

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Grid Resilience in Regional Transmission
Organizations and Independent System
Operators

Docket No. AD18-7-000

REPLY COMMENTS OF THE
ELECTRICITY CONSUMERS RESOURCE COUNCIL (ELCON),
AMERICAN CHEMISTRY COUNCIL (ACC),
AMERICAN IRON AND STEEL INSTITUTE (AISI),
CAROLINA UTILITY CUSTOMERS ASSOCIATION (CUCA),
CONNECTICUT INDUSTRIAL ENERGY CONSUMERS (CIEC),
ILLINOIS INDUSTRIAL ENERGY CONSUMERS (IIEC),
LOUISIANA ENERGY USERS GROUP (LEUG),
MULTIPLE INTERVENORS (MI),
OHIO ENERGY GROUP (OEG),
TEXAS INDUSTRIAL ENERGY CONSUMERS (TIEC), AND
WISCONSIN INDUSTRIAL ENERGY GROUP, INC. (WIEG)
(TOGETHER "U.S. MANUFACTURERS")

The Electricity Consumers Resource Council (ELCON), American Chemistry Council (ACC), American Iron and Steel Institute (AISI), Carolina Utility Customers Association (CUCA), Connecticut Industrial Energy Consumers (CIEC), Illinois Industrial Energy Consumers (IIEC), Louisiana Energy Users Group (LEUG), Multiple Intervenors (MI), Ohio Energy Group (OEG), Texas Industrial Energy Consumers (TIEC), and Wisconsin Energy Group (WIEG) (together U.S. Manufacturers) respectfully submit these comments in response to the Commission's Order issued January 8, 2018 calling for "information to the Commission on certain resilience issues and concerns identified herein to enable us to examine holistically the resilience of the bulk power system."

ELCON is the national association representing large industrial consumers of electricity. ELCON member companies produce a wide range of products from virtually every segment of the manufacturing community. ELCON members operate hundreds of major facilities and are consumers of electricity in the footprints of all organized markets and other regions throughout the United States. Reliable electricity supply at just and reasonable rates is essential to our members' operations.

ACC represents the leading companies engaged in the business of chemistry. ACC members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. The business of chemistry is a key element of the nation's economy.

AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 19 member companies, including integrated and electric furnace steelmakers, and approximately 120 associate members who are suppliers to or customers of the steel industry.

CUCA is an organization that provides a cost-effective and successful forum to address, represent, and protect the energy interests of industrial companies with operations in North Carolina before all appropriate regulatory, legislative, and judicial bodies.

CIEC is an *ad hoc* coalition of large commercial and industrial end-users that collectively employ thousands of Connecticut workers at numerous locations throughout the State. Members of CIEC both directly and indirectly participate in the markets administered by ISO New England, Inc.

IIEC is an ad hoc association of large industrial and institutional end users of electricity in Illinois who have employed approximately 90,000 people in Illinois and consumed approximately 13 billion kWh of electricity. IIEC members are permitted to purchase electricity from third-party suppliers under Illinois law and are served by

Commonwealth Edison Company and Ameren Illinois Company and thus have facilities located within PJM and MISO.

LEUG is an unincorporated association comprised of Louisiana industrial concerns that are substantial purchasers of electricity.

MI is an unincorporated association of approximately 60 large industrial, commercial and institutional energy consumers with manufacturing and other facilities located throughout New York State. Multiple Intervenors' members purchase electricity directly or indirectly from competitive wholesale markets administered by the New York Independent System Operator, Inc. (NYISO).

OEG is a non-profit entity organized to represent the interests of large industrial customers in electric and gas regulatory proceedings in Ohio.

TIEC is a trade association of large, industrial energy users within the State of Texas.

WIEG represents 30 large companies with operations in Wisconsin, which employ approximately 50,000 people. WIEG members represent many of the state's largest energy consumers including paper, malting, automobile, food processing, chemical, metal casting, and fabricating companies.

In these comments, U.S. Manufacturers make two main points.

First, "resilience" is not a new concept. It has always been one of the aspects of "reliability," which has been part of the mission of the Commission and of NERC for many years. Just recently, actions by NERC, including Essential Reliability Services efforts, have promoted reliability and resilience, and FERC has taken a number of steps to address price formation issues in the competitive markets and to promote reliability, including with respect to reactive power and frequency response. In fact, FERC initiated this proceeding with the statement that "[t]he Commission previously has

taken steps with regard to reliability and other matters that have helped to address the resilience of the bulk power system.”¹ See Section I below.

Second, in the name of resilience, numerous parties are re-characterizing their repeated efforts to obtain changes to the markets that will serve their own interests at others’ cost. “Resilience” does not warrant bailout of coal and nuclear plants, nor does it justify the price formation changes sought by PJM in this docket that would subsidize coal and nuclear plants. No action to advance resilience can be considered “just and reasonable” if it has not considered the impact to consumers and how to minimize that impact. U.S. Manufacturers urge FERC to reject such opportunism, and to address any further work on resilience in connection with the ongoing reliability initiatives of the Commission and NERC. If the power plants at issue are truly necessary for grid reliability and resilience, then U.S. Manufacturers would share the concern. Instead, we are deeply distressed by the immediate costs all consumers would face, as well as the long-term damage to the market due to proposed interventions such as the FPA Section 202(c) request recently filed with DOE by FirstEnergy Solutions.² U.S. Manufacturers oppose efforts to re-regulate a large portion of the competitive power fleet, which would render market pricing mechanisms nearly irrelevant by disrupting signals for market entry and exit.³ See Sections II and III, below.

Finally, the comments highlight an important point not addressed by the ISOs or RTOs -- that for industrial manufacturers, reliability -- avoiding uneconomic outages in the first instance -- is more important than how quickly service is restored. This impacts how investments should be allocated, and it is the basis for U.S. Manufacturers’ profound concern that efforts to subsidize uneconomic power plants in the name of “resilience” are a distraction that may be undermining the resolve of some transmission

¹ Order Terminating Rulemaking Proceeding, Initiating New Proceeding, and Establishing Additional Procedures, Docket Nos. RM18-1 and AD18-7 (Jan. 8, 2018) at P 1 (hereinafter “Reliability and Resilience Order”); *id.* at P 12.

