



Getting Smart Grid
customers plugged in
Motivating change through
mobile and social technology

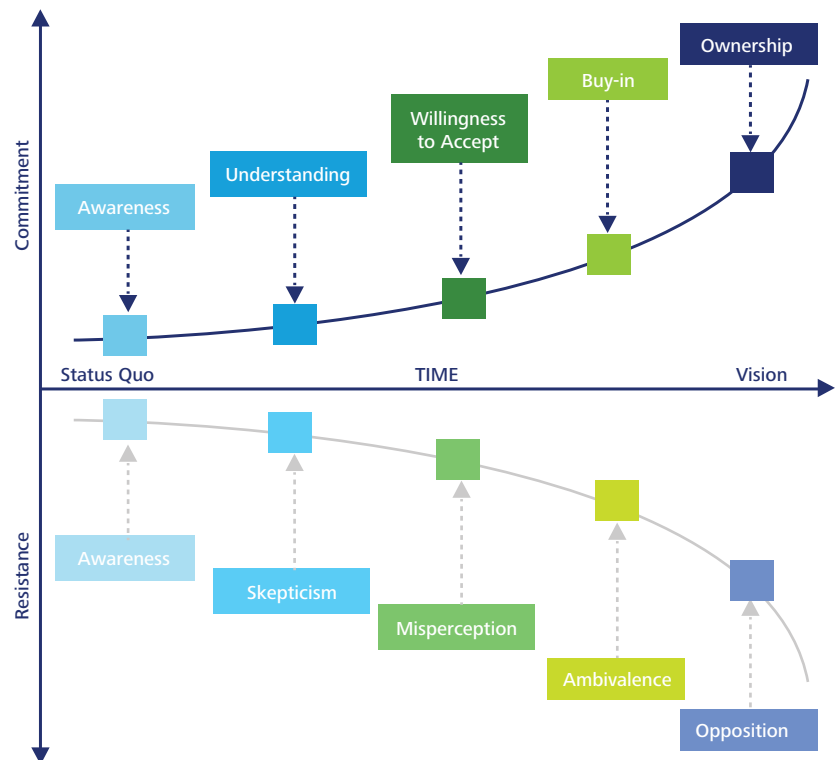


Now is the time

Electric utilities must address Smart Grid's technical and intangible challenges

With the national transition to Smart Grid, electric utilities ("utilities") are facing what may be the biggest change in the industry since the industry coalescing around Alternating Current (AC) as the U.S. standard. This shift will not only bring about a technical revolution, but will result in major changes for the energy consumer. To maintain and grow their customer base, utilities will need to adopt a new strategic approach to customer engagement to drive greater levels of commitment. Over the next pages, we will lay out the rationale for this new approach and an executable framework to achieve that engagement.

There is universal agreement that customer engagement is critical to the success of a Smart Grid implementation, yet most utilities are still struggling to do so effectively. A recent survey indicated that a lack of customer interest and knowledge of traditional Smart Grid programs is the number one obstacle to advancing Smart Grid adoption.¹ Additional data indicates that up to 15% of the U.S. population currently has a negative opinion of Smart Grid.^{2,3} In the age of the empowered consumer, that is a large population of residential customers already poised to tweet, post and protest.



