



*A Constellation Energy Company*

# BGE SMART METER CUSTOMER EDUCATION AND COMMUNICATION PLAN

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## EXECUTIVE SUMMARY

The Maryland Public Service Commission (PSC) has authorized BGE to install advanced metering infrastructure (AMI) in its electric system serving Maryland customers. AMI consists of new digital meters to replace the existing mechanical meters for all customers and a new two-way communication system to wirelessly send and receive information between the meters and BGE. Initially, AMI will reduce operational costs, such as in-person meter reading and avoid vehicle emissions and costs associated with reading meters and connecting/disconnecting meters. This new system will also allow for enhancements in outage detection. Finally, the new meters capture more detailed usage information that can be used to develop programs to inform customers about their usage patterns and offer new pricing program, both of which are intended to result in lower electricity bills.

**Two Million Meters.** BGE's new initiative to implement an AMI in our Central Maryland service territory will require the installation or upgrade of approximately two million advanced electric and gas meters to create a two-way digital communications network. The new meter installations will begin in fall/winter 2011 and continue through winter 2014.

**Educating and Communicating About Smart Meters in Phases.** Our education and communication effort will encompass four phases:

- *Phase 1:* An introductory, region-wide customer education initiative designed to inform customers about the new AMI system and the meter installation process. Phase I is directed to all customers and will take place during summer/fall 2011.
- *Phase 2:* Targeted customer communications by installation community that focus on the actual installation of the new meters. In this plan, Phase 2 is targeted to customers who will receive the new metering system prior to the availability of the online energy manager portal. Phase 2 will take place between fall/winter 2011 and spring/summer 2012.
- *Phase 3:* Expanding as additional communities are installed to an increasingly robust information and education campaign around the online energy manager portal launch and home energy reports, which use the data generated by the meters to help customers understand and modify their energy consumption. Phase 3 will include the targeted customer communication by installation community identified in Phase 2, but will add new messages associated with the new online energy manager portal. Phase 3 will also target educational materials to customers about the online energy manager web portal to those customers who have had the new meter installed in Phase 2. Phase 3 will take place between spring/summer 2012 and spring 2013.
- *Phase 4:* Smart energy pricing programs and other meter-enabled features including outage management. This Plan does not address Phase 4. Phase 4 will be developed in cooperation with the Working Group later in 2012.

<b>PHASE 1</b>	<b>PHASE 2</b>	<b>PHASE 3</b>	<b>PHASE 4</b>
Summer/Fall 2011	Fall/Winter 2011 – Spring/Summer 2012	Spring/Summer 2012 – Spring 2013	Spring 2013 – Winter 2014
<b>EARLY AWARENESS</b>	<b>INITIAL INSTALLATION</b>	<b>WEB PORTAL ACCESS BEGINS</b>	<b>SMART ENERGY PRICING PROGRAMS AND OTHER AMI FUNCTIONS INTRODUCED</b>
<ul style="list-style-type: none"> <li>Educate BGE employees</li> <li>Educate information intermediaries</li> <li>Educate and engage opinion leaders and authoritative advocates</li> <li>Educate BGE customers prior to first installations</li> <li>Establish an overall perspective on smart meters</li> </ul>	<ul style="list-style-type: none"> <li>Conduct community outreach, media outreach, advertising and notification of customers and in geographic sequence</li> <li>Manage expectations prior to availability of online smart energy manager</li> <li>Preview early functionality available upon web portal launch in spring/summer 2012</li> </ul>	<ul style="list-style-type: none"> <li>Launch smart energy web portal</li> <li>Educate about initial features of the smart energy manager</li> <li>Continue community and media outreach and notification of customers and community in geographic sequence that is aligned with meter installation schedules</li> </ul>	<ul style="list-style-type: none"> <li><i>Education plan, including messages and tactics, to be defined through the PSC working group by April 2012.</i></li> </ul>
<b>RELEASE 1:</b> <ul style="list-style-type: none"> <li>Welcome letter to all customers that previews smart meters, informs customers that they may be contacted to set up an installation appointment (for customers with indoor meters)</li> </ul>	<b>RELEASE 2:</b> <ul style="list-style-type: none"> <li>Letter/postcard 4-6 weeks prior to installation with installation details and request for customers with indoor meters to schedule an appointment (for customers with indoor meters or special needs)</li> <li>Phone message 24 hours prior to appointment for indoor meters and special needs customers</li> <li>Large color door hanger at installation (similar to AEP Ohio's, included in appendix) with meter overview and when features will be available</li> <li>Notification in <i>Connections</i> (newsletter)</li> </ul>	<b>RELEASE 3:</b> <ul style="list-style-type: none"> <li>Letter /postcard 4-6 weeks prior to installation with installation details and request for customers with indoor meters to schedule an appointment</li> <li>Phone message 24 hours prior to appointment</li> <li>Version 2 of large color door hanger at installation with update on online smart energy manager availability</li> </ul> <b>RELEASE 4:</b> <ul style="list-style-type: none"> <li>Large postcard with smart energy manager details to previously installed and new meter customers</li> <li>Email and text notification on smart energy manager to previously installed and new meter customers (if opted-in)</li> <li>Notification in <i>Connections</i></li> <li>First home energy report to all new meter customers</li> </ul>	

While the phases are presented as discrete periods of time to facilitate review, BGE's actual rollout of smart meters and new functionalities will combine some phases. BGE will be installing meters between fall/winter 2011 and winter 2014. Phase 1 will target preliminary information to all customers beginning in summer/fall 2011. During Phase 2, approximately 50,000 (number subject to change) customers will have the new meters installed prior to the availability of an online energy manager and home energy reports in spring/summer 2012. Beginning with Phase 3, for the majority of customers, however, notices about their new meter will arrive after the launch of the online energy manager tool. For the latter customers, communications about their new meter will need to include information related to the online tool, which they will be able to access after a four-six week verification process to make sure each meter is consistently sending valid data. Likewise, Phase 3 will reflect the need to educate customers who were installed in Phase 2 about the new energy management tool. BGE's education plan reflects this phased approach and the overlapping nature of the rollout of the meters themselves and the online energy management tool.

**PSC Smart Grid Work Group.** As directed, BGE is participating in the Smart Grid Implementation Work Group composed of BGE, Maryland Public Service Commission staff, Maryland Office of the People's Counsel, Maryland Energy Administration, AARP, Montgomery County Office of Consumer Protection and Department of Environmental Protection and Pepco to develop this proposed Advanced Metering Infrastructure Pre-Deployment and Installation Customer Education Plan for BGE's Maryland service territory. The proposed plan is being submitted for review and approval by the Commission. BGE continues to participate in the working group process to develop policies on two priority areas for the utility and our customers – data privacy and cyber security. There are placeholders for related messages in the risk communication section of the plan that will be updated based on the outcome of the working group discussions.

BGE will continue to participate in the Smart Grid Implementation Work Group as the plan is implemented and subsequent campaigns are developed and implemented.

BGE notes that the Commission formed a working group for electric restructuring customer education and EmPOWER Maryland, and that the District of Columbia Public Service Commission has formed a stakeholder working group for AMI customer educational efforts in the District. These groups, along with the Maryland Smart Grid Implementation Work Group, have demonstrated the benefits of broad collaboration among stakeholders for the purposes of plan development.

**Manage Expectations and Don't Oversell.** As articulated by the PSC working group, customer communication should refrain from overselling, but rather gradually phase in features and functionality messages as implementation of smart meters progress. To that end, BGE has built into our education and community outreach program multiple educational channels and resources for managing customer expectations about what smart meters will and won't deliver in the near term. Communication will set realistic expectations about what tools and functionality will be available to customers, setting realistic timelines each stop of the way. As the meters and the online smart energy manager become functional and accessible, communication will start to promote specific features, engaging customer testimonials and

BGE spokespersons to help guide customers and public officials into new opportunities for engaging in programs that leverage the new metering information. BGE's approach is to promote awareness of meter installation and new functionalities in a targeted manner and to carefully link the community based communications with the phased installation and availability of functionalities and new programs. The awareness cycle will be continuous, to account for customers still awaiting meter installation. This approach will not be without challenges. Outlined in this plan are best practices and lessons learned by utilities across the country and energy companies around the world as the entire industry moves toward the new era of smart meter technology. We have studied and discussed these with utility colleagues in numerous markets (the results of which are also contained in this plan), and we join with them in work groups, seminars and conferences to continue working together toward a more educated, knowledgeable, and engaged customer base.

**Address Customer Concerns.** BGE will produce a range of messages and materials addressing concerns about smart meters and smart grid technology. We will strategically and methodically ensure broad distribution and use among our customer segments (groups of customers segmented by phase and installation timing). This content of these materials will be appropriate to the specific deployment phase:

- Customer contact center scripting and FAQs for customer service representatives
- Media materials, in distributed and online versions
- Speaker scripts, FAQs and talking points
- Information on BGE.com and the new online smart energy manager (when available)
- FAQs on BGE's intranet to ensure our employees can help answer customer questions regarding smart grid
- PowerPoint modules for use in community, customer and business presentations
- Display materials at community and public events and venues
- Door hangers for customers upon meter installation
- Information on accessing the online smart energy manager and signing up for e-mail and text notifications (when available)
- Employee materials, for use in communicating with customers, family, friends and neighbors
- Town hall meeting materials and talking points
- Briefings with community services agencies and advocate organizations for seniors, low-income, Hispanic and populations for whom English is not their first language
- Editorial board meetings and reporter briefings
- Event and community outreach opportunities

**Online Smart Energy Manager.** BGE seeks to prepare customers for use of the online energy management tool and the information offered by this new tool as a way to educate about the functions of the AMI system and to mitigate the negative anecdotal stories that currently drive smart meter/grid conversation in some states. The first major tool that will be enabled by smart meters, the online smart energy manager will allow customers to understand the electricity and gas use in their homes and empower them to take steps to reduce usage and subsequently their monthly energy bills. BGE will track the incidence of customer use of the online energy manager portal and its impacts on customer usage and bills. The goal of this tool is to help lower energy consumption and customer bills. While not yet fully designed, the online tool will include presentation of energy consumption data, budget tracker and savings summaries. The online energy manager will be available in the spring/summer of 2012.

**Actions to Assure Customers that Smart Meters are Accurate.** BGE will conduct side by side tests and comparisons of the old and new meters with a small group of customers (approximately 200) to empirically illustrate and reinforce smart meter accuracy. These tests are scheduled to begin in summer 2011, prior to general meter deployment.

**We'll Be Where Our Customers Are (Phases 2 and 3).** BGE's education and communications initiative will engage customers where they live, work and play throughout the Central Maryland area. The following list of engagement opportunities will be implemented in a targeted manner based on the deployment schedule and the availability of the online energy manager portal.

- At the BGE.com website and new online smart energy manager (when available)
- Community services agencies
- Senior centers
- Community centers and neighborhood associations
- Business and trade association meetings
- Fairs, festivals and environmental events
- Facebook, Twitter, YouTube and other social media sites
- Localized TV, radio, newspapers, bus backs and across the Internet
- Employee cafeterias where they work
- Movie theaters, in cinema previews
- Classrooms and Parent Teacher Associations

**Customize Messaging.** BGE's customer demographics include a broad range of audiences that will be addressed with customized messaging and educational outreach tactics as detailed further in this plan. We plan to use the same core materials for all of our customer segments (welcome letter, appointment postcard, FAQs, etc.) However, with regard to certain materials (for example, fact sheets for events at senior centers), BGE will emphasize facts and respond to concerns that have been documented in our prior customer surveys. For areas where the population may be Spanish-speaking there are an estimated 100,000 Hispanic residents in BGE's service territory based on 2009 census data) we will provide these materials in Spanish. We will also engage community groups that work with seniors, customers with medical needs and those with limited incomes to make sure all our customers are educated about the issues of particular concern to them.

## Audience Breakdown

### Race

	Anne Arundel County	Baltimore County	Calvert County	Carroll County	Harford County	Montgomery County	Prince George's County	Howard County	Baltimore City
	%	%	%	%	%	%	%	%	%
White alone	78%	68%	82%	93%	83%	60%	23%	68%	32%
Black or African American alone	15%	24%	14%	4%	12%	16%	64%	17%	63%
American Indian and Alaska Native alone	0%	0%	0%	0%	0%	0%	0%	0%	0%
Asian alone	3%	4%	1%	1%	2%	13%	4%	11%	2%
Native Hawaiian and Other Pacific Islander alone	0%	0%	0%	0%	0%	0%	0%	0%	0%
Some other race alone	2%	1%	1%	1%	1%	7%	6%	2%	1%
Two or more races:	2%	2%	2%	1%	2%	3%	2%	3%	2%
Two races including Some other race	0%	0%	0%	0%	0%	0%	0%	0%	0%
Two races excluding Some other race, and three or more races	2%	1%	2%	1%	1%	2%	2%	2%	1%
Hispanic or Latino	4%	3%	3%	2%	3%	15%	12%	5%	3%

### Education

	Anne Arundel	Baltimore County	Baltimore City	Calvert	Carroll	Harford	Howard	Montgomery	Prince George's
High School Grad or Higher	90%	88%	77%	91%	89%	91%	94%	91%	86%
Bachelor's Degree or Higher	35%	34%	25%	29%	30%	30%	57%	56%	30%

### Income

Household Income by County	Anne Arundel	Baltimore County	Baltimore City	Calvert	Carroll	Harford	Howard	Montgomery	Prince George's
Less than \$10,000 - \$49,999	27%	39%	60%	23%	28%	30%	20%	25%	32%
\$50,000 to \$99,999	34%	35%	27%	33%	34%	36%	29%	29%	37%
\$100,000 to \$149,999	21%	16%	8%	24%	23%	21%	23%	20%	19%
\$150,000 or more	17%	11%	5%	19%	15%	12%	28%	26%	12%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Median Household Income</b>	<b>\$81,824</b>	<b>\$63,348</b>	<b>\$38,738</b>	<b>\$90,621</b>	<b>\$80,743</b>	<b>\$75,872</b>	<b>\$101,003</b>	<b>\$92,213</b>	<b>\$70,753</b>

Age

Age	Anne Arundel	Baltimore County	Baltimore City	Calvert	Carroll	Harford	Howard	Montgomery	Prince George's
Under 5 years to 19 years	26%	25%	26%	30%	29%	28%	30%	27%	28%
20 to 34 years	20%	20%	24%	16%	15%	17%	17%	18%	22%
35 to 54 years	31%	29%	27%	34%	33%	32%	33%	31%	30%
55 to 64 years	12%	11%	11%	11%	11%	11%	11%	12%	11%
65 years or older	11%	14%	12%	10%	12%	12%	9%	12%	9%
<b>Total</b>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Source: U.S. Census

**Risk Communication Plan.** The BGE communications and implementation teams will be fully prepared to anticipate and respond rapidly to situations that could affect customers, stakeholders or the community during the deployment period. Potential scenarios for planning may include privacy, security and health concerns, equipment failure, unintended harm to property or structures during installation, and impedance of installers due to customer objections, etc. Preparations to respond to these and other issues are outlined in the risk communications section of this plan.

**Service Area Coordination.** BGE will coordinate with PHI where expedient and prudent on smart meter communications to maximize consistency, messaging and outreach in overlapping counties, while minimizing any customer confusion. Likewise, BGE and PHI will coordinate program measurement and evaluation criteria, specifically working to ensure consistent metrics are in line with audience segmentation, to allow an across-the-state evaluation of smart meter efforts as they progress.

IMPLEMENTATION - PHASE 1  
SUMMER/FALL 2011  
EARLY AWARENESS

**I. OBJECTIVES**

- Educate all BGE customers about the deployment of the new metering system
- Educate BGE employees
- Educate public officials, the media, and others who are likely to interact with customers during the deployment process
- Educate and engage opinion leaders and authoritative advocates
- Provide a timeline of smart meter installations and how customers will be impacted
- Begin to address the process associated with the installation of smart meter
- Explain at a high level why BGE is installing smart meters

**II. KEY MESSAGES**

- BGE will provide employees with concise, accurate information about the smart meter rollout process and corresponding features.
- BGE will train, equip and empower employees to be BGE smart meter advocates, providing the resources they need to communicate to customers and training of how the messaging bank should be used. Communication with employees will be ongoing throughout the three-year implementation period.
- The primary customer communication will emphasize that BGE will be installing advanced digital electric meters, called smart meters, for all of its residential and commercial customers as part of its effort to modernize the electric system. Smart meters will replace customers' existing meters.
- The meters are being phased in from fall/winter 2011 through winter 2014.
- In summer/fall 2011, customers will receive a letter to help them prepare for the meter exchange.
- Customers with a medical condition or other special needs, who are currently registered in BGE's Special Needs Program, will receive additional notification prior to a service interruption.
- If a customer has a special need and is not currently registered in BGE's Special Needs Program, the customer will be encouraged to contact BGE Customer Relations Call Center to enroll at 410.685.0123 or 1.800.685.0123.
- In the BGE territory, customers will benefit from the federal stimulus funds allocated by the U.S. Department of Energy, which will pay for a portion of this modernization effort.

- BGE is making the initial investment in smart meters for its customers. At this time, there will be no additional costs to customers for receiving a smart meter. However, BGE will seek to recover its costs in customer rates in the future upon approval of the Maryland Public Service Commission, after demonstrating that the initiative is cost effective.
- Customer benefits will not be realized immediately after the smart meters are installed, but new features and programs will be phased in over time as the new system is installed.
- One key feature that customers can look forward to is the future availability of more detailed information on their electricity usage and new programs that will be offered to help customers better manage their energy usage and costs.
- BGE has invested in this new metering system as part of a long range objective to modernize its distribution system and offer new programs to customers that will contribute to meeting Maryland's goals of lowering electricity consumption and electricity costs.
- The Maryland Public Service Commission has authorized BGE to move forward with this project, but will review BGE's progress in meeting its costs and estimated benefits over the term of the project.

