

## *Unions for Jobs & Environmental Progress*

P.O. Box 1446 Olney, MD 20830

[ujep4jobs@gmail.com](mailto:ujep4jobs@gmail.com)

[www.ujep4jobs.org](http://www.ujep4jobs.org)

Jim Hunter, IBEW (Ret.)

President, UJEP

[jim@jimhunterllc.com](mailto:jim@jimhunterllc.com)

John Risch, SMART-TD

Vice President, UJEP

[jrisch@smart-union.org](mailto:jrisch@smart-union.org)

Federal Energy Regulatory Commission  
Secretary of the Commission  
888 First Street, NE  
Washington, DC 20426

October 13, 2017

Attn: Docket No. RM17-3-000

Via E-Mail to <http://www.ferc.gov>

Re: Proposed Grid Resiliency Pricing Rule

Ladies & gentlemen:

I am writing on behalf of the labor organizations affiliated with Unions for Jobs & Environmental Progress (UJEP). UJEP affiliates represent some 3.2 million workers from the electric utility, mining, rail, transportation, and construction sectors.

Our affiliates' members have been adversely affected by the ongoing transformation of the electric power sector, and the increasing dependence on renewables and natural gas generation. These workers have lost tens of thousands of jobs as a consequence of the recent closures of mines and electric generating plants due to a number of factors, most importantly lower natural gas prices, compounded by the high compliance costs of recent U.S. EPA emissions regulations.

---

*UJEP is an ad hoc association of labor unions involved in energy production and use, transportation, engineering, and construction. Our members are: International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers Union; International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers; International Brotherhood of Electrical Workers; International Brotherhood of Teamsters; SMART Transportation Division; Transportation • Communications International Union, IAM; United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada; United Mine Workers of America, and Utility Workers Union of America. For more information about us, visit [www.ujep4jobs.org](http://www.ujep4jobs.org).*

We strongly support the proposed Grid Resilience Pricing Rule as an appropriate and well-supported remedy to correct the failure of current market mechanisms to compensate the resiliency and related benefits provided by fuel-secure baseload power generation. We view the proposed rule as an important first step toward stabilizing the diversity and resilience of the generation fleet in competitive markets, and avoiding further job losses due to the premature closures of large coal and nuclear generating plants.

Preliminary analyses by ICF, Inc., indicate that the rule may cost some \$1 to \$4 billion annually, depending on natural gas prices.<sup>1</sup> This is prudent insurance for the critical national security and natural disaster recovery benefits of a stable and resilient electric supply system. The relatively rapid recovery of electric service in many parts of Texas following Harvey was facilitated by the ongoing operation of large baseload nuclear capacity during and after that extreme weather event, despite the loss of more than 7,000 MW of conventional generation capacity. The availability of fuel-secure baseload coal and nuclear capacity was likewise critical to the ability of the eastern interconnect to withstand the extreme load demands of the Polar Vortex.

Our concerns about the steady erosion of the large coal and nuclear baseload power fleet, and its adverse impacts on resiliency and our members' jobs, were expressed in our May 25th letter to Secretary Perry (see attached copy.) We note in summary here key findings of the May 2017 NERC reliability study cited in our letter:

- Conventional units, such as coal plants, provide frequency support services as a function of their large spinning generators and governor-control settings along with reactive support for voltage control. ... Coal-fired and nuclear generation have the added benefits of high availability rates, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operate in a manner independent of supply chain disruptions. ...
- Fuel diversity provides a fundamental benefit of increased resilience. Without this diversity, the impact of rare events impacting availability of resources on the power system increases, and are more likely the result of a common mode failure impacting multiple generation or transmission facilities (e.g., extreme and prolonged cold weather event lead to freezing generator components, transmission line icing, fuel delivery disruption, etc.) ...
- (N)atural gas generation is fueled using just-in-time transportation and delivery, and therefore, is subject to interruption. Roughly 50 percent of natural gas generation resources are considered interruptible, and in constrained natural gas markets these units are not expected to be served during peak pipeline conditions.<sup>2</sup>

---

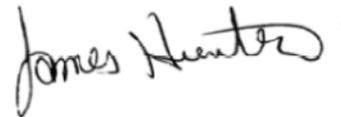
<sup>1</sup> ICF, Inc., Webinar on Proposed FERC NOPR, October 4, 2017, slide 27.