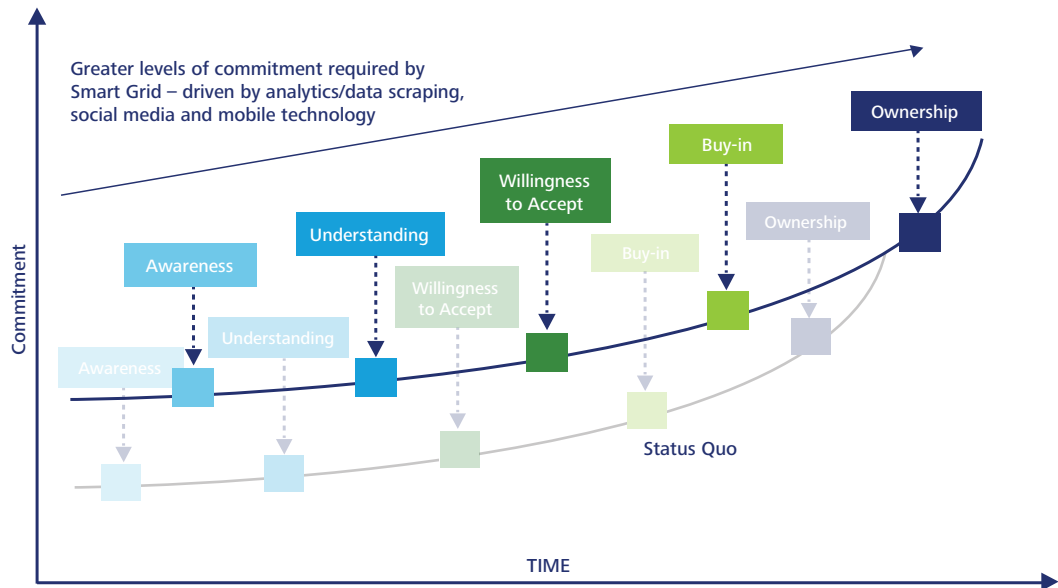
¹ Black and Veatch, *2011 Strategic Directions Survey Results, 2011*, <http://bv.com/docs/reports-studies/2011-Electric-Utility-Survey-Results.pdf>

² Smart Grid Consumer Collaborative, *Consumer Pulse Research Program Wave 2 - Summary of Findings, January 23, 2012*, <http://smartgridcc.org/wp-content/uploads/2012/01/SGCC-Consumer-Pulse-Wave-2-Summary.pdf?>

³ U.S. Energy Information Administration, *Electric Power Annual 2010 Data Tables, 2011*, <http://www.eia.gov/electricity/annual/html/table7.1.cfm>

In the past, customers have opposed smart meter efforts by enlisting major consumer groups to their cause, literally taking to the streets in cities such as San Francisco, California to Hallowell, Maine in order to demand a moratorium on smart meter installation,^{4,5,6} and forcing some utilities to develop 'opt-out' programs.⁷ These consumer reactions indicate that underdeveloped and ineffective customer communication and engagement strategies pose a significant risk to the return on utilities' Smart Grid investment and can take a toll on monitoring and managing costs.⁸

Smart Grid represents a fundamental change in the relationship between the utility and its customer base, and therefore, necessitates a new level of consumer commitment. Power users must now adopt new behaviors around understanding and modifying their usage in order to harness Smart Grid's full potential. Achieving this level of commitment requires a new approach to customer engagement where analytics and social media data scraping (monitoring and extracting meaningful data from social media outlets for analysis) drive stakeholder identification and segmentation.



⁴ "Who's Watching? Privacy Concerns Persist as Smart Meters Roll Out," *National Geographic Daily News*, 2012, <http://news.nationalgeographic.com/news/energy/2012/12/121212-smart-meter-privacy/>

⁵ Felicia Barringer, "New Electricity Meters Stir Fears," *New York Times*, January 30, 2011, <http://www.nytimes.com/2011/01/31/science/earth/31meters.html?pagewanted=all&r=0>

⁶ "Controversy over smart meters continues," *WGME 13*, 2012, http://www.wgme.com/news/top-stories/stories/iframe_vid_13773.shtml

⁷ Mark Chediak, "Utilities Try to Tame the Backlash Against Smart Meters," *Bloomberg Businessweek*, May 10, 2012, <http://www.businessweek.com/articles/2012-05-10/utilities-try-to-tame-the-backlash-against-smart-meters>

⁸ *ibid*

Where do you score?

