

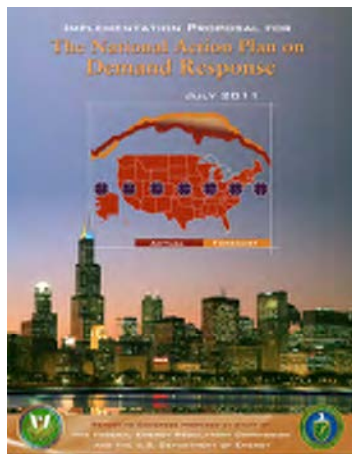
NATIONAL ACTION PLAN COMMUNICATIONS UMBRELLA

ACTION GUIDE – PART 1

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NATIONAL ACTION PLAN COMMUNICATIONS UMBRELLA

HOW TO USE THE ACTION GUIDE



The Implementation Proposal for the National Action Plan on Demand Response released on July 5, 2011 indicates that “Support materials should be designed to be ‘plug and play’ so that local entities can either use all available messages and materials or choose which elements to use.” The proposal directs the coalition to “develop a message framework with persuasive, adaptable messages aimed at various audience segments, all of which could be tailored by interested local stakeholders.”

This action guide is intended as such a reference to be used on an as-needed basis. It seeks to help communications specialists and program managers at utilities, consumer advocacy groups, public service commissions, technology companies and service programs, consultants, and trade groups involved in co-creating a sustainable energy future with consumers.

The guide includes **fundamental processes recommended as part of every communications and energy literacy program**, such as working with and through trusted community-based organizations.

There are other elements that **must be tailored to the priorities and social norms of the region**. One area’s most “obvious” vision driver, such as responding to climate change, might be a political hot potato in another place where energy independence is a more persuasive rationale for grid modernization. Creative teams are encouraged to **draw from menus of options provided**, assemble and localize their approaches, and test prototypes with target audiences.

This guide describes how specific messages resonate with different customer segments and energy worldviews. One person’s compelling motivator will be another person’s turn-off. That is why targeted communication channels and vehicles that permit the consumer to self-select are so important.

Note of caution: We have found that people often project their personal energy worldview onto others. Teams should be conscious of their own perspectives when designing for varied communities who might not share their viewpoint.





What is a communications umbrella?



A strategic plan and road map that synthesizes existing research, best practices to date, and new ideas to create concepts, models, and language likely to be effective.

COMMUNICATIONS UMBRELLA

The National Action Plan calls for the development of a Communications Umbrella. This includes:

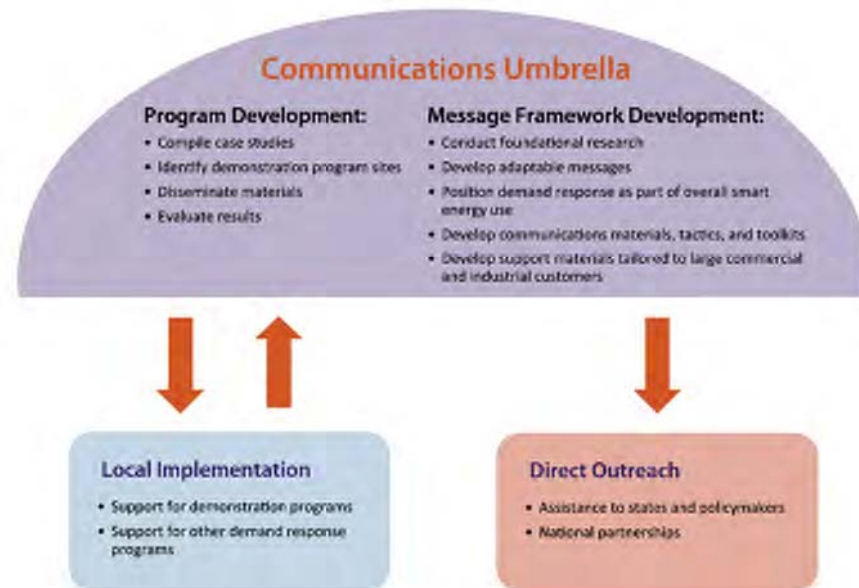
- The **conceptual interpretation of foundational research** (much of which was not available when the original plan was written);
- The structure of the **message framework** (i.e. how messages should be organized);
- **Adaptable messages and positioning;**
- How DR should be positioned in the **broader context of smart energy and smart grid;**
- The definition of a toolkit that includes **creative briefs, examples, and recommendations on how the materials can be used.**

Initially, we are focusing on residential consumers rather than large commercial and industrial customers. Case studies are being developed in a parallel effort.

Research and field experience support that improving **energy literacy will be a multi-tiered effort—a series of conversations rather than a commercial.**

To achieve our goal of a sustainable energy future we need to turn the foundational research into actionable strategies, tactics, and materials.

Figure 2: Program Structure



National Action Plan on Demand Response, page 36, Strategies and Activities

Simple actions like buying CFLs or power strips to reduce vampire load are initial steps in developing a new set of behaviors. Encouraging people to invest time in deferred consumption, or active monitoring of usage and money in home automation and small-scale generation is complex. The Action Guide examines how one encourages changes of behavior among multiple people and generations in the home by engaging them in the process.



Who is behind this document?



The National Action Plan Coalition is made up of organizations with a stake in demand response and smart grid. Each group represents its members and constituents. They have contributed expertise and knowledge from within their membership to work in a collaborative effort to implement the NAP.

NATIONAL ACTION PLAN COALITION



Members of the National Action Plan Coalition Include:

Alliance to Save Energy (ASE), American Council for an Energy Efficient Economy (ACEEE), American Public Power Association (APPA), Association for Demand Response and Smart Grid (ADS), Demand Response and Smart Grid Coalition (DRSG), Digital Energy Solutions Campaign (DESC), Edison Electric Institute (EEI), Environmental Defense Fund (EDF), National Association of Regulatory Utility Commissioners (NARUC), National Association of State Energy Officials (NASEO), National Rural Electric Cooperative Association (NRECA), OpenADR Alliance, Peak Load Management Alliance (PLMA), Utilimetrics. The National Association of State Utility Consumer Advocates (NASUCA) participates in an advisory capacity.

www.napcoalition.org

This Action Guide was prepared by Judith Schwartz, To the Point with input from members of the Coalition

The project was underwritten by



www.demandresponsesmartgrid.org



www.tothept.com



At most industry events, people talk about the need to document best practices and to come up with meaningful value propositions and messaging.

Why hasn't this been done yet?



There are enough effective and different examples and research data out there to know that a single tagline, message, or value proposition will not be equally effective in every region for every consumer. That is why we offer menus of “**next practices**” from which to choose identified with this green icon.



EXEC SUMMARY OF CONTENTS

Section 1: Conceptual Insights

Here are key foundation concepts we are using to inform the narratives, messages, and creative development.

Pages 6 through 16

The "magic" of a great communications program is based on how one **interprets available data** and then **conceptualizes effective ways to express** those core principles in order to **engage people on an emotional level**. This guide includes the background "meta-discussion" about what concepts are informing the creative thinking.

