

# Joint Demonstration Projects: Options for Regulatory Treatment

*States should guide developers toward technologies that satisfy multiple objectives for multiple states. Following this approach will lead to a project approval process that reduces uncertainty, while increasing the likelihood that the set of projects serves the public's needs.*

Scott Hempling

Retail electric utilities have a state law obligation to invest and operate at reasonable cost. To meet that obligation, they must identify and implement technological advances, when those advances are cost-effective in light of alternatives. One way for utilities to identify and implement technological advances is to participate in research and development (R&D) consortia that co-fund projects that test and demonstrate new technologies. Consortia have several advantages over a single-utility experiment: they diversify utilities' risk, allow multiple experiments, spread costs and

benefits over more customers, and facilitate the participation of diverse entities and talents.

The private capital necessary to fund such consortia comes at a cost: interest payments to lenders, and return on equity to shareholders. The actual cost of capital will depend in part on the clarity of regulatory policies concerning the recovery of and return on the capital invested. This article explores those policies, by addressing two challenges arising from such R&D consortia.

The first challenge is generic to all experimental projects: To what extent should regulators require ratepayers to foot the bill for

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experiments which do not, or might not, lead to tangible ratepayer benefits? The second challenge arises from the multi-state character of these consortia: Where the consortium includes utilities and others from multiple states, yet the physical experiment, e.g., a generating plant or a demand-side innovation, is located in a single state, how might regulators maintain and exercise the regulatory authority necessary to ensure sensible project selection, prudent expenditures, and fair allocation of costs and benefits among the ratepayers in multiple states?

**W**hen meritorious projects face regulatory hesitance on one or both of these grounds, ratepayers and the general public forego benefits. On the other hand, without clear regulatory policies there is risk that some projects will achieve favored treatment without satisfying cost-effectiveness standards. The goal of this article is to help the regulatory community and prospective consortium participants develop clear principles and procedures that achieve the consistent objectives of facilitating cost-effective projects while protecting ratepayers from waste and inefficiency.

**T**his article has four main parts.

**Part I** describes how joint demonstration projects, prudently planned and organized, can be a cost-effective means of discovering and testing new technologies that benefit ratepayers. There are four types of benefits: economies of scale, risk

reduction, cost spreading, and diversity of technology and ownership.

**Part II** turns to regulatory approval criteria. Is the proposed project an effective use of ratepayer dollars, in light of all feasible alternatives? Joint demonstration projects can be prudent, and therefore recoverable through rates. The comparison to alternatives is necessary to avoid *ad hoc*

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approvals which make sense individually, but which cumulatively do not constitute a systematic use of scarce R&D resources. The “used and useful” standard should not bar cost recovery for projects that do not produce electricity, if those projects are part of an integrated, prudent demonstration program. For multi-party projects, enforcement of the prudence standard will require a state to impute to its jurisdictional utility the actions of other project participants.

**Part III** addresses two questions separate from cost recovery but key to project

appropriateness: First, will the consortium structure create unearned advantages for incumbent utilities, as compared to newcomers? A reasonable criterion for project approval should be whether the utility partners have invited diverse entities – even potential competitors – into the “club” rather than reserve spaces only for incumbent utilities. Second, does a state’s regulatory authority diminish if its utility participates in a project located in another state? Legal uncertainty in the wake of the U.S. Supreme Court’s 1988 decision in *Mississippi Power & Light* creates some risk of federal preemption of state rate review, where the project resides in a wholesale affiliate whose costs are allocated by FERC contract to retail utilities.

**Part IV** recommends next steps for regulators considering the formulation of a policy on demonstration projects. Effective multi-utility demonstrations require an effective multi-state regulatory environment. An institutional challenge is for states to identify technology priorities jointly, so that multistate projects can obtain multistate approval timely.

## **I. Benefits of Joint Demonstration Projects**

Joint demonstration projects offer multiple utilities a chance to share in the development of technologies of potential benefit to

their ratepayers. Prudently planned, organized, and implemented, they can help make the technological breakthroughs necessary to bringing consumers electricity at reasonable cost. The concept is simple: where two or more entities desire to research a particular issue, they partner and share project costs, information, revenues and other rewards. There are at least four generic benefits.