² FirstEnergy Solutions, Request for Emergency Order Pursuant to Federal Power Act Section 202(c), March 29, 2018

³ See Devin Hartman, John Hughes, Owen Kean, and Caitlin Marquis, “Electricity Customers Want Competition,” Washington Examiner, April 10, 2018 (attached as Exhibit A).

and distribution providers in certain circumstances to fully comply with NERC Reliability Standards and utility best practices on power quality. *See Section IV, below.*

I. What Resilience Is: A Subset of Reliability, Which Has Been a Mission of the Commission and NERC for Years

Resilience is not a new concept. It already is part of the Commission's mission under the Federal Power Act. As FERC recently stated, “[t]he Commission has taken action to address reliability and other issues with regard to the bulk power system that have helped with the bulk power system's resilience, even though we may not have used that particular term”. FERC referenced initiatives such as its proceedings to coordinate wholesale natural gas and electricity market scheduling, the response to the 2014 Polar Vortex, proceedings to address fuel supply issues in ISO-NE and PJM, and NERC standards addressing bulk power system reliability.⁴ FERC observed that “these and other Commission efforts . . . address the resilience of the bulk power system . . .”⁵

This is because resilience is a subset of reliability. As FERC stated, the generally accepted definition of resilience is “the ability of the bulk power system to withstand or recover from disruptive events.”⁶ ERCOT’s filing in this docket had it right. ERCOT stated that “[b]ecause any disturbance to the bulk-power system that impairs the continuous provision of electric service has, to that same extent, impaired reliability, ERCOT/PUCT view resilience as an important subset of their existing reliability responsibilities” and that “[a]t the federal level, the identification and mitigation of resilience risks falls within the scope of NERC’s existing responsibilities”.⁷

⁴ *Id.* at P 12 (emphasis added) FERC further noted that “[w]hile none of the Commission’s efforts described above were specifically targeted at “resilience” by name, they were directed at elements of resilience, in that they sought to ensure the uninterrupted supply of electricity in the face of fuel disruptions or extreme weather threats. *Id.*

⁵ *Id.* at P 13 (emphasis added).

⁶ *Id.* at P 22.

⁷ Joint Comments of ERCOT and PUCT, Mar. 9, 2018, at pp. 2-3. PJM also observed that resilience is within FERC’s existing statutory authority that addresses reliability: The FPA defines “reliable operation” as “operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such

Withstanding and recovering from outages reduces the number and duration of outages and therefore enhances reliability. Similarly, NYISO stated:

Reliability and resilience are not necessarily separate and distinct concepts in relation to the electric system. Rather, these two concepts are highly intertwined and often indistinguishable. The NYISO shares Commissioner LaFleur's position that resilience is an element of the existing requirements related to maintaining the reliable operation of the bulk power system. The requirements for reliable operation of the electric system encompass many aspects of resiliency.⁸

U.S. Manufacturers support the views of ERCOT/PUCT and NYISO, and the statement of Commissioner LaFleur in opening this docket:

In my view, resilience — the ability to withstand or recover from disruptive events and keep serving customers — is unquestionably an element of reliability. Indeed, I believe it has already informed much of the Commission's work on both market rules and reliability standards.⁹

II. What Resilience Is Not: Justification for Coal and Nuclear Subsidies or for Wish Lists of Market Changes

Notwithstanding the Commission's rejection of resilience as a basis for tariff revisions in its Order opening this docket,¹⁰ it continues to be used in that manner by parties seeking coal and nuclear bailouts or more general market changes. As ELCON's President and CEO has stated, subsidizing inefficient generation would cause real harm:

[F]or assets that are deemed uneconomic on a long-term, forward-cost basis, states should not allow continued, subsidized operation because of localized job and other economic factors. Such efforts will likely induce greater economic harm to local businesses and manufacturers dependent on affordable electricity, and delay the planning and operation of lower cost resources.¹¹

system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements," articulating resilience concepts. Comments and Responses of PJM Interconnection, LLC, Mar. 9, 2018, at page 11 (footnote omitted).

⁸ Response of the New York Independent System Operator, Inc., Mar. 9, 2018, at pages 3-4 (footnote omitted).

⁹ Reliability and Resilience Order, concurring statement of Commissioner LaFleur.

¹⁰ *Id.* at P 14.

¹¹ J. Hughes, "Regulatory treatment of uneconomic power plants," 29 The Electricity Journal 28 (2016) (attached as Exhibit B).

Decisions on cost allocation for plants facing abandonment “must be made on a case-by-case basis and depend on the facts of the case, and consider the potential for the decision to be precedent setting,” and “[o]nly prudently incurred costs should be recovered from ratepayers, as [r]atemaking decisions that absolve utility management and investors of their responsibilities are inappropriate.”¹²

Notwithstanding FERC’s comprehensive and sound decision to reject tariff revisions relating to planned coal and nuclear retirements in Docket RM18-1, entities continue to use resilience based assertions in arguing for relief. For example, FirstEnergy Solutions’ March 29, 2018 Section 202(c) emergency order request to DOE is replete with conclusory references to resilience, in many cases selectively quoting or paraphrasing FERC and PJM statements. In this docket, PJM referenced virtually all of the potential price formation and market design changes that it has been considering in recent years, recasting the supporting rationale for them in the name of resilience.¹³ In contrast to PJM, ISO-NE’s filing in this docket focused on its perceived need to enhance fuel security from pipeline capacity constraints, which would pose an actual reliability and resilience issue.¹⁴

U.S. Manufacturers urge FERC to reject the uncompetitive subsidies and market changes being sought by First Energy Solutions, PJM and others. As FERC’s Order correctly explains, reference to resilience does not adequately support coal and nuclear studies or more general market changes. FERC stated:

While some commenters allege grid resilience or reliability issues due to

¹² *Id.* at 28-29.

¹³ Among changes that PJM now view as resilience-based include: changes to its Operating Reserve market rules and to shortage pricing; changes to its Black Start requirements; changes to energy price formation that properly value resources based upon their reliability and resilience attributes; integration of distributed energy resources, storage, and other emerging technologies; implementation of “a real-time, thirty-minute Operating Reserve market . . . that is based on a probabilistic representation of load forecast and generator performance uncertainty rather than based upon the means (or averages) of these variables;” design of the real-time Synchronized Reserve and Primary Reserve demand curves based upon on the actual uncertainty rather than the traditional “largest system contingency;” and explicit modelling of the Synchronized Reserve and Primary Reserve products in PJM’s Day-ahead Energy Market Improvement to the locational aspects of reserve products. *See generally* PJM Comments.