Section 2: Message Frameworks

High-level general concepts can be presented with specific messages targeted to each of the consumer segments.

Pages 17 through 25

Messages are phrases or sentences that describe particular aspects of the subject being communicated. It is expected that the program and creative teams will adjust the exact wording, level of detail, voice, and tone to suit the audience, context, and medium of delivery.

Section 3: Narratives and Stories

Highlights of the upcoming Action Guide—Part 2

Pages 26 through 27

The term “narrative” describes a story that is created in a constructive format (as a work of writing, speech, poetry, prose, pictures, song, motion pictures, video games, theatre or dance) providing a sequence of fictional or non-fictional events. The narrative puts the pieces together so it draws the reader, student, or viewer in and creates a desired overall impression or emotional reaction. We encourage readers to send suggestions, feedback, and other examples.

Appendix Pages 28 through 29

Bibliography, author's bio and other credits



What are next practices?



A

A willingness to admit that we may need to let go of some of our sacred cows and try some new ways of doing business.

5 CHALLENGES TO GO BEYOND BEST PRACTICES

The utility industry has been around for 150 years and like any mature field, it has established operating practices. We respectfully submit that the fundamental changes we are asking consumers to consider will require industry to modify business as usual especially for communication, regulatory, and customer service teams.



Are traditional silos getting in the way?

1

TELL THE STORY FROM THE CUSTOMERS' PERSPECTIVES

Whether Thomas Edison would recognize today's electrical grid is irrelevant to most people. What matters is if the lights turn on when they flip the switch. If a given distribution system is so old that it cannot deliver reliable service anymore, that might be a reason for consumers to want to learn about their infrastructure's past.

2

TRUST TRUMPS TAGLINES

If the person or organization delivering a message or slogan is not credible, it doesn't matter how skillfully words are crafted or how beautiful the production values. Utilities who build trust by partnering with regulators, advocates, and reliable community-based organizations are ahead of the game.

3

A KILO WHAT?

Terms of art that may be very meaningful to industry insiders are often obscure to the general public. People can be conscious and careful energy consumers without understanding what a kilowatt is just as they can be daily users of the Internet without knowing their computer's IP address.

4

YOU CAN'T LEARN A NEW LANGUAGE FROM A TAGLINE

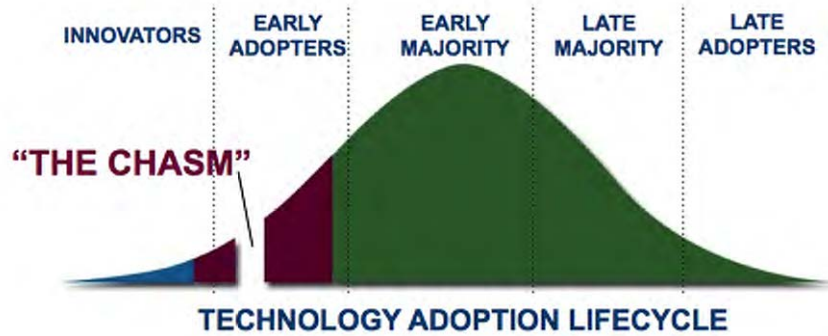
Becoming energy literate requires a series of conversations, not a great commercial. Two-way exchanges with trusted sources that actively listen to concerns and issues will be far more effective at delivering targeted information (and less costly than big campaigns).

5

SMART THIS, SMART THAT, WHO CAN TELL THEM APART?

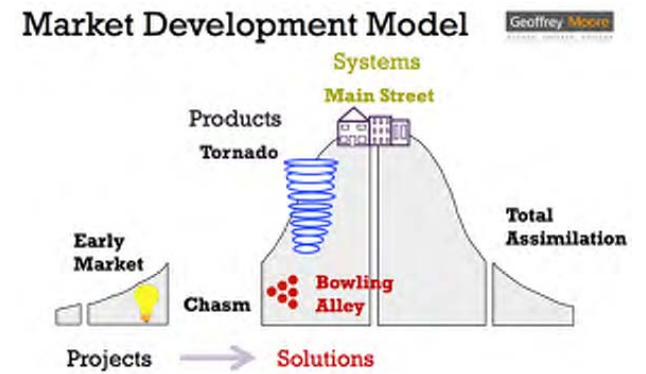
Program silos may be easier to fund and manage internally but the distinctions are confusing to most consumers. On top of that, it's very expensive to establish name recognition for multiple brands.

SECTION 1: CONCEPTUAL INSIGHTS

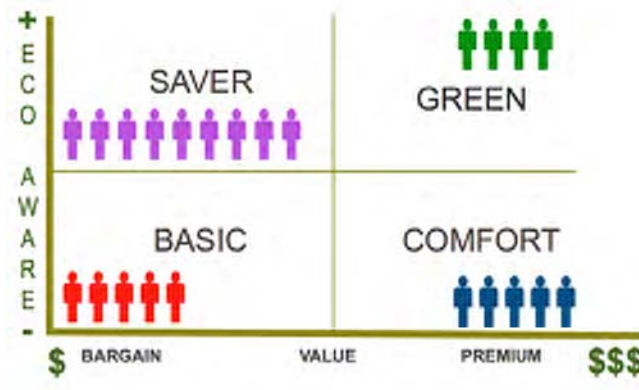


DIFFUSION OF INNOVATIONS BY EVERETT ROGER

CROSSING THE CHASM BY GEOFF MOORE



This is the crossing-the-chasm change



SECTION 1: CONCEPTUAL INSIGHTS



A. Smart energy adoption model

People, regions, and organizations accept new ideas at different rates. A phased adoption mindset lets us target and deliver messages comfortably to stakeholders at varied stages and approaches.

B. Motivational segmentation and consumer adoption patterns

In developing educational materials and marketing programs, it is critical to know one's audience. Multiple research studies suggest that when it comes to being receptive to a given message, the key distinction among consumers of all ages and income levels begins with their motivations. It is reasonable that some groups will be more receptive than others to changing their behaviors.

C. Utility adoption: regional and timing variations

Not every utility or region of the country will progress the same way. This section looks at what the likely drivers will be for adoption. A portfolio of tools will be needed to support the various approaches.

D. Menu of vision drivers

There are multiple reasons to modernize the grid. A menu approach will allow utilities to choose which reasons to emphasize in their vision statements, integrated vision stories for their constituents, and various outreach materials.

E. Consumer archetypes and personas

The use of a representative example and description of distinct customer types will help keep the discussions grounded in human reality and make it easier for creative teams to keep the range of constituents in mind.

F. Value propositions

Messages are best absorbed if the recipients understand why the idea being put forth is meaningful and valuable to them. The reasons why consumers will see value in demand response and smart grid will vary.

G. Cross-stakeholder conversations

Successful adoption of other disruptive technologies like PCs or the Internet have shown all stakeholder groups and key influencers need to be part of the discussion.



What is a technology adoption model?



In 1962, sociologist Everett Roger derived the “diffusion of innovations” theory introducing the concept of ‘early adopters’ to refer to the group of consumers who try something that an entire population later embraces.