**Economies of scale:** Jointness enables participants to realize economies of scale. A utility acting alone might not be able to finance a project at its economic size and scope. Jointness also enables a single utility to participate in multiple projects, whereas isolation might limit its options. Joint projects, if part of an integrated, multiutility, multistate planning process, also avoid duplicative experiments and expenses.

**Risk reduction:** Inherent in demonstration projects is uncertainty: some projects produce breakthroughs while others prove a technology impracticable. For prudent experiments, the joint model approach acts like a portfolio, spreading the costs and benefits among multiple parties. The approach benefits ratepayer by increasing the likelihood of benefits while decreasing the cost of failures.

**Cost spreading:** Some demonstration projects cause costs by consuming significant amounts of electricity or reducing the host plant's generating capacity. If each of many utilities

conducted this type demonstration project in isolation, each would incur the full costs of the consumed electricity or lost generation.

**Diversity of ownership:** If implemented with careful attention to the goal of participant diversity, the model offers both traditional utilities (especially small ones) and independent generation companies the opportunity to participate in a

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broader array of projects than would be likely independently.

Congress has recognized the value of joint demonstration projects. The Energy Policy Act of 2005 includes the Energy Research Consortium tax credit, available to participants in joint demonstration projects coordinated by non-profit entities.<sup>1</sup>

## II. Criteria for State Commission Comfort with Multistate R&D Consortia

In determining a project's eligibility for cost recovery,

three questions are worth considering: Is the proposed project an effective use of ratepayer dollars, in light of all feasible alternatives? Were all project expenditures prudently incurred – and does the state have jurisdiction to determine prudence if the actions occur in another state under the control of another entity? How should states allocate of costs and benefits among consortium members?

### A. Is the proposed project an effective use of ratepayer dollars, in light of all feasible alternatives?

Regulatory statutes usually require that rates be “just and reasonable.” While interpretations of this phrase vary, the common purpose is to ensure that the inputs to the utility's revenue requirement reflect efficient utility service. Consider these statements: “It is the obligation of all regulated public utilities to operate with all reasonable economies.” *El Paso Natural Gas Co. v. FPC*, 281 F.2d 567, 573 (5th Cir.) (1960), *cert. denied*, 366 U.S. 912 (1960).

While “[m]anagements of unregulated businesses . . . have no alternative to efficiency,” utility management “does not have quite the same incentive”; therefore, regulatory scrutiny must ensure that all costs are “necessary and prudent.” *Midwestern Gas Transmission Co.*, 36 F.P.C. 61 (1966), *aff'd sub nom.*,

*Midwestern Gas Transmission Co. v. FPC*, 388 F.2d 444 (7th Cir.), cert. denied, 392 U.S. 928 (1968).

The "Commission [...] may review the operating expenses of a utility and thereby prevent unreasonable costs for materials and services from being passed on to rate payers." *General Telephone Co. of Upstate New York, Inc. v. Lundy*, 17 N.Y.2d 373, 377, 218 N.E.2d 274, 277 (1966).

A utility must provide service at "lowest feasible cost." *Potomac Electric Power Co. v. Public Service Comm'n*, 661 A.2d 131, 138 (D.C. App. 1995).

In applying the prudence or reasonableness standard, regulators commonly ask: How does this utility action compare to feasible alternatives? Did the utility properly consider those alternatives? Regulators therefore must ensure that comparison process leading to the selection of the to-be-funded technology is even-handed, allowing all feasible technologies to compete for the opportunity for favorable cost recovery treatment.

This principle is not new; its most recent application is in "integrated resource planning" (IRP). IRP involves forecasting future capacity; evaluating the economic, technical and political feasibility of various resources and technologies; and assessing possible contingencies and reliability problems. This practice enables commissions more comfortably to commit ratepayer dollars early in a project lifetime,

thereby reducing financial risk and capital cost.