### III. CHALLENGES

- Customer awareness of smart meter rollout
- Reaching Spanish-speaking and other non-English speaking customers
- Questions on meter accuracy, data privacy, radio frequencies
- Questions on costs
- Differing state utility plans and timelines
- External stakeholder preparation and support
- Customer expectation that there will be changes and benefits on day 1 after the meter is installed

### IV. APPROACH

#### Employee Training

*Touch points Include:* All employees with special emphasis on field crews; online and printed materials, as well as leave-behind materials for customers.

#### **Provide employees with:**

- Overview of smart meters, including future features and functionality
- Success of smart meters in other parts of the country
- Specific talking points and key messages they can adapt and utilize when engaging with or responding to customers
- FAQs to equip them to address customer questions and concerns – particularly addressing issues that have surfaced in other smart meter markets, including EMF health risks, privacy, security, data protection, disproportionate cost impact on vulnerable populations, etc.
- Where to find additional information and how to guide customers to be better informed
- Feedback forms (paper and electronic) to provide ongoing updates to BGE communications staff on new issues and questions they receive, effectiveness of communications materials, and

recommendations for increasing and improving customer communications throughout the implementation process.

Consistent with the lessons learned from numerous utilities on the importance of educating employees prior to engaging customers, the goal of this program will be to provide BGE employees with information, consistent messaging, training, ongoing feedback and confidence to skillfully respond to customer questions and concerns. (See appendix L for further employee awareness tactics).

## **Customer Awareness / Community Outreach and Education**

**Welcome Letter to all Customers.** Before the first smart meter installation, all customers will receive a letter from the president of BGE, introducing smart meters and informing them of the phased installation. The letter will arrive in a distinctive envelope to distinguish it from “junk mail”. The letter will also direct customers to BGE.com for more information and updates. The letter will provide background on smart meters; introduce the installation vendor; installation process; inform customers that they may be contacted to set up an installation appointment if their meters are located inside of their home. We will provide advance copies of the letter to key public officials and community organizations to begin the education process with these groups and prepare them for potential customer inquiries.

*Touch points Include:* Welcome letter, link to more information at BGE.com.

### **BGE.com**

The website will provide features of the newly expanded website; location of new smart meter information.

*Touch points Include:* Website, PR, *Connections*, direct-to-customer communications, social media

BGE is in the process of developing and testing a smart meter section as part of its website redesign, giving customers and stakeholders a robust and growing online resource for information and education about smart meters and related features. The section will include:

- Educational elements
  - FAQs and messaging around key issues (privacy, security, EMF, cost, meter accuracy, etc.)
- Smart meter/grid blog with forum for feedback, opinions and discussion
- BGE’s smart meter implementation plan, including schedule and geographic rollout

**Pre-installation Education Campaign.** BGE will develop a comprehensive set of FAQs (Appendix G), especially those addressing misperceptions and issues of security, data privacy, EMF health risk, cost to customer, accuracy of meters, assistance for customers with special needs and other potential customer concerns. In addition, we will develop key messages that will include, but not be limited to, those listed below.

*Touch points Include:* direct mail, community outreach

**Customer Bill Insert.** Feature an article on the smart meter plan in BGE’s customer newsletter which is inserted in the bill; remind customers about BGE’s Special Needs Program. This provides information to customers in the bill envelope which reaches every customer directly.

**Maximizing the Customer Contact Center.** BGE realizes the importance of leveraging its existing customer relations contact center to disseminate information and respond to customer concerns and misinformation. A proactive, customer service and solutions-focused information center will be staffed, equipped and trained to identify and receive customer issues and address them completely and swiftly. Our approach will include best practices based on information center trainers and other utilities:

Provide detailed FAQs for call receivers, addressing the key features of smart meters, setting expectations for timing and functionality and addressing top concerns that consumers have expressed in other markets: privacy, security, EMF health risks, accuracy of meters and cost to consumers. All customer call center employees will be empowered to handle smart meter questions, concerns, and disputes/complaints.

**Details on Tactics for Phase 1 Early Awareness**

<b>Tool</b>	<b>What</b>	<b>Why</b>	<b>When</b>
<b>Employee engagement materials</b>	Create fact card for employees, posters and video to help inform employees on smart meter plan	Employees are key BGE ambassadors to the community through their interface with family and friends. A well-informed work force helps carry the corporate message	Spring 2011
<b>Talking points/FAQs for internal use</b>	Create and distribute talking points//FAQs to Call Center, Energy Advisers and Energy Engineers	Talking points and FAQs will be prepared and distributed to BGE employees with regular direct contact with customers to ensure they are prepared to provide accurate information	Spring 2011
<b>Welcome letter to all customers</b>	Before the first installation, all customers will receive a letter from the president of BGE, introducing smart meters	The letter will introduce installation vendor; installation process; inform customers that they may be contacted to set up an installation appointment if their meters are located inside of their home	Summer/Fall 2011

Website	Launch smart meter section on bge.com. Include installation fact sheet, a copy of welcome letter, FAQs, etc.	The section of the website will serve as a resource for customers with Internet access and will provide detailed information on the smart meter installation process	Website smart meter section: Spring 2011  Welcome letter posted: Summer/Fall 2011
FAQs for external use	Develop FAQs on key questions such as meter accuracy, costs, impact to electronics, etc. for distribution at events, one-on-one and posting on website	Anticipate questions that customers may have regarding smart meters	Spring 2011

IMPLEMENTATION - PHASE 2  
FALL/WINTER 2011 – SPRING/SUMMER 2012  
INITIAL INSTALLATION

**I. OBJECTIVES**

- Conduct outreach and notification about installation to customers and community in geographic sequence
- Ensure that customers understand the installation process and can get answers to their questions promptly and accurately
- Preview early functionality available upon online energy manager launch in spring/summer 2012

**II. KEY MESSAGES**

**Direct Communication – Phased Installation.** Leading up to their meter installations, BGE customers will be exposed to messages about smart meters through numerous communication channels. Still, once actual installation of meters begins, we cannot assume any level of knowledge about smart meters. Clear and concise information sent to customers in the weeks prior to installation will be designed to manage their expectations with fact-based information and explain what the meters will do initially without overselling the benefits. Messages will include the following:

- Smart meter overview and features in illustrated, easy-to-understand messages and graphics
- Role of BGE in the program and the installation process
- Role of customer in the program
- Timeline for installation and fact-based information on the availability of smart meter-enabled features.

- Expanded set of FAQs addressing misperceptions and issues of security, data privacy, EMF health risk, cost to customer, accuracy of meters and other potential customer concerns
- Contact information to set up an appointment for customers with indoor meters
- Contact information for customers needing more information or answers to questions

## Meter Installation Communications

### *Key Messages:*

- Yours is one of more than two million meters being installed in homes over the next three years (from fall/winter 2011 until winter 2014).
- BGE will begin installing smart meter in customer homes or businesses in fall/winter 2011.
- Smart meter technology has been tested and proven to be accurate and is ready to be installed as part of the utility's electric system.
- BGE is partnering with a company called VSI Meter Services Inc. to install the smart electric meters and upgrade existing gas meters.
- All electric meters will be replaced. Most gas meters will get a new addition to allow remote communications, but in a few cases, older gas meters will also be replaced with new meters.
- Meter installations will be scheduled community-by-community and will be performed by uniformed VSI technicians who will be required to display proper identification. There will be several notices and events in your community leading up to installation. You will get a specific notice about the installation of your new meter from BGE. You will experience a brief power interruption (a couple minutes in most cases) when your electric meter is replaced.
- If we are upgrading your existing gas meter, there will be no interruption to your gas service.
- Certain customers with gas meters that require replacing will also experience a service interruption (about 30 minutes).
- Installers will knock on customers' doors before installation and alternate arrangements can be made for businesses, customers who work from home, customers on medical equipment and other special circumstances that require a scheduled appointment.
- BGE customers whose meters are indoors will be contacted by VSI to schedule an appointment for installation. Customers whose meters are outdoors, but inaccessible because of a locked fence or a dog, will also need to schedule an installation appointment.
- For customers with outdoor meters that installers are able to access, you will not need to be present for the installation. VSI will leave notification and meter information after the installation is complete.
- Customers with a medical condition or other special needs, who are currently registered in BGE's Special Needs Program, will receive additional notification prior to a service interruption. To enroll in the Special Needs Program, contact BGE Customer Relations Call Center at 410.685.0123 or 1.800.685.0123.
- BGE is making the initial investment in smart meters for its customers. At this time, there will be no additional costs to customers for receiving a smart meter. BGE will seek to recover its costs in customer rates in the future upon approval of the Maryland Public Service Commission.
- Customer benefits will not be realized immediately after the smart meters are installed.
- Features associated with smart meter installation will be activated in the future over time. Benefits in the early stages are typically related to lowering operational costs associated with meter reading, reducing vehicle use associated with field operations, and increasing our ability to respond to outages faster and more accurately.

- One key feature that customers can look forward to is the future availability of more detailed information on their electricity use and new programs that will be offered to help customers better manage their energy use and costs.
- BGE has invested in this new metering system as part of a long-range objective to modernize its distribution system and offer new programs to customers that will contribute to meeting Maryland's goals of lowering electricity consumption and electricity costs.
- The Maryland Public Service Commission has permitted BGE to move forward with this project, but will review BGE's progress in meeting its costs and estimated benefits over the term of the project.
- Customers whose meters are upgraded this fall and winter will not see changes initially. However, beginning in the spring/summer of 2012 we will introduce a new program to allow you to see your detailed hourly energy use on our website and help you manage your electric usage.
- Go to BGE.com for more information or contact BGE Customer Relations Call Center at 410.685.0123 or 1.800.685.0123.

*Touch Points Include:* Customer base segmentation through all available mediums and online channels, PR, community outreach, door hanger (*updated version*) postcard, e-mail, text

### III. CHALLENGES

- Customer awareness of smart meter rollout
- Customer recognition and awareness of contractor
- Reaching Spanish-speaking and other non-English speaking customers
- Questions on costs
- Scheduling concerns for business, special needs customers
- Claims that electronics were damaged
- Finding information on the smart meter program on bge.com
- Questions on meter accuracy, system reliability, data privacy, radio frequencies
- External factors such as seasonal rate changes and more extreme temperatures
- First bill inquiries and perceived billing errors
- Fear of damage to household electronic equipment – FAQs

### IV. APPROACH

#### Customer Awareness / Community Outreach and Education

**70-Day Community Countdown – Launch Preparation and Implementation.** As the installation of smart meters approaches in a particular community, we will begin preparations for an outreach effort 10 weeks from the installation date. This approach will include a variety of contacts with customers, community groups, opinion leaders and public officials in an effort to give customers several opportunities to learn about smart meters in places they may frequent or from people they may trust. This approach is consistent with best practices gathered from utilities during BGE's research and benchmarking in the development of this plan. The mix of activities will be determined by the individual communities and the best ways to reach customers there. Launch activities will include the following:

- Outreach to multiple stakeholders, including, but not limited to, local public officials, community and civic leadership, and leaders of homeowners and merchant associations to introduce them to smart meters, determine communications channels available to us in reaching their members/constituents and secure their help in arranging meetings and presentations.
- Appearances at neighborhood and community organizations, homeowners associations, PTAs, schools (at the request of the school district) area colleges and universities, meetings of civic organizations and fraternal clubs, local special events, etc., plus make visits to senior centers, libraries, churches, synagogues and shopping areas.
- During this countdown period, special efforts will be made to identify and inform populations needing special outreach efforts, including seniors, low- and limited-income individuals and speakers of languages other than English. Particular emphasis will be placed on reaching them through community centers, community/social services offices and local organizations serving the Hispanic and Asian communities.
- Targeted, **localized** advertising in newspapers, movie theaters, (possibly billboards and cable TV if appropriate) will provide notice of information meetings, feature information about smart meter installation and promote a community countdown to the start of installation.
- Four weeks prior to the start of installation, customers will receive a notice informing them of the anticipated installation period. In the case of customers whose installations will require appointments, notice of the intended installation date will be provided as will options for scheduling the installation at a date and time convenient for the customer.
- Two to four weeks prior to the start of installation, BGE will host or participate in a community meeting at a local community center or meeting hall, providing facts on smart meters, a preview of the upcoming installation schedule and open Q&A session with residents.
- Smart meter welcome materials will be delivered to every home upon the installation of the smart meters and direct customers to BGE.com or BGE's Customer Relations Call Center at 410.685.0123 or 1.800.685.0123 for more details.
- BGE will use an automated outbound message to customers with indoor meters that require appointments or customers with special needs one day prior to smart meter installation in their home.

"70-DAY" COMMUNITY COUNTDOWN	
Week	Activities
10	<ul style="list-style-type: none"> <li>• Inventory of association and community event dates, program schedules, meetings, newsletters, e-mail lists and other communications channels</li> <li>• Identify location for potential community meeting</li> <li>• Identify neighborhood demographics and localized advertising opportunities</li> </ul>
9	<ul style="list-style-type: none"> <li>• Schedule briefings with local public officials (or key staff) and community leaders</li> <li>• Develop paid and earned media schedule for placement of announcements of presentations</li> </ul>

	<ul style="list-style-type: none"> <li>• Develop “fill-in-the-blank” fliers and posters for presentation dates and times when secured</li> </ul>
8	<ul style="list-style-type: none"> <li>• Briefings begin with local public officials and community leaders</li> <li>• Outreach begins to civic, neighborhood, school, community service, senior centers, special interest groups and business associations to schedule presentations</li> <li>• Develop paid and earned media schedule for placement of announcements of presentations</li> <li>• Distribute fliers and poster notices to local retailers, libraries, grocery stores, laundromats, seniors centers and other public venues with presentation alerts and dates</li> <li>• Outreach to local media reporters for briefings and preview of upcoming installations</li> </ul>
7	<ul style="list-style-type: none"> <li>• Briefings continue with local public officials and community leaders</li> <li>• Outreach continues to civic, neighborhood, school, community service, senior centers, special interest groups and associations to schedule presentations</li> <li>• Presentations begin to civic, neighborhood, school, community service, senior centers, special interest groups and business associations</li> <li>• Distribute/place paid and earned media notices to alert about presentations</li> <li>• Secure longer-lead advertising placements, including zoned cable and outdoor</li> <li>• Distribute educational materials through association/community organization channels</li> </ul>
6	<ul style="list-style-type: none"> <li>• Briefings continue with local public officials and community leaders</li> <li>• Presentations continue to civic, neighborhood, school, community service, senior centers, special interest groups and business associations</li> <li>• Distribute/place paid and earned media notices to alert about presentations</li> <li>• Secure display advertising placements</li> <li>• Distribute information to local retailers or centers, e.g., libraries, grocery stores, laundromats, seniors centers and other public venues with presentation alerts and dates; participate in local events (booth at fairs, etc.)</li> </ul>
5	<ul style="list-style-type: none"> <li>• Participation in local events continue</li> <li>• Distribute/place paid and earned media notices to alert about presentations</li> </ul>
4	<ul style="list-style-type: none"> <li>• Begin notices to customers regarding their upcoming meter installation and instructing them on how to schedule an appointment (for inside meters)</li> <li>• Hold or participate in community meeting</li> <li>• Place paid media notices to alert about presentations</li> <li>• Outreach to local media for reporter updates and story opportunities during upcoming installations</li> </ul>

3	<ul style="list-style-type: none"> <li>• Continue notices to customers who have not yet received new meters regarding their upcoming meter installation</li> <li>• Continued outreach to local media for reporter briefings and story opportunity identification</li> </ul>
2	<ul style="list-style-type: none"> <li>• Complete presentations to civic, neighborhood, school, community service, senior centers, special interest groups and business associations</li> </ul>
1	<ul style="list-style-type: none"> <li>• Use of outbound dialers to customers 24 hours prior to smart meter installation inside their homes and special needs customers</li> <li>• Installations begin; customers receive door hangers upon installation</li> <li>• Gather ongoing feedback from customers, community leaders, local businesses and organization contacts to identify and respond quickly to new and emerging issues</li> <li>• Engage customers in media interviews and testimonial opportunities upon installation</li> <li>• Analyze paid and earned media placements for effectiveness</li> </ul>

(Please see Appendix J for additional detail regarding community outreach and education)



**Installation Postcard:** Customers will receive notices in the mail informing them that smart meter installation is beginning in their community and that their meter will be replaced in the new few weeks. Customers with indoor meters will be asked to contact VSI to schedule an appointment.

**Door Hanger.** Customers who have a smart meter installed will receive a door hanger with an overview of the new meter and when they can expect meter-enabled features.

**BGE.com** will feature:

- Overview of smart meters
- BGE's smart meter implementation plan, including schedule and geographic rollout
- FAQs and messaging around key issues (privacy, security, EMF, cost, meter accuracy, etc.)
- Additional resources
  - How to book a smart meter speaker for your school, club or association meeting
  - Community speaker presentation schedule – coming to a location near you

**Higher-Than-Usual Bill Periods.** BGE maintains our commitment to getting out ahead of high bill periods by preparing and educating customers prior to extreme weather. As we have heard from other utilities, the introduction of smart meters will make this enormously important. As customers prepare to experience extreme temperatures and the effects on their energy bills, we will provide perspective-setting communication through bill stuffers, e-newsletters, media outreach, advertising, online/website communications and community presentations. Our customer contact center will be equipped with special messaging and FAQs to help alleviate customer concerns, respond to their issues and assist in mitigating the impact of high bill periods.

*Key Messages:*

- In the coming months, you may notice an increase in your energy bill. There are many potential reasons for this increase, including weather-related usage, heat pumps and energy supplier charges. To learn more about how homes use energy as well as low-cost and no-cost measures customers can take to improve the efficiency of their homes, visit BGE.com or contact BGE at... You still have the power to conserve energy and save money this (winter/summer) by using energy wisely during extreme weather season. Here's how...If you have questions about your bill, call the BGE customer Relations Customer Contact at 410.685.1023 or 800.685.0123. (Bill-related issues are also addressed in the Risk Communication section).