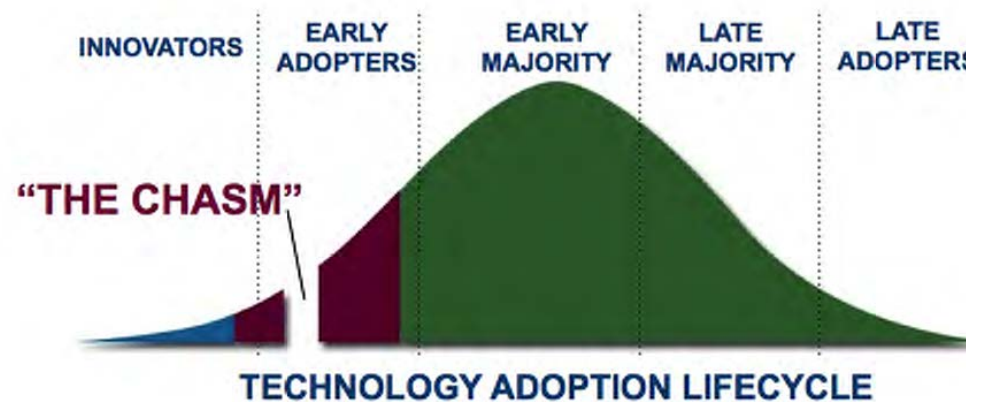
1A. SMART ENERGY ADOPTION MODEL

Early adopters will pay more, tolerate inconvenience, and participate in getting the kinks out. Business strategist and author, Geoff Moore added the idea of “the chasm” to Roger’s model to describe those situations where the later adopters never materialize.

Moore posits visionaries and pragmatists have very different expectations. Central to successfully crossing “the chasm,” includes choosing the right target markets to start, understanding the whole product concept, positioning the product, building a marketing strategy, and choosing the most appropriate distribution channel and pricing. We believe this **model applies directly to consumer participation in the smart energy vision.**

The model applies to stakeholders as well as customers. Those groups that are innovators will need different tools and messages than those who are not ready to embrace this transformation.

Creators of today’s smart energy programs owe a debt to the designers of large industrial and commercial demand response and energy efficiency programs. Our common goal is to inspire more conscious energy consumers who—through either self-discipline or technology—use less energy or delay tasks to off-peak hours.



DIFFUSION OF INNOVATIONS BY EVERETT ROGER

CROSSING THE CHASM BY GEOFF MOORE


Utilities have the added challenge of serving late adopter customers as well as innovators. Exchanges need to address those portions of the population from their own perspectives and legitimate concerns so consumers don’t become opponents of needed grid modernization.

On the following pages, we will make the connection between this model and the consumer segments that have been identified by multiple studies as well as how it applies to the utilities’ perspectives. That understanding provides the foundation for a message framework and structure that stakeholders can apply to their constituents.

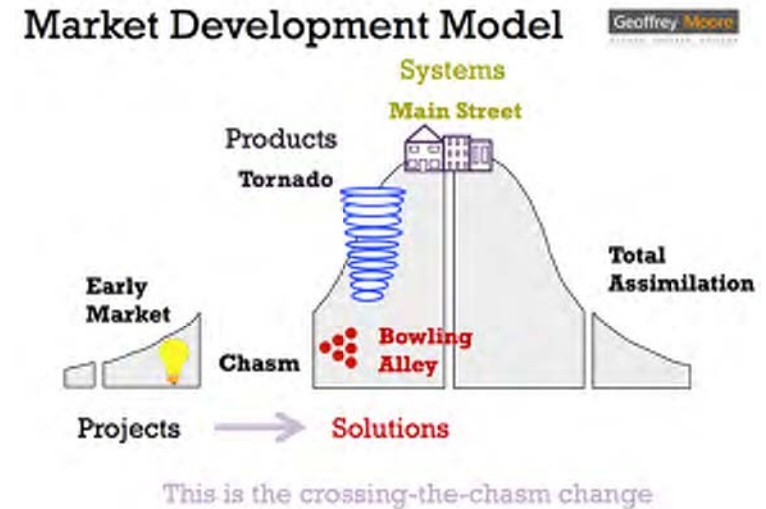
CROSSING THE CHASM REQUIRES SOLVING AN URGENT PROBLEM

In Geoffrey Moore's keynote address at the 2011 ConnectivityWeek, he challenged the audience to think differently if we are to cross the chasm to mainstream adoption of a smart energy culture. Referencing his new book, *Escape Velocity*, Moore described the transition from a project-based (i.e. pilot) approach that tests selected ideas to a **solutions-oriented approach where various products and services are assembled and integrated to meet the pressing needs of specific audience segments.**

Who feels the sense of urgency in 2011?

 Foundational research indicates **people ready to act today as smart energy champions or advisors** fall into one of three categories:

- Those who believe the planet and human society are in danger. They are motivated to respond to climate disruption and **proactively deal with extreme climate events.**
- Those committed to making their **homes, institutions, and business locations more efficient as green buildings** either because they feel it is strategically the right thing to do or because the **cost savings are so compelling to them.**
- Large industrial, commercial businesses, and aggregators that have benefited financially from demand response programs and are **eager to identify new revenue opportunities.**



From Geoffrey Moore's presentation "*Escape Velocity: Free the Smart Grid's Future from the Pull of the Past*," May 23, 2011, ConnectivityWeek, Santa Clara, CA

Holy Name High School in Worcester, MA raised \$1.5M to install this wind turbine to offset their rising electricity bills and be "stewards of the earth" (photo by Fox O'Rien)





What is an energy worldview?



The dominant motivational perspective of an individual with respect to their energy usage. These are more predictive of attitude than traditional demographics. Moving to action also requires a belief that personal effort can make a difference.

1B. MOTIVATIONS AND ENERGY WORLDVIEWS

There are different variations of consumer segmentation that have been identified by leading research organizations. The common findings suggest personas of consumers who fit into each of these quadrants. This breakdown explains why a single motto or campaign will not successfully reach all audiences.