Analysis of alternatives has special importance in the joint demonstration context. Once a commission signals comfort with the general idea of ratepayer-supported experiments, many technologies and their proponents will vie for approval. Commissions need some rational, evenhanded, fact-based, and logic-based method for

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comparing and contrasting options. Otherwise the commission is unable to make the required "just and reasonable" finding. Applying IRP-type logic thus helps guard against premature approvals of proposed demonstrations merely because the proposal gets on the regulator's docket first. Premature approval of a specific project request, without giving comparable consideration to feasible alternatives, creates a risk of self-fulfilling prophecy: the funded projects gain the most experience and the most data on their merits; consequently they compare favorably to other

technologies that are deemed "untested," "speculative" or "pre-commercial."

To produce an integrated approach rather than a case-by-case approach to demonstration project selection, the California Public Utilities Commission has created the California Institute for Climate Solutions (CICS).<sup>2</sup> A ratepayer surcharge of \$60 million per year, for 10 years, will create the initial funding. The Commission's order requires that the CICS find additional funding. CICS will have three priorities (slip op. at 4):

(1) To administer grants for mission-oriented, applied, and directed research that results in practical technological solutions and supports development of policies likely to reduce GHG emissions or help California's electricity and natural gas sectors adapt to the impacts of climate change.

(2) To speed the transfer, deployment, and commercialization of technologies that have the potential to reduce GHG emissions or otherwise mitigate the impacts of climate change in California.

(3) To facilitate coordination and cooperation among relevant institutions, including private, state, and federal entities, in order to most efficiently achieve mission-oriented, applied and directed research.

Some parties have raised questions about the Commission's legal authority to issue the order, which is subject to rehearing as of this writing.

Does the “used and useful” principle<sup>3</sup> forbid recovery of demonstration costs? A challenger might make the following argument: “A technological concept is not used and useful when it resides conceptually in the engineer’s creative mind; it is used and useful when it produces electricity. Ratepayers are not investors in knowledge; they are consumers of electricity.” This reasoning does not apply well to demonstration projects. The “used and useful” issue arose prominently during the 1980s, when some utilities sought rate recognition of costs associated with canceled nuclear plants. Some states disallowed costs, even where prudent, if those costs did not produce consumer benefit. The most prominent example was the Pennsylvania Public Utility Commission’s disallowance of \$50 million incurred by a utility to plan, initiate construction of, and then abandon a nuclear plant. The Commission found that the utility’s decision to begin constructing the plant, as well as the decision to abandon the plant, were prudent, as were all costs incurred. The Commission disallowed the \$50 million, however, based on a state statute which expressly permitted such disallowance.<sup>4</sup> Other states allowed nuclear capacity into the revenue requirement, even if that capacity exceeded current and foreseeable needs, if the construction costs were prudent.

I would not read the “used and useful” concept so narrowly as to require actual electricity production or other tangible benefits. Technological experimentation can be a reasonable, least-cost means of finding solutions that mitigate the risk of future cost increases. Research and development necessarily involves dry holes along with gushers. Even an unsuccessful or uncompleted

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project produces useful information about the inapplicability of a particular technology. In fact, to eschew reasonable technological experimentation, in favor of continued dependence on existing technologies that risk costly environmental cleanup obligations, can be imprudent. The regulatory question is whether a particular experiment is a reasonable component of a reasonable portfolio of efforts; and, whether the participants carried out the plan efficiently and evaluated the results objectively. An analogy is a utility’s purchase of insurance against unavoidable

outages or accidents. If there are no outages or accidents, the insurance could be deemed “unnecessary.” But no prudent business foregoes insurance, and no prudent industry foregoes experimentation. The same reasoning applies to defeat a “not used and useful” critique of a utility’s investment in an out-of-state experiment. If the project produces scientific or operational knowledge useful to the utility, geographic location does not limit this benefit.

