

UTILITY WORKERS UNION OF AMERICA

D. MICHAEL LANGFORD
PRESIDENT

STEVEN VANSLOOTEN
EXECUTIVE VICE PRESIDENT

MIKE COLEMAN
SECRETARY-TREASURER

JOHN DUFFY
VICE PRESIDENT

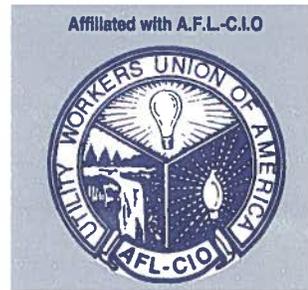
EXECUTIVE BOARD MEMBERS

ROBERT K. STAHL
NANCY LOGAN
NOEL J. CHRISTMAS
KEITH HOLMES
FRANK MEZMARICH SR.
JAMES SLEVIN

ROBERT T. WHALEN
GREG ADAMS
DANIEL DOMINGUEZ
DANIEL HURLEY
RICHARD J. PASSARELLI
MICHAEL P. SMITH

DAVE THOMPSON
JIM ANDERSON
ARTURO FRIAS
DAVID LEONARDI
CHARLIE D. RITTENHOUSE
LISA VELLA

PATRICK M. DILLON
NICHOLAS J. CARACAPPA
RICHARD HARKINS
RUSS MAZZOLA
JAMES SHILLITTO



815 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20006
(202) 974-8200
(202) 974-8201 FAX
www.uwua.net



May 7, 2015

The Honorable Norman C. Bay, Chairman
The Honorable Tony Clark, Commissioner
The Honorable Cheryl A. LaFleur, Commissioner
The Honorable Philip D. Moeller, Commissioner
The Honorable Colette D. Honorable, Commissioner

U.S. Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Dear Chairman Bay and Commissioners Clark, LaFleur, Moeller, and Honorable:

I am enclosing for your attention comments from the Utility Workers Union of America concerning the potential adverse impacts of implementation of the EPA's Clean Power Plan on reliability of the U.S. electric grid.

We believe that the CPP's goal of substantially reducing carbon emissions from electric generating plants can be achieved without compromising either grid reliability or the economic security of the skilled utility workers who have invested careers in powering the U.S. economy – provided, however, that regulators adopt sensible policies with realistic compliance deadlines.

We recognize that many federal and state regulators other than FERC – including the EPA and state public utility commissions – will have leading roles in developing policies addressing many of our concerns. We are persuaded, however, that FERC also has a critical role not only to safeguard the continued diversity of the nation's energy resource mix, but also to ensure that the critical skills of utility workers in the nation's fossil-fueled generating plants will continue to be available to modernize the U.S. electric grid and the power generation industry of the future.

Thank you for your attention to our comments in this matter, and please let me know if I can provide additional information concerning our position.

Sincerely,

D. Michael Langford
National President

cc (w/enc): Gina McCarthy, Administrator, U.S. Environmental Protection Agency
Anton C. Porter, Executive Director, U.S. Federal Energy Regulatory Commission
Kimberly D. Bose, Secretary, U.S. Federal Energy Regulatory Commission

BEFORE THE U.S. FEDERAL ENERGY REGULATORY COMMISSION

**Comments of Utility Workers Union of America, AFL-CIO
Concerning Impact of Environmental Regulations on
Electric Reliability, Wholesale Electricity Markets,
and Energy Infrastructure**

May 2015

**Utility Workers Union of America, AFL-CIO
815 16th Street, N.W.
Washington, DC 20006**

**(202) 974-8200 (phone)
(202) 974-8201 (fax)**

www.UWUA.net

Comments of Utility Workers Union of America, AFL-CIO

**Potential Impacts of U.S. EPA’s Clean Power Plan on
Grid Reliability, Workers, and Communities**

Contents

A. Clean Power Plan implementation – if poorly managed – poses substantial risks to grid reliability.....1

1. Risks to grid reliability posed by premature retirements of baseload fossil-fueled plants.....2

2. Risks posed by overdependence on natural gas and the rapid shift in the energy resource mix4

3. Risks posed by conversion of baseload coal-fired capacity to seasonal peaking and failure to maintain retired units in “reserve” status5

B. Flexible CPP compliance timelines are essential to ensure grid reliability.....6

C. The CPP and related State Implementation Plans should include policies designed to mitigate the adverse impacts on utility workers and their communities7