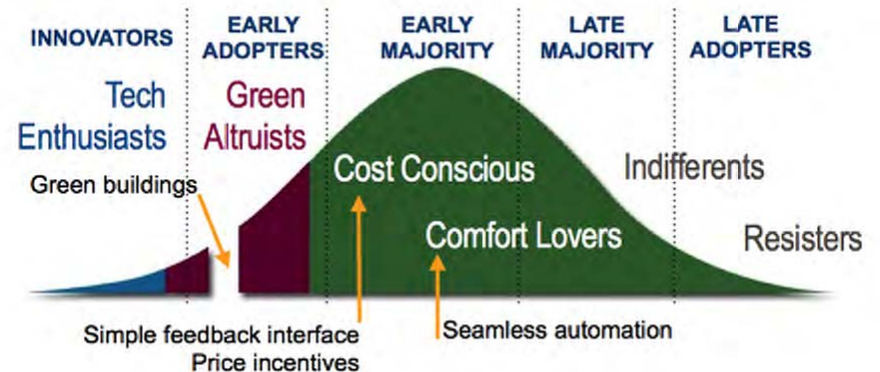
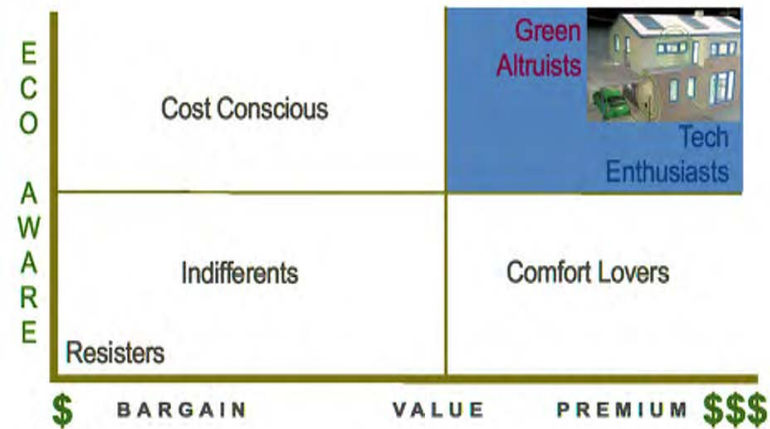
When the segments are mapped to the technology adoption model, we can anticipate trends and trigger points. In the near term, **tech enthusiasts** will embrace early incarnations of feedback devices, HEMS, and micro generation. **Green altruists** will invest in chasm-crossing green buildings (weatherization, lighting, etc.)

Cost conscious consumers will require more intuitive feedback interfaces coupled with price incentives before mainstream adoption can be achieved. **Comfort lovers** will likely wait for automation to advance and match their budgets before participating. **Indifferents** and **resisters** will rarely come on board until the social norms in their communities of influence align with active engagement.

Pockets of the country will embrace these technologies rapidly. However, broad national adoption is likely to be spread across a 10-20 year cycle.



Measure size and percentage mix of segments within a given service area to understand your local audience's priorities.



The likely sequence and trigger points needed to reach widespread deployment.

? **What is a utility adoption profile?**

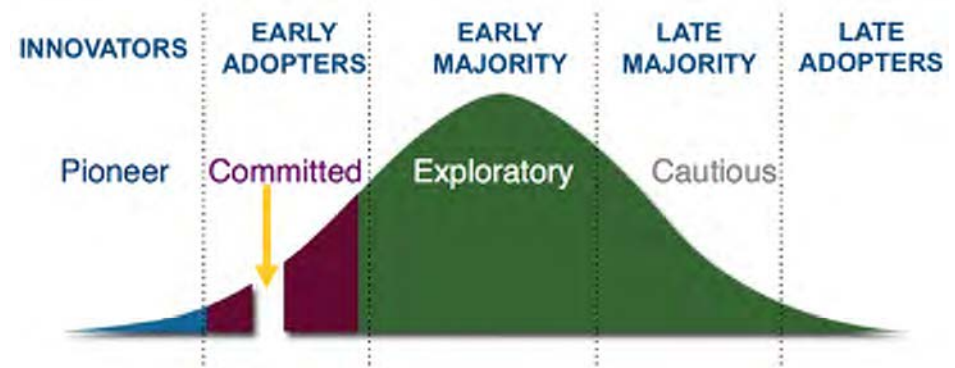
A The likely interest of a utility in embracing smart energy practices and technologies. A new IEE study* quantified the net benefits of smart grid deployment and found that benefits can exceed the costs of AMI deployment for all profile types.

1C. TIMING VARIATIONS: UTILITY ADOPTION

The technology adoption model applies to utilities as well as consumers. These profiles are based on a combination of regulatory mindset, social norms around climate issues, mix of consumer attitudes in the area, and suitability for local renewable generation. However, leadership vision and commitment to smart grid by regulators and utility execs trumps other drivers.

Regulatory mandates are the controlling factor for most of the investor owned utilities. Public perception and regional political attitudes will have a major impact on how quickly utilities embrace the smart energy story.

A range of tools and narratives will be needed for use by utilities in various states of adoption.



Similar prototype designations are analyzed in the Institute of Electric Efficiency Whitepaper: *Cost and Benefits of Smart Meters** (to be published July 2011)

| Pioneer | Committed | Exploratory | Cautious |
|---|--|--|---|
| <ul style="list-style-type: none"> Leadership vision shared by regulators and utility CEO May have invested in earlier enhancements like AMR Limited ownership of centralized generation resources | <ul style="list-style-type: none"> Regulatory mandates Social norm: climate change is an urgent problem Leadership vision Renewables are widely deployed in region Concentrations of green and tech enthusiasts | <ul style="list-style-type: none"> Regulatory uncertainty Social norm: mixed perceptions on climate change Cost conscious consumers dominant in region Limited penetration of renewable generation | <ul style="list-style-type: none"> Regulatory resistance Coal, nuclear, natural gas generation owned by utility Social norm: climate change skepticism Cost is dominant driver Many indifferents and resisters Limited local interest in renewable generation |



What are vision drivers?



The compelling reasons for a given region to make the investment in modernizing their electrical grid.

1D. MENU OF VISION DRIVERS

Not everyone agrees on the reasons to modernize the grid. A menu approach allows utilities to choose which reasons to emphasize in their vision statements, integrated vision narratives for their constituents, and emphasize in their outreach materials.

It is NOT recommended that every utility communicate every driver in their narrative of their vision, nor will they prioritize them in the same order.

It should be noted that it is easier to justify Advanced Meter Infrastructure (AMI) expenditures or adoption of demand response (DR) practices if the reasons for doing so are based on shared imperatives (like sustainability, energy independence, or improving the local economy).



Town hall meetings and venues provided by community-based organizations will allow stakeholders to listen to concerns and issues expressed by consumers. Rather than working from a blank page, we recommend allowing people to react to a list or view prototypes of other narratives and discuss which points resonate with them.

This is one of those situations where a combination of quantitative and qualitative research will be most instructive. While surveys can measure the relative the priorities in a given area, human-centered research will provide greater insights into the nuances of belief and reaction.



MENU of reasons to modernize the grid

- a) Energy independence and security
- b) Climate change and carbon footprint reduction
- c) Population growth
- d) Proliferation of consumer electronics
- e) Competitive, sustainable energy economy
- f) Green jobs and manufacturing
- g) More precise and efficient use of limited resources
- h) Empowering customers to be part of cost mitigation
- i) Make it easier for individuals to control their bills
- j) Infrastructure is aging to the point of unreliability
- k) Concern for future generations



What is a persona?



A symbolic identity or archetype that helps program, system and creative designers associate recognizable characteristics to an audience segment.

1E. CONSUMER ARCHETYPES AND PERSONAS

The key to successful consumer education is the ability to speak directly to the individual's pressing concerns. The use of representative examples helps keep the planning discussions based in human reality rather than becoming mired in abstract or unlikely scenarios. This approach has proven effective in designing marketing programs, systems, and online learning tools.

Personas are used to draw out what the members or homes of each defined consumer segment cares about. These are often independent of income level, education, or ethnicity. Written descriptions, photographs and video clips can help creative teams construct targeted campaigns. The descriptive information can be seen as "Human Business Cases."