<sup>2</sup> National Electric Reliability Council, Synopsis of NERC Reliability Assessments - The Changing Resource Mix and the Impacts of Conventional Generation Retirements (May 2017).

We recognize that the proposed rule is on an aggressive timeline, and that many complex design and implementation issues must be resolved during the Commission's deliberations. We encourage the Commission to exercise all due diligence in completing its review and issuance of a final rule in a timely manner.

Thank you for your consideration of our views.

Sincerely,

A handwritten signature in black ink that reads "James Hunter". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

James Hunter  
President, UJEP

Attachment

cc: Honorable Rick Perry  
Honorable Neil Chatterjee  
Honorable Cheryl A. LaFleur  
Honorable Robert F. Powelson

## *Unions for Jobs & Environmental Progress*

P.O. Box 1446 Olney, MD 20830

[ujep4jobs@gmail.com](mailto:ujep4jobs@gmail.com)

[www.ujep4jobs.org](http://www.ujep4jobs.org)

Jim Hunter, IBEW (Ret.)

President, UJEP

[jim@jimhunterllc.com](mailto:jim@jimhunterllc.com)

John Risch, SMART-TD

Vice President, UJEP

[jrisch@smart-union.org](mailto:jrisch@smart-union.org)

The Honorable Rick Perry

Secretary

U.S. Department of Energy

1000 Independence Avenue

Washington, DC 20585-1000

May 25, 2017

Via E-Mail Transmission

Re: Baseload Reliability Study

Dear Secretary Perry:

I am writing on behalf of the organizations affiliated with Unions for Jobs & Environmental Progress (UJEP). UJEP affiliates represent some 3.2 million workers from the electric utility, mining, rail, and construction sectors. Our affiliates' members are significantly affected by the ongoing transformation of the electric power sector, and the increasing dependence on renewables and natural gas generation. These workers have lost tens of thousands of jobs as a consequence of the recent closures of mines and coal generating plants due to a number of variables, most importantly a glut of natural gas and lower natural gas prices, compounded by the high compliance costs of U.S. EPA regulations on mercury emissions.

---

*UJEP is an ad hoc association of labor unions involved in energy production and use, transportation, engineering, and construction. Our members are: International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers Union; International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers; International Brotherhood of Electrical Workers; International Brotherhood of Teamsters; SMART Transportation Division; Transportation • Communications International Union, IAM; United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada; United Mine Workers of America, and Utility Workers Union of America. For more information about us, visit [www.ujep4jobs.org](http://www.ujep4jobs.org).*

We strongly support DOE's plan for a critical examination of electricity markets, which includes reviewing the value of baseload power, and the long-term security and resiliency of the electric grid. Baseload coal and nuclear power plants directly employ more than 154,000 workers, produce major infrastructure projects that put Americans to work, and support a resilient and dependable electric grid.

Baseload power plants have long been the dependable work horses of the electric system, providing energy and ancillary services to customers 24 hours a day, 365 days a year. With significant on-site fuel reserves, they provide the resiliency required to keep electricity flowing under all adverse circumstances. Unlike other energy resources, their operation is not subject to interruption by factors such as extreme weather events or attacks on infrastructure. Our national security, and the economic base of communities across the nation, is dependent on maintaining these plants to support a resilient supply of affordable electricity.

Extreme weather events such as the 2014 polar vortex resulted in a significant amount of gas-fired generation being unavailable due to curtailments of gas supplies and gas infrastructure challenges, threatening the reliability of the grid.<sup>1</sup> Many studies point to increasing frequency of extreme weather events for decades to come that could pose significant risks to the grid.