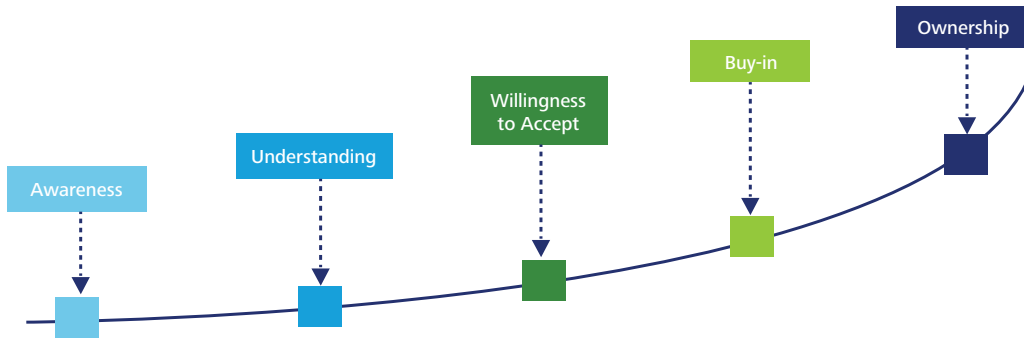
One way and one-size-fits-all broadcasts are being left behind in favor of targeted messaging through evolving channels most likely to garner customers’ attention, create commitment and ownership, and influence behavioral change.

Many utilities find themselves unprepared to manage this level of customer engagement. While much of the Smart Grid investment is being directed towards technological

components such as meters and software, utilities must also take advantage of this transformation as an opportunity to mature their customer engagement capabilities.

Deloitte’s Customer Engagement Maturity Model identifies key behaviors used to establish stages along the Customer commitment curve.

How mature is your customer engagement strategy?



Stage 1: Developing	Stage 2: Basic	Stage 3: Progressing	Stage 4: Advanced	Stage 5: Leading
<ul style="list-style-type: none"> • Only essential communications impacting customers are sent through traditional methods • Customers are an afterthought to strategy and only engaged on an as-needed basis • No preparation is given to customers about changes 	<ul style="list-style-type: none"> • Strategy is forming to support customer engagement • Internal processes are set to identify change impacts and identify engagement strategy • Training and communications are integrated into the engagement process 	<ul style="list-style-type: none"> • Successful execution of plans to engage customers on an ongoing basis • Customers are routinely identified as stakeholder groups in any change initiative and activities to support change are identified 	<ul style="list-style-type: none"> • Customers are provided a consistent flow of information • Infrastructure for two-way communication on important topics impacting customers is available 	<ul style="list-style-type: none"> • Customer engagement is part of the overall strategy for any change event • Formal engagement activities are second nature to pursuing changes

Social media and mobile engagement strategies for electric utilities

Using social media/nontraditional media to move along the customer engagement maturity model and drive adoption

Six hundred twenty four million customers are anticipated to use social media as a means to receive information from their utility by 2017.^{9,10} To adapt to this newfound form of information consumption, utilities must devise comprehensive engagement strategies that use leading technologies (Twitter, Facebook, etc.) while simultaneously building and/or expanding their analytics capabilities. Using advanced analytics, utilities can segment their customer base in order to better understand their customers' attitudes toward Smart Grid adoption. As the utility collects customer feedback, including customer information needs, channel and message effectiveness and feedback on interaction, the utility can tailor communications to continually build relationships with each consumer.

By integrating leading technologies into a comprehensive engagement strategy, differentiated customer characteristics (e.g., socio-economic considerations, energy consumption rates, political leans, etc.) will become the anchoring factor that dictates the type, frequency, and medium of the communications. These technologies increase movement along the Customer Engagement Maturity Model by providing immediate access to customer feedback and open the doors to a forum that favors two-way dialogue.

Many utilities already connect with their customers through an online social media presence or mobile applications,¹¹ but these channels represent an underutilized portion of a comprehensive Smart Grid customer engagement strategy.

So what does Smart Grid customer engagement through social media and mobile applications look like in practice? A leading company will use advanced analytics and social media scraping to determine which messages and social media tools to use for each segment of their customer base. It will provide customers with a sophisticated level of service via one or more social media platforms as well as mobile technologies integrated with advanced metering infrastructure to provide personalized energy use reporting. By strategically targeting customers using social media preferences, utilities ease the integration of smart metering and tracking into the everyday lives of customers.

