"Smart Grid" Spending: A Commission's Pitch-Perfect Response to a Utility's Seven Errors

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The Proposal asks BGE's ratepayers to take significant financial and technological risks and adapt to categorical changes in rate design, all in exchange for savings that are largely indirect, highly contingent and a long way off.

— Maryland Public Service Commission, Case No. 9208, Order No. 83410 (June 21, 2010).

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Like many two-word phrases ("competitive markets," "rate relief," "fiscal integrity," "light-handed regulation," "social compact," "adjustment clause," any word-pair containing "reform"), "smart grid" has a simple sound but multiple meanings. Baltimore Gas & Electric's 2010 proposal, costing $835 million, had four main components: (1) replace or upgrade all existing electric and gas meters with "smart" meters; (2) install a two-way communication network linking utility-to-meter-to-customer-appliances; (3) implement mandatory residential time-of-use rates for June through September; and (4) recover all associated costs through a surcharge, prior to completion.

In its June 2010 Order, the Maryland Commission rejected the proposal, without prejudice. Climate change proceedings bring out everyone's passions, but the Commission was dispassionate. Its Order (1) aligned risk with reward, (2) required facts rather than hopes, (3) reframed the issue as customer service rather than cost recovery, and (4) prevented politics from obscuring objectivity. The Order exemplifies effective regulation. (A subsequent order, dated August 13, 2010, approved a revised proposal, with conditions.)

The Utility's Seven Strategies

Verbal packaging (who opposes a "smart grid"?) can help sell a product, but in regulation, the product's benefits must match the costs. The utility failed this test. Its seven errors were both typical and archetypal. Commissions see them all the time.

Bridge halfway: Eager to get going, BGE failed to plan—or reveal—the full route. The Commission had to fill out the picture, detailing the need "to deploy an advanced automated distribution control system that utilizes embedded sensors, intelligent electric devices, automated substations, 'smart' transformers, analytical computer modeling tools, high-speed integrated communications, and reconfigured distribution circuits"—all omitted from the Company's cost proposal. Opinion at 2-3.

Cost understatement: The utility claimed a benefit-cost ratio of 3:2. But its cost category skipped over items essential to success: (1) "the approximately $100 million in undepreciated value of existing, fully operational meters that would be retired before the end of their useful lives"; (2) "the estimated $60 million [for] ... the new billing system necessary to implement" the new time-of-use rates; (3) "the cost of in-home display devices, which easily could exceed another $100 million"; and (4) the cost of new customer appliances that can communicate with the new meters. Why omit costs from a cost-benefit calculation?

Benefit overstatement: Smart grid investments can produce two types of benefits: operational savings (e.g., substituting remote for manual meter reading), and power supply savings (e.g., reducing future capacity and energy needs as customers change their behavior). Almost 80% of BGE's claimed savings (that is, 80% of the "3" in the 3:2 benefit-cost ratio) came from the "power supply savings" category—a category pervaded by uncertainties about future market prices and customer responses.

Excess optimism: Excess optimism is optimism-minus-risk: "My upside exceeds my downside, I think, but you cover the bet." BGE claimed confidence but avoided risk. ("Although BGE claims that the assumptions underlying its business case are sound, the Company would have its customers bear all of the risk in the event those assumptions prove incorrect." Opinion at 7.) Consumers would guarantee costs-plus-profit but receive no promise. This tactic, "betting with other people's money," shares features with Wall Street's 2009 wreckage.

New customer rates without new customer education: The success of time-of-use rates depends on behavioral change by millions who have known only average rates. "Yet the Proposal contains no concrete, detailed customer education plan, includes no orbs or other in-home displays, and provides for grossly inadequate messaging, in our view, to trigger the behavior changes contemplated under the Proposal." Opinion at 5.

Payment before performance: The customers' cost responsibility was clear, but the utility's accountability was not. Absent were metrics: specific commitments to cut demand and usage measurably. BGE forgot what every teenager learns when lawn-mowing: cut the grass, cut it well, then get paid. At bottom was an optical error: seeing ratepayers rather than consumers, pocketbooks rather than people. Peter Drucker, the leading scholar of management and leadership, a deep believer in capitalism, had it right: "Business exists to supply goods and services to customers, rather than to supply jobs to workers and managers, or even dividends to stockholders," *The Effective Executive*.

Marbles: A utility's obligation to serve includes an obligation to deploy technology to its best use, cost-effectively. The obligation is unconditional. But BGE, viewing innovation as voluntary, told the Commission, in a nutshell, "No surcharge, no deal." Opinion at 3-4 (but see fn. 5—no "line in the sand" concerning alternative cost recovery). When the game is voluntary, the dissatisfied can take his marbles home. Utility service—excellent service—is not voluntary.

The Commission's Response

Cost-effectiveness before cost recovery: BGE conditioned its willingness to innovate on assured cost recovery; the Commission conditioned cost recovery on cost-effectiveness. The purpose of regulation is to induce performance that serves the customer, cost-effectively. To induce that performance, the Commission must use the leverage provided by its statute. By pre-approving cost recovery, the Commission would lose its leverage; by conditioning cost recovery on cost-effectiveness, the Commission kept its leverage.

The dog that didn't bark—"future sunk costs": The Commission looked beyond BGE's plan, asking, "What's missing here"? It didn't take Sherlock Holmes to find out: Several hundred millions in future costs, unstated, unexamined, and unplanned for. The risk was this: After spending the first $800 million, BGE could argue that a few more hundred millions would be small relative to the benefits—the classic argument to "ignore sunk costs." The Commission got it right: There are no sunk costs before costs are sunk. Place all future costs on the table now, then compare that total to the benefits.

Not snowed by non-verifiable financial claims: Like many utilities, BGE cited the "financial community" and "the rating agencies" to support its insistence on a surcharge. Referring to these "now predictable" arguments, the Commission's arrow hit its target: "[W]e are not in the business of attempting to predict rating agency reactions, nor of calibrating our decisions to what the utilities say the agencies want or expect." Opinion at 30.

Open door, with conditions: The Commission expressed "hopes, even enthusiasm" for some type of "smart grid" initiative. But it refused to accept uncertainty over facts. It "invited" BGE to return, but only if the company backed its confidence with commitment—commitment to bear the risks of confidence misplaced. At the same time, the Commission recognized that (1) future benefits are always less certain than current costs, and (2) insisting on certainty undermines innovation. Ratepayers will share some risk, the Commission said, if we know the risks up front.

Just and reasonable decisionmaking: The phrase "just and reasonable" experiences so much repetition it almost loses its meaning. The Maryland Commission gave the phrase content: "just" aligns benefits with cost bearers; "reasonable" requires cost-effectiveness.

Conclusion

There's a form of regulation known as "If you do that again we'll clobber you—but go ahead this time." (Thanks to regulatory legend Peter Bradford.) The Maryland Commission did the opposite: "The answer is 'no,' until you get it right." Bradford has a boxing-based metaphor for three levels of regulatory willpower: "Rocky," "Rope-a-Hope," and "Canvasback." Maryland chose Rocky.

Mark Twain, in his autobiography, wrote: "The happy phrasing of a compliment is one of the rarest of human gifts, and the happy delivery of it another." I hope this essay qualifies. Congratulations to the Maryland Commission.