



National Regulatory
Research Institute

Research Projects Completed and Under Discussion November 2009

To the State Commission Regulatory Community:

NRRI's expert research staff has prepared this list of projects completed since November 2008 and potential research projects for the new fiscal year. We have organized the list according to industry sector: electricity, gas, water, and telecommunications. Your thoughts on priorities and omissions will help guide our use of your duespayer contributions. Please send us your thoughts.

Furthermore, NRRI invites any Commission staff and Commissioners to propose to take on any of these projects, or others, on a volunteer basis. Giving and receiving, building mutual support, is central to our joint mission of effective regulation.

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National Regulatory
Research Institute

Publications and Products Released and In Progress November 2008 – November 2009

Electricity—Gas—Telecommunications—Water—Multi-Utility

*All documents and selected presentation recordings are available at
www.nrri.org*

Projects Released November 2008-November 2009

Electricity

Papers

Pre-Approval Commitments: When And Under What Conditions Should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects?

Scott Hempling, Esq. and Scott Strauss, Esq., Report 08-12, November 2008

Until the last quarter of the 20th century, utility regulators commonly made cost recovery decisions concerning new capital projects only after construction was completed and the facility had entered commercial operation. Some state commissions, based on traditional statutes or recent amendments, are breaking from this traditional approach, thereby providing some level or form of cost recovery assurance prior to commercial operation (and sometimes prior to commencement of construction). Stimulating these new approaches are multiple factors: growing demand, aging infrastructure, environmental requirements, an increasing call for the construction of renewable projects, and shrinking credit markets. These considerations have led utilities to seek upfront regulatory commitments before expressing a willingness to pursue even much needed major capital projects.

This paper addresses the many and conflicting considerations raised when a utility asks a commission to commit to cost recovery in advance of the regulated utility's completion—or, perhaps, even the initiation—of construction of a major capital project. The report can be found online at http://nrri.org/pubs/electricity/nrri_preapproval_commitments_08-12.pdf.

Aligning a Utility's Interests with the Public Interest in Cost-Effective Purchased Power Transactions

David M. Boonin, Report 09-05, April 2009

Examines regulatory tools that have the potential to align the utility's private, profit-maximizing interest with the public interest regarding the cost-effective use of long-term purchased power as part of a utility's least-cost resource plan. The paper discusses the current misalignment of private with public interests and the challenge to achieve alignment. This report can be accessed online at

http://www.nrri.org/pubs/electricity/NRRI_purchased_power_alignment_tools_apr09-05.pdf.

How Can FERC Improve the Transmission Incentive Policy? Ways to Improve Clarity, Transparency, and Performance

Adam Pollock, Report 09-12, September 2009

Describes and critiques FERC's transmission incentive policy. Its analysis of FERC evaluation criteria and case law will enable readers to evaluate FERC's transmission incentive policy and intervene effectively in future cases. Additionally, the paper recommends policy alternatives to improve the policy's predictability and cost effectiveness. This paper can be accessed online at

http://www.nrri.org/pubs/electricity/NRRI_FERC_trans_incentives_aug09-12.pdf.

Presentations

Electric Resource Adequacy: The D.C. Circuit Court Rejects Connecticut's Challenge to FERC – Now Who's In Charge?

*Scott Hempling, Lauren Azar, Steve Kozey
Teleseminar, July 16, 2009*

Covered the D.C. Circuit Court's rejection of Connecticut's challenge to FERC jurisdiction. Attendees learned how the Federal Power Act of 1935 divides jurisdiction between FERC and states; discovered how regional transmission organizations, created to provide transmission service, have entered the generation domain; studied how the Court's decision will affect RTO policies in their region; anticipated how the Court's reasoning might apply outside of RTO regions; and grasped the agony of applying a 1935 statute to 2009 markets.

Electricity Law: Current Topics 2009
Scott Hempling, Little Rock, AR, July 18-19, 2009

Discussed construction costs and corporate consolidation; wholesale competition; attorney obligations to the tribunal: helps and hindrances; transmission frontier questions; and climate change.

A Charge to Regulators Regarding Capital Cost Reduction Mechanisms
David M. Boonin, NARUC Committee on Electricity, July 21, 2009

Addressed some of the issues regulators must address regarding two capital cost recovery mechanisms designed to reduce risk and the cost of financing: revenue-based financing/revenue obligation charge bonds (ROCs)/securitization, and capital cost recovery surcharges. The speech can be accessed online at http://www.nrri.org/pubs/electricity/NRRI_Boonin_Cost_Reduction_Comments_july09.pdf.

