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Re: Comments on NBP RFI: Data Access

Introduction

Consumers Union,[1] National Consumer Law Center, and Public Citizen submit the following comments in response to the U.S. Department of Energy ("DOE" or "Department") in the above-referenced matter.

Comments

I. Background

Averting the disastrous consequences of global climate change will require a restructuring of U.S. (and global) electricity generation and delivery.

[1] Consumers Union of United States, Inc., publisher of Consumer Reports®, is a nonprofit membership organization chartered in 1936 to provide consumers with information, education, and counsel about goods, services, health and personal finance. Consumers Union's publications and services have a combined paid circulation of approximately 8.3 million. These publications regularly carry articles on Consumers Union's own product testing; on health, product safety, and marketplace economics; and on legislative, judicial, and regulatory actions that affect consumer welfare. Consumers Union's income is solely derived from the sale of Consumer Reports®, its other publications and services, fees, noncommercial contributions and grants. Consumers Union's publications and services carry no outside advertising and receive no commercial support.

Currently, fossil fuel combustion constitutes 73 percent of U.S. electricity generation, which accounts for 34 percent of U.S. greenhouse gas (GHG) emissions and cost U.S. consumers and businesses $344 billion in 2007. While reducing GHG emissions to safer levels will involve a multi-pronged effort, two essential components are: 1) increasing generation from renewable sources and 2) improving the efficiency of electricity delivery and use. The Obama Administration, utility companies, environmental organizations, and others are funding and promoting deployment of "smart meters" in a modernized "smart grid" infrastructure as key to furthering these objectives. Through a mix of public and private investment, 40 million homes could have smart meters by 2015.

However, smart meter programs that are not consumer-friendly or cost-effective will not achieve the intended environmental goals – increased energy efficiency, reduced peak consumption and lower carbon emissions -- because of practical barriers to adoption or political resistance. Before the smart meter technology becomes more prevalent in the U.S. electricity market, there is an urgent need for unbiased, independent evaluations of which programs, consumer options, and policies benefit or harm residential customers across the socio-economic spectrum.

II. Benefits of Smart Grid and Smart Meters

It is important to distinguish between smart meters and smart grid. Smart grid investments are made at the transmission and distribution level, while smart meters measure electricity flow to or from an individual residence or business. By adding electronic communications technology to the existing grid, smart grid

is supposed to enable power companies to streamline operations, improve efficiency and reliability, better manage electricity distribution, and more readily accommodate renewable energy resources. Smart meters are not required for the above-mentioned benefits.

Smart meters installed in homes and businesses are intended to support the smart grid by more precisely measuring a customer's electricity use in real time and allowing the utility and transmission operators to more efficiently allocate electricity throughout a dynamic grid and cut peak load energy use. However, other technologies, such as broadband routers, can serve these functions as well as smart meters. The main cost savings of smart meters, as noted in utility filings before state PUCs, are peak load reductions from dynamic pricing and operational savings through workforce reductions for reading meters and disconnecting service.

Smart meter programs are proliferating in spite of little reliable information about how well they work, their cost-effectiveness, and their impact on consumer energy use. Most smart meter rollouts are still at the pilot or beginning stages and most raw data are privately held. As part of the $4.4 billion federal Smart Grid Initiative, the DOE is awarding American Recovery and Reinvestment Act grants for smart meter programs, and the data and analysis from these projects should be illuminating.

Proponents claim smart meters help residential customers adjust their energy consumption and keep down costs through voluntary behavioral changes, rebates for reductions, and/or time-of-use pricing. Sixty-seven percent of respondents in a recent Harris poll said that if they could see how much

electricity they were using, they would be more likely to reduce their usage. Some studies have shown that giving people access to real-time information on their energy use can lead to savings of up to 15 percent. Achieving this reduction in all homes by 2020 would be like taking 35 million cars off the road or removing 50 large coal power plants, and would save $46 billion in annual U.S. energy bills, or $360 per customer per year. However, many smart meter rollouts do not include in-home displays or real-time information, so these consumer benefits are not being delivered with the rollout of smart meters. Again, other devices, such as "smart" thermostats or in-home monitoring devices that can connect to an analog meter are available that may be more cost-effective than smart meters and achieve the same results.

Engaging consumers and ensuring certain minimum protections are in place are essential for treating communities fairly in the decisions surrounding smart meter rollouts and dynamic pricing. The following principles should be considered in modernizing electricity management to benefit consumers.

III. Delivering Consumer Benefits

All stakeholders agree that consumer choice and education are key components of a successful program. However, mere lip service to these ideas is not enough—in order to truly deliver consumer choice and education on smart meters, there are several steps needed to turn this into a reality.

A. Basic Principles:

Consumer choice.

Wherever possible, smart meter and time-of-use pricing, especially for low- volume users, should be voluntary. If smart meters are made attractive to consumers, they will choose to participate in smart meter programs. In Idaho, for example, voluntary installation of smart meters resulted in more than 50% of customers opting in. Even if a new program is opt-out, voluntariness makes smart meters more appealing and protects those consumers for whom the smart meter is not a cost-effective or beneficial option. If smart meters are not cost-effective for a particular sector of the population, but the utility wants to install meters, then these populations should not have to foot the bill for benefits they will not receive.

No one motivator or program fits all customers, and there should be flexibility in any program to accommodate low-income, low energy users, and those with special medical needs. Consumers should receive the benefit of information and be equipped with the ability to set up an automated response to new price structures right away, especially if they are expected to pay upfront through on-bill trackers or rate increases.

Health and Safety.