In the case of Comfort lovers it may be more helpful to focus on their residences to illustrate opportunities for energy savings.



Historically, utility programs have primarily been single-issue mass media campaigns. In the new paradigm, campaigns will need to target the range of individuals who make up the audience.



Fixed income & medically frail



Cost conscious



Tech enthusiast



Indifferents



Green altruists

Photos by Marshall Cetlin. Additional funding will need to be identified to produce images that can be shared among the stakeholders.



What is a value proposition?



A statement that explains why a person would be interested in making an investment or purchase. A compelling value proposition should answer the question “What’s in it for me?”

1F. VALUE PROPOSITIONS

Messages are best absorbed if the recipients understand why the idea being put forth is **meaningful and valuable to THEM**. Not everyone will see value in smart energy practices or technology for the same reasons. For example, a lower price for a product or service is not the only compelling rationale for a value proposition. Others include:

- Unanticipated benefits
- Enhanced services
- New functionality
- Value may be in eye of beholder



If taxpayers and ratepayers are asked to invest or pay more, then the perceived value of grid modernization must be made apparent from their range of perspectives. Dynamic pricing and cost recovery models will need to be explained to the public as consumers become partners.

Consumers today willingly pay more for smart phones than they did for rotary dial phones because they perceive a greater value.

| Medically-frail | Cost-conscious | Tech enthusiast | Indifferent | Green altruist | Comfort lover |
|---|--|--|--|--|--|
| New technology will enable quicker responses and fewer outages in extreme weather, faster restoration of service for at-risk residents (after first responders), and pro-active contact with loved ones and EMT response teams. | Digital technology on the grid will allow you to know your current balance, get pricing feedback to allow simple actions and automation to keep your bills as low as possible. Frugal use of electricity will be rewarded financially. | The smart grid platform will allow you to know how your home is using energy and control usage anywhere from the device of your choosing. New and innovative tools and apps are hitting the market all the time. | Whether you choose to take any action or not, you will receive system-wide benefits including faster repairs and better customer service. You will be able to control who sees your usage information. | The smart grid will make it possible to support more varied renewable generation, electric vehicles, and energy-saving devices and appliances. Your smart energy choices will reduce the need to build new power plants. | You'll stay comfortable with set and forget automation. You won't even be aware that your home energy management system is adjusting your AC, pool pump, and smart appliances to keep your bills manageable. |



What is the most important recommendation of a national communications plan?



Encouraging respectful dialog in as many forums as possible with as many individuals as possible.

1G. CROSS-STAKEHOLDER CONVERSATIONS

To effectively raise consumer awareness and achieve a sustainable transformation, it is important to engage key influencers and stakeholders. This goes beyond well-designed PR campaigns that distribute information targeted to all layers of the information infrastructure illustrated at right.

★ The ideal model for effective progress is consistent across regions and jurisdictions. Respectful exchanges among interested parties are critical for any consumer engagement program to succeed. These should be a combination of formal and informal meetings. While online forums can support the process, face-to-face interaction is needed.

Several cross-stakeholder groups including the National Action Plan Coalition of Coalitions; the Critical Issues Forums held by EEI, NARUC, NASUCA; and the Smart Grid Consumer Collaborative are actively fostering these conversations on a national level. The same activities should be encouraged at regional and local levels as well.

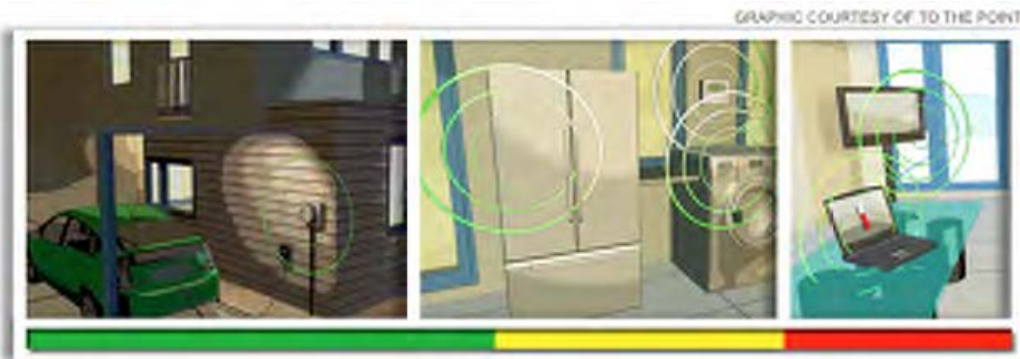


CW11 Consumer Symposium, Santa Clara, California



Appreciative Inquiry Summit in Cleveland, Ohio

SECTION 2: MESSAGING



Consume and store lowest price off-peak power

Offset power usage with energy-efficient appliances or make adjustments in response to feedback devices

Save money with voluntary programs during heat waves and cold snaps



SECTION 2: MESSAGE FRAMEWORKS

A. Who are we asking to do what?

While motivational mix appears across both genders and all age groups and income levels, there are other patterns related to gender, generation, and responsibility. Direct conversations yield clear insights though few publicly available studies detail the variances. These distinctions are important when choosing which message and communication vehicle to use.

B. DR in larger context

In the context of the national communications program, the NAP suggests DR be positioned as one element in an integrated smart energy story that will be better understood and more compelling to the public.

C. Explaining concepts around DR

Rather than use the industry-centric term of DR with the public, it will be more effective to explain concepts in accessible language.

D. Motivation and message matrix

Consumer segments can be aligned with the appropriate messages.

E. Addressing advocate concerns

Making sure that the concerns of consumer advocacy community are addressed is fundamental to protecting vulnerable populations as well as moving the discussion forward for everyone.

F. Self-selection and choices

Anticipating what a given person will respond to is very difficult outside of the context of a personal exchange. For outbound communications, it is much more effective for people to choose the path meaningful to them from labels and names that are obvious.

2A. WHO WE ARE ASKING TO DO WHAT?