Numerous baseload power plants have shut down in recent years, and more are expected to close prematurely in the near future. According to EIA, some 40,000 megawatts of coal generation capacity has been shuttered due to the high cost of compliance with EPA's 2012 mercury rule alone.<sup>2</sup> Once these plants are retired, they are gone for good. Baseload generation is under serious threat from market-distorting subsidies and mandates for non-baseload renewable generation, regulations that target these resources, low natural gas prices, and markets that do not value resiliency and dependability. Further plant closures would contribute to market volatility, result in significant job loss, and discourage industrial development opportunities nationwide. A manufacturing base, and the jobs that go with it, cannot be attracted to return to areas lacking affordable, reliable sources of baseload power.

### Jobs by Energy Source

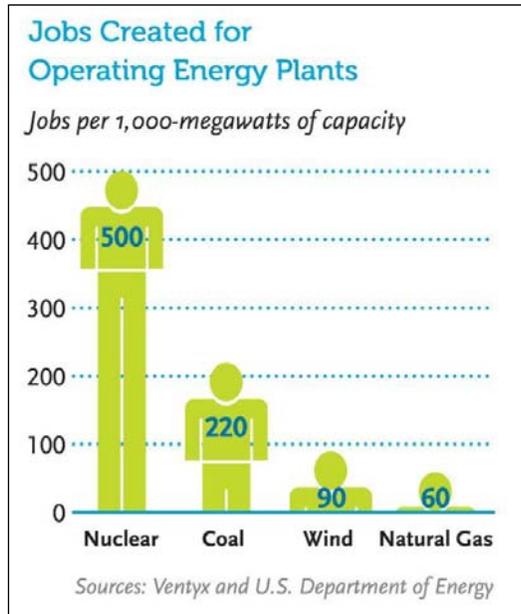
Our coal and nuclear baseload power plants – and the dedicated, skilled workers who operate, maintain, and supply them – are the lifeblood of their communities. They

---

<sup>1</sup> NERC Polar Vortex Review, (September 2014)  
[http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar\\_Vortex\\_Review\\_29\\_Sept\\_2014\\_Final.pdf](http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf)

<sup>2</sup> DOE/EIA, Annual Energy Outlook Early Release: Analysis of Two Cases (May 2016) at 27.

provide a strong tax base for essential public services and support more high-paying jobs than other forms of electricity generation (see chart below.) Workers depend on these plants as a basic source of their livelihoods, and their communities, and the country depends on them to support a healthy economy and electricity supply. These workers have been a critical part of this nation’s economic backbone.



The reason for the job disparity among generation sources is the complexity and labor intensity of nuclear and coal generating plants, including their operation, maintenance, and fuel supply cycles. Renewable energy supplies are capital intensive, but not labor intensive. The coal and nuclear generation sectors, including their fuel and transportation supply chains, provide the type of high-skill, family-supporting jobs necessary to anchor the economy of the local communities associated with this energy infrastructure.

We recognize that renewable energy creates some jobs. Unfortunately, most of these jobs are only in construction, with much smaller numbers in operation and maintenance. In addition, the overwhelming majority of these jobs do not provide wages and benefits sufficient for building economically healthy middle-class communities. The bulk of solar panel manufacturing is done in China and other developing nations. Rooftop solar installation is done domestically, but is not a source of high-paying, middle-class jobs. Simply because a job is in the renewable sector and considered by many a “green job” does not make it a good paying, family-supporting job.

## Ohio Case Study

One example of the economic anchoring effect of baseload power can be found in Adams County, Ohio. Dayton Power & Light (DP&L) has announced its intention to close two coal-fired plants: The J.M. Stuart Station (2,400 MW) and Killen Station (600 MW) together employ upwards of 700 people during normal operations, and in excess of 1,000 during outage events, with an annual payroll of \$80 million. For Adams County, these plant closures would mean the loss of \$8.5 million in tax revenue - equivalent to half of the county's general fund revenue. Schools, hospitals, first responder services, local government, all would be forced to severely curtail services, or even close entirely.

In effect, the entire middle-class economy of Adams County depends on the family-supporting jobs in these stations, and all of the directly associated economic activity including transmission, maintenance, parts and equipment, fuel supply, and fuel transportation. The U.S. Department of Commerce estimates that each job in the Ohio electric generation sector creates 3.54 total direct and indirect jobs.<sup>3</sup> Despite having spent \$800 million on emissions equipment in 2006, bringing the stations into full EPA compliance, DP&L is now planning to close the plants and walk away from the local economy, triggering a cascade of economic devastation.