Remote disconnection protections. Fires, air conditioning, heating

Complaints are rising that smart meters are not consumer friendly – requiring consumers to interact with their energy system in ways they may not be

ready for, malfunctioning, and causing electricity bills to rise. AARP and others have seen evidence that the upgraded smart meter equipment will force low or fixed income consumers to make “heat or eat” kinds of choices. The simple fact that low-income or seniors may be reducing their already low energy use in reaction to tenfold price increases at critical peak pricing is not necessarily a sign of success—such reductions can be a threat to health and safety or make the consumer worse off. Most utilities have not monitored such risks adequately or sufficiently helped their customers understand and use smart meters effectively.

Too often, loss of life and health are the very real consequences for households that lose power due to inability to pay. Remote disconnection capability from smart meters has increased disconnection rates in California, sometimes with tragic results, as in the case of seniors without air conditioning and fires and poor air quality in families’ homes when they try to use alternative cooking and lighting sources. Consumer protections from disconnection should not erode with the rollout of smart meters. Health and safety reviews and home visits should still be required even if technology enables instant and remote disconnection.

Smart grid investments first.

Although a smart grid does not need smart meters, smart meters do need a smart grid. Utilities should focus on cost-effective smart grid investments while smart meters are in the development and standardization stage. If a utility has not made cost-effective and necessary upgrades to its operations and infrastructure for a smart grid, rolling out smart meters is premature. In addition,

smart meters without in-home displays or other consumer information feedback will not deliver promised consumer benefits and control that are touted as benefits attributed to smart meters.

Delivering value and transparency.

Rolling out a successful smart meter program is not just a matter of "educating" people but delivering value. Selling utility benefits in the name of consumer benefits is marketing, not true education, and utilities need to be clear about to whom the benefits are flowing, who is paying for the meters and when the benefits will be delivered. Customer costs should reflect real costs, not a hidden markup for utility benefits. For example, charging more for wind power if it does not cost more is price discrimination, not delivering value to the consumer. Similarly, the delivery of smart meters should not be about upselling the consumer, but rather, should be transparent on what value and substantive benefits consumers are being asked to pay for.

The allocation of costs and benefits must be equitable. Consumers should not pay more to use less electricity or shift their load to lower marginal cost times. If consumers cooperate with the goals of a dynamic pricing program, they should get a fair deal. Replacing an energy-inefficient appliance with an Energy Star-rated appliance promises the consumer savings on their utility bills, all else being equal. That promised value is the basis of the bargain. Similarly, smart meters and consumer feedback need to provide promised savings. If a utility cannot prove consumer benefits are assured or a smart meter rollout is actually a consumer cost, then the rollout should not hide behind "consumer

benefit" language. Smart meter rollouts need to meet avoided cost tests and deliver actual savings to consumers. If consumers pay for smart meter installation through increased rates or an on-bill tracker, consumer bills on net should decrease. If utilities save money from lower operational costs, but consumer bills do not decrease, then the utility reaps higher profits, but consumers do not reap any savings promised by smart meters.

B. Privacy

While consumers' energy profiles are not as sensitive as personal financial or medical information, it is nonetheless important to protect consumers' electricity data from third parties. Detailed energy profiles provide information on household purchases, habits and hours of habitation. This data should be protected from both for-profit and criminal uses. A reasonable balance of utility access and consumer privacy would be to allow the utility to use consumer-level data with an opt-out option and require opt-in for any use beyond the utility's operations. Aggregated, non-individualized data would not require opt-in because such data pose no privacy threat.

IV. Key Questions Regulators Should Ask Prior to Smart Meter Approval

1. Revenue and consumer costs
    a. Is the rollout revenue neutral?
    b. On net, are consumers expected to be paying more or less than they have in the past?
    c. What is the distribution of benefits and costs among income level?

d. If consumers decrease their energy use and comply with the incentives of the program (if they cut peak load during peak pricing), will they save money?
e. If the smart meter program is expected to save money and benefits are flowing through to consumers, then why is it necessary for consumers to pay via tracker or rate base increase?
f. Why are the savings not internalized within normal operations?

2. Allocation of Risk
    a. If the utility is “borrowing” money from consumers for the initial cost-effective investment, when is the payoff expected?
    b. How will the consumer savings and utility savings be tracked?
    c. How will the utility be held accountable or consumers reimbursed if these savings are less than projected?
    d. Who bears the risk if the costs of the program are greater or the savings are lower than anticipated?
    e. How will consumer data and privacy be protected?
3. Protecting vulnerable populations
    a. What protections or exemptions are in place for low-income residents or residents with special medical needs?
    b. How will remote disconnections be handled?
    c. What protections will be in place to ensure health or safety is not at risk by remote disconnections?

d. What protections or rewards will be in place for low-income or low-energy users who already use energy sparingly and cannot drastically cut usage?

4. Consumer Choice
    a. What choices are being provided to people?
    b. What education programs will be in place?
    c. What is the complaint procedure if a consumer believes her meter is malfunctioning?
    d. Will consumers have real-time information, in-home displays or other data feedback so they will have information to inform their usage choices?
    e. Will consumers have the option of viewing their bill under the old flat rate and new dynamic pricing for an initial trial period or an option to switch billing plans in an initial trial period?
    f. Does viewing real-time usage data depend on technology that some households do not have or cannot afford, such as broadband?
    g. Many consumers do not want to be constantly monitoring and reacting to energy prices. If time-of-use pricing is used, what programmable automation features are available for consumers to react to the price signals?
5. Prioritization of investment
    a. Have cost-effective smart grid investments been made prior to the rollout of smart meters?

Conclusion

For the foregoing reasons, we urge DOE to consider the above recommendations in formulating its guidance on smart grid implementation.

Respectfully Submitted,

Consumers Union

National Consumer Law Center
On behalf of its low-income clients

Public Citizen