| What are we asking? | Frequency | Communication implications | Who is likely decision maker or person affected? |
|--|--|--|--|
| Respond to DR events or other emergencies in real time or with one-day advance notification | ~10x/year, random | Because weather reports are not infallible, a pre-arranged communication channel (text, phone call, email) must be triggered either in real time or the day before with a subset of willing participants. "Please pitch in" will appeal to few people's sense of community but broader adoption will require financial incentives. | Homemakers*, elderly, self- and un-employed likely to be home in afternoon. Are they willing or able to be interrupted or change their plans a day in advance? |
| Allow utility to react to DR events and other emergencies by adjusting consumer AC, pool pumps, etc. | 10 - 25x/year, random or 24 hour advance plan | Remote control capability is given to the utility (or aggregator) in advance, in exchange for some agreed upon benefit. Consumers can be invited to participate as part of new service or other outreach efforts and thereafter do not have to think about it. | Bill payer* or could be a family group decision * <i>high proportion are women</i> |
| Consciously use less at peak times and delay tasks | Hot afternoons or very cold mornings/nights | It may actually be easier to get consumers into a habit or routine for deferred energy use. Framing requests in terms of heat wave or cold snap pricing or time of day/season is easier to understand. | Person* who does laundry, dishes, cooks dinner, kicks kids off computer to play outside. |
| Research and purchase a home energy management system or network | One time or occasionally as new items/apps come on market | Affected by utility smart meter deployment schedule and personal motivations if the utility is not providing a solution. Encouraging use of available options ahead of AMI deployment builds audience for more robust applications. | Gadget person for now. In future, "green digital natives" will perceive as the new normal. |
| Pay attention to nudges like usage feedback or pricing to defer or reduce use | Intermittent (daily, weekly, or monthly when bill arrives) | Gadget person may not be the same as key user or bill payer. PR and educational outreach cannot overcome need for more accessible interface design. Word-of-mouth, influence by kids learning at school, targeted outreach will be most effective. | Bill payer* is obvious driver but enthusiasm can come from energy champions or other family members. |
| Buy EE consumables (CFLs, LEDs, filters) | Quarterly? | Gateway activity. Advise/drive to links to product info and available rebates from DOE, utility, or manufacturers | Person* who attends community events |
| Buy Energy Star appliances | Once every 5-15 years | Provide links to product info and make available rebates visible either from DOE, utility, or manufacturers | Homeowner, appliance user* and purchase advisor |
| Weatherize home | Occasional projects | Encourage energy audits, access to reputable service providers | Homeowners, renters, landlords |
| Purchase an EV | Once every 2-10 years | Only a few can afford electric vehicles now but entire neighborhood is affected by need for extra transformers, etc. | In the short term, affluent/green car buyers |
| Add solar, cool roof | 15 year cycle | Major investments usually part of a broader green building mindset. | Homeowner, landlords |

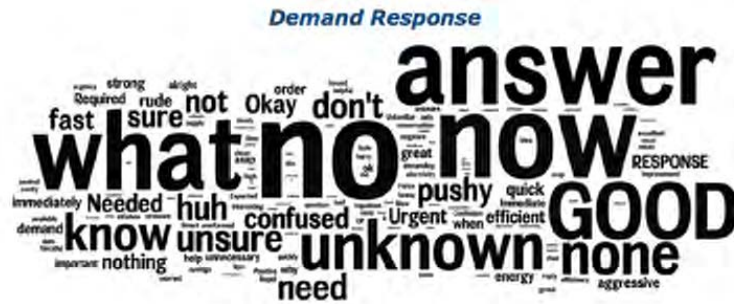


What aren't we focusing solely on DR in the communications umbrella?



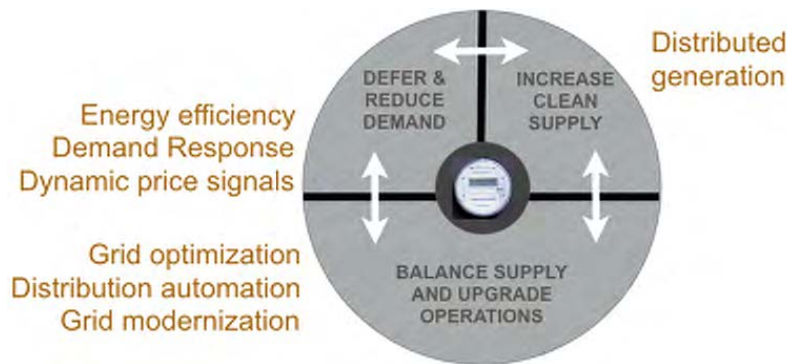
As the plan itself suggests and the foundational research supports, consumers see electricity as a service without the distinctions insiders understand.

2B. DEMAND RESPONSE (DR) IN CONTEXT



EcoPinion 6: *Green Gap Redux: Green Words Gone Wrong*, EcoAlign, page 6

If DR were to be treated as a standalone concept—something not recommended for the purposes of consumer education—then a different name would be needed. As research from EcoAlign illustrates (at left), most people don't have any understanding of what the term means and the associations are negative. We recommend talking about postponing tasks and reducing use of electricity as well as adopting price and other incentives to encourage people to voluntarily make those adjustments. When the request is explained, most people easily grasp that less electrical generation can meet our collective needs and we can reduce the environmental impact of generation and transmission.



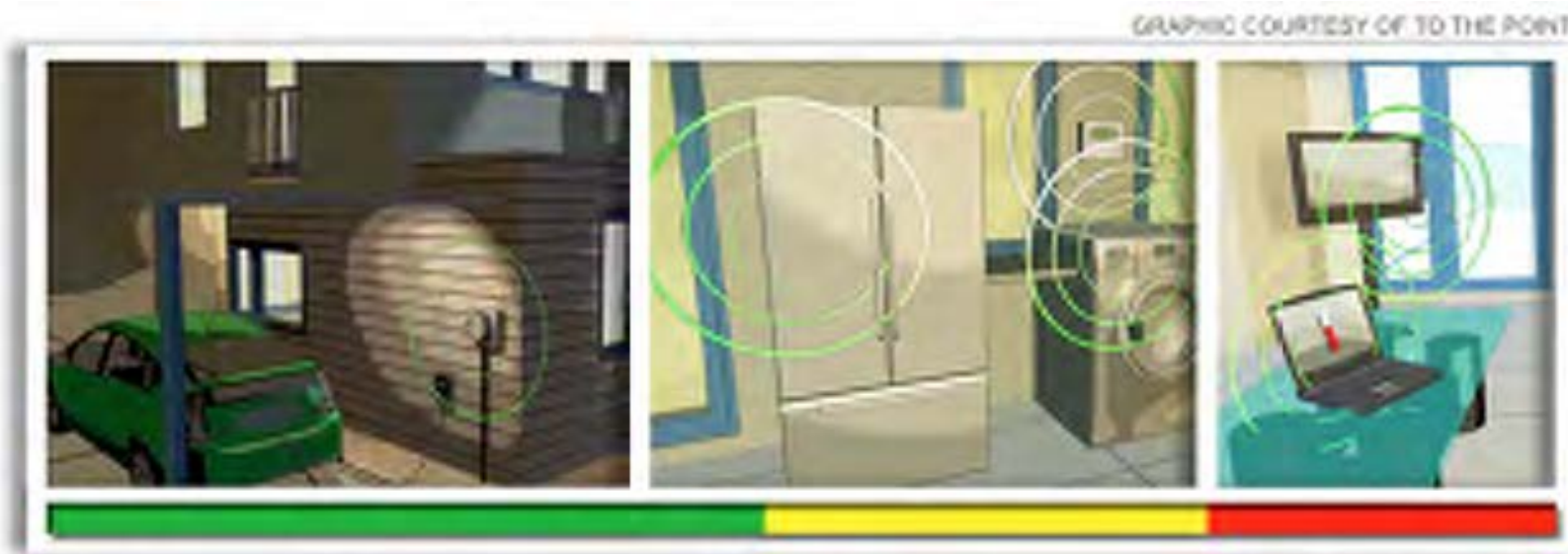
★ When DR is positioned as part of the bigger picture, the case for investment in enabling technology platforms becomes more compelling.

Descriptive copy might include concepts such as: “Smart Meters are not important in themselves, but rather components necessary to achieve the larger societal imperatives. Meters are more like a TV cable box or Internet router and firewall.”

