The Challenges of New Electricity Customer Engagement for Utilities and State Regulators

Ken Costello
Principal Researcher
National Regulatory Research Institute
kcostello@nrri.org
Four Takeaways

- A major driver of electric-industry transformation is the expectation that customers will become more engaged and impose higher demands upon their utility.
- As with companies in other industries, electric utilities will have a bifurcation of customers (traditional and engaged customers); presently, we don’t know what the composition will be and how quickly customers will become active.
- This bifurcation will pose new challenges for utilities and regulators.
- Both can confront these challenges in different ways.
Recent Developments

• Customer empowerment is a major impetus of recent activities to transform the electric industry

• Conditions favor the emergence of engaged customers
  - Economic
  - Availability of new technologies
  - Younger generation’s affinity with gadgets

• The ongoing dialogue on (1) rate reforms, (2) the role of new technologies and (3) the utility business model centers on the new electricity consumer, who wants more than reliable service at just and reasonable rates

• Empowering utility customers requires
  - Availability of unbundled products and services (e.g., discretionary services outside of basic services)
  - Timely and useful information
  - Enabling technology (e.g., to lower transaction costs)
What Do Engaged Customers Really Want?

- Generally, more control and choice
- Real-time information
- The capability to reduce their utility bill
- Clean energy
- Greater than historical levels of service reliability and resiliency
- The ability to self-generate
- Opportunities as “prosumers” to sell unused electricity back to the utility

Customers want different flavors of electric service
Engaged Versus Traditional Customers

- Traditional customers view electricity as a commodity (Plain Old Electric Service, POES) whereas engaged customers see electricity more as a value-added service
- What has triggered customer engagement?
  - Initiated by new technologies or customers themselves?
  - Or a combination of both?
- Presently, we don’t know what share of customers will be anything other than traditional; the trend is clear, but it is uncertain how and how many customers will become engaged
- One thought contrary to conventional wisdom is that because electricity costs are a small percentage of the average customer’s income and total spending, it would be no surprise if most customers continue to want only POES
Additional Burden on Utilities

- Unbundling of services and their pricing
- Investments for upgrading the grid and diversifying its use
- Better communications with customers (e.g., with social media)
- Customer demand for real-time information
- Investments for greater generation diversity (e.g., clean energy technologies)
- Other investments (e.g., smart meters)
- Higher revenue and profit uncertainty
- Erosion of monopoly status
- Heightened planning uncertainty (e.g., unknown how many customers will switch from full-service to partial-service status)

Overall, utilities will incur higher costs and face greater risks
Challenges for Regulators

- What should they expect from utilities in serving new customer demands?
- Who should pay for new required investments, and how?
- What role should third-party (e.g., competitive) providers play in satisfying customers’ new demands?
- How can utilities remain financially healthy so that they can invest in technologies that would benefit their customers?
- What restrictions and liberties should third-party providers have?
- How can regulators guarantee an economic level-playing field between utilities and third-party providers?
- What barriers to consumer engagement exist today, and how can regulators mitigate them efficiently and equitably?
Primary Regulatory Objectives

- Balancing of interests (engaged vs traditional customers)
- Maximizing the long-term interests of engaged and traditional customers collectively
- Prohibiting undue discrimination against third-party providers who serve engaged customers
- Preventing cross-subsidization funded by traditional customers
- Including only prudent utility costs in rates
- Allowing reasonable returns (and perhaps an added incentive) to utilities for serving engaged customers
Options for Advancing Regulatory Objectives

- Mindful of the balancing principle underlying regulation; that is, protecting traditional customers while serving engaged customers
- Radical versus incremental approach
- Role of utilities versus third parties
- Ratemaking reforms
- Exploiting differences in customer preferences
- Third-party access to the utility distribution system
- New utility business model
- Bolstering of R&D/new technologies
Where Are We Now?

- Diversity of actions across states
- Partial adoption of smart technologies and their less-than-full exploitation
- More hype than results so far: high noise to sound ratio, as most customers seem content with the status quo
- Regulators grappling with ratemaking and new business models
- Regulators wanting to encourage DG but concern over the effect on traditional customers
- Overall, we are in a transition to something different, but uncertain over how, when and how much
- One source of doubt is the future spread of customer engagement