D. UWUA recommendations.....8

E. Conclusion.....11

Comments of Utility Workers Union of America, AFL-CIO

Potential Impacts of U.S. EPA's Clean Power Plan on Grid Reliability, Workers, and Communities

The Utility Workers Union of America (UWUA) represents 50,000 employees in the electric generation, distribution, and other utility industries, including thousands of workers in coal, nuclear, and gas-fired power plants. In the electric utility sector, UWUA members work at 74 utilities across the U.S. The future of our members in generating facilities – including the welfare of their families and communities – will be vitally impacted by decisions made by FERC and other federal and state regulators in their responses to the U.S. Environmental Protection Agency's pending Clean Power Plan ("CPP") rule.¹

Based on UWUA members' uniquely informed perspective on the industry and given the enormous stake our members have in these decisions, the UWUA has taken every opportunity to provide our recommendations to federal and state regulators on the best policy options available to reduce carbon emissions from existing power plants, while simultaneously protecting the reliability of the electric grid that is so vital to the U.S. economy.

We discuss below three major areas of concern identified by UWUA stemming from implementation of the proposed CPP rule: the significant potential for adverse impacts on grid reliability; the need for significant new investments in power generation, grid infrastructure, and related technologies in order to meet CPP compliance targets; and the need to address the potentially devastating impacts on utility workers and their communities caused by premature closures of existing fossil-fueled plants.

We then offer several recommendations for sensible regulatory actions that will avoid or mitigate these adverse impacts, while still meeting the goal of substantial reductions in carbon emissions from electric power generating plants.

A. Clean Power Plan implementation – if poorly managed – poses substantial risks to grid reliability

The UWUA shares the concerns expressed by other stakeholders that CPP implementation, if poorly managed, poses substantial risks to overall reliability of the grid. It is therefore essential for the EPA and state regulators to avoid inflexible regulatory mandates that could destabilize the system. We urge FERC to take a leading role in promoting policies to support overall grid reliability – both with the EPA as it implements the final CPP rule and with state regulators as they design State Implementation Plans ("SIPs").

Key features of the CPP raise the prospect for widespread, uncontrolled power outages caused by destabilization of the grid, in the absence of regulatory flexibility and realistic compliance timelines. These concerns include risks posed by the premature closure of coal-fired

¹ *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, Notice of Proposed Rulemaking, 79 Fed. Reg. 34,830 (June 18, 2014).

plants currently providing essential baseload capacity; increased dependence on natural gas-fired and renewable energy resources posing unique challenges to grid reliability; and the need to upgrade transmission and other energy infrastructure, both to accommodate new renewable resources coming online and to compensate for the future loss of fossil-fueled generating capacity.

Each of these concerns underscores the need for flexible CPP implementation timelines in order to provide sufficient time to develop new infrastructure to ensure grid reliability. The necessity for CPP compliance flexibility is especially critical given the substantial challenges posed by new environmental regulations on the aging U.S. electric power infrastructure.²

Indeed, the North American Electric Reliability Corporation (NERC) – the electric reliability organization for North America – recently concluded that the proposed CPP timeline “does not provide enough time to develop sufficient resources to ensure continued reliable operation of the electric grid by 2020,” and that attempting to meet the existing compliance timeline “would increase the use of controlled load shedding and potential for wide-scale, uncontrolled outages.”³

Specific risks posed to grid reliability by poorly-conceived CPP implementation plans include the following concerns:

1. Risks to grid reliability posed by premature retirements of baseload fossil-fueled plants

The CPP poses significant challenges to the principle of fuel diversity long considered essential to reliability of the grid by encouraging the premature closure of coal-fired units – primarily by encouraging increased reliance on natural gas-fired resources for baseload capacity. Indeed, the EPA has projected that that up to 49 GW of coal-fired generation will likely be taken offline by 2020 as a result of implementation of CPP.⁴

Exacerbating the problem of reduced coal-fired capacity is the fact that impacted coal generating stations are not spread evenly across the transmission grid, but instead are clustered in geographic areas. As a result, substantially reducing coal-fired capacity could result in new regional transmission bottlenecks, grid destabilization, and significant reserve capacity planning challenges. As reserve capacity is reduced, risks to grid reliability increase dramatically.