¹⁴ Response of ISO New England Inc., Mar. 9, 2018.

potential retirements of particular resources, we find that these assertions do not demonstrate the unjustness or unreasonableness of the existing RTO/ISO tariffs. In addition, the extensive comments submitted by the RTOs/ISOs do not point to any past or planned generator retirements that may be a threat to grid resilience.¹⁵

Any such proposals must be based on a finding that the RTOs/ISOs have unjust, unreasonable and unduly discriminatory or preferential rates or practices, and show affirmatively that the advocated change would establish rates that are just and reasonable. Courts have overturned FERC where it has failed to meet its “dual burden,” both elements of which must be supported by “principled and reasoned” analysis, and a sufficient explanation of FERC’s reasoning. Moreover, the required showings are no less stringent where non-price factors, such as resilience or reliability, are at issue.¹⁶

As FERC alluded to, expert analysis has not identified that current resilience issues pose a risk to the grid. DOE’s 2017 Staff Report to the Secretary on Electricity Markets and Reliability concludes: “while markets have evolved since their introduction, they are currently functioning as designed—to ensure reliability and minimize the short-term costs of wholesale electricity—despite pressures[.]”¹⁷ FERC staff concluded that “[i]n the electric markets, electric capacity is sufficient in all regions based on current load forecasts.”¹⁸ The North American Electric Reliability Corporation’s CEO stated that “the state of reliability in North America remains strong, and the trend line shows continuing improvement year over year”.¹⁹ More recently and specifically, NERC testified to Congress as follows:

¹⁵ Reliability and Resilience Order at P 15 (citations omitted).

¹⁶ See *Emera Maine v. FERC*, 854 F.3d 9, 21-27 (D.C. Cir. 2017). *TransCanada Power Mktg. Ltd. v. FERC*, 811 F.3d 1, 12-13 (D.C. Cir. 2015) (FERC burden to show that “reliability benefits” . . . “justify the resulting rates”); *Pub. Utilities Comm’n of State of Cal. v. FERC*, 462 F.3d 1027, 1051-52 (9th Cir. 2006).

¹⁷ Department of Energy, Staff Report to the Secretary on Electricity Markets and Reliability at 16 (Aug. 2017).

¹⁸ Winter 2017-18 Energy Market Assessment, Docket No. AD06-3 (Oct. 19, 2017), <https://www.ferc.gov/market-oversight/reports-analyses/mkt-views/2017/10-19-17-A-3.pdf>.

¹⁹ FERC Reliability Conference, Panel I: Overview of the State of Reliability, Remarks of Gerry W. Cauley, CEO of the North American Reliability Corporation (NERC) at p. 1 (June 22, 2017).

The electricity sector is undergoing significant change that is unprecedented for both its transformational nature and rapid pace, presenting new challenges and opportunities for reliability. With appropriate insight, careful planning, and support, the electricity sector can continue to navigate these changes in a manner that results in enhanced reliability and resilience. Even with all the changes underway, the bulk power system (BPS) remains highly reliable and resilient, showing improved reliable performance year over year.

Much of the focus on reliability and resilience has related to conditions in the PJM market. PJM's March 2017 report, "PJM's Evolving Resource Mix and System Reliability," concluded that the PJM region is efficiently evolving into more – and not less – flexible and resilient systems, notwithstanding the retirement of some coal and nuclear generation and changes in the generation mix. More generally, a recent report by The Brattle Group observes that "[t]he most recent surveys find that current and projected resource adequacy will remain within normal bounds and that sufficient generation resources will provide a high level of reliability against known and likely contingencies."

The ISO/RTO filings in this docket also stated that their systems are resilient.

- CAISO stated that "[t]he CAISO system has remained resilient even in the face of significant drought, extreme fires, losing SONGS, a solar eclipse, weather impacts on generation resources, and the limited operability of Aliso Canyon. Among other measures, a robust transmission system, diverse resource mix, targeted tariff provisions and market products, conservation efforts, effective coordination, and proactive planning and identification of needs have supported these results.²⁰
- MISO stated that " MISO's core foundation of ensuring regional reliability needs are met at the lowest possible cost has facilitated the creation of robust planning, operations, markets, and security mechanisms that are

²⁰ Comments of the California Independent System Operator Corporation in Response to the Commission's Request for Comments about System Resiliency and Threats to Resilience, Mar. 9, 2018, at pages 77-78 (footnote omitted).

utilized to not only identify, assess and avoid resilience threats, but also to mitigate any impacts that may occur from high-risk events. Through the collective efforts and investments . . . MISO’s grid is resilient.²¹

- NYISO stated that it had sufficient “efforts already underway (or being considered) to ensure continued reliable operation and bolster resiliency in response to the evolving nature of the bulk power system in New York.”²² In Docket RM18-1, NYISO stated that “[r]ecent NYISO analyses have all concluded that all resource adequacy criteria have been satisfied and are expected to continue to be satisfied for the foreseeable future. The NYISO has not identified any imminent threat to reliability in New York from alleged flaws in resiliency pricing.”²³
- Even PJM stated that “[t]o be clear, the PJM [Bulk Electric System (“BES”)] is safe and reliable today – it has been designed and is operated to meet all applicable reliability standards. However, improvements can and should be made to make the BES more resilient against known and potential vulnerabilities and threats. In many cases, resilience actions are anchored in, but go beyond what is strictly required for compliance with, the existing reliability standards.”²⁴

Many of the proposals referencing “resilience” would run contrary to the Commission’s long-standing policy preferences for market solutions and fuel-neutrality, and will unduly discriminate against suppliers who will be at a competitive disadvantage because they do not receive the subsidy. Beginning in 1996, when FERC Order 888 gave states the option of establishing competitive wholesale electricity

²¹ Responses of the Midcontinent Independent System Operator, Inc., Mar. 9, 2018, at pages 1-2.

²² Response of the New York Independent System Operator, Inc., Mar. 9, 2018, at page 1.

²³ Comments of the New York Independent System Operator, Inc., Docket No. RM18-1, Oct. 23, 2017, at pages 3-4.