**Briefings with Public Officials and Stakeholders.** Consistent with the discussions and recommendations of the PSC working group, public officials will be briefed at the outset of the community education effort, acknowledging that they will need to be informed and equipped to handle the inquiries and questions from their constituents in the community. Members of the company federal affairs and state public affairs staff are conducting early briefing sessions with legislators during the 2011 Maryland legislative session, providing a high-level overview of the smart meter implementation process to come. The federal public affairs team will brief Maryland's U.S. senators and delegates (or select staff members) in 2011 prior to installations beginning. In addition, county delegations in the State Senate and House, appropriate committee members, officials with MEA, DHCD, DHR, OHEP, local municipal leaders, town and county council members, local government human service agencies, community association leaders, the police department and other stakeholders will be provided with in-depth briefings 6-8 weeks prior to meter installations beginning in their communities. BGE will update them with further detail and encourage them to validate and provide information to their constituents as BGE embarks on our implementation plan, community by community. Examples of materials they will be given include specific information about the installation rollout in their area, FAQs to address constituent questions/concerns, copies of the materials customers will receive in the upcoming weeks and an invitation to participate in a town hall/community meeting two to four weeks prior to installations beginning in their district/community. Public Officials will also be encouraged to provide constituents with BGE contact information for questions and more information during the entire smart meter installation process.

**Community Outreach.** BGE's community outreach initiative will be scaled to the size of individual communities, and sequenced according to geographic installation schedules throughout the implementation period. As the utilities we benchmarked stressed, community outreach will play an essential role in helping BGE customers understand smart meters. Face-to-face meetings with community groups, neighborhood associations, public officials, environmental organizations, businesses, religious organizations, clubs and individuals will help get the word out to BGE customers about the upcoming meter upgrade and minimize potential issues that may arise from the lack of understanding about smart meters. . AEP Ohio and

Oklahoma Gas and Electric, for example, are two utilities that successfully used this approach. In addition, reaching people where they live through events, seminars, speaking engagements and community activities will be another important way to educate consumers about the infrastructure enhancement. BGE is committed to conducting a comprehensive program that reaches as many groups and individuals as possible.

**BGE Speaker Resource Kit.** BGE will produce and continually update a speaker resource kit for use by trained speakers in presenting to the various groups and organizations in the community. The materials may include:

- Educational PowerPoint presentation with an overview of smart meters and smart grid, the need for an enhanced transmission grid, how smart meters work
- Answers to frequently asked questions (FAQs)
- Tips on how to field questions that are positive, negative and confrontational
- “Customer profiles” – examples of customer segments and some of the specific issues, needs and concerns they will need to address in presentation settings

**Actively Solicit Input.** BGE will actively and visibly solicit input from the community and will learn from our consumers throughout the implementation process if they understand the facts about smart meters and if there are any lingering myths. Using BGE’s existing community relations staff, we will be aggressive in our engagement of all customer segments to provide information, demonstrate features, set realistic expectations for the technology and the timing, correct misinformation and answer questions.

**Community Feedback.** We will be proactive in seeking opportunities to meet with community groups, neighborhood associations, churches, chambers of commerce and other organizations to **gather feedback about the meter installation** and learn if there are any negative perceptions, customer issues or disagreements with BGE’s smart meter installation process. Consumer advocacy groups from within the service area, as well as some from outside the service area, will be brought into the process so that stakeholder issues can be considered and addressed. We will seek opportunities to engage with their members and constituents at fairs, conferences and gatherings, providing audience-specific materials, presentations, displays, banners and other support to get the message out and receive important feedback that will help further guide our communications efforts. Examples of feedback mechanisms include:

- Event turnout/participation
- Participant evaluations following an event/presentation
- Anecdotal feedback from organization heads and event organizers for effectiveness of event, materials, speaker and displays/demonstrations
- Intercept interviews and one-on-one conversations with participants and attendees
- Review of reporting on events/presentations in the media and the organization’s own communications vehicles

## **Media Outreach**

The installation of the first smart meters will be considered a media milestone. Critical during this phase will be setting accurate expectations for what the smart meters will/will not do in the short-term, and the features, functionality and benefits that can be expected in the future (spring/summer 2012).

## Objectives

- *Communicate BGE's smart meter plan* – to and through traditional and online media
- *Establish awareness and understanding among consumers for how, in the future, smart meters help them reduce energy consumption, and control and manage their energy consumption*
- *Build and maintain an ongoing dialogue* with traditional and online media as credible and effective channels to reaching, informing and engaging consumers throughout the smart meter implementation phases
- *Utilize the reach, power and penetration of traditional and digital media* in setting perspective, dispelling myths and maintaining a consistent and accurate flow of information and feedback with customers and the community

**First Installation Outreach.** The plan for geographic rollout and timing of meter installations will be made available to customers and other stakeholders at the same time as the media. The first series of installations will be positioned as a milestone, as well as an opportunity for BGE to capture visual assets (video and photography) for further use. Media outreach/engagement may include the following, depending on the progress of implementation:

- Advance briefing of community-specific media as part of the 70-Day Community Countdown leading to installations in each community
- Milestone press release/PressLift to the media at important milestones in deployment
- Overview of smart meter features and functionality
- Enlist and engage smart meter experts within the media, as well as in opinion leader positions in the community, who understand the intricacies of the technology and can provide accurate and authoritative perspective to customers and the community
- Aggressive media campaign for BGE representatives to appear in print interviews – both online (e.g., PATCH) and traditional – as well as radio and TV talk shows and online forums discussing the installation of smart meters, setting correct expectations regarding smart meters features and functionality
- Possible media event to mark the occasion of the first installations, potentially set up in a consumer's house where the first meter will be installed
- Provide reporters with a map that shows the geographic rollout and timing
- Briefing and engagement of public officials, community leaders and regional opinion leaders during the 70-Day Community Countdown period on the realistic timeline for rollout and implementation
- Offer reporters a ride-along opportunity to cover actual installations and talk with residential and business customers
- Ongoing support to media outlets that want to localize their own smart meter stories by providing community-specific representatives, customers and resources

**Examples of news outlets** we will work with during the smart meter initiative include Associated Press, Aegis, Afro American, Baltimore Beacon, Baltimore Sun, Baltimore Business Journal, Baltimore Brew, Baltimore Magazine, Bowie Blade, Bowie Star, Carroll County Times, The Capital, Corridor Inc.com, The Daily Record, The Dagger, Dundalk Eagle, The Guide, Jewish Times, Investigative Voice, Latin Opinion, Maryland Gazette, PATCH, Patuxent Pub. (Catonsville Times, Owings Mills Times, Howard Co. Times,

Towson Times, Jeffersonian), Washington Examiner, and Washington Post. *(Please see Appendix E for additional detail)*

**Examples of Key Reporters, Radio/TV Personalities, News Directors/Assignment Editors and Bloggers** we would potentially engage include Jay Hancock – Baltimore Sun, Hannah Cho – Baltimore Sun, Laura Smitherman – Baltimore Sun, Dan Rodricks – Baltimore Sun, WYPR, Peter Jensen – Baltimore Sun, Tim Wheeler – Baltimore Sun, Andy Green – Baltimore Sun, Michael Cross-Barnet – Baltimore Sun, Beverly Epstein – WBAL, Ron Smith – WBAL-AM, Dave Durian – WBAL-AM, Mark Miller – WBAL-AM, Clarence Mitchell IV – WBAL-AM, Shari Elliker – WBAL-AM, Jayne Miller – WBAL, Jeff Hager – WMAR, Jamie Costello – WMAR, Chet Dembeck – PATCH, Brian Sears – PATCH, Mike Schuh – WJZ, Tanya Black – WJZ, John Rydell – WJZ, Scott Livingston – WBFF, Sheilah Kast – WYPR, Anirban Basu – WYPR, Sunni Khalid – WYPR, Joel McCord – WYPR, Sandi Mallory – WEAA, Anthony McCarthy – WEAA, Mario Armstrong – WYPR/NPR/Sirius XM radio, Rod Adams – Atomic blog, Fern Shen – Baltimore Brew, Joanna Sullivan – Baltimore Business Journal, Scott Dance – Baltimore Business Journal, Stuart Rosenthal – The Beacon, Barbara Ruben – The Beacon, Lindsey Robbins – The Bowie Star/Gazette.net, Natalie McGill – The Bowie Star/Gazette.net, Rob Hiaasen – The Capital, Barry Rascovar – The Gazette, Doug Donovan – PATCH, Danielle Douglas – Washington Post, Steve Mufson – Washington Post, and Suzanne Wooton – Washington Post. *(Please see Appendix E for additional detail)*

**Talk Show/Broadcast Opportunities.** Roughly 55 percent of consumers in the Baltimore market 18 years and older get information from radio, broadcast TV, local cable and satellite TV. These are effective avenues to discuss smart meters, the smart meter rollout and what customers can expect. As a result, we will work to create opportunities for BGE representatives to appear on local TV, radio, cable and satellite and web-based programming by providing them with quality content and resources. Examples of stations, many of which offer public service/community service shows and programming, include WBAL-AM, WBAL-TV, WJZ-TV, WBFF, WMAR, WYPR, Sirius XM radio (Mario Armstrong show), WHFS, WCBM, WEAA, WWIN-AM/FM, WZFT, WJSS, WBSU, WTMD-FM, HCC-TV, AACT, CMBC 75, CCTV19, WMPT, WNAV, WFBR, WERQ-FM, WOLB, and WLZL-FM. *(Please see Appendix E for additional detail)*

**Special Sections and Editorial Calendars.** Mining upcoming special sections and editorial calendars at newspapers, magazines, online publications, and TV and radio stations will provide additional avenues for disseminating BGE smart meter messages and information.

## Materials and Preparation

**Media Resource Kit.** We will develop a media kit in hard copy and digital formats that will serve as an information resource to reporters, editors, bloggers and others. The media kit will contain:

- Press releases at each phase and milestone of smart meter implementation and smart meter development
- FAQs
- Smart meter implementation plan and timeline
- BGE, community and industry experts who can be engaged in interviews and briefings

**PressLift.** In addition to the media kit, BGE will utilize an online press release method that not only contains a traditional release, but links to articles, white papers and information explaining smart meters.

The PressLift releases will also provide clickable access to photographs, illustrations, audio and video, logos, featured quotes and a link to the BGE.com newsroom. This method will provide an efficient means for delivering electronically large amounts of information to the media in a single e-mail.

**Addressing Customer Concerns.** Throughout the early implementation phases, BGE will provide facts and accurate perspectives on media and consumer issues as they arise, which may include the following questions raised in other early smart grid markets:

- Smart meter accuracy
- Impact on bills
- Privacy
- Security/data protection
- Radio frequency/health risk
- Higher-than-usual bill periods and their impact on energy costs
- Additional emerging issues

### Digital/Social Media Strategy

As installation begins, consumer and stakeholder questions and needs for information will shift to the specific impact the smart meters and their installations may have on their households. This stage is also likely to amplify the mindshare of smart meters in the eyes of consumers and stakeholders as it becomes visible to them in their homes and communities.

With this in mind, BGE is prepared with a comprehensive audience messaging segmentation and content plan, which will ensure the information needs of all audiences, will be addressed. Examples will include:

- User-generated content, specifically surrounding early-install customer testimonials and experiences
- Videos and graphics to explain and address various audience concerns such as RF/EMF effects from the new meters, security, privacy, interference with other wireless equipment, higher bills, etc.

**BGE.com.** Social media messages will link to a microsite within BGE.com. This featured section will be interactive and informational, and could include customer stories/vignettes, implementation progress – where we’re installing now and in the near future – news and tips about added future potential functionality of the smart meters, enhanced media resources and accurate responses to concerns, myths and misperceptions. This section will also will have a link to the online smart energy manager for specifics and hands-on experience. A running count ticker could display a weekly account of how many installations have occurred to date along with a map.

### Advertising

As the education and outreach effort continues into 2012, advertising will support the countdowns in each installation community. **The purpose will be to purchase space in very localized, targeted publications (for example The Capital Newspaper) to manage expectations for timing and extent of meter functionality – simply a meter swap right now.** While messaging will provide a baseline of information about future energy management, audiences will be directed to BGE.com, as well as the BGE

contact center, for additional information and answers to their questions. The comprehensive advertising campaign will utilize the following:

- **Targeted** TV/Cable/Satellite, as appropriate
- **Localized** radio, as appropriate
- Online: local and zoned national sites (e.g. Patch.com)
- Out-of-Home: transit, billboards and placed media
- Newspapers/Magazines

Mass media advertising is planned to potentially include commercials, sponsorships, media partnerships and special community events. Multiple audience goals require a combination of mass media, in addition to niche-specific media to reach identified audience segments. Advertising strategy will support employee, customer, civic and political leaders' education efforts in individual communities where smart meters are being implemented.

Phase 2 will employ a **localized, targeted** media schedule from first installation through spring/summer 2012. Placements will be sensitive to seasonal energy messages, the effects of "high bill season" and customer energy-usage changes. Specifically the media mix in this phase will achieve the following:

- Potential use of targeted broadcast (cable, radio, satellite and TV) for appropriate audience reach.
- Combine print (local & community newspapers and magazine) for target-specific reach.
- Mix out-of-home to cost effectively increase frequency across the full designated marketing area.
- Build an online presence to promote interactivity and efficiently increase frequency of message among niche targets.

The benefits of this advertising mix include the following:

- Mass market mediums cut across gender, age, ethnicity, religion, household income and education.
- Niche media coupled with mass media reinforces the message in different settings: work, home and play, thus increasing the frequency quotient.
- A variety of mediums to fortify the message by affecting multiple senses of the audience, including audio and visual

**"Your Guide to Smart Meters" Illustrated Insert.** BGE will produce an educational illustrated overview guide that will include informational pieces bylined by BGE experts; illustrations and diagrams of how smart meters work; overview of the BGE implementation process and what customers might expect in the coming years. Possible examples include:

- Insert in community newspapers
- Provided in bulk to community, business and trade organizations for distribution to members
- Handout in senior centers, community service agencies, schools, PTAs, churches, libraries, community meetings, energy-efficiency workshops, business/trade/chamber presentations, fairs/home store/outreach events, etc.
- Distribution to BGE and Constellation employees through town hall and department meetings
- Distribution in bulk as part of an in-school smart meter and smart grid education module

- Available on demand at the BGE customer service center
- Distribution via retailers and neighborhood businesses, according to installation schedule by community
- Distribution via large employers and in conjunction with worksite education workshops

**Community Event/Presentation Display Materials.** BGE will produce and make available community event/presentation display materials for use in senior centers, community and church fairs, employee fairs, community/business/trade association meetings and conferences, home owners associations, PTA presentations, home and “green” events, county fairs and other venues.

**Postcard/E-mail Template and Direct Mail Fulfillment Item.** BGE will produce and make available a template design for postcard, e-mail and other direct mail fulfillment formats, as needed, for use by customer service personnel, workshop instructors, community presenters and other BGE representatives in acknowledging and responding to specific customer inquiries.

**Customer Bill Insert.** Feature an article on the smart meter plan in BGE’s Customer newsletter which is inserted in the bill; remind customers about BGE’s Special Needs Program. This provides information to customers in the bill envelope which reaches every customer directly.

*The following includes additional or enhanced tactics from those in Phase I.*

Details on Campaign Tactics for Phase 2 Deployment			
Tool	What	Why	When
70-Day Community Countdown	Concentrated outreach effort, This surround sound approach will include a variety of contacts with customers, community groups, opinion leaders	Reach as many BGE customers as possible where they live to educate them about smart meters and facilitate smooth installation process	Each community-specific effort begins 10 weeks from the first installation date in each community. Some community countdown processes may overlap
Postcard	Smart meter installation notice mailed to customer homes	Inform customer that smart meter installation is starting in their community; provide	Two weeks prior to desired installation time

		information to set up appointment if indoor meter	
<b>Door hanger</b>	Door hanger after installation is completed	Inform customer about new meter, when to expect specific features and where to go for more information	Fall/Winter 2011- Spring/Summer 2012
<b>BGE.com</b>	Overview of smart meters, installation progress, FAQs	Provide up-to-the minute information about smart meter deployment	Beginning Spring 2011 with ongoing regular updates
<b>Higher-than-usual bill period messaging</b>	Special messaging and FAQs for extreme weather periods	Remind customers of the factors that impact bill that are unrelated to meters,	High bill periods (summer, winter)
<b>Briefings with local public officials and community leaders</b>	Meetings and communications materials (welcome letter, door hanger, FAQs)	Prepare officials to answer questions from constituents	Summer/Fall 2011 in accordance with 70-Day Countdown
<b>Community outreach</b>	Community, civic and religious events that present speaking opportunities	Make sure community opinion leaders are informed about smart meters, answer questions	Beginning Summer/Fall 2011
<b>Customer feedback</b>	Feedback mechanisms including evaluation forms and one-on-one interviews with event participants	Ensure customers understand messaging, make necessary revisions to presentations	Ongoing

<b>Media outreach</b>	Proactive outreach to reporters on smart meter installation progress and when to expect features	Help disseminate smart meter facts and dispel myths	Beginning Fall/Winter 2011
<b>Digital/social media</b>	Videos and graphic disseminated via YouTube, Flickr, etc.	Address potential customer concerns about smart meters	Beginning Fall/Winter 2011
<b>Advertising (limited purpose paid advertising focused on consumer education about fact-based information)</b>	Targeted community advertising (local radio, billboards, etc.)	Inform customers of upcoming meter upgrade, manage expectations on timing and functionality	2012-2014
<b>Speaker resource kit</b>	Materials including PowerPoint deck, FAQs and community event schedule	Equip trained BGE employees to make presentation on smart meters	Ongoing
<b>"Your Guide to Smart Meters" illustrated insert</b>	Illustrated guide for newspapers/magazines	Provide overview of what customers can expect	Beginning Fall/Winter 2011

## V. METRICS AND EVALUATION

### METRICS AND EVALUATION (PHASES 1 and 2)

Education and communication are necessary for customer acceptance and success of the initiative, and will help address the following concerns:

- Avoidance of the negative experiences in other states, in particular avoiding the magnification of small-scale problems and the creation of disproportionate customer skepticism and unhappiness (Phases 1 and 2).
- Comprehensive customer understanding that is critical to achieving the sustained changes in customer behavior that will be necessary to realize the level of supply-side benefits the utilities predict (Phase 3).