Effective Regulation: Do We Have What It Takes?
Scott Hempling, Ontario Energy Board, October 7, 2009

Addressed the attributes of effectiveness (purposefulness, decisiveness, independence); and evidence of effectiveness (“balance and preside” vs. “set standards and lead”).

“Postage Stamp” Pricing Meets Judge Posner—and Loses: Will We Ever Agree on Transmission Cost Allocation?
Scott Hempling, Garry Brown, Mike Proctor, Whitfield A. Russell, Adam Pollock
Teleseminar, October 1, 2009

With stakes exceeding \$400 million, FERC approved PJM’s region-wide allocation of 500 kV-and-above transmission costs, even though most of the lines would reside in eastern PJM. Illinois and Ohio protested. On August 6, 2009, FERC met its match: Judge Richard Posner, leader of the “law and economics” movement, one of the nation’s top regulatory thinkers. Rejecting FERC’s traditional rationale, the U.S. Court of Appeals for the Seventh Circuit declared that FERC cannot “avoid the duty of comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.” See *Illinois Commerce Commission, et al. v. FERC*, Nos. 08-1306 et al. (7th Cir. Aug. 6, 2009). This teleseminar discussed how to apply the 75-year-old phrases “just and reasonable” and “undue discrimination” to today’s transmission disputes; place “cost allocation” problems in the larger context of multi-region power supply planning; understand the complex relationship between a state’s market structure and its preferences on cost allocation policy; and decide whether the best future is (a) more zero-sum litigation, (b) log-rolling, or (c) a consensus regional plan. An audio recording is available for purchase online at http://www.nrri2.org/index.php?page=shop.product_details&product_id=1&category_id=1&flypage=flypage.tpl&option=com_virtuemart&Itemid=126&vmcchk=1&Itemid=126.

The Changing Fundamentals of Electricity Law
Scott Hempling, Silver Spring, MD, October 19-20, 2009

Potential Projects¹

AMI Transition

Ratemaking and financing approaches for stranded costs of undepreciated meters when a utility installs advanced metering infrastructure.

Carbon Pricing and Retail Electric Rates

Assessment of how a carbon tax or premium affects retail rates, especially in markets with single market clearing prices.

The Future of Wires Companies

Examine the potential effects on the transmission and distribution utilities and their customers associated with growth in distributed generation, remotely sited intermittent power, and electric vehicles.

Electric Rate Design for the 21st Century

Review rate design options associated with energy efficiency, demand response, and carbon pricing and with changes in wholesale market structures, and metering and communication technologies.

Intergenerational Cost Allocation

Address policies that shift cost responsibilities from one generation to the next, such as declining rate base, original cost rate base, CWIP in rate base, tax normalization, and net negative salvage.

Future of Nuclear Generation

A discussion of regulators' roles.

Feed-in Tariffs

A discussion of feed-in tariffs for renewable resources.

¹ Please send your thoughts on research priorities to apollock@nrri.org, dboonin@nrri.org, and shempling@nrri.org.

Natural Gas

Papers

The Outsourcing Option: Are There Some Gas Utility Functions that Others Can Do Better?

Ken Costello, Report 09-03, February 2009

Regulators should periodically ask the question “Are there some utility functions that others would perform better?” They then can create regulatory policies that induce the utilities to do the same. Outsourcing, a technique for transferring functions from the utility to third parties, has advantages and disadvantages. Focusing on capacity management and gas procurement, this report explains outsourcing, its benefits and risks, and advises commissions on how to organize and carry out inquiries on this matter. This report can be accessed electronically at http://www.nrri.org/pubs/gas/NRRI_gas_outsourcing_options_feb09-03.pdf.

The Natural Gas Industry at a Glance

Ken Costello, Report 09-06, May 2009

Provides basic facts about natural gas; describes the structure, function, and transactions of the natural gas industry; discusses the industry’s jurisdiction; and lays out current industry issues. The paper’s three appendices discuss liquefied natural gas and market developments in the natural gas sector, as well as providing graphs, statistics, and supplemental information. The tutorial can be found online at

http://www.nrri.org/pubs/gas/NRRI_nat_gas_industry_tutorial_may09-06.pdf.