² In addition to the requirements of the CPP, coal-fired generating plants must also install extensive new upgrades to comply with the recent Mercury and Air Toxics Standards (MATS), Cross-State Air Pollution Rule (CSAPR), the Coal Combustion Residuals (CCR) standards, and Cooling Water Intake Structures (CWIS) regulations.

³ *Potential Reliability Impacts of EPA's Proposed Clean Power Plan, Initial Reliability Review*, p. 22 (NERC, November 2014) (“NERC Initial Reliability Review”), available at www.nerc.com/news/Pages/Reliability-Review-of-Proposed-Clean-Power-Plan-Identifies-Areas-for-Further-Study,-Makes-Recommendations-for-Stakeholders.aspx.

⁴ *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, p. 3-32 (EPA, June 2014). The EPA’s estimated 49 GW of reduced coal-fired generation does *not* include 54 GW of coal capacity already planned for retirement by 2020, in significant part due to recent EPA regulations other than the CPP. See NERC Initial Reliability Review, p. 9.

NERC has previously identified resource adequacy concerns in its Long-Term Reliability Assessments – even without taking into account the impacts of the Clean Power Plan – and has expressed concerns that additional fossil-fueled retirements resulting from CPP implementation would accelerate an existing trend of declining generating reserve margins in many regions.⁵

Regional transmission operators (“RTOs”) have also expressed concerns that CPP implementation poses substantial threats to grid reliability, especially in the absence of more flexible compliance timelines.⁶

The Southwest Power Pool (SPP), for example, recently published an internal assessment finding that the retirement of generating capacity projected by EPA in the SPP region due to CPP implementation would severely stress the system, resulting in “cascading outages and voltage collapse” in portions of Texas, Kansas, and Arkansas and severe overloading in three other states. SPP staff concluded this would be the case even assuming that substantial new gas and wind generation were added to the SPP footprint to offset the majority of retirements projected by EPA.⁷

The SPP’s analysis also concluded that the EPA-projected capacity retirements would cause SPP’s reserve margin to fall to 4.7% by 2020 – a margin that would be 8.9% below the existing minimum reserve margin requirement of 13.6%. SPP’s reserve margin would fall to a *negative 4.0%* by 2024.

Studies published by other RTOs have also identified grid reliability concerns associated with CPP implementation:

- The Electric Reliability Council of Texas (ERCOT) recently concluded that the anticipated retirement of generating capacity resulting from compliance with CPP and other environmental mandates “could result in localized transmission reliability issues due to the loss of fossil fuel-fired generation resources in and around major urban centers, and will strain ERCOT’s ability to integrate new intermittent renewable generation resources.” If the expected closure of coal plants were to occur over a short period of time, moreover, “reserve margins in the ERCOT region could reduce considerably, leading to increased risk of rotating outages. . . .”⁸

⁵ NERC Initial Reliability Review, pp. 17-19. See also *Potential Reliability Impacts of EPA’s Proposed Clean Power Plan, Phase I*, pp. 24-25 (NERC, April 2015) (“NERC Phase I Reliability Study”), available at www.nerc.com/news/Pages/Assessment-Uses-Scenario-Analysis-to-Identify-Potential-Reliability-Risks-from-Proposed-Clean-Power-Plan.aspx.

⁶ A summary of the CPP impact assessment reviews by various RTOs and links to the underlying RTO reports are available in the NERC Phase I Reliability Study, at pp. 42-51.

⁷ *SPP Reliability Impact Assessment of the EPA’s Proposed Clean Power Plan* (SPP, Oct. 8, 2014), available at www.spp.org/publications/CPP%20Reliability%20Analysis%20Results%20Final%20Version.pdf.

⁸ *Impacts of Environmental Regulations in the ERCOT Region* (ERCOT, Dec. 16, 2014), available at www.ercot.com/content/news/presentations/2014/Impacts%20of%20Environmental%20Regulations%20in%20the%20ERCOT%20Region.pdf.