The communications and education metric category is broken into two metric categories:

- Awareness and Understanding, and
- Community Outreach.

In addition to the metrics described in the following tables, BGE will include in its quarterly reporting a narrative describing any adverse or negative media publicity, or complaints from government officials BGE received regarding the meter installation. In addition, BGE will include a narrative describing any feedback data on its social media program reflecting customer engagement around the smart meter initiative. The report also will include the number of followers on BGE’s social media sites.

### Awareness and Understanding of AMI Deployment

Success in meter installation and avoidance of misunderstanding regarding the new meter deployment requires, among other things, awareness and understanding on the part of customers. Customer awareness and understanding metrics will be based on survey results. The survey questions and the identification of those questions that will be reported as part of these metrics will be developed in consultation with the AMI Working Group. These metrics are intended to measure the effectiveness of the execution of the utilities' communications and customer education plan for Phase 2, which focuses on the installation of the new AMI system. BGE will begin reporting in Q1 of 2012.

Key Metric	Definition	Calculation	Metric Available	PSC Frequency
% awareness of AMI installation and purpose of new metering system (baseline survey)	> x% awareness of customers based on survey results; This is a baseline survey. (with and w/o Internet access)	BGE Survey	Q1 2012	One-time baseline survey
% awareness of AMI installation and purpose of new metering system (subsequent survey)	> x% awareness of customers based on survey results; (with and w/o Internet access)		Q2 2012	TBD
% satisfaction with process of installation of new smart meter	> x% reporting overall satisfaction with installation process for new smart meters; x% reporting. Sample questions include (a) <i>helpful letters and (where appropriate) door hangers</i> , (b) <i>courteous meter installers</i> , (c) <i>ease of making appointments at convenient times</i> , (d) <i>installers keeping appointments</i> , (e) <i>pre-installation understanding of the temporary interruption</i> , (f) <i>ease of understanding written materials such as door-hangers</i> , (g) <i>responsiveness of company to complaints and questions</i> , (h).	BGE Survey	Q2 2012	Quarterly

Key Metric	Definition	Calculation	Metric Available	PSC Frequency
	<i>range of agreement with statements (with and w/o Internet access)</i>			
# and rate of AMI Meter Installation Complaints/Claims	Unduplicated number of AMI Meter Installation complaints/claims, total number of installations attempted or achieved	Count of AMI Meter Installation complaints/claims by customer class, by type of complaint; total number of installations attempted or achieved	Q2 2012	Quarterly
# and % of missed installation appointments	Number and % of missed appointments	Count of missed appointments, count of total appointments	Q2 2012	Quarterly

## Community Outreach

The Community Outreach metrics will measure the BGE's effort to reach out to the local community and respond to customer contacts and experiences with the installation of the new smart meters. BGE will begin reporting in Q3 of 2011.

Key Metric	Definition	Calculation	Metric Available	PSC Frequency
# of community outreach activities conducted at the request of the agency or organization	- Number of requests for information and other educational activities responded to by Utility	Count of requests for information or educational outreach received and provided by the Utility	Q1 2012	Quarterly
Extent of local governmental offices contacted before launch of installation notification	# of local government offices contacted before launch of installation notification	Count of local government offices contacted before launch of installation notification; total count of local government offices to be contacted.	Q1 2012	Quarterly
# of articles that appear in local media in response to Utility-initiated materials	Number of articles that appear in local media as a result of company-issued press releases and other media materials	Count of articles that appear in local media as a result of company-issued press releases and other media materials	Q1 2012	Quarterly
Number of discrete /separate communications to customers primarily related to AMI deployment	Number of discrete/separate customer letters issued	Count of discrete/ separate communications issued to all customers on AMI deployment	Q1 2012	Quarterly

IMPLEMENTATION - PHASE 3  
SPRING/SUMMER 2012 – SPRING/SUMMER 2013  
ONLINE SMART ENERGY MANAGER ACCESS BEGINS

## I. OBJECTIVES

- Link the installation of smart meters to the availability of the online smart energy manager for customers who have not yet had the new meter installed
- Educate customers who already have smart meters about the new online energy manager tool
- Educate about content and potential use of the smart energy manager
- Stimulate customers to sign up with BGE.com and view their usage information on the new web portal
- Seek customer use of the web portal and reduce energy usage and monthly electric bill
- Continue outreach and notification of customers and community in geographic sequence that is aligned with meter installation schedules
- Provide follow-up communications on new feature to customers whose meters were installed prior to smart energy manager availability

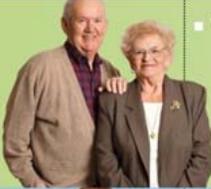
## PHASE 3 OVERVIEW

When phase 3 of smart meter deployment begins in spring/summer 2012, BGE's customers will fall into three categories:

- A. Customers who already received their meters prior to the availability of the smart energy manager (approximately 50,000)
- B. Customers who will receive a meter shortly, gaining access to the new portal in approximately four weeks (after a final verification process to make sure each meter is consistently sending valid data)
- C. Customers who will not receive a meter for a year or more

We have taken this into consideration when planning our communications materials and rollout of the plan. In addition to communicating to the customers in the second group above regarding their meter installation and smart energy manager access, we will need to follow up with the first group of customers to let them know that a new feature is available and how it works. We will also have a group of customers that will receive updates on the meter installation and what they should know as we approach their community on the schedule.

## Phased Communications: From the Customer Viewpoint

	PHASE 1 Summer/Fall 2011	PHASE 2 Fall/Winter 2011 - Spring/Summer 2012	PHASE 3 Spring/Summer 2012 - Spring 2013	PHASE 4 Spring 2013 - Winter 2014
Customer A 	<ul style="list-style-type: none"> <li>Welcome Letter</li> </ul>	<ul style="list-style-type: none"> <li>Installation postcard</li> <li>Installation phone message</li> <li>Door hanger #1</li> <li>Notification in <i>Connections</i></li> </ul>	<ul style="list-style-type: none"> <li>Postcard with portal info</li> <li>Email and text with portal info</li> <li>Notification in <i>Connections</i></li> <li>First home energy report</li> </ul>	<ul style="list-style-type: none"> <li>Smart Energy Pricing (SEP) brochure</li> <li>Email and text on SEP</li> <li>Notification in <i>Connections</i></li> </ul>
Customer B 	<ul style="list-style-type: none"> <li>Welcome Letter</li> </ul>		<ul style="list-style-type: none"> <li>Installation postcard</li> <li>Installation phone message</li> <li>Door hanger #2 (with portal info)</li> <li>Email and text with portal info</li> <li>First home energy report</li> </ul>	<ul style="list-style-type: none"> <li>Smart Energy Pricing (SEP) brochure</li> <li>Email and text on SEP</li> <li>Notification in <i>Connections</i></li> </ul>
Customer C 	<ul style="list-style-type: none"> <li>Welcome Letter</li> </ul>			<ul style="list-style-type: none"> <li>Installation postcard</li> <li>Installation phone message</li> <li>Door hanger #2 (with portal info)</li> <li>Smart Energy Pricing (SEP) brochure</li> <li>Notification in <i>Connections</i></li> </ul>
	<ul style="list-style-type: none"> <li>BGE <i>Connections</i> inserts/updates</li> <li>BGE.com updates</li> <li>Communications to customers with medical needs</li> </ul>			

## II. KEY MESSAGES

### Online Smart Energy Manager Launch

#### Key Messages:

- You will receive an invitation to log on and view your detailed energy use. You can set a target budget every month and track how you are doing toward that budget on a daily basis well before your energy bill arrives.
- You can now see how much energy you use compared to average households that are similar to yours.
- You can see the pattern of how and when you use the most electricity and receive personalized cost-saving tips based on your very own usage data (home energy reports).
- By making use of the new smart energy manager you can reduce your monthly bill!

*Touch Points Include:* Website, door hanger (updated version), home energy reports, *Connections*, direct communications (postcard, email, text)

## III. CHALLENGES

- Customer awareness of online smart energy manager and home energy reports
- Reaching customers that are not online and don't have access to the website
- Reaching Spanish-speaking and other non-English speaking customers

- Determining customer notification preferences
- Educating customers about how to reduce energy usage and still be comfortable in their homes and businesses
- Questions on conserving energy, saving money, and neighbor comparisons
- External factors such as seasonal rate changes and more extreme temperatures
- Reaching customers in a phased approach

#### IV. APPROACH

##### Customer Awareness / Community Outreach and Education

**Door Hanger.** Upon installation of their meters, customers will receive a revised door hanger (version 2) informing them that the online smart energy manager will be available to them in a few weeks and that they will receive a postcard and additional notifications when they have access. BGE will also produce a Spanish door hanger for communities with a high Spanish-speaking population.

**Online Smart Energy Manager.** Customers whose smart meters are installed before launch of the online smart energy manager will receive a separate notice in their welcome materials informing them when the smart energy manager is expected to become available. As this online tool is launched, these customers will receive one or more notices (depending on the preferred method of communication they previously indicated) including a postcard, phone call, e-mail or text message. In addition, announcement of the tool's availability will be made on BGE.com.

The online smart energy manager will allow customers to begin to experience smart-meter related features soon after their new meter is installed. This tool is expected to evolve over time with more features being added. As new features are added, it will be important to maintain a consistent "look and feel," where possible. Upon its introduction in spring/summer 2012, the online smart energy manager will provide features such as:

- Usage and "Bill" Data Presentment – presentation of hourly consumption data collected through the smart meter system and bill estimates. This information will present the customer's usage from the prior day.
- Energy Budget Tracking – a tool that allows customers to set a budget for their energy costs and track performance against it throughout the month
- Usage Disaggregation – an analytical tool that breaks down a customer's usage by major category of appliances to help identify savings opportunities
- Savings Summaries – feedback on the amount of money that a customer has saved through Smart Energy Pricing
- Environmental Impact Analysis – an analytical tool that estimates a customer's carbon footprint
- Comparison to Others – feedback on how a customer's usage compares with similar households. Social norms have been shown to significantly change consumer behavior

Beginning in 2013 and beyond, other features will include:

- Additional insights on energy usage based on your own historical energy usage profile
- Online Tools

- Alerts
  - Set up e-mail/text alerts when you hit a pre-defined goal
  - High usage, high bill, haven't checked in over 1 week, etc.
- Automation
  - Partnerships with home automation companies
  - A tech-forward version of "set it and forget it"
- Customer service
  - Live chat representative
  - Q&A forum for troubleshooting, common problems
  - Glossary
  - E-mail a question
- Education
  - Suggestions for adjusting/managing energy usage
  - Access How-To multimedia for energy efficiency, smart meter usage instructions

The online smart energy manager will evolve over time as new features are added. It will be designed to be one of the primary ways that customers will receive feedback on their energy use BGE will provide similar information through other channels for customers without web access, including printed reports. Customers will be notified of this option through *Connections* and BGE community events.

**Home Energy Reports.** Beginning in spring/summer 2012, BGE customers can take advantage of energy information and insights enabled by smart meter technology. As it will take time for customers to fully engage with self-service tools like the online smart energy manager, BGE plans to proactively provide customers with information on their energy use through other means, including home energy reports. These reports will be mailed on a regular (to be determined) schedule, providing customers with similar information as the online tool and using similar graphics and wording. For example, the reports can provide a comparison of a customer's usage to similar customers, tailored energy-efficiency tips and a summary of how the customer typically uses energy throughout the day. For many customers, the reports will provide compelling information on smart meter capabilities and serve as encouragement to entice them to seek out more advanced tools on the Internet. The reports will also allow BGE to reach customers who are unlikely to use the online smart energy manager.

**BGE.com.** will include the following new features and information:

- Additional resources
  - How to schedule a smart meter speaker for your school, club or association meeting
  - Community speaker presentation schedule – coming to a location near you
  - IdeaExchange – Q&A within the growing smart meter community across the BGE territory
  - SnapTags and Quick Reference Codes - tracking applications and convenience-oriented applications aimed at mobile phone users

**Customer Testimonials.** BGE will conduct customer interviews and gather and utilize customer testimonials during and after installations. This will capture personal customer experiences and those granting permission will have them posted on BGE.com's smart meter section, as well as compiled into video short-takes and other viral content that can be pushed out through social media. Customers will also be engaged in media interviews and community appearances as appropriate and convenient for them.

**In-School Educational Module.** If school districts express an interest, BGE will explore development of an in-school educational module in conjunction with the EmPOWER Maryland school energy curriculum for use primarily in middle-school classrooms (the target age group for most STEM – science/ technology/engineering/mathematics – programs nationwide). BGE will use existing materials from the vendor Silver Spring Networks that are designed to be instructional, interactive and adaptable by educators. The module includes:

- PowerPoint instructional presentation
- Video overview of smart meters and related features
- Hands-on classroom exercises for utilizing the smart meter and the web portal to track and manage energy usage and costs
- Overview pamphlet that students can take home and discuss with their families
- “Green” specialty item giveaway
- “Your Guide to Smart Meter” illustrated insert
- Curriculum guide for instructors, and suggested teaching tips to make the subject matter lively and interactive
- Outline of additional resources for instructors and students

**BGE Electric Vehicle Appearances.** BGE will utilize our electric vehicles (and where appropriate, our new electric bucket trucks) for appearances, parades, fairs and energy events throughout the service area to draw attention, spark conversations with customers and remind the community of the vision of smart grid and smart meters and what they will enable in the future. In addition, BGE will explore smart meter magnetic signage for its vehicle fleet throughout the community.

**Business/Retail/Employer Materials.** BGE will produce and distribute, through businesses, retailers and worksite education sessions, a package of materials such as posters, customer pamphlets, tips for educating your employees. The materials can be used for distribution to customers, lobby displays and in “brown bag” briefing workshops, employee fairs, worksite presentations and other points of education.

**E-Newsletter.** BGE will produce an e-newsletter for customers who have received their new smart meters to continue to educate, update and enhance communications as functionality and energy-management technologies are introduced. The e-newsletter could provide answers to questions recently received from customers, updated implementation schedules by community, schedules of community education events and other information important to customers. Customers will be given a mechanism in each issue that would allow them to opt-out if they choose to be removed from the e-mail distribution.

**Smart Meter Introductory Video.** BGE will produce a fact-based overview video that explains and demystifies smart meter technology that is the backbone of the larger effort to modernize the distribution and transmission systems. The video will also discuss how customers can use smart meter information for managing energy usage and costs. BGE will make use of video assets already produced for this purpose and available publicly, if possible and expedient.

Use of the video could include (but not be limited to) community events, senior and community service organization seminars and workshops, employer worksites, BGE and large employer lobby displays and closed-circuit channels/displays in hospitals, MVAs, community service centers, senior centers, mass

transit stations, sports venues, school sites, business and trade association presentations. It also will be viewable on the BGE.com website and the online smart energy manager.

**Quick-Take Smart Meter Video Vignettes.** In addition to the longer version overview video, BGE will produce 10-12 quick-take smart meter video vignettes that “unbundle” smart meter features into bite-size nuggets. These 15-second vignettes will be excerpts of larger video material produced to align with customer needs identified in our research. Vignettes could include segments on cost, control, reliability and other features– but each presented individually. The vignettes could function as a group or separately, for use as cinema previews, on closed-circuit and displays in public and large employer venues, as 15-second TV spots, as lead-ins to community and business workshops and presentations, as clickable shorts on the BGE.com, smart energy manager sites and social media venues including Facebook and You Tube. The vignettes could also serve as content to “push out” through social media channels online, building attention and providing educational moments on YouTube, Facebook and other sites.

### **Media Outreach**

The launch of the new online smart energy manager for customers will mark an important milestone in the functionality and interactivity of customers with the emerging smart meter infrastructure. Media activities will include:

- Additional talking points, FAQs, fact sheets, key messages and backgrounders about the new energy management tool and what it will do
- Press release/PressLift about the new tool and its significance and functionality
- Placement of BGE spokespeople in interviews on TV, radio, print and online publications about the smart energy manager and its functionality and significance to consumers
- Reviews/commentary of the online smart energy manager and new smart meters by local and online technology reporters/bloggers/reviewers

**Media Spokesperson Preparation.** BGE spokespeople will be provided with additional media preparation to increase proficiency in using the updated materials and resources during media opportunities.

**Ongoing Media Relations.** BGE will engage in ongoing media relations activities during Phase 3, including story preparation and pitches, preparation and placement of BGE spokespeople and customers in media opportunities, and response to “news of the day” and emerging issues as necessary and beneficial to maintaining accurate coverage of smart meter installation progress.

In addition, BGE will seek opportunities marking significant installation milestones, new functionality introductions, local story opportunities around specific neighborhoods and communities to continue a consistent drumbeat of messaging and storytelling around smart meter installation progress.

### **Digital/Social Media Strategy**

As functionality is introduced and the online smart energy manager becomes enhanced to include new features and resources. At this stage, content strategy will focus on deepening that relationship by emphasizing the new information they have gained and how it enables them to make informed energy choices. Potential tactics include:

- Live streaming demonstrations and Q&A sessions with BGE experts showing the web portal
- Online smart energy manager demonstrations delivered to media to illustrate the system and its benefits to their readers
- Entertaining and informative “How to” tutorials for the smart energy manager

**Mobile Accessibility.** It is important to note that in the future, all BGE websites will be mobile-optimized to ensure the wide range of audiences will be able to view content and participate in discussions. In particular, this mobile optimization will enable BGE to reach audiences who are more likely to use mobile devices rather than computers to access information.

**E-mail and SMS.** BGE will initiate an opt-in e-mail campaign to regularly and directly interact with customers about developments related to smart meters. Customers will also be given the option to choose e-mail or SMS text messaging as their preferred way to receive ongoing operational communications from BGE. For example, a customer may choose to receive pricing notifications through e-mail.

### Advertising

Advertising in 2012 will continue to build with more robust educational messages as meter functionality increases. Advertising in Phase 3 will be specific to the features of the online smart energy manager. The focus will be on the early energy management and control customers will experience. In addition, advertising will continue to support individual community countdown activities as smart meter installations continue through the region. BGE will provide drafts of planned advertising to the PSC working group for review prior to launching the ads.