Electric-to-Gas Substitution: What Should Regulators Do?

Ken Costello, Report 09-07, May 2009

Addresses the issues that state public utility commissions should address concerning electric-to-gas substitution (defined in the paper as the decision by small, generally residential consumers to use natural gas rather than electricity for certain end-use applications). The paper views electric-to-gas substitution as a consumer activity. A threshold issue is whether market barriers or imperfections, or regulatory obstacles, prevent utility customers from making rational and socially desirable decisions. The paper recommends that regulatory intervention in consumer markets should pass some cost-benefit test: There should be evidence of market problems (defined by consumers making poor choices for themselves) serious enough to justify the cost of such intervention. This paper can be found online at

http://www.nrri.org/pubs/gas/NRRI_electric_to_gas_substitution_may09-07.pdf.

How Regulators Can Help to Increase the Benefits from Utility Energy-Efficiency Initiatives

Ken Costello, Report 09-09, July 2009

The U.S. will expend substantial resources in the following decades to promote energy efficiency. The Obama administration has emphasized the importance of advancing energy

efficiency, allocating billions of dollars to the states to further this goal. State public utility commissions (PUCs) and other state entities are also aggressively pushing energy utilities to promote energy efficiency. With large energy-efficiency expenditures, it is imperative to maximize the benefits. It is not enough to implement energy-efficiency initiatives that pass some cost-benefit test; they should also produce the highest possible benefits for the dollars expended. This paper defines and discusses energy efficiency and offers principles by which to maximize its benefits, along with a list of questions every regulator should ask about the topic. The report can be accessed online at http://nrri.org/pubs/gas/NRRI_utility_energy_benefits_july09-09.pdf.

Some Basic Concepts of Market Power for State Public Utility Commissions to Consider
Ken Costello, Report 09-11, July 2009

Identifies some basic concepts that state commissions should keep in mind when assessing the competitiveness of markets they either directly regulate or monitor. Its major message is that state commissions should take a measured approach to market power. They must utilize sophisticated analysis to detect and measure market power, as well as to evaluate harm to consumers. This report can be accessed online at http://nrri.org/pubs/multiutility/NRRI_basic_market_power_july09-11.pdf.

How Should Regulators View Cost Trackers?
Ken Costello, Report 09-13, September 2009

Discusses the major issues regulators face in reviewing the costs and benefits of cost trackers. It responds to recent actions by state public utility commissions approving new cost trackers for a wide array of utility functions in both the electric and natural gas sectors. The recent approvals differ from past regulatory practices that sanctioned trackers only under highly restricted conditions. Historically, state commissions have limited the use of cost trackers, partially because of the perception that they create “bad” incentives and shift risks to a utility’s customers. The author contends that state commissions have not given adequate attention to the negative features of cost trackers. The paper can be accessed online at http://www.nrri.org/pubs/gas/NRRI_cost_trackers_sept09-13.pdf.

Presentations

Speculation in the Natural Gas Market: What It Is and What It Isn’t; When It’s Good and When It’s Bad
Ken Costello, Rafael Martinez, Jeff Davis, Eddie Roberson
Teleseminar, January 22, 2009

Addressed fundamental questions and basic concepts relating to speculation in commodity markets, focusing on the natural gas sector. The presentation began with a tutorial on speculation in commodity markets, presented current issues and concerns regarding speculation, and concluded with a description of options for state public utility commissions. After a three-person panel discussed the topic, a period of open participant discussion and Q&A concluded the teleseminar.

The Outsourcing Option: Are There Some Gas Utility Functions that Others Can Do Better?

Ken Costello, Patrick Carr, Leonard Crook

Teleseminar, March 26, 2009

Discussed Ken Costello's recently released paper on outsourcing. The presentation highlighted five key issues for state commission consideration when assessing outsourcing: (1) the benefits and costs of outsourcing, (2) affiliate relationships, (3) fees paid to a utility for the right to resell its unused pipeline and storage capacity, (4) the sharing of benefits, and (5) the selection of the outsourcing firm.