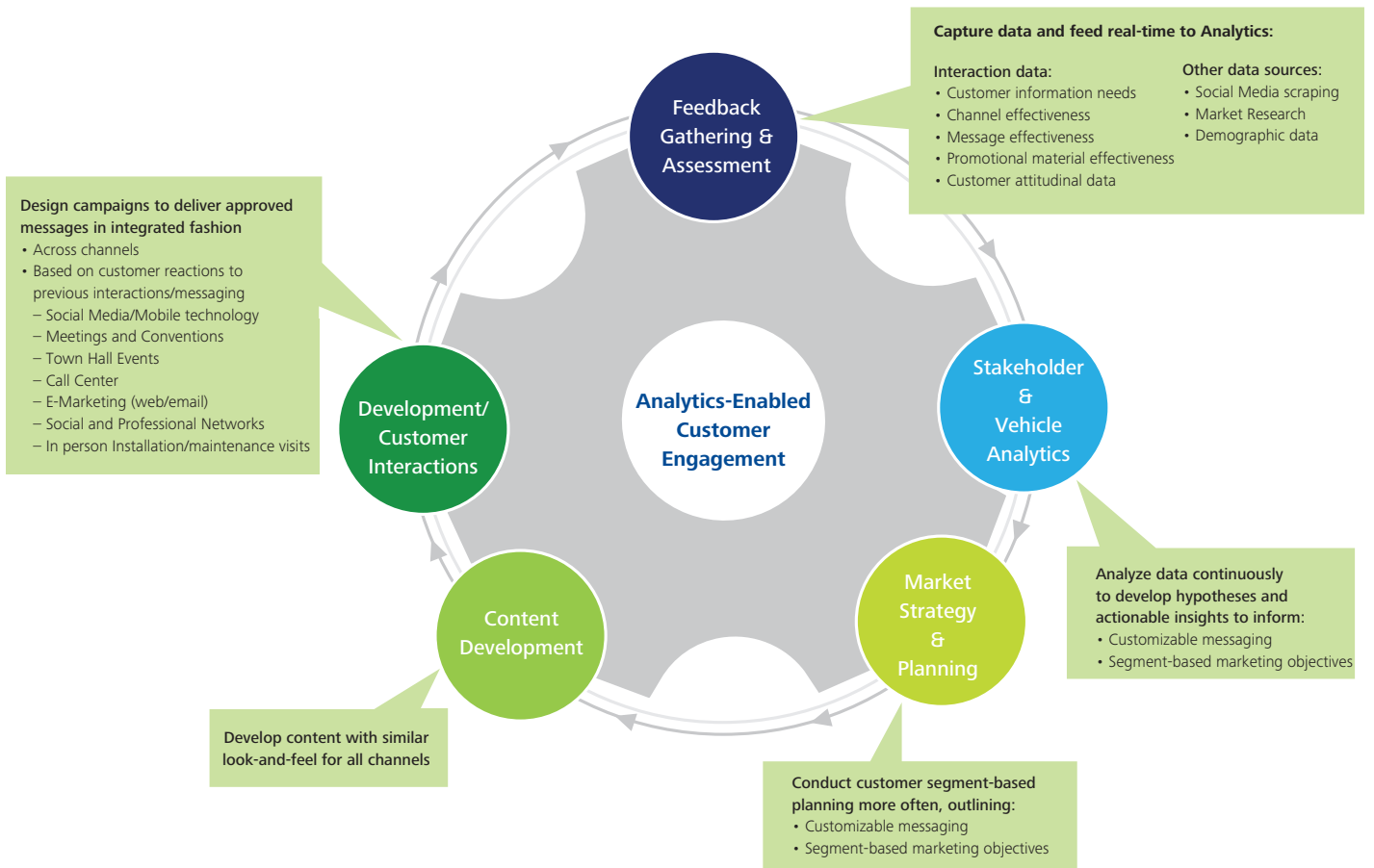


⁹ Charul Vyas and Neil Strother, Pike Research, *Social Media in the Utility Industry Consumer Survey*, 2012

