"Prudence": Who's Minding the Store?

Scott Hempling
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Excitement Causes Costs

Regulation has its equations: for the annual revenue requirement, for rate design, for cost of capital, for "grossing-up" taxes. Here's another:

$$PE + PIO + URR + CC = CO,$$

where PE is policy excitement, PIO is private investment opportunity, URR is under-resourced regulators, and CC is captive customers. CO is, of course, cost overruns.

Also known as "taking risks with other people's money," the equation predicts accountability slippage and dollar disappointment when (1) policymakers want something badly; (2) private investment is eager to assist; (3) regulatory resources are unavailable, distracted, or overworked; and (4) someone is stuck with the bet. The equation works in both regulated and unregulated markets, where the "captives" are ratepayers and taxpayers, respectively.

There's plenty of historical data to fit the equation: nuclear power in the 1970s, savings and loans in the 1980s, banking and housing in the aughts.

Are We at Risk Today? Seven Possibilities

These historical examples have their current counterparts. Here are seven cost drivers and their advocates' arguments:

Nuclear power: "We need more baseload plants, coal is dirty, clean coal is speculative, and renewable is unreliable, while nuclear has learned from its mistakes."

Transmission: "We've starved transmission investment for two decades, the new renewable power sources are remote from loads, and baseload generation needs to reach growing population centers."

Clean coal: "Coal is America's dominant resource, renewables cannot serve baseload demands, and nuclear remains technologically speculative, stuck in waste-storage disputes and dependent on taxpayers to cover catastrophes."
Smart grid: "It will help utilities operate more efficiently and reliably while cutting carbon emissions, cause customers to consume less, improve utility planning, and grow jobs."

Shale gas exploration: "We can be the 'Saudi Arabia of gas,' cut our foreign energy dependence, and build a low-cost 'bridge to the future,' buying time for nuclear and clean coal."

Broadband: "It's today's equivalent of the U.S. mail: Our economy, educational future and our civic society require that everyone be connected, regardless of location and income."

Water infrastructure: "Our pipes and pumping stations are a half-century old, water treatment is becoming more complex, and our population is growing while our water supply is fixed. We need to fix our plumbing."

Plenty of powerful interests, all pressing for approval of their prudence. Is regulation ready?

Does "Prudence" Get Sufficient Attention? Seven Concerns

To prevent excess costs, we must insist on utility prudence. We have the legal tool: the "just and reasonable" standard. But there remain seven obstacles.

Unclear expectations: "Just and reasonable" and "prudence" are only chapter headings. Commissions define "prudent" as "what a reasonable person would do." What would a "reasonable person" do with a billion-dollar choice among nuclear, clean coal, transmission, and demand response? Courts have defined prudence circularly, as avoiding "unreasonable costs," operating at "lowest feasible cost," and "operat[ing] with all reasonable economies." (*See*, respectively, *General Telephone Co. of Upstate New York, Inc. v. Lundy*, 17 N.Y.2d 373, 377, 218 N.E.2d 274, 277 (1966); *Potomac Electric Power Co. v. Public Service Comm'n*, 661 A.2d 131, 138 (D.C. App. 1995); and *El Paso Natural Gas Co. v. FPC*, 281 F.2d 567, 573 (5th Cir.) cert. denied, 366 U.S. 912 (1960)). Regulatory expectations range from "tolerable" to "average" to "excellent." Clarity is needed.

Intra-agency tension: Legislatures want regulators to boost favored resources while also ensuring their prudence. That places regulators in a tough spot. An agency tasked by law to propel clean coal cannot easily couple support with skepticism. Two more examples: Federal Power Act Section 219 directs FERC to boost transmission with "incentives." But prudence requires that any transmission solution beat the non-transmission alternatives. How does an agency judge that contest if it's charged with boosting one of the contestants? Similarly, the FCC has declared broadband a national priority. Can it now risk discouraging investors by probing at the prudence of broadband plans?

This is not a new problem. The old Atomic Energy Commission had the dual role of advancing nuclear power while ensuring its safety. The resulting role tension caused Congress to separate the functions; the Nuclear Regulatory Commission now handles safety while the U.S. Department of Energy funds nuclear research. The Food and Drug Administration is pressed by the pharmaceutical industry to approve drugs rapidly, even as the public expects protection from unsafe products. The Department of Agriculture publishes dietary guidelines that advise against excess fat and calories, even as its mission includes advancing the health of beef and cheese producers.

Prudence proponents get marginalized: When excitement and money surround a solution, supporters caricature prudence proponents as mission opponents, marginalizing them for having "other agendas." Some prudence-insisters dig their own holes by actually having other agendas, like competing solutions—or by having no agenda, no alternative, no obligation to grapple and decide, just a habit of saying "no." There is pressure to "go along."

Asymmetry of expertise: Assessing prudence requires deep knowledge of engineering and project costing. Absent internal expertise equal to the expertise of the planners and builders, a commission will hesitate to judge severely. It's a question of humility. See two prior essays on the problem of resource differentials here and here.

Insufficient benchmarks: We are betting billions on new things—new technology, new forms of financing, new expectations for customer behavior. Newness means the costs and benefits are unknown. Prudence review depends on comparisons, but with new products and few suppliers, and with custom design a constant feature, it is hard to comparison-shop.

Prudence review is no fun: There is no good time to determine prudence. Pre-expenditure, we lack the perspective and facts needed to make binding decisions on cost caps or cost approvals. Commissions don't like making ratepayers the risk-bearers of unknown outcomes. Post-expenditure, prudence disallowances hurt the utility, and they risk attacks on regulation itself—the clichés of "20-20 hindsight," "Monday-morning quarterbacking" and "hostile regulatory environment." Then there's the "too big to fail" dilemma, where assigning the appropriate cost consequence could damage the only company we have. The temporal middle ground—continuous prudence decisions during the construction phase—has its own awkwardnesses, by drawing the commission into monthly project management decisions.

Rhetoric and ideology: Regulation produces conflicting feelings. Americans like it when it protects, but oppose it when it obstructs. This dichotomy invites demonizing and demagogueing—from the oversimplifiers who accuse the regulatory advocates of "command and control" and the free-marketers of letting "markets run amok." It is better to concede that for untested technologies, both markets and regulation have their weaknesses: A market is effectively competitive only if consumers have substitutes, but new technologies often lack substitutes; while regulation looks skeptically at the suboptimal outcomes that experiments inevitably produce.

Conclusion

Excitement has a cost, especially if prudence review is marginalized. How do we bring prudence back to the center?