The Two Sides of Cost Trackers: Why Regulators Must Consider Both

Ken Costello, Michael McFadden, Carl Peterson, and Joseph Rogers

Teleseminar, October 27, 2009

Addressed why regulators should view cost recovery in a rate case as the "default" practice; what utilities can do to prove that cost trackers are in the public interest; the advantages of replacing cost trackers (excluding fuel and purchased gas cost trackers) with a single rate-of-return tracker; the reasons regulators give for approving cost trackers such as purchased gas and fuel cost adjustment mechanisms; the benefits of cost trackers and why utilities want them; the problems consumer groups have with cost trackers, and how to overcome their objections; and the meaning of "extraordinary circumstances" and how to determine whether or not they exist.

An audio recording is available for purchase online at

http://www.nrri.org/index.php?page=shop.product_details&flypage=flypage.tpl&product_id=3&category_id=1&option=com_virtuemart&Itemid=126.

The Regulatory Function in Advancing Energy Efficiency

Ken Costello, New Mexico Public Regulation Commission, October 28, 2009

The U.S. will expend substantial resources over the next several years to promote energy efficiency (EE). With large EE expenditures, it is imperative to maximize the benefits. It is not enough just to implement EE initiatives that pass some cost-benefit test; they should also produce the highest possible benefits for the dollars expended. State commissions, therefore, have an obligation to utility customers and the general public to ensure maximum benefits from utility EE initiatives. Aiming to equip regulators for the energy-efficient future, this presentation described regulators' obligations regarding EE initiatives, offered a history of utility EE initiatives, and discussed principles for maximizing their benefits. The outline for this presentation can be found online at

http://www.nrri.org/pubs/gas/NRRI_reg_function_energy_eff_oct09-14.pdf.

*Potential Projects*²

Long-Term Contracting

Reasons for trend in short-term contracting, evidence of any regulatory effects on contracting, the effect of contracting on infrastructure development, benefits and costs of long-term contracting, alternative regulatory policies.

Purchased Gas Adjustment Mechanisms

Current problems with some mechanisms, design issues, different options for redesigning mechanisms.

Liquefied Natural Gas (LNG)

Its role in the U.S. gas market, world LNG market conditions, risks of reliance on LNG, effect on domestic price, needed infrastructure development.

Customer Choice Programs

Rationale, evidence of effects on residential consumers, problems that have arisen, overall assessment of programs.

Assisting Low-Income Households

The problem of eligible households not receiving assistance, different ratemaking and other options, an evaluation of the options in terms of regulatory objectives.

Natural Gas Issues before FERC

A summary of major pending and closed dockets and the effect of those dockets on retail gas markets.

² Please send your thoughts on research priorities to kcostello@nrrri.org and shempling@nrrri.org.

Telecommunications

Papers

Competitive Issues in Special Access Markets

Peter Bluhm, Dr. Robert Loube, Report 09-02, January 2009

The National Association of Regulatory Commissioners (NARUC) passed a resolution in 2007 commissioning a study of special access. This report was prepared by NRRI under contract with NARUC. It summarizes data collected in 2007 and 2008, under the supervision of NARUC, from both buyers and sellers of special access.

This report addresses whether ILECs have market power over wholesale special access services in some or all areas and, if they do, whether that market power harms customers or competition. The report also addresses whether the FCC's current regulatory policies are effective at protecting consumers and sustaining a competitive market. Finally, the report addresses the FCC's knowledge of special access markets and how the FCC might improve data collections to support more effective regulatory policies. The report can be accessed online at http://nrri.org/pubs/telecommunications/NRRI_spcl_access_mkts_jan09-02.pdf.

State Commissions' Authority to Mandate Service Quality Standards When Designating Eligible Telecommunications Carriers

Peter Bluhm, Report 09-08, June 2009

A state commission with limited regulatory authority under state law recently asked whether, when acting to designate Eligible Telecommunications Carriers (ETCs), it could impose service quality performance standards on telecommunications companies as a condition of receiving federal universal service payments. Specifically, the commission asked whether federal law permits it to make compliance with state-defined quality performance standards a condition of designating a telecommunications carrier as an Eligible Telecommunications Carrier (ETC). This paper concludes that a state that has authority to hear ETC designation cases may condition those designations on compliance with state service quality standards. The state may also impose a similar condition on the annual certification that the FCC makes a prerequisite to issuing federal high-cost funds to carriers. The state's remedies may be limited, however, to denying carriers their expected federal universal service support for one or more quarters. This opinion paper may be found online at http://www.nrri.org/pubs/telecommunications/etc_service_quality_standards_june09-08.pdf.