²⁴ PJM Comments at page 4. Earlier, PJM stated that “the performance of the PJM system in response to incredibly taxing events like the 2014 Polar Vortex demonstrate the reliability and resilience of the system created by effective transmission planning and development and the energy and capacity markets.” Initial Comments of PJM Interconnection, L.L.C. on the United States Department of Energy Proposed Rule at page 25, *Grid Reliability and Resilience Pricing*, FERC Docket No. RM18-1 (Oct. 23, 2017).

markets, a key feature of the market system has been neutrality among generation technologies. Most recently, on September 7, 2017, Kevin McIntyre and Richard Glick testified before the Senate Energy & Natural Resources Committee on their nominations as Commissioners, with both emphasizing that FERC should be “fuel neutral.”²⁵

U.S. Manufacturers urge that FERC’s focus should be on continued performance of the organized competitive markets, as FERC has long embraced:

Improving the competitiveness of organized wholesale markets is integral to the Commission fulfilling its statutory mandate to ensure supplies of electric energy at just, reasonable and not unduly discriminatory or preferential rates. Effective wholesale competition protects consumers by providing more supply options, encouraging new entry and innovation, spurring deployment of new technologies, promoting demand response and energy efficiency, improving operating performance, exerting downward pressure on costs, and shifting risk away from consumers. National policy has been, and continues to be, to foster competition in wholesale electric power markets. This policy was embraced in the [Federal Power Act] and is reflected in Commission policy and practice.²⁶

The Commission’s support of competitive wholesale electricity markets has been grounded in the substantial and well-documented economic benefits that these markets provide to consumers. . . . At the same time, however, the Commission has continued to ensure that reliability is at the forefront of its responsibilities. The Commission’s endorsement of markets does not conflict with its oversight of reliability, and the Commission has been able to focus on both without compromising its commitment to either.²⁷

Although the competitive markets are not perfect, the current, historically low electricity prices that have resulted from their operation have substantially benefited the competitiveness of the U.S. manufacturing sector that depends upon affordable and

²⁵ See, e.g., U.S. Senate Committee on Energy and Natural Resources September 7, 2017 Hearing: Pending Nominations Questions for the Record Submitted to Mr. Kevin J. McIntyre, https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=1E0AF72C-362D-4068-8C84-5BE2D84A301D (extensive references to fuel neutrality and resource neutrality).

²⁶ Order No. 719, 125 FERC ¶ 61,071 (2008) at P 1.

²⁷ Reliability and Resilience Order at P 11.

reliable energy supplies. Exaggerated resilience-based claims should not be permitted to cause substantial harm to the electricity markets and the broader economy.²⁸

III. FERC Should Reject PJM's Price Formation Proposal

In its filing in this docket, PJM requested that FERC order the RTOs/ISOs, in 9-12 months after its final order, to file "any proposed market reforms and related compensation mechanisms to address resilience concerns," highlighting that "improvements to energy price formation that properly values resources based upon their reliability and resilience attributes" should be included.²⁹ A focus is on "retaining and attracting resources with attributes needed to ensure grid resilience."³⁰

It has been uniformly recognized, at regional and national levels, that resilience claims do not justify subsidies to delay retirement of coal and nuclear plants. In an article published in The Electricity Journal on regulatory treatment of uneconomic power plants, ELCON's President and CEO set out the following principles, which U.S. Manufacturers urge FERC to follow here:

[G]enerating units that are expected to be uneconomic on a long term, forward-cost basis should generally be retired and abandoned. . . .

[C]ontinued, subsidized operation because of localized job and other economic factors . . . will likely induce greater economic harm to local businesses and manufacturers dependent on affordable electricity, and delay the planning and operation of lower cost resources. . . .

[T]here are increasing attempts to maintain the profitability of some plants with ratepayer-funded subsidies. This shifts the business risk from the utility – where it can be managed – to the utility's customers. To the extent these plants are otherwise deemed uneconomic, this also delays the

²⁸ For the reasons set forth above, the Commission should not seek to subsidize uneconomic generation in the name of resiliency. If, *arguendo*, the Commission does elect to take formal action in this docket, it should refrain from seeking to impose a "one-size-fits-all" solution to resiliency issues. To the extent certain ISOs and RTOs may face reliability and/or resiliency challenges, they tend to differ – in type, magnitude and/or scope – from region to region. For instance, the gas supply challenges existing in ISO-NE are very different from the issues being confronted in PJM, and both of those regions differ materially from the markets administered by the NYISO. Accordingly, to the extent any resiliency issues exist that potentially warrant market rule changes, those changes are best addressed on an individual region basis, and preferably in the first instance through each ISO/RTO's stakeholder governance process.

²⁹ PJM Comments at pages 6, 65, 68.

³⁰ *Id.* at page 80.

planning and operation of more cost-effective resources that can be both profitable to the utility and lower cost to its customers. . . .

Unregulated merchant power plants are not entitled to any recovery of unamortized book costs or other costs of abandonment.³¹

IV. The Impact of Transmission and Distribution Outages on Manufacturing Plants

An issue not addressed by the ISOs or RTOs is the impact of T&D outages and power quality events on manufacturing plants. The member companies of U.S. Manufacturers are reporting an increase in power outages that result in multi-million dollar damage to their manufacturing facilities due to the interruption of critical equipment and processes.³² These are both outages of the Bulk Electric System (BES) and sub-BES distribution systems. The sub-BES distribution systems are exempt from NERC Standards and enforcement. It is not clear which type facilities are driving the trend, but the distribution system is immune from the requirements of section 215 of the Federal Power Act. This can create an incentive for some utilities to neglect this infrastructure, vital in supporting the reliability experienced by ultimate end-use consumers. The utilities responsible for the outages often emphasize how quickly service is restored, but speed in restoration is not what is needed--rather it is continued reliable service. Swift restoration—perhaps the defining attribute of resilience—is little solace to manufacturers because the damage to the equipment and product has been done, and it may take weeks to repair the plant and restore production. The lesson here is simple: efforts to subsidize uneconomic power plants in the name of “resilience” may be a distraction that may be undermining the resolve of some transmission and distribution providers to fully comply with NERC Reliability Standards and utility best practices on power quality.

³¹ J. Hughes, *supra* note 11.

³² In addition to the immediate cost consequences of unplanned outages, the community and workers can be exposed to significant health, safety and environmental risks.

V. Conclusion

FERC should continue to address any legitimate resilience issues as a subset of its overall reliability initiatives, but not allow spurious claims of resilience to cause tariff changes (such as subsidies to uneconomic coal and nuclear plants) that would not satisfy the standards of the Federal Power Act.