¹⁰ Priority Integrated Marketing, *Considering Social Media in 2010? Join the Conversation*, 2010, www.priorityresults.com

¹¹ Zpryme Smart Grid Insights Practice, *Utilities Get Social*, February 2012, <http://zpryme.com/SmartGridInsights/2012-utilities-get-social-Zpryme-Smart-Grid-Insights.png>

In short, analytic-driven customer engagement enables utilities to answer the questions most critical to customer engagement — “What is Smart Grid?” and “What does it mean for me?”



The table below shows progression along the Customer Engagement Maturity Model using **Social Media Engagement Strategies**:

	Stage 1: Developing	Stage 2: Basic	Stage 3: Progressing	Stage 4: Advanced	Stage 4: Leading
Social Media / Non-traditional Media	Nonexistent	<ul style="list-style-type: none"> • Strategy forming to support customer engagement • Internal processes set to identify change impacts and identify engagement strategy • Training and communications are integrated into the engagement process 	<ul style="list-style-type: none"> • Active management of one or more social media platforms to provide frequent updates to content • Ability to provide a very basic level of customer service via one or more social media platforms • Information being both pushed and pulled 	<ul style="list-style-type: none"> • Ability to conduct many customer service activities via one or more social media platforms • Tools used to provide strategic direction to shape customer activities • Understand current and expected level of awareness and perceptions (monitoring and benchmarking) • Get the positive message of Smart Grid into the public domain by engaging with sponsor organizations that have a social media following 	<ul style="list-style-type: none"> • Ability to provide a sophisticated level of customer service via one or more social media platforms • Tools effectively used to engage customers and actively push new initiatives • Customized outreach by segmented customer group
Example	N/A	<ul style="list-style-type: none"> • Unmonitored Facebook page with basic information 	<ul style="list-style-type: none"> • Responses to customer posts may be simple, such as providing an existing customer service email address or phone number 	<ul style="list-style-type: none"> • Use of social media for real-time crisis management (e.g., service outage notifications via Twitter) • Benchmark and analyze external end-user activities, awareness and perception utilizing social media scraping on an on-going basis • The utility piggybacks on XYZ municipality's popular Twitter feed 	<ul style="list-style-type: none"> • Smart Grid integrated Facebook app that allows customers to compare their energy use to that of their neighbors¹² • Continuously update strategy based on social media 'listening' analysis

Inc. magazine describes the world of consumer engagement as “ruled by the mobile experience.”¹³ Customer engagement through mobile technology has demonstrably significant impact on customer opinions of their utilities. One study revealed that customers receiving text messages from their utility were 50% more likely to express a positive opinion of their utility as opposed to those who did not.¹⁴

¹² Opower, *Facebook, NRDC and Opower Join with 16 Utilities to Drive Energy Efficiency Through Social Media*, April 3, 2012, http://opower.com/company/news-press/press_releases/50

¹³ Wendy Lea, “The New Rules of Customer Engagement,” *Inc.*, April 5, 2012, <http://www.inc.com/wendy-lea/new-rules-of-customer-engagement.html>

¹⁴ JD Power and Associates, *Smart Pulse Study and 2012 Customer Engagement Strategies Study*, October 24, 2012, <http://www.jdpower.com/content/press-release/gv698T5/2012-smart-pulse-study-and-2012-customer-engagement-strategies-study.htm>

Going beyond the use of mobile devices to simply access social media, utilities need to start connecting with customers using mobile tools (or applications) that fit into their daily life. This gives customers the ability to manage and control their personal energy usage via mobile technologies. Utilities can personalize the experience and encourage behavior modification among adopters by offering consumers additional usage service analysis and providing suggestions for when to use less power to reduce bills.