**B. Were all project expenditures prudently incurred – and does the state have jurisdiction to determine prudence if the actions occur in another state under the control of another entity?**

**1. The prudence standard**

Distinct from project selection is project implementation. An approved project idea still must spend its dollars wisely. As the U.S. Supreme Court has stated: “A public utility will not be permitted to include negligent or wasteful losses among its operating charges.”<sup>5</sup> Regulatory review of management decisions is a necessary substitute for the “pressures of competitive markets, to prevent regulated companies from becoming ‘high cost-plus compan[ies]’ and to secure efficiency in the allocation of resources.”<sup>6</sup>

A regulator may not disallow costs arbitrarily, or determine prudence based on facts learned later but unknown at the time of

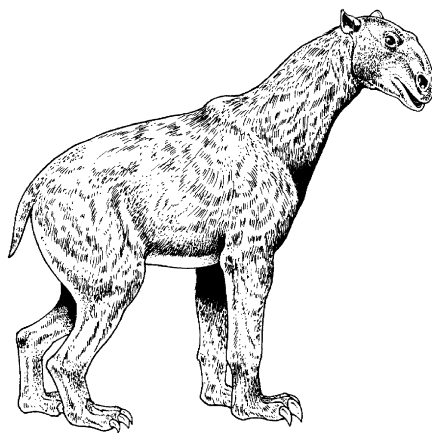
the utility's action. The question is whether actions "were prudent at the time, under all circumstances, considering that the company had to operate at each step of the way prospectively rather than in reliance on hindsight . . . [and] in light of all conditions and circumstances which were known or which reasonably should have been known at the time the decisions were made."<sup>7</sup>

## 2. Can a state impute to its jurisdictional utility the imprudence of other project participants?

A state commission will not commit ratepayer dollars to a project unless the commission can hold its utility accountable for project costs. Applying this principle to multi-party consortia involves the concept of imputation. Suppose a utility in Maryland commits to cover 10 percent of the cost of a project located in Pennsylvania and managed by a Pennsylvania utility. May the Maryland Commission investigate the prudence of the Pennsylvania utility? And if the Pennsylvania utility was imprudent, may the Commission impute that imprudence to the Maryland utility? If not, then how does the Maryland Commission protect its ratepayers from excess costs? If imputation is not available, the Maryland Commission will hesitate to approve its utility's participation.

The nuclear construction era offers examples of imputation. The Pennsylvania Commission found Philadelphia

Electric Company (PECO) responsible for the management imprudence of its construction partner, Public Service Electric and Gas. Noting that PECO's "involvement was totally inadequate in the circumstances," the Commission stated: "Regardless of any characterization which might be placed upon PECO's minor



degree of participation in the construction project, it is beyond question that PECO is responsible for the inefficiencies or imprudence of its agent PSE&G." The Commission's decision was upheld in *Philadelphia Electric Company v. Pennsylvania Public Utilities Commission*, 61 Pa. Commw. 85, 433 A.2d 610 (1981). Similarly, FERC has stated:

[T]his Commission cannot, consistent with its legal duties, approve passing through to jurisdictional ratepayers higher costs incurred as a result of negligence, mismanagement or inefficiency. It makes no difference whether such increased costs are incurred directly by the company, as a result of the utility's failure to pursue its contractual remedies for

negligence by its agent, or through the utility's structuring of a contract which left it without remedies, thus allowing the agent to pass on such costs to its principal (the utility) and thence to the ratepayers.<sup>8</sup>

In another case, a utility entered into a contract for design and procurement of pollution control devices (wet scrubbers) for its coal-fired plants with a firm that had mining experience but no utility scrubber experience. In finding imprudence, FERC cited the selection of a firm with no experience as a contributing factor, along with the utility's failure to secure a performance guarantee, its failure to sue the supplier when the devices proved defective, and evidence of self-dealing because of the supplier's and utility's common management and ownership.<sup>9</sup>

Then there is the North Carolina Commission's decision to hold the utility responsible for the errors of its contractor. The Commission quoted from the log of the utility's unfortunate floor supervisor:

"I wish Santa Claus would come early and bring me 10 good turbine mechanics and at least one rigger who knows how to rig. These High Valley men are not turbine men nor can they rig. Help."<sup>10</sup>

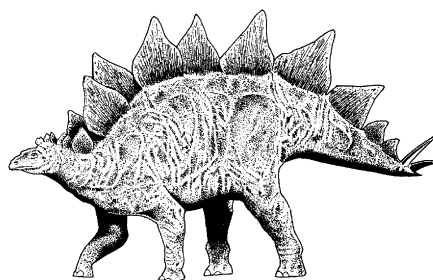
## C. How should states allocate costs and benefits among consortium members?