## NERC Study Supports Critical Need for Baseload Power

The recent NERC reliability study<sup>4</sup> submitted to you on May 9th raises numerous cautions about the risks of increased dependence on intermittent generation resources, as well as on natural gas. Current market prices for gas could rise in the future, raising electricity rates absent affordable baseload generation remaining online. Price volatility for natural gas is well documented. We fully concur with NERC's observations about the need for greater attention to the critical role played by conventional coal and nuclear baseload generation:

The rapid changes occurring in the generation resource mix and technologies are altering the operational characteristics of the grid and will challenge system planners and operators to maintain reliability. More specifically:

- Impact of Premature Retirements: Conventional units, such as coal plants, provide frequency support services as a function of their large spinning generators and governor-control settings along with reactive support for voltage control. Power system operators use these services to plan and operate reliably under a variety of system conditions, generally without the

---

<sup>3</sup> U.S. Dept. of Commerce, Bureau of Economic Analysis, RIMS II Direct Effect Jobs Multipliers, Table 3.5 (2014).

<sup>4</sup> National Electric Reliability Council, Synopsis of NERC Reliability Assessments - The Changing Resource Mix and the Impacts of Conventional Generation Retirements (May 2017).

concern of having too few of these services available. Coal-fired and nuclear generation have the added benefits of high availability rates, low forced outages, and secured on-site fuel. Many months of on-site fuel allow these units to operate in a manner independent of supply chain disruptions.

- Replacement Resource Capability and Characteristics: As the generation resource mix evolves, the reliability of the electric grid depends on the operating characteristics of the replacement resources. Natural gas-fired units, variable generation, storage, and other resources can provide similar reliability services. However, as a practical matter, costs, market rules, or regulatory requirements (or lack thereof) can affect whether these resources are equipped and available to provide reliability services. To ensure reliability, new generator and load resources must maintain the balance between load and generation, especially during ramping periods. In addition, in some jurisdictions, substantial amounts of generation are now being added “behind the meter” (e.g., roof top solar) and these resources are invisible to system operators. ...

Fuel diversity provides a fundamental benefit of increased resilience. Without this diversity, the impact of rare events impacting availability of resources on the power system increases and are more likely the result of a common-mode failure impacting multiple generation or transmission facilities (e.g., extreme and prolonged cold weather event leads to freezing generator components, transmission line icing, fuel delivery disruption, etc.). **Areas with limited fuel and/or limited resource diversity may be challenged and should increase their attention to resiliency planning**, which requires a strong partnership with state regulators. With natural gas generation primed to continue its growth as the leading choice for new and replacement capacity, important distinctions around fuel security need to be incorporated into reliance and long-term planning at states and with market operators. Mainly, natural gas generation is fueled using just-in-time transportation and delivery, and therefore, is subject to interruption. Roughly 50 percent of natural gas generation resources are considered interruptible, and in constrained natural gas markets these units are not expected to be served during peak pipeline conditions. Many of these plants no longer have the option of burning a liquid fuel. Further, regardless of fuel service arrangements, natural gas generation is subject to curtailment during a force majeure event. (Emphasis in original.)

Unless corrective actions are taken, including new mechanisms that recognize baseload attributes and ensure appropriate compensation for providing the resilience and dependability benefits of baseload coal and nuclear capacity in the electricity marketplace, the long-term viability of these baseload power plants along with the jobs and community economic benefits they bring is in peril.

We encourage the Administration to take prompt and meaningful action to protect baseload coal and nuclear power plants and ensure fuel diversity as the cornerstone of our ability to supply affordable and reliable power to American industry and consumers. Such action is critical to grow our economy and create jobs for the American worker.

Sincerely,

A handwritten signature in black ink that reads "James Hunter". The signature is written in a cursive style with a prominent loop at the end.

James Hunter  
President, UJEP

cc: Brian McCormack