Advertising measurement and evaluation will include the following:

- Analyze activity following the first six-month continuous ad schedule since onset of smart meter customer education
- Complete and evaluate monthly measurement reports for January – June 2012 media activity
- Analyze reach, frequency, market CPP values and customer awareness
- Amend schedules and recommendations as necessary based on mediums’ delivery of audience effectiveness.

Phase 3 messaging and target community/audience selection will drive the mix of media. Simultaneously, BGE will continue to run our annual schedule of ongoing customer advertising campaigns focusing on gas safety, energy management and high-bill season preparation. Messages and placements will be flighted, however, so as to not over-saturate utility messages nor dilute the attention to the smart meter program. Smart meter advertising will work in tandem with the launch of meter functions, market response to meter installations, specialty editorial features and selected media events. Strategic placements and/or media partnerships will additionally reinforce all customer and employee education messages.

The following are new, supplemental tactics in addition to those outlined in Phase 2.

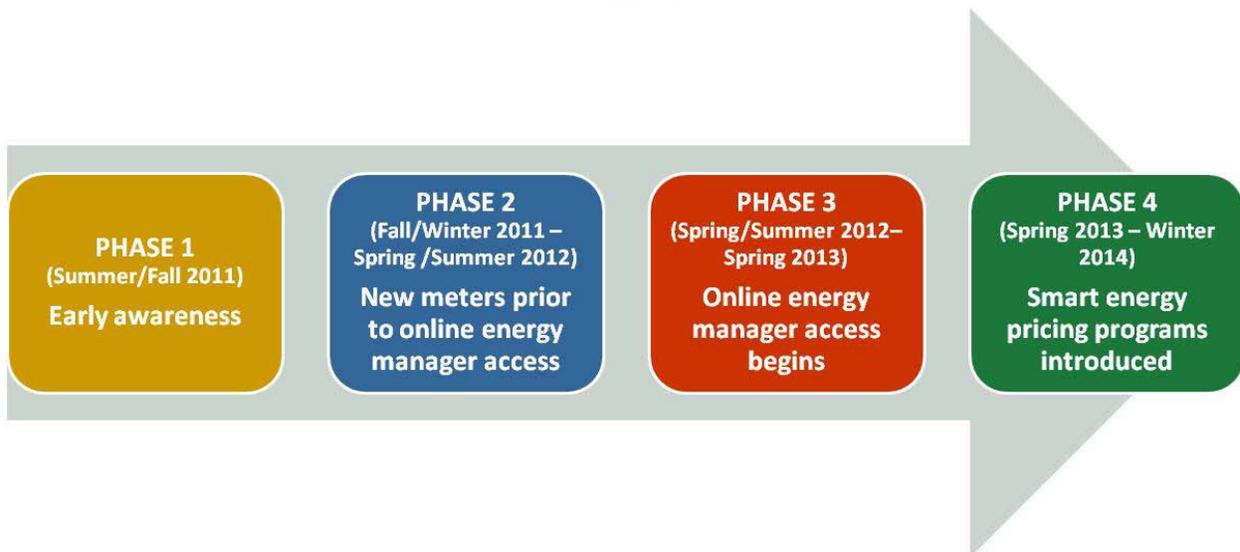
<b>Details on Campaign Tactics for Phase 3 Deployment</b>			
<b>Tool</b>	<b>What</b>	<b>Why</b>	<b>When</b>
<b>Door hanger</b>	Door hanger version 2 after installation is completed	Inform customer about new meter and online smart energy manager tool	Spring/Summer 2012 – Spring/Summer 2013
<b>Online Smart Energy Manager</b>	Online tool showing customer energy usage data; energy budget tracking capabilities	Allow customers to understand usage patterns and how to conserve energy to lower their bills	Beginning in Spring/Summer 2012
<b>Home energy reports</b>	Printed reports mailed to customer homes that provide similar usage information and conservation tips as online energy manager tool	Allow customers to understand usage patterns and how to conserve energy to lower their bills	Beginning in 2012
<b>BGE.com</b>	New sections on booking smart meter speakers, and new features for mobile phone users	Provide information on new BGE programs and offerings related to smart meters	Beginning Spring/Summer 2012
<b>In-school educational module</b>	PowerPoint presentation, video and other instructional tools	Help students understand smart meter features so they can influence family conservation	2012 – 2014

		behaviors	
<b>BGE Electric Vehicles</b>	Cars that run on electricity	Show connection between smart meters and electric vehicles	2012 – 2014
<b>Business/retail/employer materials</b>	Posters, pamphlets and worksite presentations	Continued customer education, field questions	2012 – 2014
<b>E-newsletter</b>	Customer updates via e-mail	Continued customer education, FAQs	2012 – 2014
<b>Smart meter introductory video</b>	Video	Provide overview of smart meter implementation, online smart energy manager and what customers can expect in the future	2012 – 2014
<b>Quick-take smart meter video vignettes</b>	Short Videos	Provide information on specific areas of customer interest, “cost,” “reliability” etc.	2012 – 2014
<b>E-Mail and SMS</b>	Customers can opt in to receive updates via email and text message	Provide details on smart meter tools; continue to address potential customer concerns about smart meters	2012 – ongoing

## V. RESEARCH AND EVALUATION

Per agreement by the PSC working group, the metrics that relate to the online smart energy manager will be moved into the overall PSC working group smart meter phase II (benefits). These metrics will be coordinated with Pepco and reviewed by the full PSC working group in Fall 2011.

## TIMELINE



*(See Appendix H for detailed timeline).*

The timeline details the tactical areas and rollout sequence of Phases 1 through 3 of the smart meter implementation plan. Three things to note:

- Phase 4 tactics – to be defined
- The exact timing of customer education and communications activities will remain flexible to respond to shifting of smart meter implementation schedules, including community-sequenced installations, pre-installation activities and education based on differences and distinctions of each community, exact timing of meter and new technology functionality, real-time feedback and observations of smart meters and communications implementation teams as issues and new developments emerge, and the occasional vagaries of event staging and media involvement.

- The mix and balance of various education and community outreach activities will be adjusted as needed based on the unique characteristics of each rollout community. We anticipate and remain committed to a cohesive and consistent strategic approach to the region overall, but remain open to the need for occasional adjustments and customization based on the stakeholder needs and response in each community where BGE enjoys a relationship with our customers.

## RISK COMMUNICATION PLAN

While implementation of smart meters will bring exciting new resources to customers, we also recognize that the introduction of new technology, the logistical requirements for meter installations, and the transition to a new way of managing energy have the potential to cause confusion, disruption, concerns and even fear among customers and the community.

BGE's communication, customer contact and smart meter teams will be fully prepared to anticipate, respond rapidly and manage potential risk situations that could arise among customers, stakeholders or the community during the deployment period. This risk management communications plan draws on best practices and lessons learned by utilities across the country, and represents a comprehensive and sustained program for how we will anticipate customer issues and concerns, and work to address and mitigate problems quickly and thoroughly.

Our approach to managing issues surrounding smart meter deployment is guided by the following principles:

- *Customer education* – We will ensure that we communicate our smart meter installation plan and all related policies and procedures to customers using multiple channels, to proactively answer questions and address concerns.
- *Customer segmentation* – We recognize the need to address population segments differently and to customize communication accordingly, particularly in dealing with concerns and fears.
- *Anticipation of concerns* – We will proactively address potential concerns to prevent problems and complaints *before* they occur.
- *Empathy for customers* – We will increase our dialogue with customers to ensure that we hear and understand them, and as has been our practice in the past, we will approach each client concern with courtesy and respect.

## Objective

The objective of this plan is to develop and activate responses – and a response system – to address potential customer issues that could emerge during the deployment of smart meters in BGE’s service territory. In an ongoing effort to keep issues, inquiries and situations from escalating into problems or even crises, we will escalate our own communication and response activities as situations are identified. We recognize that swift resolution of issues will enhance customer experiences with the new smart meters and facilitate a smooth deployment process. While individual and unique customer issues will receive attention, we will also closely track issues with a common thread.

## Plan Implementation

A cross-functional business team is working to proactively identify potential customer questions and concerns. The team has developed a comprehensive risk management procedure to determine how various types of issues will be routed, and to conduct a targeted and responsible process to address and resolve them. It will begin with pre-deployment communication to help customers anticipate what is ahead, and clarify for them the technology and logistics in advance of installations. This plan is a working document and will be revised and updated as needed to ensure issues are being handled in the most efficient and effective manner and to address additional situations that may emerge.

### *Key Team Activities:*

- Using existing processes/procedures for addressing escalated issues
- Encouraging cross-functional teams to report any AML issues that emerge – ensuring all are documented and resolved
- Responding to customers within an appropriate timeframe
- Recommending potential solutions to all issues, especially recurring issues
- Assisting with the compilation of the escalated issues to help quantify, understand causes and prevent recurrences
- Ensuring closure with customers
- Applying best practices across BGE for future implementations

## Identifying Issues

BGE will actively monitor the following sources where customer issues and concerns may originate:

- BGE Customer Contact Center
- VSI Meter Services field installers
- VSI Call Center
- Letters, emails and/or text messages from customers
- Inquiries to BGE executives and leaders
- Inquiries to BGE field personnel and other employees
- Media
- Public officials and regulators
- Maryland Public Service Commission
- Community groups and consumer advocacy organizations
- BGE community outreach personnel
- BGE public affairs team

- Posts on social media channels

### **Handling Issues**

Customer concerns and complaints will be routed appropriately based on their origin and the most expedient resolution process. In many or most cases, these concerns or complaints will be routed to the BGE Customer Contact Center, where representatives will be equipped and trained to address and resolve them.

VSI Meter Services installers and field technicians will adhere to a clear protocol for receiving customer inquiries and complaints courteously and empathetically, and will report appropriate issues to BGE expediently for resolution. VSI will handle complaints regarding meter installation as well as VSI personnel and damages.

Customers will be notified to provide information on any specific medical needs prior to the start of installations. BGE will identify the special needs customers for VSI. VSI will contact those customers to ensure a smooth transition to the new meters during the momentary interruption in power and installers will knock on their door before interrupting service. In addition to a letter regarding the new meter installation, all customers will receive an automatic reminder call before installation.

Legislator inquiries will be handled directly by BGE public affairs team members. Media inquiries will be handled directly by BGE media relations team members, including responding as appropriate via social media channels, if warranted.

### **Risk Communications Team**

Key departments and teams will be engaged in the customer concern/complaint resolution process, including the following:

- *Corporate Communications & Marketing / Smart Grid Communications Team* – sets the communication strategy, provides all materials including FAQs and talking points for customer interactions. This team will also respond to issues raised through traditional, social media and community groups.
- *Vision 2020/Smart Grid Program* – engaged as needed to provide technical guidance and information to resolve escalated customer issues
- *Customer Relations* – will be trained and deployed to handle most calls from customers; will determine the best point of contact for escalation if the issue cannot be resolved
- *Liaison & Investigations* – provides support of the Case Management System (CMS), case tracking and reporting. Will be able to provide support for escalated calls and issues.
- *Smart Grid Project Resources* – provides support for escalated issues
- *Customer Planning* – engaged as needed on issues involving new BGE customers
- *BGE Billing Personnel* – engaged as needed to resolve billing issues/complaints

- VSI – will address concerns regarding installation as well as VSI personnel

### Response Process Flow

The BGE's Customer Contact Center and VSI's Call Center will handle issues and concerns utilizing the response process outlined as follows:

1A. Customer contacts BGE's Customer Contact Center and selects option for meter questions. Call is automatically transferred to VSI Call center

-OR-

1B. Customer contacts BGE's Customer Contact Center and selects the option to speak to a representative.

-OR-

1C. Customer contacts VSI Call Center

2. The CSR obtains information from the customer to determine the type of inquiry, gathering as much background as possible.
3. The CSR works to address and answer customer questions using the approved FAQ materials provided.
  - a. The issue is resolved and no further action is taken.
  - b. The issue is not resolved, the CSR alerts second level smart grid response team
4. Follow-up with the customer occurs within 2-3 days.
5. If the issue is not resolved:
  - a. Appropriate operations departments and customer support areas will be engaged to provide direct and expedient resolution of the problem with the customer.
  - b. The issue will be processed within the BGE Case Management System (CMS), where it is logged and reported.

The BGE CMS can be used to log customer issues as they come into the system. BGE will utilize the existing workflow in the system to log concerns, in addition to creating a new workflow within CMS to appropriately capture these items.

### Risk Scenarios

BGE has identified the following risk scenarios and issues concerning smart meter deployment and the installation of smart meters. In order to provide a framework for a proactive and efficient response, we have developed specific messages to address each scenario. These messages can be found in Appendix G.

- Customer wants to **opt out** of meter installation
  - Key Messages:
    - BGE customers cannot opt out of having a new smart meter installed. To make sure that every meter is compatible with system-wide enhancements and to

provide every customer with the advantages of these new technologies, BGE is replacing all meters in its service area over the next few years.

- Even if you are not interested in utilizing the enhanced energy management and money-saving tools smart meters will provide, new technologies included with the smart meters will ultimately improve the service and reliability for every BGE customer. Here are just a few of the features:
  - Two-way communication between smart meters and BGE that significantly reduces the need for estimated bills and provides BGE with the information needed for more accurate billing
  - Energy budgeting and tracking and personalized energy-efficiency tips
- Customer questions **purpose** of the smart meter
  - Assertion: Customers reject the need for the smart meter and the change that's occurring.
  - Key Messages:
    - After the initial installation, this smart meter will serve much like the old meter. It will be read and will provide monthly billing information like the old meter. Ultimately, this meter will support the utility of the future, serving as a conduit for enhanced two-way communication between the customer's meter and the company.
    - The Maryland Public Service Commission has authorized BGE to move forward with the deployment of this system.
    - These are the kinds of enhancements to the energy delivery system recommended by the U.S. Government as a means of helping to enhance energy efficiency and conservation across the nation. This is intended to help customers reduce energy consumption and help protect the environment.
    - The state of Maryland is requiring BGE to achieve significant reductions in energy use over the next five years and this is one of the tools that will help to achieve that goal by helping customers understand their demand for energy and how it can affect their bill.
    - BGE customers cannot opt out of having a new smart meter installed. To make sure that every meter is compatible with system-wide enhancements and to provide every customer with the advantages of these new technologies, BGE is replacing all meters in its service area over the next few years.
- Customer questions **cost or value** of smart meter program
  - Assertion: Customers will be paying for smart meter installation, meter not worth the cost
  - Key Messages:
    - There will be no immediate cost to customers for the new meters. BGE will seek to recover its costs for the meter modernization system in a future rate case before the Maryland Public Service Commission. As envisioned by BGE, any additional costs to the customer will be reduced by a \$200 million grant from the Department of Energy.
    - No charges will be made to the customer without first the review and approval of the Public Service Commission.
    - Under our forecasts, the long-term benefits to the customer from the technology, and the programs it can support, will outweigh the costs. This technology has the



- If you have opted in to a program such as PeakRewards, SM your smart meter will not change how this program operates. BGE will continue to cycle air conditioner compressors and hot water heaters on and off as needed during peak usage times, the same as when you first signed on to this program.
- Customer concerned about **health** risks
  - There have recently been some public concerns about RF emissions in smart meter deployments. These concerns are indicative of broader market concerns regarding RF emissions from a variety of sources in our daily lives.
  - Smart meter provider Silver Spring Networks uses 900 megahertz (MHz) and 2.4 gigahertz (GHz) radios in its smart meter hardware devices – the same FCC-approved frequencies that have been used for many years in devices such as baby monitors, portable phones, remote controlled toys and medical monitors.
  - Silver Spring Networks' technology uses this low-power radio frequency (RF) to hop from radio to radio in a neighborhood "mesh" to reach a smaller number of pole-mounted radios which send the meter information to data centers, typically through standard mobile telephone networks.
  - A few other things to know about RF emissions:
    - RF emissions become dramatically weaker as you move away from the devices.
      - Most meters are installed outside of homes, and other equipment is located high up on poles, so by the time any emissions reach a person, they are very weak.
    - Most devices are not 'always on'
      - Rather than continuous output, our SSN-enabled meters are idle most of the time, only waking up periodically to send a brief transmission before going back to sleep. An individual meter on a home is idle well over 99% of the time.
    - Power output matters
      - In comparison to the RF fields that many ordinary devices produce in the everyday environment – cell telephones, microwave ovens, baby monitors, portable phones, and wireless Internet services – SSN-enabled devices generally produce far weaker RF emissions. In all cases, even those of access points, Silver Spring RF emissions are compliant with the levels required by strict federal regulations and permitted by various international recommendations.
  - Offer to send RF fact sheet.
  - A comparison of the expected RF densities near Silver Spring components and other non-Silver Spring items is provided in the table below. To provide some perspective, under typical operating conditions, an individual meter would transmit for approximately 45 minutes over a twenty year operating life. This should provide significantly less RF exposure than a single phone call home on a cellular phone call of the same length.