Carriers of Last Resort: Updating a Traditional Doctrine
Peter Bluhm and Dr. Phyllis Bernt, Report 09-10, July 2009

Describes the history of local exchange COLR policy, including its legal sources. It then describes modern stresses on COLR policy and the sources of those stresses, especially the development of local exchange voice service competition. After summarizing the combined effects of these stresses, the paper makes several recommendations to states that wish to sustain ubiquitous and continuous service while making COLR policy more responsive to the current technological and legal environments. The report can be accessed online at http://www.nrri.org/pubs/telecommunications/COLR_july09-10.pdf.

A New Era in ILEC Transfers: Safeguarding Wireline Telecom Service
Helen Golding, Report 09-15, November 2009

Most commissions must give prior consent to any transfer of control of incumbent local exchange carrier assets and the associated operating authority and service obligations. Technological changes in the telecommunications industry have not obviated the need for a stable and efficient ILEC that operates consistent the public interest. In several recent and pending transactions, the nation's second-largest ILEC has sought approval to transfer its local exchange business in eighteen states to several buyers that have very different financial, managerial, and operational profiles from the incumbent. Whether the substitution will advance or harm the public interest depends on the particular facts of each transfer. This paper explores the substantive and procedural challenges for state commissions as they navigate these complex investigations. The paper can be accessed online at http://www.nrri.org/pubs/telecommunications/ILEC_transfers_nov09-15.pdf.

Potential Projects³

I. Market Structure

Dealing with Duopoly: When there's monopoly, we regulate; when there's competition, we deregulate. Today, in many areas, the incumbent LEC and the incumbent cable company have divided the residential market, particularly for customers who purchase multi-service bundles. What are the regulatory options for dealing with duopoly (rates, service options, quality of service)?

Learning from experience with corporate restructuring: Whether it is a merger, the sale of exchanges, the divestiture of a business unit (e.g., Yellow Pages), or some other change, ILEC-initiated corporate restructurings are rarely limited to a single state or a single occurrence. How well do regulators do at analyzing the results of significant corporate restructurings, so that they can learn from their experience? Do regulators need additional authority in order to enforce conditions or sanctions imposed in connection with corporate restructurings?

³ Please send your thoughts on research priorities to scott.j.rubin@gmail.com and shempling@nrri.org.

Access to bottleneck facilities: Competition in any product market or geographic market requires access to any and all “bottleneck facilities,” on terms equal to those available to the bottleneck’s owner. What are the bottleneck facilities, how are they changing, and is access policy sufficient to ensure effective competitive opportunity?

Sell-off of rural exchanges by large ILECs: Large ILECs have recently accelerated their attempts to divest themselves of more sparsely populated regions (including but not limited to high cost and rural exchanges). What are the potential pitfalls when the ownership of the exchanges changes hands? What can be done to help ensure that the successor company is qualified to provide consumers with high-quality, affordable telecommunications services and that it will continue to modernize its network capabilities?

II. Rates and Finance

Trends in local exchange rates. Legislatures in many states have reduced the state commissions’ roles in setting local exchange rates. Often, legislation imposes rate increase limits for a fixed term.

Evaluating experience with alternative regulation: Since the mid-1990s, most states have replaced traditional rate-of-return regulation with an "alternative" form of regulation.

What’s happening to rates in these states? Are rates increasing in these states more rapidly than in other states? Is there an effect on household penetration of telephone?

While the most common alt reg is some form of price cap plan, the existing plans also include significant elements of "social contract" and outright deregulation. No plan is perfect, and competitive conditions and regulatory objectives vary from state to state; thus, it probably not worthwhile to speculate as to the "model" plan. However, periodic reviews are necessary for a state commission to know whether the regulatory regime for telecommunications in its state is working as intended and serving consumers’ interests (e.g., compare actual conditions with the conditions assumed to exist when the plan was adopted, to evaluate whether the plan is producing rates for telecommunications services that are just and reasonable; whether quality of service is being maintained or improved, rather than deteriorating).