It is helpful for utilities to reference the maturity model to assess the state of their social media engagement strategies. The table below shows progression along the Customer Engagement Maturity Model using **Mobile Technology Engagement Strategies**:

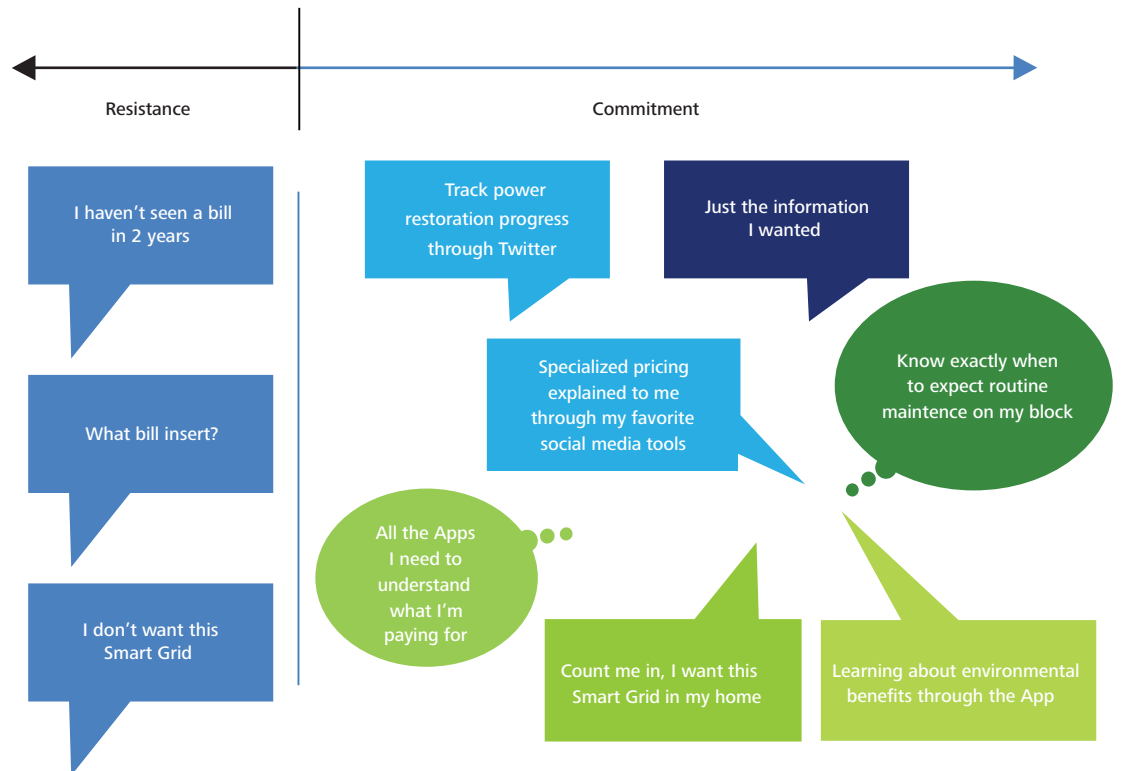
	Stage 1: Developing	Stage 2: Basic	Stage 3: Progressing	Stage 4: Advanced	Stage 4: Leading
Mobile Technology	Nonexistent	<ul style="list-style-type: none"> Basic mobile-friendly version of website available 	<ul style="list-style-type: none"> Mobile application for at least one type of device available Mobile application provides basic view functionality for system updates and outstanding bills 	<ul style="list-style-type: none"> Mobile technology integrated with billing to allow mobile customer bill pay Mobile application compatible with all major devices 	<ul style="list-style-type: none"> Mobile technology integrated with advanced metering infrastructure to provide personalized just-in-time energy use reporting Mobile technology actively promotes and tracks customer energy use changes and consumption patterns versus neighbors
Example	N/A	<ul style="list-style-type: none"> Standard mobile version of the company's website "m.sampleutility.com" 	<ul style="list-style-type: none"> Mobile application for smartphones on either major operating platform 	<ul style="list-style-type: none"> Mobile application available for both major operating platforms and tablet 	<ul style="list-style-type: none"> Department of Energy's "Apps for Energy" contest for the best app making use of personal energy use information¹⁵ Run Smart Home simulations to offer consumers additional usage service analysis and provide suggestions for when to use power to reduce bills

¹⁵ U.S. Department of Energy, *Apps for Energy*, 2012, <http://appsforenergy.challenge.gov/>

Conclusion

Facing one of the greatest industry transformations ever, electric utilities will choose between capitalizing on their Smart Grid implementation as a way to revolutionize their capabilities or see it as just another operational challenge to be endured. The organizations that choose to take advantage of this period of change will be those best positioned to succeed in a future of increasingly volatile and uncertain regulatory and technical demands.