Examples of RF Fields Commonly Found in the Everyday Environment in Relation Silver Spring Enabled Smart Grid Devices

RF Source	Power Density ( $\mu\text{W}/\text{cm}^2$ )
Immediately adjacent to an SSN-enabled Electric Meter (1 foot)	8.8
Normal distance from an SSN-enabled Electric Meter (25 feet)	.005
Adjacent to 25 foot high SSN access point at ground level	0.03
Installed microwave oven - FDA allowable at 5 cm from door [FDA, 2009]	5,000
Typical RF field in kitchen with operating microwave oven [1 meter] [Mantipliy, et al. (1997)]	10
Cell phones (at head) [Mantipliy, et al. (1997)]	30 – 10,000
Cell phone base stations at ground level (maximum) [WHO (2006)]	1 - 12
Walkie-Talkies (at head) [Mantipliy, et al. (1997)]	500 – 42,000
Wi-Fi wireless routers, laptop computers, cyber cafes, access points) [Foster (2007)] etc., maximum (~1 meter for laptops, 2-5 meters for access points) [Foster 2007]]	10-20
Median exposure to FM radio and TV broadcast station signals [Tell and Mantipliy (1980)]	.005

- The AMI system has been tested and certified to ensure that devices and installations are within the acceptable Human Exposure limits within PHI's service territory. SSN will provide copies of the test certifications upon execution of this contract. If evidence that Human Exposure limits are exceeded is discovered, SSN will resolve any impacts with other parties.
- Below are the links to the RF Exposure Certificate info:
  - AP 1.5, FCC ID: OWS-NIC505
    - [https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application\\_id=142414&fcc\\_id='OWS-NIC505'](https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application_id=142414&fcc_id='OWS-NIC505')
    - [https://fjallfoss.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb\\_code=&application\\_id=142414&fcc\\_id=OWS-NIC505](https://fjallfoss.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb_code=&application_id=142414&fcc_id=OWS-NIC505)
  - E-Bridge, FCC ID: OWS-NIC506
    - [https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application\\_id=771116&fcc\\_id='OWS-NIC506'](https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application_id=771116&fcc_id='OWS-NIC506')
  - IMU, FCC ID: OWS-NIC510
    - [https://fjallfoss.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb\\_code=&application\\_id=870192&fcc\\_id=OWS-NIC510](https://fjallfoss.fcc.gov/oetcf/tcb/reports/Tcb731GrantForm.cfm?mode=COPY&RequestTimeout=500&tcb_code=&application_id=870192&fcc_id=OWS-NIC510)
    - [https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application\\_id=870192&fcc\\_id='OWS-NIC510'](https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application_id=870192&fcc_id='OWS-NIC510')
  - NIC, FCC ID: OWS-NIC514
    - [https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application\\_id=137638&fcc\\_id='OWS-NIC514'](https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application_id=137638&fcc_id='OWS-NIC514')
    - [https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application\\_id=302589&fcc\\_id='OWS-NIC514'](https://fjallfoss.fcc.gov/oetcf/eas/reports/ViewExhibitReport.cfm?mode=Exhibits&RequestTimeout=500&calledFromFrame=N&application_id=302589&fcc_id='OWS-NIC514')
  - Additional info can be found on the FCC website by searching for SSN Grantee Code OWS
    - <https://fjallfoss.fcc.gov/oetcf/eas/reports/GenericSearch.cfm>
- Customer concerned about **accuracy** of the new meter
  - Assertion: Customers argue that this new equipment will, whether fairly or unfairly, increase customers' bills and result in a windfall to the company.
  - Key Messages:
    - These meters are accurate. They are tested and their accuracy falls within the range required by the Public Service Commission.
    - Not only are they tested at the factory, but BGE sample tests every shipment that's delivered. Sample testing is a commonly accepted means of quality control and is a longstanding practice at BGE and many other companies.
    - Given the scope of this project, it would be unreasonable for BGE to test every new meter and every old meter. Old meters can typically be recycled.

- BGE's Periodic Testing Program is a regulatory requirement and is part of the company's everyday operations. Additionally, the meter manufacturer performs testing on each meter before it gets shipped to BGE. Upon receiving the meters, BGE then conducts sample testing.
  - Photographs are taken of every old meter to validate the final reading. The new meter can be tested if required to confirm the new smart meter is accurate.
  - A variety of factors can influence a customer's bill, the largest being electricity usage. Extreme hot or cold weather can drive up usage. So can the use of new major appliances or electrical equipment such as a pool pump, a hot tub, a higher capacity electric heat pump or air conditioner or even the conversion to a big-screen television.
  - An adjustment in rates also can affect a customer's bill.
  - In some cases, older meters may slow down, which means a customer's bill would be lower than it otherwise should be. The degree of deviation is generally so small, however, that it's barely noticeable. Nevertheless, when a new, more-accurate, digital meter is installed, the customer's bill would reflect the greater accuracy. But, again, this is usually very small and the deviation is less than might be reflected in the changes in normal seasonal usage.
  - Less frequently, an older meter may run fast, which means that a customer's bill would be higher than it should be. But in these rare cases, the deviation also is generally so small that it's barely noticeable. When a new more-accurate meter is installed, the customer's bill will reflect the greater accuracy. If there is a significant difference, the customer's prior billing can be adjusted.
  - In this smart meter deployment program, if BGE finds instances of old meters that are damaged, inaccurate or, otherwise, not functioning properly, it will install a new smart meter and will not seek to recover any under-collection from the customer.
  
- Customer concerned about the **privacy** of their information
  - Assertion: AMI is just another incursion into people's privacy; that "Big Brother" is watching

Key Messages:

*(To be drafted after development of the data privacy plan, being discussed by the Working Group separately for Commission consideration).*

- Customer concerned about **security** risks and vulnerability of the grid
  - Assertion: A customer is concerned about the smart grid system and that the data that's collected in this system can be obtained by hackers and used against customers

Key Messages:

*(To be drafted after development of the cyber-security plan, being discussed by the Working Group separately for Commission consideration).*

- Customer concerned that **meter reader jobs** are being eliminated
  - Key Messages:
    - Traditional meter readers, who will no longer be required to “make their rounds” to personally read meters, will have the opportunity to be re-trained for other jobs within BGE.
    - Some former BGE meter readers are now currently working in roles including network technician assistants, call center representatives and utility assistants (such as tree trimmers).
  
- Customer **confused** by new smart meter technology
  - Key Messages:
    - A smart meter is a digital meter that allows two-way communication between customers’ homes and BGE via a wireless network.
    - Shortly after the installation of the first smart meters, features such as energy budgeting and tracking and personalized energy-efficiency tips will be available to customers. More smart meter features will be available beginning in May 2013. Some of these will include:
      - Peak event reports and savings summaries
      - Peak event web notifications
      - Smart energy pricing programs
  
- Customer concerned that BGE will **benefit** more than customers
  - Key Messages:
    - Smart grid is an updated energy system that gives customers the power to manage and save energy more efficiently. It will allow BGE to improve the way it serves its customers. Here are some examples:
      - Two-way communication between smart meters and BGE significantly reduces the need for estimated bills and provides BGE with the information needed for more accurate billing.
      - In the future, smart meters will also provide automatic alerts about power outages that will help BGE locate and repair problems (though BGE will still want to hear from customers about outages).
  
- Customer does not experience expected benefits anticipated on basis of education and promotion
  - Assertion: Your ad/letter/representative/other said that when the smart meters are fully functional, I can better manage my electricity and reduce my bills. I don't see that happening.
  - Key Messages:
    - BGE expects the smart metering technology to provide many benefits, and BGE believes the new meters and associated features do have the capacity to change customer use of energy.
    - The features of smart meters will roll out over time, and full benefits will not be available until the whole system is set up, including all meters

installed, the two-way communications system operating, and new pricing and load control opportunities rolled out to customers. We expect all benefits to be available in 2014.

- Customer concerned that **seniors, limited income** and other **vulnerable** customer groups will pay more than their fair share
  - Key Messages:
    - Many smart meter features and technologies are especially beneficial to seniors and limited-income customers:
      - Seniors and other customers who may be on fixed or limited budgets can take advantage of personal energy usage information that allows them to better manage their energy costs.
      - In the future, smart meter technology will also enable BGE to offer energy rebate programs that can help lower customer bills.
      - Smart meters will provide automatic alerts about power outages that will help BGE locate and repair problems (though BGE will still want to hear from customers about outages).
- VSI identification **badge** used inappropriately or by an imposter
  - Assertion: BGE didn't tell customers how to protect themselves from imposters and didn't do enough to prevent people from impersonating VSI or BGE personnel.
  - Key Messages:
    - We notified customers in advance when VSI installers would be in the neighborhood and how to identify them in the advance letters that we mailed. We encourage customers on an ongoing basis to challenge our employees and contractors for identification and encourage them to contact our Customer Care department to confirm utility work at their location.
    - We periodically advise the public to beware of individuals claiming to be utility personnel, who may request access to their homes, encouraging them to check for ID.
    - Both BGE and VSI notify local authorities when they are working in a community.
    - In this case, we're working with local authorities to assist in any way possible.
- VSI installer accused of **inappropriate behavior**
  - Assertion: A VSI installer breaks the law, violates the rules, or does something else that's offensive to a customer.
  - Key Messages:
    - BGE is aware of the situation and is investigating the circumstances.
    - (If applicable) BGE is cooperating with authorities in the investigation of this incident.
    - We value our customers' trust and confidence and are working to rectify the situation.

- We would not tolerate inappropriate behavior on the part of our own employees, nor do we tolerate this on the part of a contractor.
  - (If applicable) BGE supports the termination of this employee.
- VSI installer causes **security alarm** to go off
  - Assertion: An installer trips an alarm on a premises causing inconvenience, and potentially cost, to the customer.
  - Key Messages:
    - BGE and its contractor are trying to conduct this process in a manner that causes minimal disruptions. We apologize for any inconvenience. If there are costs associated with false alarms, BGE will make the customer whole.
    - This was unintentional and we are doing our best to make sure we minimize these types of occurrences.
- Customer experiences **extended service interruption** during and after installation
  - Assertion: Interruption of service causes inconvenience to the customer
  - Key Messages:
    - Installation of the smart meter requires a brief interruption of service. BGE and VSI anticipated the potential for the inconvenience that can be caused by such an interruption, even if only brief and temporary.
    - As a result, we're taking steps to minimize this inconvenience.
    - In our advanced mailing to the customer, which is being sent to customers one to four weeks before the installer visits, we explained the potential for an interruption to the customer.
    - When an installer arrives, he/she makes an attempt to notify the customer, facility representative, or multi-residential management office to advise them of their presence and the impending brief service interruption.
    - If necessary, VSI can schedule an appointment to accommodate customers on life-support equipment or issues that would be experienced if service was interrupted to business customers.
- Meter box is **inaccessible** or obstructed
  - Assertion: We cannot safely gain access to our meter due to obstructions located on the customer premises.
  - Key Messages:
    - BGE's tariff clearly states that the company requires a path, clear of all obstacles, for the installation and maintenance of company-owned facilities. This access to utility equipment in order to address service interruptions, regular maintenance, and emergencies. Customers that may have placed, constructed, or installed obstacles near or around utility equipment will be required to remove the obstructions, at their expense, in order for us to access our equipment.
- Meter box or pan was **damaged** during installation
  - Assertion: During the meter exchange, VSI/BGE identified a meter pan or box that is/was damaged during the process. The customer, who typically is responsible for the meter pan or box attached to their respective location, believes they are now responsible for repairs.

- Key Messages:
  - BGE apologizes for this inconvenience with the meter pan or box. Although these occurrences are rare, they can and do happen when equipment like this is exposed to the outdoors or may have been in place for an extended period of time. Know that we will work as safely and quickly as possible to restore your service.
  - In some cases we do find there may be excessive corrosion, damage from the elements, or existing conditions that were found to be unsafe during this process.
  - We will take the time to complete repairs as quickly and safely as possible, at the company's expense, in order to restore your service.
  - Although this may involve customer-owned equipment, this is a one-time expense the company will incur to facilitate the installation of smart meters.
  - We will only make repairs to the meter pan and the box, however, there may be other issues regarding your service that may need to be addressed by a contractor.
  - Our goal is to return service to you as soon as possible and minimize any inconvenience to customers. We hope you will be patient as we make these repairs to help ensure the safety of our employees/contractors and your equipment.
  
- Customer damage **claim** denied by VSI and BGE
  - Assertion: A customer claims they suffered damage by a BGE or VSI installer and both deny the claim.
  - Key Messages:
    - BGE will review claims on a case by case basis and if we believe it is a valid claim then BGE will make the customer whole.
    - We are monitoring claims to VSI on monthly basis to monitor the volume and to ensure that there is not a bigger issue that we need to address.
    - BGE will make sure our vendor upholds its obligations under the contract.
  
- Customer has **personal meter monitoring** device
  - Assertion: A customer has purchased an "after-market" device for monitoring electric usage. The device is fitted around or attached to a typical rotary dial meter to measure consumption. The customer can review or compare that information with utility meter information and obtain more specific information about how they are using their energy.
  - Key Messages:
    - These devices are not compatible with smart meters. Our metering is digital and these devices typically work with rotary style meters.
    - In addition, BGE does not permit any other equipment or devices to be installed in, around or attached to our metering, transformer, or disconnect equipment.
    - In the future, customers will be able to track their consumption via the Internet and our website at [www.bge.com](http://www.bge.com) and the "my account" feature.
    - Once we start activating the meters, customers will be able to see meter and interval data via the website (phase 3 of installation – spring/summer 2012).
    - Customers who still wish to monitor their energy use may search the Internet or check with a qualified electrician for devices that connect directly into the customer

owned circuit breaker panel that is located inside the customer residence.

- Random **isolated** issues
  - Assertion: I have a problem with the new meter (or the exchange process) and I believe it is indicative of a systemic problem with this deployment.
  - Key Messages:
    - BGE is aware of the situation.
    - We apologize for any inconvenience this has caused and we appreciate your patience as we work through this issue.
    - We've checked and we don't have any indication of this being a systemic problem or a larger issue. Apparently, it is an isolated incident.
    - We will work to resolve your issues as quickly and safely as possible
  
- Customer experiences **high call volume**
  - Assertion: The customer call center can't keep up with the volume. Wait time exceeds requirements.
  - Key Messages:
    - BGE is experiencing high call volume. We apologize for any inconvenience and appreciate customers' patience while the company handles the high number of inquiries.
    - We're doing what we can to address the issue and minimize the impact to customers.
    - We've taken a variety of steps so far to address the issue and we're planning a variety of others to help further.

Our communications and implementation teams will be fully prepared to anticipate and respond rapidly to any possible situation that could affect customers, stakeholders or the community during the deployment period. We will strategically and methodically ensure that all customer concerns about smart meters are addressed, and we will track and evaluate activities to make continual adjustments and enhancements to the risk communications plan.

## PLANNING APPROACH

### I. BGE RESEARCH FINDINGS

BGE has conducted primary research in preparation for the planning and implementation of smart meters. Most recently, BGE conducted a series of focus groups engaging various customer segments on the topic of smart grid and smart meters, with results outlined below.

Benchmarking similar programs and the resulting lessons learned has provided a launch-pad for additional research specific to the Central Maryland market and BGE stakeholders. Research will continue to inform

and direct the smart meter initiative moving forward, including additional qualitative and quantitative research as the program progresses, outlined later in this plan.

The following is a summary of primary research conducted by BGE, which has provided the direction for this education and communications plan.

### **Focus Groups**

**BGE Customer Focus Groups (November 2010).** BGE held four residential and business customer focus groups on November 10 and 11, 2010. The objective was to understand participants' current awareness and familiarity with the general ideas of smart grid/smart meters and introduce information about the technologies to have an informed discussion about relevance, likes and dislikes, expectations, concerns and potential impact on overall perceptions of BGE. Participants in the groups were customers 18 or older who are household/business energy decision makers. The discussion of smart grid/smart meters centered on the following:

- Determine current awareness and understanding of the terms smart grid and smart meter;
- Explore initial customer interest in, and the appeal of, the overall concepts of smart grid and smart meters; and
- Explore the preferred communication messages/channels/frequencies to communicate with customers about smart grids and smart meters.

Findings from the focus groups are as follows:

### **Energy Issues/Concerns**

- Overall, there was not a strong feeling of concern about energy issues.
- The cost of energy, energy conservation and usage of alternative/renewable energy sources were the most frequently mentioned concerns.
- Some customers feel that the country is on the "right track" because energy efficiency/conservation and renewable energy sources are increasingly being discussed and adopted.
- Some expressed the changes are not occurring rapidly enough.

## Smart Grid and Smart Meters

- Initial awareness of smart grid and smart meters was very low.
  - Most customers have not readily encountered the terms “smart grid” or “smart meters.”
  - However, their general assumptions about what the terms mean were fairly accurate.
- After being provided additional information about the smart grid and smart meter concepts the predominant customer response about both concepts was positive.
  - Customers recognized a need to modernize the current infrastructure to preserve and improve reliability, as well as to provide a platform to add renewable sources of energy.
  - Customers also identified the value of having access to new technology that will provide information to help them manage energy usage more efficiently.
- Customers did identify some smart grid/meter drawbacks, as well.
  - Cost of implementation and how the investment will be paid back.
  - The underlying value proposition for adopting the new technology.
  - Likelihood of customer resistance resulting from lack of knowledge or resources to use the new technology.
  - Investment of time and effort required.

Unaided awareness	Total	Residential #1	Residential #2	Residential #3	Business #1
<b>Smart Grid</b>					
Yes	32%	30%	20%	33%	43%
No	47%	60%	30%	56%	43%
Don't know/Not sure	21%	10%	50%	11%	14%
Missing	0%	0%	0%	0%	0%
<b>Smart Meters</b>					
Yes	21%	20%	40%	22%	0%
No	54%	70%	40%	67%	40%
Don't know/Not sure	25%	10%	20%	11%	60%
Missing*	6%	0%	0%	0%	25%
<i>Number of Participants</i>	<i>36</i>	<i>10</i>	<i>10</i>	<i>9</i>	<i>7</i>

## Potential Communications Channels

- When asked what channels BGE should use to communicate about smart grid and smart meters, customers suggested that BGE should not underestimate the need to inform and educate customers about a completely new and potentially complicated technology.

- While customers suggested that communication plans using the full range of media will be needed, they also identified several specific channels:
  - Television/Infomercials
  - Radio
  - Direct mail/Flyers
  - Bill inserts
  - While some indicated that bill inserts could be a suggested approach, most admitted that they are not being frequently reviewed.
  - Corporate website
  - Educational centers with hands-on examples and tutorials
  - Providing information and training to customers during meter installations
  - Community meetings and forums
  - Maryland State Fair

	Total	Residential #1	Residential #2	Residential #3	Business #1
<b>Reaction to Smart Grid/Smart Meters</b>					
Total Positive	85%	100%	90%	78%	71%
<i>Very positive</i>	32%	50%	30%	33%	14%
<i>Somewhat positive</i>	53%	50%	60%	44%	57%
Neutral	15%	0%	10%	22%	29%
Total Negative	0%	0%	0%	0%	0%
No Answer	0%	0%	0%	0%	0%
<b>Credibility of Depiction of Future Capability</b>					
Total Credible	67%	80%	60%	56%	71%
<i>Very credible</i>	12%	10%	0%	22%	14%
<i>Somewhat credible</i>	55%	70%	60%	33%	57%
Neutral	22%	10%	20%	44%	14%
Total Not Credible	11%	10%	20%	0%	14%
No Answer	0%	0%	0%	0%	0%
<i>Number of Participants</i>	36	10	10	9	7

## Conclusions and Recommendations

- Although awareness of smart meters and smart grid is low, when presented with specific information on these technologies and their potential benefits, customer reactions were positive.