In any multi-partner project, each state commission must

allocate to its utility's retail ratepayers an appropriate share of the project's costs and revenues.<sup>11</sup> Allocation within multi-partner and multi-state projects is not a new challenge. States have long allocated common costs among multiple owners of generating facilities, and between utility and non-utility businesses. Two allocation principles are available, although they do not always lead to the same results: cost causation, and benefits received. Since demonstration projects are not "caused" by anyone's load but by a utility's desire to innovate – and they might not ever produce power that serves load – the cost causation principle does not offer much help. And its proxy – load share – will not work well when some of the project partners are non-utilities, such as venture capital entities, engineering firms, and technology companies.

The benefits-received principle is difficult to apply because the state commission will not know, upfront, what benefits will flow. Consider the example of a demonstration project for carbon sequestration. If successful, the technology will allow the host facility to generate revenue from the sale of emissions credits. The consortium agreement would allocate among the partners a share of the revenues from the sale of these credits. In assessing

whether to approve the project for cost recovery, the state commission would need to estimate the revenue-cost ratio, and compare that ratio to alternative uses of ratepayer funds. Such estimates would be difficult to make even with proven technologies, given uncertainty over the cost of allowances.<sup>12</sup>



### **III. Other Regulatory Concerns: Unearned Competitive Advantages, Diminution of State Authority**

#### **A. Will the consortium structure create unearned advantages for incumbent utilities?**

Technological innovation for the benefit of electricity consumers is more likely to thrive in a market which invites diversity of ideas, perspectives, and types of corporate entities. Participant diversity is not an end in itself but a means of ensuring the best ideas and performers have opportunities to succeed. By

focusing on this purpose, state commissions will help the consortium model achieve its goals.

Consortia members are volunteers, self-selected. Some members of a consortium may be providers of the same products or services (horizontal competitors); others may have a vertical supply relationship (one company providing inputs to another company). These ventures are, by definition, exclusive of those entities not included. They are not inherently anticompetitive but they are inherently exclusive.

In terms of both antitrust law and regulatory policy, there is a boundary between appropriate exclusion and anticompetitive exclusion. That risk increases in the present context, where some participants will have access to government-assisted cost recovery (as is the case with regulated utilities whose regulated service is their customers' only choice), whereas their independent generation competitors make their money in non-regulated markets only.

The risk is that regulator-assured cost recovery will give traditional utilities an advantage over independent generation and demand-side management companies, whose cost recovery depends on market success rather than regulatory mandates. The related risk is that because of their long-term relationships, traditional utilities will prefer to partner with each other than with independent companies or

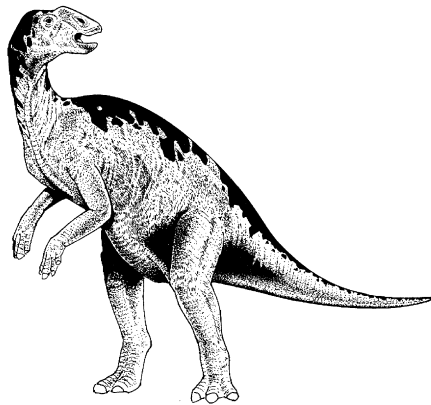
competitors. That preference, combined with regulatory cost approval, would give utility-sponsored projects a market advantage over projects proposed by non-utility companies. Just as today's allocation of experimental dollars can affect tomorrow's mix of technology choices, today's groupings in consortia partnerships affect the universe of tomorrow's competitors. The issue is not so much illegal behavior as a gradual accumulation of advantage not earned through competitive merit.

**T**he public interest requires the best possible mix of technologies and providers. To achieve that mix, we must avoid the inadvertent preferences resulting from cost recovery policies favoring some over others without regard to merit. Regulators therefore should consider establishing conditions for project approval that include participation of diverse players.

#### **B. Does a state's regulatory authority diminish if its utility participates in a project located in another state?**

A utility may recover in rates only those costs allowed by its regulators. A utility in Maryland that co-funds a venture located in Pennsylvania cannot recover its venture costs without approval of Maryland's regulators. A project's out-of-state location should not diminish a state's regulatory authority.