Accounting and financial information reporting in today’s regulatory environment: As price regulation and deregulation have supplanted rate of return regulation, incumbent LECs have increasingly argued that there is no need for cost accounting information. The RBOCs have convinced the FCC to eliminate the application of its cost allocation rules as they apply to those carriers—leaving a messy situation behind for states that relied upon the FCC’s separation rules as a basis for the intrastate costs. What purposes are still served by having this cost allocation information, and how can states ensure that they are getting the information they need in order to regulate effectively? In the event that "traditional" separated regulatory accounting data is either unavailable or viewed as unnecessary, what other tools or methods might work in their place?

Who should get paid for what? Intercarrier compensation, universal service and other intra-industry cross payments require more coordination, common themes and accountability to ensure that dollars go to the most deserving, most effective services and providers. In making these decisions, how relevant today are a particular business segment's rate of return? How relevant is the intrastate/interstate distinction?

III. Technology and Infrastructure

Interconnecting digital networks. ILECs may be requiring interconnection to occur solely in traditional time division multiplexing (TDM) formats. This insistence can create unnecessary costs for providers that use more modern formats, like Ethernet. The paper would examine what formats ILECs are accepting for interconnection, whether that is creating additional costs, and for whom, and how state regulators might, within their legal authority, address the issue.

Interconnecting rural networks. Not all rural ILECs are connected directly to the national toll network or to mobile service companies that serve their states. Instead, the rural ILECs often rely on larger ILECs or other networks to transport their outgoing and incoming traffic. Sometimes the rural ILECs pay for this service, but not always. The project would consider each of the various permutations of incoming and outgoing calls from rural carriers, including those aimed for national toll networks and CMRS (wireless) networks. The project would also review and digest state interconnection decisions and make recommendations about best practices, if any are apparent.

Numbering administration. How much can and should state commissions do to conserve telephone numbering resources? How can states best handle situations involving area code exhaust? What kinds of routine activities can best avoid number exhaust? What kinds of staff training is useful?

Enhanced 911 emergency services for customers who have "cut the cord": State commissions took the lead in establishing today's E911 systems, which give emergency responders precise location information when a 911 call is placed from a home phone over a traditional wireline service. For an increasing number of customers who rely exclusively on wireless phones, this automatic location information is not conveyed to the public service access point (PSAP). What can state PUCs do to increase public awareness and public safety for customers who have "cut the cord"?

Broadband: How should we define "broadband"? What are useful definitions of "unserved" and "underserved" areas? What are appropriate metrics and standards for conducting cost-benefit analyses of broadband access, and of measuring progress toward the intended level of access? What is the appropriate state commission role? What are the pros and cons of making broadband service part of carrier of last resort responsibilities under state law, or universal service fund participation under federal law?

IV. Regulatory Jurisdiction

State regulatory authority: What's left and what should we do with it? While much has been made of recent federal preemption, particularly with respect to non-traditional telecommunications services and platforms, much authority still remains with state commissions. For a state commission to use its telecommunications staff resources efficiently, it is important to identify what entities, activities and services are unambiguously subject to state jurisdiction and to determine effective ways of promoting the interests of the state's consumers on matters where it exercises joint authority with federal agencies or has the opportunity to play an advisory role.

The federal-state relationship: Should we take another look at who regulates what, and why? Is the proper allocation along the lines of functional capabilities, or is there some other method?

Should we do TA 2010? As long ago as 2004, the debate began in earnest as to whether another basic and fundamental review of the framework is appropriate. What about the distinction between information services and "telecommunications?" Is it appropriate to review some of the barriers among various industry segments? To acknowledge even that there is "bleedthrough" between traditional [broadcast] media and traditional [tele]communications, and to become more pronounced over time?

Water

Papers

Commission Certification of Small Water Utilities: The Role of Performance Standards

David Denig-Chakroff, Report 08-13, December 2008

A basic responsibility of state regulatory commissions is to establish and regulate levels of utility performance. State commissions must ensure that the utilities they regulate perform at levels that are in the public interest. Many small water utilities struggle to achieve reasonable economies of scale, financial security, effective management, customer service, technical proficiency, and reliable infrastructure. Such utilities' financial, management, and technical deficiencies make it difficult for commissions to elicit effective, efficient operations, reasonable rates, and high standards of customer service. This report (1) discusses why commissions should address performance standards for small water utilities through certification requirements, (2) discusses rules and rule language commissions can adopt to establish and maintain performance standards, and (3) describes performance standards and performance indicators commissions should establish for small water utilities. The report can be accessed online at http://nrri.org/pubs/water/NRRI_sml_wtr_perf_stds_dec08-13.pdf.