Respectfully Submitted:

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Dated: May 9, 2018

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused to be served the foregoing document upon each person designated on the official service list compiled by the Secretary of this proceeding.

Dated at Washington, D.C.: May 9, 2018

/s/ W. RICHARD BIDSTRUP
W. Richard Bidstrup

EXHIBIT A

Devin Hartman, John Hughes, Owen Kean, and Caitlin Marquis, "Electricity Customers Want Competition," Washington Examiner, April 10, 2018

Opinion

Electricity customers want competition

by [Devin Hartman](#), [John Hughes](#), [Owen Kean](#), and [Caitlin Marquis](#) | April 10, 2018



Any emergency that may exist is limited to the financial condition of companies that bet against market forces. Such companies do not deserve bailouts. (iStock)

President Trump [recently announced](#) that the Energy Department is reconsidering [funneling emergency aid](#) to unprofitable power plants in response to a request from a bankrupt company. But experts agree that no grid emergency exists, and that such action would cost consumers billions and destroy market competition.

Indeed, subsidizing troubled companies would constitute an extreme measure at consumers' expense. It's about time consumer voices took control of the grid narrative.

The leader of the bailout push is FirstEnergy Solutions, a company that recently declared bankruptcy because some of its coal and nuclear plants are not competitive in today's market.

The company asked Energy Secretary Rick Perry to declare a grid emergency under Section 202 of the Federal Power Act to keep plants online to “[serve the public interest](#).”

Yet such action would be a clear abuse of statutory authority. The Energy Department’s own [technical report in 2017](#) found that the bulk power system is performing reliably. Clearly, “serving the public interest” actually means letting markets run their course.

If the plants were necessary for grid reliability and resilience, then customers would share FirstEnergy’s concern. Instead, electricity users are deeply distressed by the immediate costs they could face, as well as the long-term damage to the market, due to the proposed intervention. Specifically, FirstEnergy’s proposal would re-regulate a large portion of the competitive power fleet, which may render [market pricing mechanisms nearly irrelevant](#) by disrupting signals for market entry and exit.

FirstEnergy requested the subsidies for plants in the PJM Interconnection, which is the marketplace in the Mid-Atlantic region where its plants reside. Yet [PJM](#), PJM’s [independent market monitor](#), and PJM’s [customers](#) all agree that these plants are not necessary to keep the lights on. PJM, which thoroughly evaluates reliability impacts of planned plant retirements, has [repeatedly disagreed](#) with the “fundamental assertion that there is an emergency.” In fact, the PJM system has [supply in excess](#) of its reserve target. PJM’s market monitor, which objectively evaluates the performance of PJM markets, notes that the PJM markets work well and deliver the [benefits of competition to customers](#), pointing out that the biggest problem PJM faces is [excessive government intervention](#).

The fictitious crisis might be more credible if PJM hadn’t been experiencing the effects of large coal and nuclear retirements for the better part of a decade. In PJM, more than [20,000 megawatts of coal capacity](#) have retired since 2011. The primary reasons are declining demand and [massive new investment](#) in low-cost natural gas-fired plants, which are strategically sited to minimize their fuel costs and maximize their grid value. The results have been [robust reliability metrics](#) and lower costs to customers. This is exactly what customers hoped for when states in PJM adopted the competitive market model.

As the backbone of the manufacturing, technology, retail, and service industries, we know what it means to compete, and we care deeply about affordable, reliable electricity. We benefit when our energy suppliers compete under fair, efficient rules, and when we have options to choose our energy sources and to take increased control of our energy use and costs. Subverting electricity markets, on the other hand, puts consumers last.

The triumph of our economy is rooted in private capital accepting risk and seeking reward. Markets work best when they facilitate new investment in low-cost resources and drive high-cost resources out of the market. Provided that the fates of coal, nuclear, renewables, natural gas, and all technologies are market-driven, consumers will benefit.

This is not an issue of coal and nuclear versus renewables and natural gas; this is about customers versus rent-seekers, good versus bad governance, and markets versus destructive government intervention.

The grid is in transition, not crisis. In fact, it is undergoing a healthy and beneficial transformation. The crisis could occur if we let government, instead of markets, determine investment decisions.

Any emergency that may exist is limited to the financial condition of companies that bet against market forces. Such companies do not deserve bailouts. Instead, they should face their creditors and reposition themselves for the energy system and economy of the future.

America's families and businesses deserve a government that upholds fair competition. Everybody should play by the same rules. As electricity consumers and experts, we urge the Trump administration and Energy Department to champion competition and good governance by rejecting baseless calls to bailout unprofitable power plants.

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EXHIBIT B

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Regulatory treatment of uneconomic power plants

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ABSTRACT

A variety of factors, some intended, some not, are increasingly putting the useful economic life of electric generating units at risk. Many of these units are large baseloaded coal-fired and nuclear plants that historically have been the crown jewels of utilities' resource portfolios. Their premature retirement and abandonment is challenging state regulators and policymakers who must deal with the potentially adverse economic consequences, including ratepayer impacts. This position paper recommends the appropriate regulatory treatment (including cost recovery) of the retirement and abandonment of uneconomic power plants. It also addresses how regulators should determine whether or not any plants are indeed uneconomic on a long-term, forward-cost basis.

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There are potentially three types of generating assets at issue: (1) existing "legacy" assets that were rate-based by a traditionally regulated electric utility; (2) existing assets of unregulated merchant affiliates of regulated utilities; and (3) existing assets of unregulated merchant generating companies unaffiliated with regulated utilities. Generating plants that are still under construction is a variation of these three types. Regardless of ownership, generating units that are expected to be uneconomic on a long-term, forward-cost basis should generally be retired and abandoned. The decision to retire and abandon a plant should not be based solely on short-term market conditions. If such plants are uneconomic based on short-term market conditions, the applicable state may choose to balance the rate impact on consumers with the need to temporarily subsidize these plants until short-term market distortions or uncertainties have been resolved. On the other hand, for assets that are deemed uneconomic on a long-term, forward-cost basis, states should not allow continued, subsidized operation because of localized job and other economic factors. Such efforts will likely induce greater economic harm to local businesses and manufacturers dependent on affordable electricity, and delay the planning and operation of lower cost resources.

Unregulated, merchant generation that is unaffiliated with a regulated utility is not entitled to any form of regulatory relief that

results from changing market conditions or environmental regulations.