Used strategically, social media and mobile technology are powerful tools in a comprehensive stakeholder engagement strategy and are uniquely valuable in terms of effectiveness and scalability. Given demographic trends, utilities who build the capabilities to use these tools as part of a strong change readiness strategy today are positioned to be industry leaders tomorrow. Clearly any approach must be compliant with the relevant Utility Commission guidelines, and utilities should engage with their Commissions on possible new approaches when there is a clear benefit to customers.



Deloitte’s social media and mobile technology customer engagement and education approach

Deloitte’s ‘Social Media and Mobile Technology Customer Engagement and Education’ approach leverages the best practices from internal stakeholder readiness methodologies, but also incorporates communication outreach efforts, focusing on three core activities:

- Assessing current communications and perception
- Developing an engagement strategy for each customer segment
- Delivering the engagement strategy via various communication channels

These communication methodologies are designed not only to help customer stakeholders progress through the adoption curve by helping build awareness, understanding, buy-in/commitment, and ownership but also, when managed in the context of a comprehensive engagement strategy, will help elevate the Utility’s Customer Engagement maturity.

	Key activities	Purpose and impact	Methods and tools
Social Media	<ul style="list-style-type: none"> • Assess current communications, perception and readiness • Use social media scraping Benchmarks and continuously analyze external end-user activities, awareness, and perception for each customer segment 	<ul style="list-style-type: none"> • Identifies key concerns of each group as well as the best vehicles to reach them • Improves stakeholder discussions and decision making • Guides development of a communication/education strategy for each customer segment 	<ul style="list-style-type: none"> • Customer Segmentation Analysis • Social Media Analytics • Awareness Assessment
	<ul style="list-style-type: none"> • Develop an engagement strategy for each customer segment using social media tools • Engage with sponsor organizations that have a social media following 	<ul style="list-style-type: none"> • Delivers the engagement strategy via various communication channels appropriate to each customer segment • Uses social media as a communication strategy and educational tool • Gets positive Smart Grid messages proactively into the public domain 	<ul style="list-style-type: none"> • Communication Strategy • Customer Engagement Framework
	<ul style="list-style-type: none"> • Develop community change agent networks in social media context 	<ul style="list-style-type: none"> • Gets ‘in front of’ messages to external stakeholder by aligning communication and branding with an educational approach • Provides a forum for advocacy and safe place to control negative feedback 	<ul style="list-style-type: none"> • Change Agent Network
Mobile Technology	<ul style="list-style-type: none"> • Develop an engagement strategy for each customer segment using Mobile technology tools 	<ul style="list-style-type: none"> • Provides customer with reliable information on services and bills, up to date information on individual usage, and real-time outage alerts, energy-efficient solutions, notifications from the utility corporation (such as outage notifications, marketing rebates/offers, reminders) • Enables customers to change behavior to reduce energy usage by providing suggestions for when to use power • Provides a forum to track ‘Smart Consumer’ points program for loyal and effective Smart Grid consumers 	<ul style="list-style-type: none"> • Customized Reporting Dashboards

¹⁶ Alcatel-Lucent Australia, *Smart Choices: Establishing a Solid Foundation for an Effective, Future-Ready Smart Metering System*, EEA Conference & Exhibition 2009, Christchurch, New Zealand, June 19-20, 2009, http://enterprise.alcatel-lucent.com/private/active_docs/Alcatel-Lucent%20Smart%20Choices%20Final.pdf

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