Assessment of Variable Frequency Drives for Increased Energy Efficiency at Drinking Water Utilities Supplied by Groundwater: Interim Report

Gregory A. Payne, Dr. Gregory Harrison, Department of Civil and Environmental Engineering, University of Wisconsin – Madison, Report 09-01, January 2009

Roughly four percent of all electricity generated in the United States is used for pumping and treatment in wastewater and drinking water systems. Pumping accounts for at least 85% of that electrical use by drinking water utilities. In the coming years, federal and state regulations may request more energy-demanding treatment processes such as ozonation, membrane filtration, and ultraviolet irradiation. Therefore, utilities are interested in reducing their electrical consumption as much as possible. Some studies suggest using variable frequency pump drives, instead of constant speed pump drives, to increase energy efficiency (Elliott *et al.* 2003, Denig-Chakroff 2008). The purposes of this study are to (1) quantify the changes in energy use that can be attributed to the installation of variable frequency drives at municipal water utilities; (2) determine which scenarios yield the highest energy savings, if any; (3) give businesses and utilities statistical evidence that will either support their decision to purchase a variable frequency drive or oppose it; and (4) give state regulatory commissions statistical evidence that will either support or oppose policies that encourage the use of variable frequency drives. This interim report can be accessed online at

http://nrri.org/pubs/water/NRRI_var_freq_dr_assess_jan09-01.pdf.

How Should We Regulate Small Water Utilities?

Scott J. Rubin, J.D., Report 09-16, November 2009

The challenges of regulating small water utilities are understood, but the ability to identify and implement solutions remains elusive. This paper suggests six steps that economic regulators can follow to help address the challenges of regulating small water utilities. These steps will not “solve” the problem, but they will put regulators on the path toward understanding the needs, prioritizing action, and evaluating progress. This paper is the first of several “works in progress” that will be published in the coming months to launch new topics in the Water Community. It can be accessed online in the “Water – Small Water Utilities” community at

<http://communities.nrri.org>.

Presentations

Certification Requirements as a Path to Improve Small Water Utility Operations: Options for State Commissions

David Denig-Chakroff, Webinar, December 2008

Presented and discussed a recent NRRI paper on small water utility regulatory issues, entitled *Commission Certification of Small Water Facilities: The Role of Performance Standards* (Report 08-13, available online at

http://nrri.org/pubs/water/NRRI_sml_wtr_perf_stds_dec08-13.pdf). The paper and webinar advised commissions on how to use certification requirements to elicit continuous high performance from small water utilities. Tools include performance standards, performance measures, and model rule language. A recording of this presentation is available online at http://nrri.org/index.php?option=com_content&task=view&id=143&Itemid=106.

Potential Projects⁴

Water Rate Design

Conservation rate design, statewide (single-tariff) pricing, customer class rates, water budgets (customer-specific rates), customer (meter) charge, minimum bill / minimum usage allowance, wholesale rates.

Serving Low-Income Water Customers

Conservation programs, ratemaking and billing approaches, working with community-based organizations, coordination with energy utilities.

Regionalization and Consolidation

Types of regionalization and consolidation, benefits and detriments to regionalization and consolidation, role for PUC/PSC, public/private partnerships.

Energy Market Impacts on Water Utilities

Energy cost impacts on water utilities, water utility energy conservation, water utility alternative energy (wind, solar, hydro) generation.

Special Tariff Topics for Water Utilities

Tapping fees, system development charges, line extension tariffs, late payment charges.

Drought/Emergency Response

Drought / emergency pricing, drought / emergency conservation measures, working with water resource agencies

Drinking Water Quality Regulation

Understanding the process, what's on the books being phased in, what's in the process of development, role for economic regulators.

⁴ Please send your thoughts on research priorities to scott.j.rubin@gmail.com and shempling@nrri.org.

Multi-Utility

Papers

Multi-Utility Issues at a Glance

Scott Hempling, March 2009

Since so much regulatory activity is driven by individual utility requests, there is a risk of regulation-by-silo: focusing on one industry at a time, creating staff and commissioners with expertise only in individual industries, missing the relationships and commonalities among all four infrastructures. Many regulatory challenges are in fact common to all infrastructural industries. Mastery of these challenges will aid the cross-fertilization of learning and experience, as well as consistency among regulatory approaches within a single commission. This report addresses seven of the most pressing challenges facing regulation today. The report can be accessed online at

http://www.nrri.org/pubs/multiutility/NRRI_multi_utility_issues_mar09-04.pdf.