Or “we can expand DR with direct load control devices but cannot manage widespread distributed generation of renewables without the digital components of the smart grid, nor can we provide time of use price nudges.” Therefore, this argument will carry different weight in different places and with different audiences.

Alternative approaches to grid modernization may be more desirable in regions where integration of renewables and dynamic pricing will not be needed or possible in the foreseeable future. Focusing on increased reliability and faster response in extreme weather or other emergencies will likely be a more compelling justification for investment.

2C. EXPLAINING DR CONCEPTS



Consume and store lowest price off-peak power

Offset power usage with energy-efficient appliances or make adjustments in response to feedback devices

Save money with voluntary programs during heat waves and cold snaps

While some consumers are familiar with the concept of peak times for other services, the related terms are not universally understood.

“Critical Peak Pricing,” “Peak Time Rebates,” and “Clip the peak” might be re-phrased as “heat wave pricing,” no-risk rebates,” and “deferred” use.



Images can be used to illustrate night vs morning vs a scorching afternoon. What are needed are more stories that feel like real life (with kids, dogs and dirty dishes to be washed) rather than portraying a sleek, futuristic world that would only be available to the very wealthy. **Stakeholders are encouraged to consider long-term audience development (school children or church groups) to encourage early adopters at the local level in regions that are slower to embrace smart energy practices.**



Why can't we use the same messages for everyone?



One person's compelling reason is another's turn off.

Keep in mind the goal is to have people either be more conscious and careful in how or when they use energy, or leverage technology they can afford to automate efficient use of resources



2C. MOTIVATIONS & TOP LEVEL MESSAGES

| Tech Enthusiasts | Green Altruists | Cost Conscious | Comfort Lovers | Indifferents | Resisters |
|---|--|--|--|---|--|
| The latest gadgets will allow you to control your energy use and get the best from dynamic pricing programs | Make a conscious effort for the cause of saving the environment by minimizing need for more power plants | You have the opportunity to save money on your personal bill by postponing certain tasks to cheaper times of day | An automated smart house is the latest status symbol. You won't even notice the minor adjustments to your AC or pool pump | A sustainable energy supply lets you keep your home secure and your country energy independent | It's unfair if frugal subsidize energy wasters who overuse AC and pool pumps during heat waves. |
| Are you game to compete with your neighbors? | Cooperate with your friends and neighbors to reduce demand for energy and offset system-wide cost increases | | | Why worry about cost and availability of future energy supplies? | You decide who sees your detailed usage data |
| Smart grid enables the latest personal energy technology like EVs and solar panels | Smart grid enables integration of renewable energy and electric vehicles within your neighborhood | We can't afford to do nothing and let the current system decay. We will be forced to build far more costly power plants. | Smart appliances fit your lifestyle | | Smart grid helps you determine acceptable terms with your utility |

The research shows that consumers **do see benefits in distribution automation** when framed as providing better service and lower operating costs for everyone. Many utilities have been reluctant to discuss those benefits. Greater transparency around these issues, including profitability benefits for investor-owned utilities will help build trust.

As creative teams work with this matrix, they should suggest specific language and imagery based on the regional priorities and the goals and brand identity of the utilities or organizations that are the clients.



Is it better to simply avoid the hot button issues?



No. Making sure concerns of consumer advocates are addressed is fundamental to protecting vulnerable populations and moving the discussion forward.



2E. ADDRESSING CONSUMER CONCERNS

| Concerns expressed | Communication implications |
|---|--|
| Maintain existing consumer protections | Much of the turmoil centers around a reasonable fear that protections that exist today will be eliminated with the deployment of AMI. As part of introductory materials and meetings, utilities would do well to confirm that their existing policies (including disconnection criteria) will remain in effect or new ones added if necessary. |
| Dangers of remote disconnect | The benefits of remote connection should be emphasized as positive features in all communication materials so the public can be reassured. Switching account responsibility immediately when one moves and not having to wait to get the power turned on in the new location is especially positive for renters. Restrictions on shutting off people's power at night, on weekends, or in the dead of winter should reflect common sense. |
| Impact of dynamic pricing on low-income residents | Even though there is significant empirical evidence that dynamic pricing favors low-income consumers who typically have flatter load profiles and no empirical evidence that these rates hurt them, this issue remains a key sticking point. Examples in Part 2 of the Action Guide will show how low-income participants in pilots have taken positive advantage of dynamic pricing and utility subsidy/discount programs. |
| Protecting vulnerable populations | Utilities can promote positive ways to protect medically vulnerable residents who are dependent on special equipment. Develop advance emergency alert systems for residents and their off-premise guardians. Making proactive emergency/storm outage response and rapid recovery a key part of utility operations and the story is a positive way to overcome objections and collaborate with consumer advocates. |
| Smart meter accuracy | This is important to all types of consumers. In rollout preparation one should demonstrate and communicate how the utility is testing and verifying the new equipment is accurate. While it does not have to be the top message, credible 3 rd party validation should be readily accessible on the website, at community meetings, and in the hands of people who are visiting customer premises or answering phones. |
| Proactive, interactive consumer education | Energy literacy is needed to create engaged consumers and is especially effective with green altruists and low-income communities who are most likely to become energy advocates themselves. All the research shows the more opportunities for interaction with knowledgeable people, the smoother the introduction of new technologies, and the more likely people will form positive relationships with the utility. Community-based organizations are great partners and are proving more effective than expensive, mass media campaigns. |

| | |
|--|--|
| Individual control and choice | Being able to offer consumers a true choice of programs and solutions that match their needs and budgets will involve collaboration among the regulators, utilities, and consumer advocates. Choices should be clear and simple so consumers are not overwhelmed. Language must be backed up by actual, desirable options. Hype and overselling will fall flat and only reinforce distrust. |
| Shared risk and cost | If consumers are being asked to be partners and change behaviors to help utilities deliver what is a commodity that is taken for granted, they are going to need more transparency and visibility into the financials. While not everyone will want this information, utilities (especially IOUs) will need to adopt a different approach here than has been standard practice if they want public support. |
| Value proposition of AMI and cost benefits | Even if a utility wants to discuss DR in isolation, experience shows that the other issues will come to the front of the discussion. One reason for recommending DR be placed in the broader context is that it is the only way the numbers make sense. The isolated metric of individual households' saving as much on their personal bill through DR response programs to pay for the cost of the meter will not pencil out for everyone, nor should it. |
| Smart meters (AMI) vs direct load control | If there is not community support for integration of renewables or dynamic pricing in a given jurisdiction and they are not anticipated for the coming decade, then AMI may be difficult to justify in absence of some larger societal goals. However, if this functionality is needed, then AMI is required for safe deployment. |
| Big Brother or criminal hackers | Concerns around privacy are of greatest concern to resisters and those who generally distrust their local utility. Align with policy and architecture decisions by the regulators and utilities. If utilities only gather the aggregated household usage and allow the detailed usage data to remain on the premises, with the consumer determining who has access to view that data, much of the problem is solved. This structure will also make it easier to address matters of cybersecurity. The communications strategy should reflect actual implementation. With respect to direct load control, indifferents and resisters are likely to respond negatively even if cash incentives are offered. Allowing consumers to self-select their options based on their own priorities can avoid these potential triggers for distrust and dissatisfaction. |
| Health concerns over Radio Frequency emissions | The science supports that smart meters are not a danger and emit less than mobile phones, baby monitors, and microwave ovens. Links to 3 rd party studies, especially those conducted by health professionals, confirming findings should be made available on utility websites. For customers who remain unconvinced, the utilities would do well to provide alternatives such as relocation of the meter or "organic" meters without radio transmitters. As these are likely to be a few customers with big voices, from a communications' perspective, it is better to recognize the fear is real and let them opt-out. Encourage groups focused on environmental justice to write to local media and express their support for integration of renewables enabled by smart grid. |
| Prepay | Rather than using prepay as punishment for delinquent customers, position it as a one offering in a portfolio of options to intelligently manage costs with minimal cash flow. For low-income groups, offer prepay combined with energy literacy training, LIHEAP and fuel subsidies, weatherization, saver programs, etc. |