Regardless of ownership, the retirement and abandonment of certain uneconomic power plants may be temporarily delayed if such units have been independently verified as necessary for the reliable operation of the bulk power system.

The unamortized book value of existing assets of affiliate merchant entities that are deemed uneconomic or unprofitable should not be afforded any opportunity for cost recovery unless such action significantly impairs the credit rating of the regulated affiliate. Regulators should take actions such as ring fencing to prevent this spillover effect. The uneconomic legacy assets of traditionally regulated utilities should be afforded some degree of cost recovery to balance the rate impact on consumers with the financial impact on the utility. Utilities should be denied full recovery of such costs to provide incentives for efficiency in reducing those costs in the first place.

In determining the appropriateness of allowing pass-through of abandonment costs, commissions should adhere to certain principles:

- Decisions must be made on a case-by-case basis and depend on the facts of the case, and consider the potential for the decision to be precedent setting. In addition, state statutes and previous commission and court actions will influence the decision.

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- Only prudently incurred costs should be recovered from ratepayers. Ratemaking decisions that absolve utility management and investors of their responsibilities are inappropriate. Allowed cost recovery should be net of any salvage value, past stranded cost allowances, the value of any assets with market values above book value, and income tax reductions.
- The amortization period should be as long as possible consistent with maintaining the utility's financial viability and reducing the rate impact on customers. Securitization – in the form of ratepayer obligation charges or ROC bonds – is an appropriate long-term financial solution for dealing with prudently incurred unamortized balances and other abandonment costs. But not all states allow securitization.
- Utilities should not be allowed to earn a return on the unamortized balance or other abandonment costs.
- Prudently incurred costs represent a fixed investment by the utility incurred to meet anticipated growth in system peak demand. Recovery of these costs from ratepayers, if appropriate, should be accomplished on the basis of each customer class's contribution to system peak demand(s).
- Uneconomic power plants should not be allowed to continue operation by forcing utility customers to subsidize the plants' owners with out-of-market contracts.

1. Background

During most of the long history of the U.S. electric industry, generation was owned almost exclusively by regulated electric utilities. Except for isolated cases, independently owned, non-utility or customer-owned generation was only made feasible by the enactment of the Public Utility Regulatory Policies Act of 1978 (PURPA). The restructuring of the U.S. electric industry that began in the mid-1990s included the restructuring of generation ownership. In 1997, only 1.6% of U.S. generation was produced by independent, merchant generators. Many states that restructured their jurisdictional utilities mandated the divestiture of generation. By 2002, 25% of generation was owned by merchant companies (including utility affiliates). By 2012, it was over one-third. The share of nuclear generation owned by merchant companies increased from zero in 1997 to almost 50% in 2012.¹ One of the core objectives of restructuring was to shift the ownership and operational risk of power plants away from retail customers. In exchange, the owners of the assets were able to sell power at market-based prices and not rates based on cost-of-service.

A combination of factors has rendered many existing coal-fired and nuclear power plants uneconomic and at risk of early retirement or abandonment. Most notable are market conditions such as low natural gas prices and environmental regulations that have increased the cost of coal-fired generation. Another, perhaps more significant factor, is federally subsidized wind and solar energy resources. In organized markets such as MISO or PJM, these factors can interact with the short-term-oriented market design and provide little in the way of long-term price support for baseloaded generation.

The utility owners of power plants generally make the decision to retire them when their expected costs exceed their expected revenues over the remaining life of the plants. Historically low prices for natural gas is only one driver that is reducing the potential revenues earned by these plants because gas-fired generation is now setting marginal wholesale prices in many

regions. Many utilities are also facing reduced demand for their product. And more importantly a rash of new environmental requirements have also sharply increased costs and when and if CO₂-related regulations are implemented such costs will be even more significant. Together these factors have accelerated the need to retire the unprofitable plants and the amount of capacity potentially at risk is considerable. For example, the Energy Information Administration (EIA) projects that 40–101 GW of coal-fired generation and 46–62 GW of natural gas/oil-fired generation are at risk of retirement through 2040 depending on how (and if) the Clean Power Plan is implemented. In addition, the North American Electric Reliability Corporation (NERC) in its assessment of the Clean Power Plan places 31 GW of nuclear capacity at risk of retirement by 2030.

ELCON is concerned with three aspects of this situation. First, the impact on rates resulting from the cost recovery of the unamortized book value of the assets. In addition to asset cost recovery, there are expenses associated with retiring coal units related to asbestos removal, ash pond closure, and other mitigation efforts such as closing water intake tunnels to the plants. Nuclear plants have similar asset retirement obligations associated with the safe decommissioning of the plant. The asset owners of these plants must make maximum use of decommissioning funds that were accumulated over the useful life of the plant.

Second, there needs to be a process for identifying truly uneconomic assets that may be subject to special regulatory treatment. This is necessary because recent decisions to retire and abandon coal-fired and nuclear plants have been based on short-term market anomalies in wholesale power markets.² This is particularly true of plants that sell power into the so-called organized markets, which have struggled to provide stable long-term price support for investments in long-life assets.

Finally, there are increasing attempts to maintain the profitability of some plants with ratepayer-funded subsidies. This shifts the business risk from the utility—where it can be managed—to the utility's customers.³ To the extent these plants are otherwise deemed uneconomic, this also delays the planning and operation of more cost-effective resources that can be both profitable to the utility and lower cost to its customers. But if these plants are uneconomic based on short-term market conditions, the applicable state may choose to balance the rate impact on consumers with the need to temporarily subsidize these plants until certain short-term market distortions or uncertainties have been resolved. This might require, for example, the redesign of the organized markets or the resolution of litigation associated with new environmental regulations.

Once retired and abandoned, the plants cease to produce electricity and are no longer "used and useful." Traditional ratemaking principles deny further cost recovery in rates. However, disallowing pass-through of unamortized balances and other abandonment costs may result in higher utility financing costs. In such circumstances, the PUC must balance the rate impact on consumers with the financial impact on the utility.

2. ELCON's position and recommendations

Utility regulation is often viewed as a substitute for market competition. In a competitive market, a company's investment in

¹ Severin Borenstein and James Bushnell, *The US Electricity Industry after 20 Years of Restructuring*, Energy Institute at Haas Working Paper WP 252R, Revised May 2015.

² "Short-term" is relative to the lifespan of such plants.