Effective Regulation: Guidance for Public Interest Decisionmakers

NRRI Research Staff and Affiliates, March 2009 (revised edition: November 2009)

This 120-page volume, prepared by NRRI experts, contains four essays on the attributes of the effective regulator—purposefulness, education, decisiveness, and independence—followed by a summary of the electricity, gas, telecommunications, and water industries. The summaries cover physical infrastructure, transactions, jurisdiction, and breaking issues, and are useful for both veterans and newcomers.

Presentations

Pre-Approval Commitments: When and Under What Conditions Should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects?

Scott Hempling and Scott Strauss, teleseminar, February 10, 2009

Identified the considerations that regulators should take into account before moving forward with any form of an in-advance—rather than after-the-fact—approval of utility actions or costs and present certain general guidelines regulators can apply in evaluating potential pre-approval opportunities. The presentation focused on a 2008 NRRI paper authored by Hempling and Strauss entitled *Pre-Approval Commitments: When and Under What Conditions Should Regulators Commit Ratepayer Dollars to Utility-Proposed Capital Projects?* (Report 08-12). The report is available online at http://nrri.org/pubs/electricity/nrri_preapproval_commitments_08-12.pdf.

Private Equity Buyouts of Public Utilities: Preparation for Regulators

Stephen G. Hill, teleseminar, April 2, 2009

Discussed Hill's NRRI-published paper of the same name, which prepared regulators to address mergers, with a focus on private equity buyouts. The presentation analyzed the rationales for mergers and the differences between a private and a public buyout of a utility

company from both a financial and regulatory perspective, as well as the public policy implications of those differences. The presentation also outlined regulatory action that will help to ensure that the target utility continues to attract capital and execute its public service obligations at the lowest reasonable cost to ratepayers.

Issues Briefings for New Commissioners *May 7 – June 4, 2009*

NRRI invited new commissioners to attend a series of weekly “Industries and Issues” briefings by NRRI subject matter experts. These 90-minute talks were held weekly via conference call.

Potential Projects⁵

Relationship between Return on Equity and Capital Expenditures

Explore how the authorized ROE may depend on the utility’s capital expenditure program.

Fixed Costs and Fixed Charges

An examination of the relative amounts of an electric, gas, and water utility’s fixed costs and fixed costs recovered through fixed charges. Discuss rate design policy and financial implications.

Regulators’ Responsibility for the Integrity of Pension Funds

Discussion of status of utility pension funds; regulators’ responsibility to ensure financial integrity.

Commission’s Resource Needs

Assessment of the internal and external resources needed by commissions to address their responsibilities effectively and make quality public-interest-oriented decisions.

Improvement to Commission's Legislative Authority

What authority should a state commission have to achieve its public-interest goals? Issues include plant pre-approval, decisions that bind future commission decisions, management audits, and assessing the utilities for special projects.

⁵ Please send your thoughts on research priorities to apollock@nrri.org, dboonin@nrri.org, and shempling@nrri.org.

Executive Director’s Monthly Essays

Regulatory Resources: Does the Differential Make a Difference? (Part II)

November 2008

The Regulatory Mission: Do We “Balance” Private Interests, or Do We Align Them With the Public Interest?

December 2008

Low Rates, High Rates, Wrong Rates, Right Rates

January 2009

Federal-State Jurisdictional Relations: Pick Your Metaphor

February 2009

Coordinated Regulation or Jurisdictional Wrestling: Which Will Produce Better Industry Performance?

March 2009

Decisional Defaults: Does Regulation Have Them Backwards?

April 2009

Commission Effectiveness: Is It Measurable?

May 2009

Federal-State, Continued: Jurisdictional Peace Requires Joint Purpose

June 2009

Intra-Regional Relations: Can States’ Commonalities Overcome Their Differences?

July 2009

Is Learning to Regulate Like Learning to Cook?

August 2009

Regulatory Multitasking: Does It Do Long-Term Damage?

September 2009

Interconnection Animus: Do Regulatory Procedures Create a “Tragedy of the Commons”?

October 2009