What if consumers could choose their pricing program?



This is an invitation for innovation and creation of next practices on a policy as well as communication level. It can be validated in upcoming pilots and rollouts.

2F. SELF-SELECTION AND CHOICE

Despite the virtue of consumer choice being touted as one of the main benefits of Smart Grid, most of the pilot programs to date have assigned participants on a random basis. Self-selection based on voluntary participation in pilots has been used to criticize and question the validity of pilots.

★ Given the nature of long-term technology adoption and the clear pattern of disparate energy worldviews, perhaps random selection is not the best way to truly measure the potential power of consumer engagement?

| | |
|---|---|
| <input type="checkbox"/> Subsidy request <input type="checkbox"/> Voluntary prepay SAVER | <input type="checkbox"/> Home Generation <input type="checkbox"/> EV GREEN |
| <input type="radio"/> Flat rate <input type="radio"/> No-risk Rebate <input type="radio"/> Heatwave Pricing <input type="radio"/> Time of Use | |
| BASIC | COMFORT |

Another opportunity exists by linking subsidies with energy literacy and saver programs. Low-income consumers can become respected energy leaders and champions in their communities.

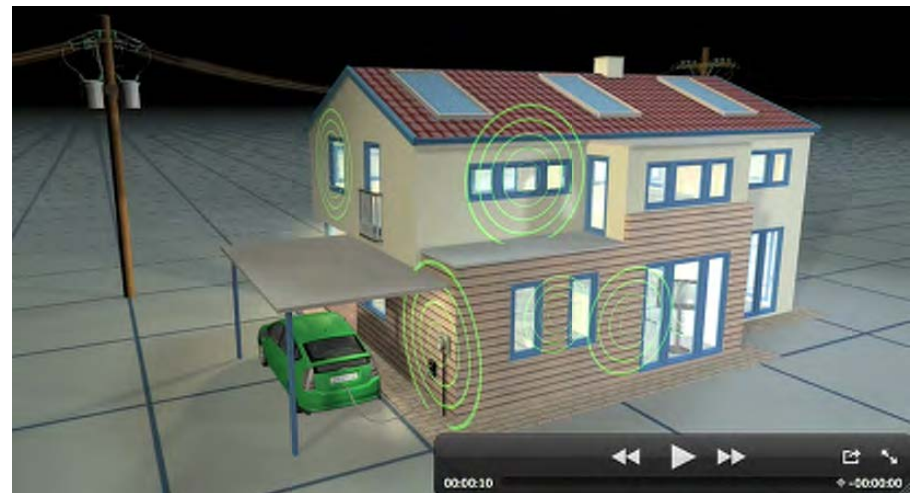
Think of this program design challenge in terms of buying a car. If the car dealership were to assign you to a given automobile at a set price based on their perception of you, you wouldn't be very happy unless they happened to match you up with the right car at the right price. The car industry has come a long way from black Model-A Fords with a global market with different vehicles, at different price points and features, with marketing messages and positioning targeting appropriate audiences.

If consumers are to be active participants rather than a captive audience, the same principles apply here. If consumers can choose the energy plan that matches their worldview and financial considerations, then they are far more likely to make it work for their household. To allow this shift in practice will clearly require the **cooperation and collaboration of regulators, consumer advocates, and utilities as well as the service and technology providers** that are part of the energy ecosystem.

From a communications perspective, if a consumer visiting a website, reading a brochure, or talking to a customer service rep is allowed to **self-identify and choose the plan that makes sense to them**; the utility doesn't have to guess what that household would want. The consumer weighs the features and descriptions of the different programs and then makes a voluntary selection.

Program labels don't need to be clever and unique enough for trademark protection as much as they need to be obvious to the people doing the choosing.

SECTION 3: NARRATIVES & STORIES



NARRATIVES & STORIES: COMING IN PART 2

A. Video narratives

Video is a particularly good medium for telling the story of the smart grid, especially when used in the context of an interactive session where people can ask questions and engage in conversation after a piece is shown.

B. Images that tell stories

Evocative imagery can give viewers a different perspective on the beauty of the transmission system or the sense of pride that comes from a child, family, or community contributing to the solution. The field personnel who work in the utility industry and the advocacy groups often come from their local communities and their commitment is beyond basic employment—there is authenticity and heroism in their dedication.

C. Consumer stories

The best voices to reassure skeptics that consumers value opportunities presented by smart energy technologies and practices are the voices of real people. Most people can instinctively hear the difference between promotional creations and actual human beings expressing their true opinions.

D. Memorable vision statements

These examples will show how to present the big picture in an integrated way that supports local modification.

E. Information architectures

The way that audiences are allowed to self-select and drill down to more detail has a big impact on how readily information is understood and absorbed.

F. Creative briefs

Examples that can be modified for use with local creative teams or agencies.

G. Provide a frame

As part of community events, organizers can provide a frame for a discussion topic and allow residents and leaders to paint pictures of implementation paths.

Appendix

Author's Bio

Judith Schwartz is an entrepreneur, marketing strategist, and communications professional on the forefront of sustainability issues, the Smart Grid, alternative energy, and the digital home. She is a Strategic Consultant to the National Action Plan Coalition. Her Silicon Valley-based firm, To the Point, designs human-centered strategies, conducts research and meta-analysis, creates narratives and messaging, facilitates cross-stakeholder conversations, and develops communications and outreach prototypes.

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We encourage readers to look at the IDEO Human Centered Design Toolkit. <http://www.ideo.com/work/human-centered-design-toolkit/>
While this toolkit is focused on NGOs and not on the smart grid, it's an excellent resource for describing this type of innovative approach.

In the same vein, we encourage readers to learn more about the Appreciative Inquiry Process where human-centered design principles are being applied to cross-stakeholder initiatives linking sustainability practices with economic development. <http://appreciativeinquiry.case.edu/>
The methodology is being applied to the design of a smart grid pilot with National Grid and the City of Worcester to be held in September 2011. <http://www.green2growth.com>

Other analysis, publications, and presentations that have informed the development of this action guide include:

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