How the state commission exercises its authority is another matter. As discussed in Part II.B.2 above, if its utility is a non-managing partner, passively paying costs arising from decisions made by other partners, that utility's commission should signal its intent to impute to the utility the actions of its partners. Failure to do so will diminish not



the state commission's authority – which is fixed by statute – but its effectiveness. To effectuate this authority, the state commission should condition its approval of project go-ahead on the project's agreement, and utility's agreement, to share all data on project plans, costs, and benefits. Assertions of confidentiality will leave the regulator unable to exercise its statutorily required oversight, and thus place the utility's cost recovery at risk.

Project partners should not balk at this ordinary exercise of regulatory authority. Without this advance preparation, the project will lose its regulators' confidence, a result that can be more expensive than regulatory

review. And the jurisdictional utility finds itself a more persuasive partner, on matters of project quality and project prudence, knowing that its state commission expects alertness.

**O**ne approach would be to develop a standard consortium agreement that addresses these issues of inter-partner accountability and data sharing. Similarly, regulators in the various affected states should explore methods of joint data gathering and analysis so that consortium members do not experience duplicative proceedings and audits. While each state has independent legal authority, there are ways to exercise that authority through coordinated, non-duplicative processes. Through these approaches, the quality of state commission oversight would not vary with the location of the venture.

There is one circumstance that could lead to a legal diminution in state commission authority: if the project resides in a wholesale entity which then sells power (and thus allocates power supply costs) to individual retail utilities. In *Mississippi Power and Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354 (1988), the U.S. Supreme Court held that in the special circumstances of that case, the Federal Power Act preempted a state commission from examining the prudence of a utility subsidiary's share of the power supply cost allocated to it, under a FERC-jurisdictional rate, by a wholesale affiliate of a holding

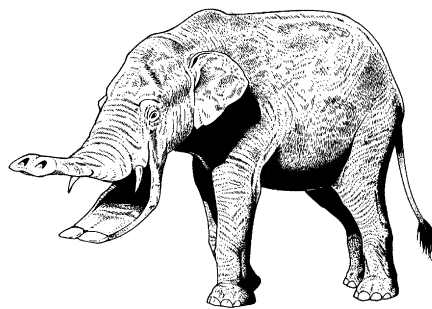


company. The Middle South (now Entergy) holding company system, consisting at the time of four retail utility subsidiaries, placed the Grand Gulf nuclear plant in a wholesale subsidiary, which then contracted with each retail utility subsidiary to sell a share of the plant's output in return for the subsidiary bearing that share of the plant's capital and operating cost. The contract between the wholesale subsidiary and the retail utility subsidiaries was a wholesale contract subject to FERC's exclusive jurisdiction. The Court found that once FERC approved the wholesale contract, the Federal Power Act preempted a state commission from disallowing from retail rates any costs incurred by a retail utility under the wholesale contract.

**B**ut preemption in *Mississippi Power & Light* depended on unique facts: a holding company controlled the planning and operations of four retail utilities, each of whom lacked discretion over power plant investment decisions. Outside of *MP&L*-type arrangements, courts and FERC have emphasized that FERC's approval of a wholesale sale does not preclude state investigation into the prudence of the purchase.<sup>13</sup> Still, due to the linkage between corporate structure and state authority, a state commission should look closely at a project's structure before allowing its utility to participate, and insist on the utility's waiving any argument of preemption.

#### IV. Recommendations for Regulators

This article has discussed the potential desirability of demonstration projects conducted by multi-party consortia. It also has addressed questions arising for state commissions considering such arrangements. Establishing



general regulatory policies in advance will encourage project sponsors to craft their proposals consistent with the states' preferences. The following are some generic steps state commissions might take toward establishing such policies:

A. Determine, through research of state statutes and case law, state commission authority to allow utility cost recovery for in-state and out-of-state experiments.

B. Develop criteria for cost recovery (e.g., CWIP, AFUDC, direct expense recovery), and the timing thereof (e.g., as costs are incurred or on completion).

C. Determine criteria and methods by which the state will establish project budgets and assign risks and rewards associated with deviations from the budget.

D. Determine criteria for identification and allocation of cost and benefits among participants and between shareholders and ratepayers.

E. Determine methods for evaluating success of the projects, and processes for feeding back evaluation results into future policies.