³ Some jurisdictions are attempting to sustain these plants with non-bypassable ratepayer subsidies. The justification for such actions may vary from state to state but usually are one of the following: (1) coal-fired and nuclear plants are baseload and are needed to maintain reliability; (2) nuclear plants are "low carbon" and are needed to help states meet carbon policy objectives; and (3) jobs and the local economy are dependent on these plants.

an abandoned facility could not be recovered from its customers. The company and its shareholders would bear the risk and the cost associated with an investment. On this basis, a utility's investors should bear the costs associated with a retired plant.

On the other hand, competitive companies are not obliged to provide service to their customers. Therefore, on a case-by-case basis, it may be appropriate for ratepayers to share with investors the responsibility for some portion of prudently incurred costs, particularly if the utility's financial viability is at risk.

The U.S. electric industry, particularly the generation sector, is a mixture of regulated and unregulated asset owners and any policy on the opportunity to recover the unamortized book value and other retirement costs from utility customers should reflect this hybrid structure. Generally, the following determinations apply:

- **Traditionally rate-based ('legacy') generation.** The uneconomic legacy assets of traditionally regulated utilities should be afforded some degree of cost recovery to balance the rate impact on consumers with the financial impact on the utility. Utilities should be denied full recovery of such costs to provide incentives for efficiency in reducing those costs in the first place.
- **Affiliate merchant generation.** The unamortized book value of existing assets of affiliate merchant entities that are deemed uneconomic or unprofitable should not be afforded any opportunity for cost recovery unless such action significantly impairs the credit rating of the regulated affiliate, which could happen if the PUC failed to adequately ring-fence the regulated affiliate from the unregulated business activities of the parent holding company.⁴ Regulators should take actions such as ring-fencing to avoid this spillover effect.
- **Unregulated merchant generation.** Unregulated merchant power plants are not entitled to any recovery of unamortized book costs or other costs of abandonment.

It may be necessary to support the continued operation of certain affiliate and unregulated merchant plants if the relevant NERC Balancing and Planning Authorities deem the asset a reliability must-run (RMR) unit. The determination of RMR status should be done on a case-by-case basis by an independent assessment.

The decision to require ratepayers to assume a portion of plant abandonment costs should be weighed carefully on an individual utility-by-utility basis in a formal proceeding and depend on the facts of the case while recognizing the possibility of the decision to be precedent setting. In addition, state statutes and previous commission and court actions will influence the decision. All stakeholders should be allowed standing in such proceedings.

There are six steps to this process:

1. Determination that asset is uneconomic on a long-term, forward-cost basis
2. Application of prudent investment standard
3. Application of used-and-useful test
4. Amortization of abandonment costs
5. Adjustments to the unamortized balance and other abandonment costs
6. Cost allocation in retail rates

As a first step, the PUC must determine if, in fact, the asset in question is uneconomic on a long-term, forward-cost basis. Plants that are uneconomic on a long-term, forward-cost basis should be retired. This determination should be based on reasonably expected market conditions and environmental regulations, and consistent with the utility's most recently approved integrated resource plan (IRP), including a thorough evaluation of cost-effective alternative resource options. These options should include new plant construction (e.g., NGCC), selling the plant, temporarily idling the plant, coal-to-gas conversions, distributed generation (including CHP), PPAs, and purchases from ISO/RTO energy and capacity markets (where applicable).

Once a determination has been made that the asset is deemed uneconomic, the PUC should consider the prudence of the unamortized balances and other abandonment costs. Only those costs prudently incurred should be eligible for recovery from ratepayers. Under the prudent investment standard uniformly followed by utility regulators, a utility must demonstrate that the course of action leading to the expense for which it is seeking rate recovery is reasonable and necessary.

In practice, utility decisions to build power plants are rarely held to be imprudent. However this must not support the assumption that all utility decisions were prudent. Decisions that should be suspect are actions that attempt to extend the life of uneconomic units that in hindsight did not pan out. The capital cost associated with environmental retrofits is one such example. Recovery of any such costs that were not prudently incurred should be disallowed. Ratemaking decisions that absolve utility management and investors from their responsibilities and risks are inappropriate.

If a PUC decides pass-through to ratepayers is warranted for a portion of the prudently incurred abandonment costs, it must next address the used-and-useful test. Unlike prudence, the used-and-useful test does not make a finding of fault. Clearly once the asset has been retired and abandoned and is no longer operated, it ceases to be used-and-useful. While this determination may be perfunctory, its consequence is not. A utility should not be permitted to earn a return on its investment in an abandoned plant, i.e., an asset that is no longer used-and-useful. This means that the unamortized balance should be excluded from rate base without capitalization of carrying costs. This appropriately requires the utility and its shareholders to bear a portion of the risk and cost associated with the abandoned facility.⁵

Once a PUC determines that some cost recovery from ratepayers is appropriate, the utility should amortize that investment cost over a number of years. The length of the amortization period should be determined by considering the size of the unamortized balance (and other retirement costs) to be recovered, the utility's financial condition, the rate impact on consumers, and cost-cutting measures employed by the utility. The amortization period should be as long as possible, while maintaining the financial viability of the utility.

PUCs should also consider securitization – in the form of ratepayer obligation charges or ROC bonds – as an appropriate long-term financial solution for dealing with prudently incurred unamortized balances and other abandonment costs. Properly implemented it can reduce the carrying costs for abandoned assets. But not all states allow securitization.

PUCs should make the following adjustments to the amount

⁴ Ring-fencing is done mainly to protect utility customers from financial instability or bankruptcy in the parent company resulting from losses in their unregulated activities. Ring-fencing also keeps customer information within the public utility business private from the for-profit efforts of the parent company's other business.

⁵ For municipal and cooperative systems, the customers are placed in the role of investors as well as ratepayers. They receive a return on their investment in the form of lower rates. Therefore, these ratepayers assume some of the risk of plant cancellation and should repay the prudently incurred cost over an appropriate amortization period.

recoverable from customers:

- **Salvage value.** A credit against other costs. It consists of the funds received from the sale of equipment, land and other material associated with plant abandonment.
- **Credit for prior stranded cost recovery.** If the asset owners were previously the beneficiaries of "stranded cost" payments, any subsequent recovery of retirement costs should net out those payment, particularly if any windfall profits for the utility were produced because of the miscalculation of stranded costs. The stranded costs associated with industry restructuring beginning in the 1990s was generally defined as costs that might be recoverable from ratepayers under regulation that might not be recoverable in a competitive market. Those costs were typically recovered with a non-bypassable bill surcharge.
- **Netting of assets.** The PUC should calculate the net book value of the utility's entire portfolio of assets and not just single out the assets that are uneconomic, i.e., offset the assets with above market book value with assets that are below market book value.
- **Income tax impacts.** Plant abandonments also affect a utility's income tax liability. Investment costs incurred by the utility but not recoverable from ratepayers may be deducted from the utility's taxable income, thereby lowering its income tax obligation. The PUC should evaluate this income tax effect when dealing with plant retirements. Prudently incurred investment recovered from ratepayers should be net of income taxes. This, in effect, flows through to ratepayers the income tax reduction associated with an abandoned plant, and reduces the rate impact on consumers.