- Customers are receptive to the idea of having BGE implement a better infrastructure with smart meters that will provide improved reliability and restoration, along with the ability to access information to manage energy usage and cost.
- The perceived cost of implementation and the adoption rate of non-tech-oriented customers are the most critical roadblocks.
- From a communications standpoint, BGE will need to make customers more aware of these concepts prior to implementation in order to assure widespread engagement with the new technology.
- This will require BGE to provide credible and understandable information and education through many channels.
- Customers say that outreach should include typical media channels, as well as more hands-on, face-to-face and community-based channels.

*(A full report of focus group results can be found in Appendix A)*

**BGE Senior Customer Focus Groups (November 2010).** BGE held two focus groups conducted with senior customers, specifically customers aged 60 years and over, to garner their awareness and interest levels in smart grid and smart meters. Areas of discussion mirrored the four customer focus groups conducted that same month among residential and business customers. The focus groups were conducted on November 22, 2010, drawing 20 participants from the Baltimore metropolitan area.

### Key Findings

- Seniors are highly concerned about energy cost savings and about how to make their limited incomes stretch.
- Seniors are concerned about an energy crisis that future generations will have to endure.
- The need for alternative fuels – wind turbines, solar power, shale gas, nuclear, etc. – is critical and seniors believe BGE should invest in researching such methods.
- Messages about energy efficiency and tips for saving have penetrated this market.
- BGE stands out among senior customers as reliable, dependable and stable.
- Senior customers believe the younger generations need a more hard-hitting education about every day actions they can take to save energy and costs.
- BGE's senior customers are wary, but optimistic, about smart grid and smart metering technology. They can buy into how it can be beneficial both financially and environmentally.
- Group members did not want customers to absorb the costs of the new technology, but believe it will happen anyway.
- These particular seniors are tech savvy and, for the most part, willing to use technology to stay involved in the management of their energy usage.
- Group members involved in PeakRewards<sup>SM</sup> told others that the changes in the temperature in their homes were hardly noticeable.

### Specific Findings about Smart Meters/Smart Grid

- Group members who were “positive” or “very positive” stated the following as reasons:
  - Cost effectiveness / potential to lower costs;
  - You know how much you'll be using;

- If the company does better, the consumer does better;
- It creates a partnership with the consumer to manage costs;
- Education;
- Reduces environmental impact;
- Allow more input into regulation of energy;
- Increases quality of services and decreases costs to customer; and
- Good for national security.
- The best, or most interesting, features and benefits listed by seniors included:
  - The reduction in overall costs – many are on fixed incomes;
  - Real-time data – you know which appliances to deal with;
  - Can control energy usage/consumption;
  - It's "green" – safer for the planet;
  - Renewable energy
  - Can interact with the system – how you impact your own costs, so you can conserve more and save more money;
  - More consumer involvement in regulation; and
  - Convenience.
- Roadblocks that might prevent people from taking advantage of this new technology, according to senior customers, included:
  - The cost to change – expensive to implement;
  - Concern over who pays the cost to move forward;
  - Lack of technicians;
  - Fear of technology outpacing practicality;
  - No personal experience with new system – it's based on what others say not what they see, so there is little or no trust;
  - People need to be educated – not enough information is available;
  - Politics;
  - Skepticism – all people aren't savvy enough; and
  - Some people just don't like change.
- If BGE is interested in communicating with senior customers about any of the smart metering capabilities and services, then printed messages sent via mail would work best. This includes letters, postcards and bill inserts.
  - The first groups of senior participants were split regarding whether they liked the idea of receiving telephone calls and e-mail. However, members of the second focus group were strongly against such methods.
  - Television was mentioned several times.
  - Advertising and articles in newspapers was also listed as good ways to communicate with them.
  - Billboards were mentioned once, as well.
- In personally seeking information:
  - Seniors would mainly conduct a "Google search" on the topic, using "smart grid" and "smart meter" as their search phrases.
  - They would also go to BGE.com for information.
  - Members of the first focus group have no faith in the government; however, participants in the second group might consult the AARP or the DOE. The first group also mentioned the local regulatory commission.

- Participants in the second group would be interested in learning more from the other countries who have begun to move forward in the process.

*(A full report of focus group results can be found in Appendix A)*

## Studies

**JD Power 2010 Residential Electric Customer Satisfaction Study.** The 2010 JD Power Residential Electric Customer Satisfaction Study provides customer feedback from 121 electric utilities nationwide. Under the smart grid/smart meter awareness section of the study, JD Power also gathered nationwide customer feedback on their familiarity with their utility being currently involved in or planning to be involved in a smart grid/smart meter deployment. The following are the smart grid/smart meter data results:

### 1. How Familiar Are You With The Term “Smart Grid?”

Not At All Familiar:	Industry: 74%	<b>BGE: 66%</b>
Somewhat Familiar:	Industry: 24%	<b>BGE: 31%</b>
Very Familiar:	Industry: 2%	<b>BGE: 3%</b>

### 2. How Familiar Are You With the Term “Smart Meter?”

Not At All Familiar:	Industry: 76%	<b>BGE: 63%</b>
Somewhat Familiar:	Industry: 21%	<b>BGE: 32%</b>
Very Familiar:	Industry: 3%	<b>BGE: 5%</b>

### 3. Are You Aware Of Any Efforts Your Utility Has Made To Implement Smart Grid or Smart Meter Technologies?

Not Aware Of Any Efforts:	Industry: 86%	<b>BGE: 75%</b>
Yes – Both:	Industry: 4%	<b>BGE: 10%</b>
Yes – Smart Meter:	Industry: 7%	<b>BGE: 12%</b>
Yes – Smart Grid:	Industry: 2%	<b>BGE: 3%</b>

### 4. Are You Aware Of Any Efforts Your Utility Has Made To Implement Smart Grid and/or Smart Meter Technologies? (Utilities With The Most Awareness By Their Customers)

- Pacific Gas & Electric 47%
- Austin Energy: 37%
- Sacramento Municipal Utility District (SMUD) 36%
- Portland General Electric 36%
- Jackson EMC 29%
- Idaho Power 28%
- San Diego Gas & Electric 28%

- Salt River Project 27%
- **BGE** 25%
- Colorado Springs Utilities 25%
- Georgia Power 22%
- EPB 21%
- Alabama Power 21%

**BGE Early Residential Smart Grid Awareness Study (May 2010).** BGE conducted research prior to the PSC issuing its order to gain baseline insights as to the customer awareness, perceptions and understanding of smart grid. Overall, familiarity with smart grid and smart meter, along with what each does, was very low among BGE customers. Key findings of the survey include:

Overall familiarity with smart grid and smart meter, along with what they do, is very low. However, slightly more survey participants were familiar with a smart meter than they were with smart grid.

The majority of customers, 56%, are “not at all familiar” with the smart meter and what it does. The research revealed that 76% are “not aware” of any initiative by BGE regarding smart meters or smart grids.

Many customers believe that the smart grid controls energy usage by cycling it on and off, according to peak demand times and redirecting the flow of energy according to where the need is greatest. Further, they also believe that the smart meter regulates/controls energy usage, as well as tracks/monitors usage.

With regard to finding it valuable to see how much gas and electricity they are using every day:

- Forty-five percent (45%) “agree” it would be valuable
- Thirty-two percent (32%) of survey participants “strongly agree” that they would be more likely to reduce their gas and electricity usage if they could see how much they used.

## Survey

**BGE 2010 Smart Energy Pricing Post-Pilot Survey.** Starting in summer 2008, BGE has conducted three dynamic pricing pilot programs that are enabled by smart meters. Customers were selected randomly and informed about the program during the enrollment process. Before peak event days, when customers had the opportunity to reduce usage during peak hours, they would be notified by their choice of e-mail, SMS or phone. Customers were then given feedback on their usage and bill savings within days of the event. BGE continued these summer pilots in 2009 and 2010.

BGE’s 2010 SEP Post-Pilot survey produced extremely positive results, including the following:

- More than 92% of pilot participants are either “very satisfied” (61%) or “satisfied” (~32%) with BGE’s 2010 SEP Pilot program (based on a completed survey response from 85% of our 2010 pilot participants).
- More than 97% of pilot participants said that they would like to continue with the SEP Pilot program in 2011, if available.

The following are a sample of some of the verbatim comments from our 2010 SEP Pilot participants:

*"I think it's good to conserve energy and I think it's good to create new behaviors that give us more empowerment as far as our energy usage."*

*"It's been very helpful and outstanding. BGE came out to my home and explained how the system works and was very thorough. The system was easy to operate and I got good service out of it."*

*"Financially it has been terrific and research on BGE's part to regulate energy for peak times, I like the auto thermostat, a smart way to save energy. It has been very easy."*

*"I like the savings and it made me aware when to turn everything back to save. Also someone gave me a call the night before which helped and I have the orb of course."*

The following is a breakdown of the pilot participants' responses to survey questions.

2a) On a scale of 1 to 5, where 1 is "very dissatisfied" and 5 is "very satisfied," please rate your overall experience thus far with the SEP Pilot program.		
RATING	FREQUENCY	PERCENT
Very Dissatisfied	8	1.45%
Dissatisfied	3	0.54%
Neutral	30	5.44%
Satisfied	174	31.58%
Very Satisfied	336	60.98%
TOTAL	551	100.00%
<b>NET: TOTAL SATISFACTION</b>	<b>510</b>	<b>92.56%</b>

4. Based upon your experiences with the 2010 SEP Pilot program, would you be interested in participating in a similar pilot program for the Summer of 2011?		
RATING	FREQUENCY	PERCENT
Yes	535	97.10%
No	16	2.90%
TOTAL	551	100.00%

### Pilot Program

**BGE 2008 and 2009 SEP Post-Pilot Programs.** BGE's plan will also be informed by prior pilot experience, including SEP Pilot programs conducted during 2008 and 2009. High-level findings include:

- SEP program participants were overwhelmingly satisfied with their program experience, with more than 93% reporting that they were either “very satisfied” (62%) or “satisfied” (31%). The mean satisfaction score was 4.5 on the 1 to 5 scale.
- Peak time rebate customers had slightly higher satisfaction levels than did dynamic peak pricing customers.
- Saving money was the primary motivation for program participation, cited by 78% of respondents.
- Ninety-seven percent (97%) of participants were interested in continuing the same pricing structure in 2009.
- More than 78% of respondents believe that variable rate programs should be standard for all BGE customers.
- Sixty-five percent (65%) of participants considered voicemail to be the most effective notification technique.
- The potential to save money on monthly utility bills continues to be the primary motivation behind customers’ participation in the SEP Pilot (84% in 2009, as compared to 78% in 2008).
- Satisfaction with the SEP Pilot program remained consistently high, with two-thirds of the participants (63% in 2009 and 62% in 2008) claiming to be “very satisfied” with the pilot program, and nine out of 10 participants stating they are at least “satisfied” (92% in 2009 and 93% in 2008).
- Comfort levels during critical peak days also remained consistent, with 24% of 2009 program pilot participants stating themselves to have been “very comfortable,” as compared to 22% in 2008, and 71% stating they were at least “comfortable” in 2009, as compared to 74% in 2008.
- Participants in each year’s SEP Pilot program – 99% in 2009 and 98% in 2008 – were overwhelmingly interested in returning to a similar pricing structure the following summer.
- Respondents also believe that the ability to save and earn rebates should be standard for all BGE customers.
- Eighty percent (80%) of 2009 SEP Pilot program study participants stated they also adjusted their energy use during critical hours of non-critical peak summer days.
- The top two changes in electric use made by 2009 SEP Post-Pilot program participants were that they refrained from using high-energy appliances during critical peak periods (66% in 2009 and 65% in 2008), and they raised temperature setting or turned off air conditioning/heat pump during critical peak periods (60% in 2009, as compared to 54% in 2008).
- The majority of 2009 SEP Pilot program participants found the hands-off features of the thermostat most useful, including having the ability to program temperature settings (64% of cases) and having the thermostat automatically cycle the compressor (56% of cases).

### Best Practices Utility Interviews

BGE corporate communications staff conducted in-depth interviews with a sampling of utility communications chiefs, who outlined their experiences to date in customer education and community outreach. Best practices and lessons learned are outlined below. These lessons were also shared with BGE. (Note: the following represents BGE’s understanding of these utilities’ practices based on the interviews. *Additional detail in Appendix C*).

#### PG&E - 11.1.2010

##### Overview:

- PG&E engaged in a massive consumer technology rollout, but did not initially think there was a need to communicate this rollout to customers.
- PG&E started deploying in 2006, and by the time the situation in Bakersfield occurred, there were 5 million meters installed.
- When stories of customer dissatisfaction and concern went national last summer, the fire was fanned by local media and online commentary. When the independent report on meter accuracy came out, the story in the national media started to subside and go away.
- As a result, PG&E ramped up a significantly more robust customer and community communication campaign that continues to gain momentum

### Best Practices/Lessons Learned:

- PG&E now regards smart grid/smart meter implementation as a change management program for employees. PG&E has a full process of engagement with employees and a full suite of internal communications. For example, PG&E holds meetings with employees in areas where smart meters are slated for installation so that they know what's coming and because employees are customers, as well. Additionally, every time PG&E holds a press conference, it encourages employees to listen and makes video available, etc.
- Getting out in front is the key. PG&E started a year ago with a more robust online presence, including engaging Twitter, Facebook and other social media properties. PG&E also increased its use of marketing brochures, mobile tours and generally more touch points with customers in the past 6 months. Pre-deployment engagement makes all the difference. You need to get out there and talk to stakeholders first, and customize your approach and messaging by town, depending on local interests and what they care about.
- Depending on the issue, PG&E has customized and localized its communications and outreach strategy. Certain activists have made this part of their platform, posing opposition to PG&E's smart grid program. Similarly, activists have emerged (depending on the community) around the issue of radio frequency of the meters. PG&E continues to utilize prepared messaging and anticipate those concerns before going into a community.
- What turned the situation around? A high level of transparency, high level of engagement (however customers wish to contact PG&E), and changing the way it deals with resolution of customer complaints. PG&E moves faster to diagnose a problem and fix it.
- Key to PG&E's current and recent success is that its first engagement with a local community starts 75 days before letters get mailed to customers there. PG&E calls this part of its consumer education effort T-Minus-75. PG&E's first messages explain what a smart meter is, what benefits it will provide to them, why PG&E is doing it, what to expect during installation, how customers will be able to use the meter, when they can expect to see further communication/visits, etc. Then PG&E makes itself available to answer customers' concerns and questions.
- PG&E apologized to customers for not handling their questions well and for not resolving their issues quickly enough. PG&E feels its acknowledgement went a long way.
- Data security and privacy are different things, but some people use them interchangeably. These issues require a lot of education to get customers comfortable with the technology.
- PG&E learned the importance of engaging with social media/bloggers. In general, its emphasis has been on the local media serving its customer communities. It's important to look at customers geographically and approach the smart meter installation like a technology rollout in terms of customer segmentation.

## UTILITY IN SOUTHEAST U.S. (*Requested anonymity*) - 10.19.2010

### Overview:

- Investments in smart grid technologies include intelligent devices on the electric grid, enhancements to centers that monitor the performance of the grid and smart meters for customers.
- Approximately 1 million meters installed to date.

### Best Practices/Lessons Learned:

- Media coverage to date has included positive, balanced stories.
- Utility has not engaged in proactive outreach to national media, including coverage in national trades, and is not interested at this time in receiving broad attention – but rather continues to focus its communications efforts directly on its customers.
- Communications have focused on the grid and not the meter. Increased reliability and the fact that the meter is an essential component of the smart grid. Communications also do not overpromise on money savings initially, in an effort to set expectations accurately from the start.
- Affordability and reliability are the two top benefits. Customers liked the idea of getting more information, which gave them more control. Utility has strived to address tough questions candidly.
- Utility has engaged YouTube, Facebook and Twitter, including contests and giveaways to generate consumer attention and excitement. Moving forward, utility will begin engaging in a broader array of communications tactics, including additional social media, events and enhanced website with customizable “widgets.”
- Utility has an extensive set of Q&As to address issues and concerns, including security and privacy. In general, the messages about smart grid benefits have resonated. Customers have been engaged for video testimonials.
- Utility field representatives feel they can address customer issues at this point, when they arise. The customer service unit has been successful in one-on-one mitigation – clearing up concerns and complaints early.

## AEP OHIO - 10.20.2010

### Overview:

- AEP has implemented smart grid in several states: Texas, Ohio, Oklahoma and Indiana.
- In Ohio, AEP is the largest utility with 1.5 million customers.
- AEP's Texas program is under way, Oklahoma is in its initial stages, and Indiana is conducting a small pilot of 5,000-10,000 meters at this time.
- In Ohio, AEP is conducting a holistic approach to smart grid – looking at 110,000 test group meters and looking at the products that are available, or will soon be available, to fully define Ohio's smart grid in the future. The test territory covers NE Central Ohio and includes a rural/urban mix that mirrors national demographics.
- AEP is looking at 13 different technologies for its demonstration projects, including smart meters. AEP has reminded customers that they are in a testing period and their feedback is welcomed.

Meters were installed by April 2010, and the technology demonstration will be completed by the end of 2013.

- Silver Spring Networks is the AEP smart meter vendor.