F. Develop procedures to ensure an integrated approach to project selection to avoid "first come, first served" bias.

G. Develop methods for communication and cooperation among state commissions, with the aim of a coordinated strategy that realizes projects' economies of scale.

To implement the foregoing recommendations on a multistate basis presents an institutional challenge for state commissions. A successful process will (1) ensure even-handed comparisons among generation technologies and between generation and non-generation solutions; (2) avoid episodic, first-come, first-served selections, all while (3) satisfying the prudence standard in multiple states.

On the commercial side, project developers can meet, negotiate, make joint decisions, and bind themselves by contract. What can states do? They face multiple obstacles to formal cooperation: Sunshine Acts, *ex parte* rules, and

the inability to enter multistate agreements without Congressional approval under the Constitution's Compact Clause.<sup>14</sup> State commissions also will have differences over technological preferences and economic development priorities. If states can find a way to mesh these preferences and priorities into a single, tentative list of favorable concepts, a systematic path towards project approval can emerge. Consider three sequential steps:

1. Informal discussions, within and among state commissions, can identify a short list of technology options – generation and non-generation – that satisfy multiple states' preferences.

2. Formal investigations in each state then can create a list of "eligible" technologies. Though no state would have been bound by the informal discussions occurring in Step 1, the individual state formal proceedings will address similar issues.

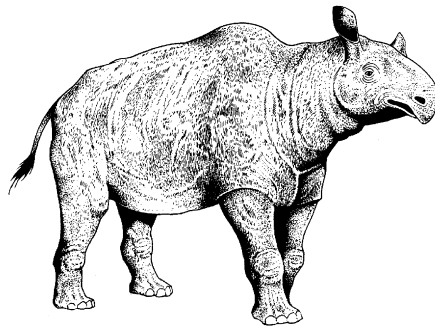
3. In a specific adjudicated case, a developer may seek from the commission advance approval for a project that tests or implements an eligible technology. In this project-specific case, the developer would have to satisfy state commission standards for prudence.

At present, the approval process for demonstration projects consists only of Step 3. I have added simply a process by which states can guide developers toward technologies that satisfy multiple objectives for multiple states. Following this approach

will lead to a project approval process that reduces uncertainty, while increasing the likelihood that the set of projects serves the public's needs.■

**Endnotes:**

1. See 26 U.S.C. § 41(a)(3) (providing a tax credit of "20 percent of the amounts paid or incurred by the



taxpayer in carrying on any trade or business of the taxpayer during the taxable year (including as contributions) to an energy research consortium"); 26 U.S.C. § 41(f)(6) (defining "Energy Research Consortia" as non-profit entities "organized and operated primarily to conduct energy research"). See also this statement from the Colorado Commission's approval of a stipulation involving Public Service Company of Colorado (PSCo):

PSCo shall work with [an environmental coalition] to seek passage of legislation in the 2005 legislative session of the Colorado General Assembly to create the framework for an innovative technology program in the state of Colorado. The innovative technology program shall promote the use of innovative technologies on a demonstration scale to generate or conserve electricity for Colorado electricity

consumers. The program shall promote the use of technologies designed to allow more efficient production or consumption of electricity with fewer emissions of greenhouse gases on a plant or system-wide basis. The program shall ensure that utilities implementing a demonstration project under its terms shall have the right to full and timely recovery of all costs associated with any subject demonstration project.

*In the Matter of the Application of Public Service Company of Colorado for Approval of Its 2003 Least-Cost Resource Plan; In the Matter of the Application of Public Service Company of Colorado for an Order Approving a Regulatory Plan to Support the Company's 2003 Least-Cost Resource Plan; In the Matter of the Application of Public Service Company of Colorado for a Certificate of Public Convenience and Necessity for the Comanche Unit 3 Generation Facility, CO PUC Decision No. C05-0049; Docket Nos. 04A-214E, 04A-215E, 04A-216E (2005).*

2. See *Opinion Establishing California Institute for Climate Solutions*, Decision 08-04-039 as modified by Decision 08-04-054 (Apr. 24, 2008), available at [http://docs.cpuc.ca.gov/published/FINAL\\_DECISION/81946.htm](http://docs.cpuc.ca.gov/published/FINAL_DECISION/81946.htm).

