a free, two-way exchange of information between customers and ComEd
- Enables the exploration of a myriad of topics of mutual interest to the company and participating Roundtable customers

- Provides an opportunity for ComEd executives and managers to hear first-hand customers’ thoughts, opinions and reactions to topics pertaining to AMI
- Secures session-to-session progressive feedback from customers
- Allows probing on specific issues and, more importantly, allows ComEd managers to secure immediate, honest feedback on their answers to customers’ questions
- Offers an opportunity to request participating customers to do “homework” prior to a session to jumpstart the discussion
- Focuses on solutions to problems and issues, going beyond probing

K. Timeline

The following section contains a timeline to deploy end customer and employee education and outreach methods through Q4 2015 of the AMI deployment program. The tasks within the timelines are segmented into months, with cells of varying colors. The color of each cell indicates the ComEd team responsible for executing each task. If a cell is white, that means the specific task has no activity for that month or that the month can be used as contingency.

Team Responsible	2012											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Marketing												
Combined Effort												
Audience/Activity												
End Customers												
Traditional												
Customer Email Campaigns												
Direct Mail												
Robo-Call												
Pre-Meter Installation Letter												
Post-Meter Installation Door Hanger												
Welcome Letter & PTR Enrollment (pending research outcome and open enrollment date)												
Welcome Letter web tools only (pending research outcome and open enrollment date)												
Direct Mail - PTR Enrollment for Existing Smart Meters												
Robo Call - PTR Enrollment for Existing Smart Meters												
Bill Inserts												
Bill messaging												
Envelope messaging												
Energy @ Home / Energy @ Work												
On-Hold Messaging												
ComEd.com												
Non-Traditional												
Social Media												
Online Community Forums												
Faith-Based Outreach												
Outreach												
Community Events and Outreach												
Smart Youth Ambassador Program												
Teacher Partnerships												
Speakers Bureau												
Small Business Neighborhood Canvasses												
Research												
Value-focused quantitative research												
Exploratory qualitative message testing research												
Exploratory qualitative/quantitative Small Business research												
Awareness tracking												

Figure 37 - 2012 End Customer Methods Timeline

Team Responsible		2013											
Audience/Activity		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Marketing													
Combined Effort													
End Customers													
Traditional													
Customer Email Campaigns													
Direct Mail													
Robo-Call													
Pre-Meter Installation Letter													
Post-Meter Installation Door Hanger													
Welcome Letter & PTR Enrollment (pending research outcome and open enrollment date)													
Welcome Letter web tools only (pending research outcome and open enrollment date)													
Direct Mail - PTR Enrollment for Existing Smart Meters													
Robo Call - PTR Enrollment for Existing Smart Meters													
Bill Inserts													
Bill messaging													
Envelope messaging													
Energy @ Home / Energy @ Work													
On-Hold Messaging													
ComEd.com													
Non-Traditional													
Social Media													
Online Community Forums													
Faith-Based Outreach													
Outreach													
Community Events and Outreach													
Smart Youth Ambassador Program													
Teacher Partnerships													
Speakers Bureau													
Small Business Neighborhood Canvasses													
Research													
Value-focused quantitative research													
Exploratory qualitative message testing research													
Exploratory qualitative/quantitative Small Business research													
Awareness tracking													

Team Responsible		2014											
Marketing		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Combined Effort													
Audience/Activity													
End Customers													
Traditional													
Customer Email Campaigns													
Direct Mail													
Robo-Call													
Pre-Meter Installation Letter													
Post-Meter Installation Door Hanger													
Welcome Letter & PTR Enrollment (pending research outcome and open enrollment date)													
Welcome Letter web tools only (pending research outcome and open enrollment date)													
Direct Mail - PTR Enrollment for Existing Smart Meters													
Robo Call - PTR Enrollment for Existing Smart Meters													
Bill Inserts													
Bill messaging													
Envelope messaging													
Energy @ Home / Energy @ Work													
On-Hold Messaging													
ComEd.com													
Non-Traditional													
Social Media													
Online Community Forums													
Faith-Based Outreach													
Outreach													
Community Events and Outreach													
Smart Youth Ambassador Program													
Teacher Partnerships													
Speakers Bureau													
Small Business Neighborhood Canvasses													
Research													
Value-focused quantitative research													
Exploratory qualitative message testing research													
Exploratory qualitative/quantitative Small Business research													
Awareness tracking													

Team Responsible		2015											
Marketing		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Audience/Activity													
End Customers													
Traditional													
Customer Email Campaigns													
Direct Mail													
Robo-Call													
Pre-Meter Installation Letter													
Post-Meter Installation Door Hanger													
Welcome Letter & PTR Enrollment (pending research outcome and open enrollment date)													
Welcome Letter web tools only (pending research outcome and open enrollment date)													
Direct Mail - PTR Enrollment for Existing Smart Meters													
Robo Call - PTR Enrollment for Existing Smart Meters													
Bill Inserts													
Bill messaging													
Envelope messaging													
Energy @ Home / Energy @ Work													
On-Hold Messaging													
ComEd.com													
Non-Traditional													
Social Media													
Online Community Forums													
Faith-Based Outreach													
Outreach													
Community Events and Outreach													
Smart Youth Ambassador Program													
Teacher Partnerships													
Speakers Bureau													
Small Business Neighborhood Canvasses													
Research													
Value-focused quantitative research													
Exploratory qualitative message testing research													
Exploratory qualitative/quantitative Small Business research													
Awareness tracking													

Figure 38 – 2013- 2015 Customer Methods Timeline