#### Best Practices/Lessons Learned:

- AEP has branded its smart grid initiative as gridSMART, and it is the umbrella over all of its customer energy programs – energy efficiency included.
- AEP customers generally did not understand the concept of kilowatt hours (kWh), how you measure electricity, how generating electricity at different times of the day affects the cost, on-versus off-peak usage, various pricing options, etc.
- A small percentage of smart meter-resistant customers have cited radio frequency issues among their concerns. AEP has an executive steering committee where current and potential issues are discussed and addressed.
- For the most part, AEP customers have embraced the new concept and the technology possibilities, with relatively few resistant customers whose fears/concerns are allayed by their neighbors.
- AEP is now collecting customer success stories to increase its media engagement, which until now has included some sponsorships. As the program's momentum builds, AEP envisions utilizing TV partnerships and special buys to target the message to customer segments.

#### OG&E - 11.11.2010

##### Overview:

- OG&E has 765,000 customers.
- Began study in summer 2008 with 6,600 smart meters in northwest Oklahoma City.
- Able to remotely read customers' meters and provide connect/disconnect service.
- 25 customers given touch-screen information panels and communicating programmable thermostats.
- Pilot expanded to 3,000 Norman, Okla., customers using in-home devices and/or Internet energy manager.
- Plan accelerated to full implementation over three years.
- 42,000 smart meters installed in Norman in Jan-May 2010.
- Full deployment to include 184,000 meters in 2010, 300,000 meters in 2011 and the remaining 300,000 meters in 2012.
- OG&E approved for \$130 million in stimulus funds in 2009; will seek regulatory approval for recovery of remaining costs of \$300 million+ deployment across entire service territory over next three to five years.
- Silver Spring Networks (infrastructure including ZigBee-enabled meters, demand response and online energy manager).
- Silver Spring Networks-certified HAN devices (Thermostat and In-Home Display).
- Time of use (TOU) and variable peak (VPP) with critical peak pricing (CPP).
- Four pricing levels from \$0.03/kWh to \$0.46/kWh.

## Best Practices/Lessons Learned:

- Successful tactics have included direct mail, advertising, community outreach, including town hall meetings and employee ambassadors in the community.
- Of the 25 customers who tested in-home network devices, 24 made changes to their energy habits and found them useful.
- Customers reported a high regard for the OG&E brand.
- Thirty percent (30%) of customers surveyed said they had an awareness of smart grid.
- Energy awareness led to savings and peak shifting capabilities.
- Ninety-two percent (92%) of customers would shift to off-peak consumption given incentive.
- Ten to 15 percent (10-15%) monthly energy bill savings reported over flat rate with technologies.
- Customer education efforts have been gradual, ensuring the company doesn't overpromise on benefits too early, and encouraging customers to continue visiting the website as features/resources increase.
- Key messages prepared for various topic areas have been useful, including messages related to meter readers being retrained and moved into other jobs. Radio frequency has not been raised as an issue, and only minimal mention of security to date.
- Media interest has been mostly positive to date; only a handful of comments have been noted online about news articles. OG&E has been educating media that smart grid is not just about smart meters. Even a recent story focusing on projects funded with stimulus money turned out positive, with customers providing supportive comments in the story.
- Only 12 of 42,000 customers in Norman have refused meter installation.
- Focus groups were held in September 2010, with all but one participant saying they want to stay with the program for the next year, even if home devices may not have worked exactly right. OG&E believes it did a good job of setting expectations.

## Best Practices Vendor Interview

The BGE communications team also gathered best practices noted by smart meter contractor Silver Spring Networks in its work with smart grid programs throughout the U.S. Silver Spring clients in the smart grid sector include:

*American Electric Power*  
*Baltimore Gas & Electric*  
*CitiPower & Powercor Australia*  
*ComEd*  
*Florida Power & Light*  
*Guelph Hydro Inc.*  
*Indianapolis Power & Light Company*  
*Jemena*  
*Modesto Irrigation District*  
*OG&E Electric Services*  
*Pacific Gas and Electric Company*  
*BGE Holdings*  
*Sacramento Municipal Utility District*  
*Western Power*

## SILVER SPRING NETWORKS - 10.21.2010

### Critical success factors:

- Focus on the grid, not just the meter
- Designate a limited circle of smart grid spokespersons
- Essential to have full integration and coordination of field operations, communication/marketing and customer care
- Need to transform customer care into a force that is proactive, solutions focused
- Customer complaints must be identified quickly, elevated to appropriate level and resolved swiftly

### Critics who say wait for the next generation of smart grid technology:

- Cite that this technology is evergreen since it is IP based
- Cite the millions of meters already in place; cite their accuracy and reliability

### PR vulnerabilities to prepare for:

- Understand the “drivers” that contributed to challenges faced by other utilities; learn the lessons
- Address anti-environmentalists’ concerns on the cost burden of the smart grid investment
- Address potential customer complaints about interference from meter with other devices (baby monitors, TV reception, etc.)
- Address customer concerns about RF and EMF
- Prepare for complaints about inaccurate meters
- Field criticism/concerns from advocates for the disabled, especially the blind
- Address criticism from speakers of languages other than English; determine how much of communication should be done in Spanish
- Address concerns about security
- Address concerns about privacy of data

### Environmental benefits:

- Where possible, quantify avoidance of new power plants, carbon emissions, etc.

### Audience segmentation:

- Tailor messages by audiences and their concerns/issues
- Confront misassumptions about ability of low-income customers to use and benefit from smart meters; do the same with senior audiences if there is evidence
- Communication materials should incorporate depictions of those populations most likely to feel alienated, i.e. seniors, minorities, etc.
- Can we evangelize technology enthusiasts?

### Social media:

- Identify and connect with authoritative “green” voices locally
- Examine social media behaviors and impacts of vocal/activist bloggers in related sites/subject areas and prepare for content delivery and responses

### Employees:

- Create excitement about their role in implementing smart meters
- Equip with answers to customer questions: pocket cards, info on their ID badges, etc.

Public officials:

- Offer opportunity for briefings. Include industry authorities and vendors/partners, as appropriate
- Implement strategy for engaging public leaders who are supportive and/or early adopters

Educators:

- Position smart grid as supporting state's STEM education initiatives
- Develop school curriculum

### **BGE Interviews with Nonprofit and Advocacy Organizations**

In November 2010, BGE conducted interviews with representatives of area nonprofit and advocacy organizations, including:

- United Way of Central Maryland,
- Governor's Commission on Hispanic Affairs,
- National Federation of the Blind,
- Catholic Charities of Baltimore and
- Representatives of the Latino community.

Their input and perspectives will help shape the education and outreach program, particularly with regard to communications approaches and messaging to reach and engage vulnerable and special needs populations, including seniors, low-income customers and non-English-speaking audiences. Among the findings of these interviews were the following:

- Low- and limited-income individuals are concerned that smart meters will void some of the consumer protections that are now in place. They are especially worried that smart meters will make it far easier for BGE to shut off service.
- Advocates for low- and limited-income populations also raise the concern that the benefits of smart meters will fall disproportionately to middle- and upper-income customers, leaving the poor with little gains.
- The Latino community in Central Maryland has grown significantly in recent years and now constitutes more than 80,000 of the Baltimore metro region's more than 2 million adults aged 18+. (BGE services thousands more Latinos in the portions of Prince George's and Montgomery Counties that are also included in our service territory.)
- Provide information and education materials about smart meters in Spanish and English, using tools such as the website, printed materials and advertising.
- Direct customer contacts will need to be addressed bilingually, as well. For example, smart meter installers who do not speak Spanish will need to be equipped with printed Spanish-language explanations of their purpose.
- Notification letters to customers about smart meter installations will need to incorporate alternative resources for accessing the content in Spanish. We are especially aware of the need to communicate early and often to avoid the spread of misinformation about smart meters, a potential problem that could be exacerbated by language differences.

- Maximize access for customers who have visual, motor/mobility and/or cognitive/intellectual disabilities.
- Ensure that any application developed for accessing information (standard websites, mobile sites, etc.) be available to people with disabilities.
- Ensure that any application developed for people with disabilities complies with web standards and will be tested for ease of use by the disabled.
- Address the concern that the poor are less likely to benefit from smart meters than others, yet the poor (who have disproportionately larger energy bills) will be expected to bear the costs disproportionately.
- Address the concern that the poor, the medically fragile and the elderly may not be able to take advantage of peak time rebate programs because they do not have the luxury of time-shifting their energy usage.
- Address the question about whether there is insufficient evidence to suggest that low-income customers will respond to pricing incentives the same way middle- and upper-income customers do.
- For low-income residents, the condition of their homes is more of a challenge than is any behavior change required by smart meters. With half of the houses in Baltimore City not qualifying for weatherization programs because of their poor structural condition, is it realistic to think that smart meters will matter much? This question needs to be addressed.

Ensure that BGE is committed to making its digital interface accessible by technologies more likely to be used by low- and limited-income people who do not have computer access such as cell phones.

### **Additional Research Sources Consulted**

The references below and examples in Appendix D reflect communications developed, based on best practices and lessons learned. The following are examples of resources that will inform the development of BGE's customer education elements throughout the four phases of implementation:

Smart Grid Consumer Collaborative

<http://smartgridcc.org/>

Oncor

<http://www.takealoadoftexas.com>

[http://www.oncor.com/tech\\_reliable/smarttexas/default.aspx](http://www.oncor.com/tech_reliable/smarttexas/default.aspx)

Duke Energy

<http://www.duke-energy.com/about-us/smart-grid.asp>

Electric Power Research Institute

<http://www.smartgrid.epri.com/>

<http://www.smartgrid.epri.com/>

PG&E

<http://www.pge.com/smartmeter/>

<https://www.pge-smartrate.com/index.cfm>

OG&E

[http://www.oge.com/residential-customers/products-and-services/Pages/Smart\\_percent20Grid.aspx](http://www.oge.com/residential-customers/products-and-services/Pages/Smart_percent20Grid.aspx)

GE

<http://www.itsyoursmartgrid.com/>

GE ecomagination

[http://ge.ecomagination.com/smartgrid/#/landing\\_page](http://ge.ecomagination.com/smartgrid/#/landing_page)

## II. MESSAGE DEVELOPMENT

At the heart of the communication plan will be the messages. We know that without messages that resonate in the right way at the right time to the right people, the channels and the methods are weakened. A carefully constructed message framework will be essential and will create a willingness about making the transition to a new era in energy management and conservation, while effectively managing customer expectations and addressing their concerns.

While numerous organizations and smart grid technology companies already have developed messages that have been effective with various audience groups (*see examples in Appendix G*), BGE will combine best practices with local market adaptation and testing to ensure messages that work with Central Maryland audiences and with the specific audience segments we serve.

### Laying the Groundwork

**Research.** Research, including benchmarking and lessons learned from other utilities' smart grid initiatives, serves as the backbone for message development. Ongoing research (*see Research and Evaluation section of this plan*) will ensure the effectiveness of communication tactics and messages, and will be used to refine strategies going forward.

**Lessons Learned.** Best practices, as well as mistakes, from smart meter installations across the nation provide considerable guidance in determining not only what messages work at what times, but how many messages can be meaningful at each communication interval.

**Understanding the Audiences.** While we are appealing to the entire BGE customer base, smart meter messages will be targeted to the knowledge, perceptions, motivators and concerns of our segmented audiences. Specific messages will be crafted in conjunction with general messaging to reach seniors, those of limited-income and business owners, as examples of distinct audience segments. Messages must also be available in Spanish and accessible to those with disabilities.

**Timing Considerations.** The message platform will be carefully built across the phased implementation timeline and coordinated across all communication disciplines to provide a consistent, seamless and strategic education campaign.

## Language and Tone

### **Manage Expectations, Don't Overpromise**

- Work to manage customer expectations and clarify what will be available in each phase
- Address any perceptions of losses and balance with customers gains
- Anticipate and avoid all risks  
Stay close to consumer talk

**Simplify Messages.** BGE must ensure messages are structured in a way that the consumer – every consumer – can understand. That means the vocabulary will be meaningful and free of industry terms and jargon. That means the sentence structure will be uncomplicated. And it means we won't ask our customers to handle more than what's relevant at any point in the rollout.

## Messages

BGE will develop a multi-faceted set of messages that are segmented by issue and by target audiences. These messages will address the following:

- What is a smart meter?
- Can I opt out or choose not to have a new meter installed?
- Is the appearance of my smart meter different than my old meter?
- What is the difference between my old meter and the smart meter?
- How and when will I benefit from my smart meter?
- When/How do I receive my smart meter?
- Will my smart meter make my energy bills higher?
- Will my smart meter reflect my energy bills accurately?
- Will the change have any effect on my bill?
- Will BGE have any more control over how and when I use my energy?
- Who will have access to my energy usage information?
- Who's paying for smart grid meters and technology?
- Will seniors and limited-income customers pay more than their fair share?
- I have medical/special needs, what will happen to the meter in my situation?
- Will smart grid pose a security risk to the community?
- Will the new smart meter/smart grid technology compromise my privacy?
- Will the radio signals sent by my smart meter pose health risks?

- Will automatic meter reading eliminate jobs?
- Will I understand how to use the new technology?
- What is smart grid?
- Why do we need smart grid now?
- Who else is getting smart grid technology?
- Will smart grid benefit BGE more than the customer?

### Misperceptions About Smart Meters

Messages will address common misperceptions about smart grid, including:

- Smart meters will make my energy bills higher.
- BGE will control how my energy is managed.
- Smart grid will pose a security risk to the community.
- The meter will not reflect my energy usage accurately.
- The new technology will compromise my privacy.
- The program is unproven and untested.
- The radio signals sent by my smart meter pose health risks.

**Attention to Limited-Income, Seniors, Non-English-Speaking and Vulnerable Populations.** BGE will maximize customer education and engagement among vulnerable customer populations, including limited-income, senior and non-English-speaking customers. Going well beyond simply translating materials or providing large-type copy, we will seek to engage community leaders, influencers and representatives of these communities in the development and deployment of our education efforts. While there is little awareness currently about smart grid and smart meters, we expect that increased communication may potentially spark confusion, ambiguity, angst and doubt in specific customer segments. We will aggressively work to maximize clear and empathetic communication with customers who are in the most vulnerable and disadvantaged populations. Communication and education materials that will be customized for these populations may include:

- FAQs addressing their specific concerns, apprehensions and needs regarding smart meter installations
- One-page “issues summaries” addressing issues that have surfaced nationally, with BGE’s local perspective and assurances (e.g., security, disproportionate impact on seniors and low-income populations, privacy, etc.)
- Talking points for briefings and presentations with specific audience segments
- Customized PowerPoint presentation module
- BGE.com and online smart energy manager accessibility and downloadable materials
- Availability of materials and energy tracking reports as hardcopy for those without computer access
- Outreach and education through community service and consumer advocate organizations serving vulnerable populations, with specific emphasis on tying in with their communications channels, online resources, events, meetings and seminars, social media sites, among others

**Sequence of Customer Touch Points.** The following outlines a sequence of messages by phase, with the objective of providing necessary and easy-to-understand information to BGE customers, while managing

expectations for when features will be available. Particular emphasis will be made to customize messages to key audience segments, including vulnerable populations that have specific needs and communications challenges (e.g., seniors, low-income and non-English-speaking customers).

## BUDGET

Consistent with its commitment to the PSC and its customers, BGE has outlined an appropriately robust and multi-faceted, yet cost-efficient and measurable, customer education and outreach plan through 2013.

The proposed Customer Education Plan is designed to build on the customer education work conducted to date in support of demand-side management and direct load control programs. The forecasted costs associated with planning and implementing the proposed Customer Education Plan for Phases 1, 2 and 3 are broken out below.

The Maryland AMI Working Group that has been involved in preparing this plan is aware of these cost forecasts, but takes no position on their reasonableness or appropriateness. Any cost recovery issues related to this program and potential links with emPOWER Maryland activities would be included in the evaluation of a future BGE revenue requirement proceeding.

The proposed budget below is for external resources and support for this program (goods and services). BGE has not included internal resources (personnel) in this proposal and does not plan to seek cost recovery for internal resources.

The budget is based on proposed spend by calendar year. There will be activities associated with phases 1 and 2 in 2011 (early education and meter installation); activities associated with phases 2 and 3 in 2012

(meter installation before and after the online energy manager is available). In 2013, there will only be phase 3 activities (meter installation after availability of the online energy manger)

*\*All figures in 000's*

Program Component	2011	2012	2013
Project Management	\$60 - 75	\$60 - 75	\$30 - 37.5
Employee Training/Communications <i>Based on the following elements:</i> 1 video @ \$55k 1 brochure @ \$10k 1-3 employee events @ \$10k per event Speaker training @ 10k-20k	\$75 - 150	\$45 - 50	\$0
Media Relations (Event support for press events)	\$15 - 20	\$15 - 20	\$7.5 - 10
Program Component	2011	2012	2013
Community Education/Outreach (70-Day Community Countdown events and support for festivals, exhibit booths, etc.) <i>Based on the following elements:</i> Exhibit booths @ \$50k-\$100 k External event support @ \$50k-\$500k (depending on number and type of events) Event fees @ \$25k-\$100k	\$150 - 200	\$460 - 700	\$175 - 425
Customer Communications, Tools and Resources (70-Day activity materials, fliers, media kit, door hanger design, etc.) <i>Based on the following elements:</i>	\$400 - 500	\$1,740 - 2,300	

Printing for postcards, letters, door hangers (2 versions), fliers, media kit covers and other materials: \$200k-\$250k Design fees: \$50k-\$100k Media kit development \$50k-100k Videos: \$50k-\$100k Mailing: \$300k-\$400k E-newsletter design			\$590 - 875
Digital/Social Media Engagement (bge.com and social media resources)	\$40 - 50	\$40 - 50	\$20 - 25
Advertising (Bus shelters, community newspapers and magazines, billboards, etc.)	\$500 - 600	\$1,150 - 1,500	\$660 - 925
Research and Measurement	\$180 - 250	\$250 - 300	\$125 - 150
Home Energy Reports	\$0	\$1,000 - 2,000	\$1,000 - 1,250
<b>ANNUAL TOTALS</b>	<b>\$1,420-\$1,845</b>	<b>\$4,760-\$6,995</b>	<b>\$2,773 - 3,873</b>