The costs that are allowed to be recovered from ratepayers should be allocated in rates to the responsible customer class that caused the utility to incur the costs. Fixed costs are generally demand-related and should be allocated to each customer class in proportion to that class' contribution to maximum peak demand. The revenue burden is equitably shared, and there is no cost shifting, when each customer class produces roughly the same rate of return to the utility.

3. Regulatory treatment of canceled new power plants or recently constructed/reconstructed power plants⁶

The regulatory treatment of the costs of canceled power plant or plants that were recently constructed or reconstructed follows the same principles as the cost recovery of retired existing power plants. In summary, they are:

- Decisions must be made on a case-by-case basis.
- Only prudently incurred costs should be recovered from ratepayers. Ratemaking decisions that absolve utility management and investors of their responsibilities are inappropriate.
- The amortization period should be as long as possible consistent with maintaining the utility's financial viability.
- Utilities should not be allowed to earn a return on the unamortized balance.

There are, however, certain costs and prudence issues that are unique to this class of assets. For example, special consideration should be given to such factors as cost overruns and construction delays. Disposition of the investment in canceled plants is usually

determined by state public utility commissions (PUCs). While the ability of ratepayers to absorb the cost of a facility which will never produce electricity is limited, an affected utility's financial viability may be severely harmed by the regulatory treatment—or the lack thereof—of plant abandonment costs.

The jurisdictional PUC must determine who should bear the costs associated with a canceled plant on a case-by-case basis. This determination involves several steps.

The commission must first determine the amount of the utility's abandonment costs. These are the total costs that would have been avoided had the project never been undertaken. They include:

- **Cash expenditures.** Payment for labor and materials used in construction.
- **Allowance for funds used during construction (AFUDC).** The financing costs associated with the plant.
- **Contract cancellation penalties.** Any penalties charged the utility by manufacturers or vendors as a result of contract cancellations.
- **Site shutdown costs.** Costs incurred in restoring the construction site to a useful condition.
- **Salvage value.** A credit against other costs. It consists of the funds received from the sale of equipment and material associated with plant construction.

Once the total of abandonment costs is determined, the PUC must make a determination regarding "prudence". The determination of prudence involves a number of issues and considerable judgment. First, the PUC must determine if the original decision to construct the facility was prudent. This involves a review of the utility's load forecasting studies, system expansion plans, and plant siting studies that were used as a basis for constructing the facility. Next, the commission must determine if the decision to cancel the plant was also prudent when made. The issue to be resolved here is usually: When was sufficient information available to the utility to support the decision to cancel? This involves an examination of load forecasting studies, generation availability, economic and other studies that were used to determine that the facility is no longer necessary. Finally, other factors need to be reviewed including an analysis of the initial and subsequent cost estimates for the facility, cost overruns (if any), and other relevant information to determine if any costs incurred were due to management error or neglect. Any such costs would be subtracted from total abandonment costs to arrive at prudently incurred costs.

Next, the PUC must decide which, if any, of these costs should be recovered from ratepayers. Utilities generally should not recover from ratepayers the costs of plants that are not used-and-useful in providing service. However, electric utilities are regulated monopolies. As such, they are required to provide adequate service to all customers within their service territory. A part of this 'obligation to serve' involves planning and constructing adequate capacity to meet expected future load growth.

Based on current knowledge and forecasts, a utility may decide to construct a plant. Major generating facilities, however, can take a decade or more to construct. During this period, circumstances beyond the control of the utility may change such that it becomes prudent to cancel the facility. The question of who pays now becomes an issue.

When a utility cancels construction of a generating facility and files for recoupment of its costs with a utility commission, it must show cause why the facility was constructed and then abandoned. Factors that may contribute to the cancellation are:

- **Financial constraints.** The utility could not adequately finance construction.

⁶ This section is an updated version of an ELCON legacy paper, *Profiles on Electricity Issues: No.11 – Cost Allocation of Cancelled Electric Power Plants, September 1984*

- **Regulatory changes and uncertainty.** Changing regulations that require back fitting of completed construction.
- **Construction problems.** Problems encountered in supervising and completing construction.
- **Reversal of economic advantage.** Due to changed circumstances, the plant is no longer the least-cost alternative.
- **Problems surrounding the acceptability and future of the technology.** Uncertain public acceptance and continually changing regulations (generally associated with both nuclear and coal-fired technologies).

The costs associated with building these generating units, even if ultimately canceled, are invariably related to the utility's peak demand. Construction costs associated with a canceled plant, then, cannot logically be considered energy related. Any portion of those costs deemed appropriate to be recovered from ratepayers by a PUC should be allocated to and collected from customers based on their contribution to the utility's peak demand(s), and recovered in the demand portion of the tariff.

The amortization period selected for the recovery of prudently incurred costs must balance a number of factors. The utility is better off financially if it can amortize its investment over a short time period. However, the rate impact on consumers may be severe. A long amortization period will reduce the impact on consumers but may imperil the financial condition of the utility. In order to reduce the impact of a plant cancellation on consumers, the utility should make every effort to reduce costs and improve cash flow. If allowed by the state, securitization – in the form of

ratepayer obligation charges or ROC bonds – is an appropriate long-term financial solution for dealing with prudently incurred unamortized balances and other abandonment costs.

Some state PUCs approve construction of a generating facility when it is proposed and again when it is completed. Others address the facility only upon completion when rate-base treatment is requested. However, PUCs rarely review utility construction programs to determine if circumstances have changed to such an extent that the facility is no longer needed. Problems associated with plant cancellations increase substantially when utilities fail to cancel at an appropriate time. It is recommended that PUCs review utility construction programs periodically to ensure that completion of the facility is necessary and that construction is being performed efficiently.

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