3. See, e.g., *Natural Gas Pipeline v. Federal Energy Regulatory Comm'n*, 765 F.2d 1155, 1157 (1985), cert. denied, 474 U.S. 1056 (1986) ("[T]he precept endures that an item may be included in a rate base only when it is 'used and useful' in providing service. In other words, current rate payers should bear only legitimate costs of providing service to them.").

4. In reviewing the state commission's decision, the U.S. Supreme Court found that the utility's prudence did not create an entitlement to recovery protected by the Fifth Amendment of the U.S. Constitution. See *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307-16 (1989).

5. *West Ohio Gas Co. v. Public Utilities Comm'n*, 294 U.S. 63 (1935). See also *Acker v. United States*, 298 U.S. 426, 430-31 (1936) (affirming regulator's responsibility to disallow costs that are

“extravagant” or “wasteful,” in case involving rates charged by marketing agencies in the Chicago stockyards).

6. *Democratic Central Committee of the Dist. of Columbia v. Washington Metropolitan Area Transit Comm’n*, 485 F.2d 786, 907 (1973), cert. denied, 415 U.S. 935 (1975).

7. *Boston Edison Company*, 46 PUR 4th 431 (1982), aff’d, *Attorney General v. Department of Public Utilities*, 390 Mass. 208, 455 N.E.2d 414 (1983).

8. *Virginia Electric Power Co.*, 15 F.E.R.C. ¶ 61,052 at p.61, 112 (1981).

9. *Minnesota Power & Light Co.*, 11 F.E.R.C. ¶ 61,313 at p.61, 659 (1980).

10. *In the Matter of Carolina Power & Light for an Adjustment to Its Rates and Charges*, Docket No. E-2, Sub 444, 72 NCUC 133 (Sept. 24, 1982).

11. Notice I said “retail.” A utility with wholesale and retail customers allocates to the latter only that percentage of its costs reflecting their load share. If the utility wants 100 percent recovery it must get FERC’s approval to charge its wholesale customers for their share.

12. For a sophisticated discussion of the factors affecting the future cost of allowances, and methods by which state commissions can evaluate utility proposals to reduce emissions, see A. Keeler, *State Commission Electricity Regulation Under a Federal Greenhouse Gas Cap-and-Trade Policy*, NRRI Report 08-0, Jan. 2008.

13. In *Kentucky West Virginia Gas Co. v. Pa. Pub. Util. Comm’n*, 837 F.2d 600, 609 (3d Cir. 1988), the state commission disallowed costs incurred by a utility purchasing under a FERC- approved contract. The Court of Appeals rejected the utility’s preemption challenge to the state disallowance. The Court cited the “long standing notion that a State Commission may legitimately inquire into whether the retailer prudently chose to pay FERC- approved wholesale rate of one source, as opposed to the lower rate of another source.” The same result applies even if the transaction is between affiliates. See *Pike County Light & Power Co. v. Pa. Pub. Util. Comm’n*, 77 Pa. Commw. 268, 273-74, 465 A.2d 735, 737-38 (1983) (holding similar to *Kentucky West Virginia*). FERC also has emphasized that it is

the state commission, not FERC, that determines the reasonableness of the wholesale buyer-retail seller’s costs:

The Commission’s decisions and its longstanding practice in setting wholesale rates support the *Pike County* exception to the *Narragansett* doctrine. The Commission has consistently recognized that wholesale ratemaking does not, as a general matter, determine whether a purchaser has prudently chosen from among available supply options.

*Central Vermont Public Service Corporation*, 84 F.E.R.C. para. 61,194 (1998). See also *Philadelphia Electric Co.*, 15 F.E.R.C. para. 61,264 (1981) (“[W]e did not mean by this order [accepting a wholesale contract] to prejudge, for our own purposes or those of the respective state commissions, a determination of the prudence of either party in entering into this transaction”).

14. Article 1, Section 10 of the U.S. Constitution states: “No State shall, without the Consent of Congress, . . . enter into any Agreement or Compact with another State . . .”



*At present, the approval process for demonstration projects consists only of Step 3.*