- Midcontinent ISO (MISO) recently found that the most cost-effective means to meet EPA's 2020 timeline would likely be to retire more coal generation than has already been announced, placing an additional 14 GW of capacity at risk of closure.⁹ MISO has also projected that CPP implementation could significantly contribute to sharply declining reserve margins in its North and Central regions – indeed, to a projected reserve margin of *negative 11.8%* by 2023-24.¹⁰
- PJM Interconnection (PJM) recently projected that nearly 11 GW of fossil-fired capacity would be at risk of retirement in the PJM region in at least half of its modeling scenarios evaluating CPP implementation, and that up to 14.5 GW would be at risk in a worst-case scenario.¹¹

2. Risks posed by overdependence on natural gas and the rapid shift in the energy resource mix

As noted above, the Clean Power Plan encourages the closure of substantial coal-fired resources, primarily by substantially increasing the use of natural gas for both baseload and on-peak capacity. This ignores the risks posed to grid reliability by overdependence on any one fuel source, especially considering existing restraints in natural gas pipeline infrastructure in some regions. We also note that by encouraging excessive reliance on natural gas for power generation, the CPP increases the prospect of escalating consumer prices for electricity and other distortions of energy markets.

The risk posed by overdependence on natural gas was clearly demonstrated during the 2014 polar vortex, when extreme cold temperatures, competing demands for natural gas for residential and other heating needs, and the resulting fuel availability issues caused higher-than-expected forced outages in some regions of the U.S.¹² NERC recently noted that “as gas-electric dependency significantly increases, unforeseen events like the 2014 polar vortex could disrupt natural gas supply and delivery for the power sector in high-congestion regions, increasing the risk for potential blackouts.”¹³

The significant time necessary for pipeline construction to meet increased demands for natural gas for power generation is also a concern, especially in the absence of more flexible timelines for CPP compliance. NERC recently estimated that the process of designing, permitting,

⁹ *Analysis of EPA's Proposal to Reduce CO₂ Emissions from Existing Electric Generating Units* (MISO, November 2014), available at www.misoenergy.org/_layouts/miso/ecm/redirect.aspx?id=187870.

¹⁰ *Long-Term Resource Adequacy Update* (Midcontinent ISO, October 22, 2014), available at www.misoenergy.org/_layouts/miso/ecm/redirect.aspx?id=186247.

¹¹ *PJM Interconnection Economic Analysis of the EPA Clean Power Plan Proposal* (PJM, March 2, 2015), available at www.pjm.com/~media/4CDA71CBEC864593BC11E7F81241E019.ashx.

¹² See, e.g., *2014 Polar Vortex Review* (NERC, September 2014), available at www.nerc.com/pa/rrm/Pages/January-2014-Polar-Vortex-Review.aspx.

¹³ NERC Initial Reliability Review, p. 10.

and constructing a natural gas pipeline can take three years or more, even for a relatively small interstate pipeline project. Completion of larger, more complex projects can take years longer.¹⁴

The acceleration of the ongoing transformation of the U.S. energy resource mix resulting from CPP implementation poses additional challenges for grid operators. In particular, rapid changes in the resource mix can strain the essential reliability services – frequency response, voltage support, and ramping capability – that are critical to grid reliability.

Renewable energy resources – although projected to play a much smaller role than natural gas in the ongoing shift in the energy resource mix – also pose unique challenges to grid reliability. Intermittent energy resources such as wind and solar have different reliability characteristics than traditional generation resources, and therefore require more planning by grid operators to maintain voltage stability and to otherwise maintain essential reliability services.¹⁵

The rapid changes in the resource mix and dispatch requirements resulting from CPP implementation will also require extensive reliability analyses by grid managers and construction of significant additional transmission facilities. These essential components for maintaining grid reliability will take significantly more time than is realistically available under the proposed CPP compliance timelines.

3. Risks posed by conversion of baseload coal-fired capacity to seasonal peaking and failure to maintain retired units in “reserve” status

In its most recent assessment of the potential reliability impacts from CPP implementation, NERC identified an additional 14 to 22 GW of coal-fired capacity that could become at risk of premature retirement if the industry switches units from baseload generation to seasonal peaking to meet CPP compliance mandates.¹⁶ Since baseload coal plants are designed to run at high capacity, switching these units to seasonal peaking would severely undermine plant economics and viability due to high fixed costs and other operational realities.

Any loss of this coal-fired capacity would pose additional risks of grid destabilization. For this reason, NERC’s reliability impact assessment concludes that “in a wholesale electricity market structure, generators may need additional incentives (e.g., capacity payments) to keep low capacity factor fossil generation economic and in service.”

In our view, similar incentives should also be developed to ensure that critical baseload units that are fully retired as a result of CPP mandates will continue to be available for a reasonable time period to meet unexpected grid stability concerns. Generators should be required to maintain units identified by regulators as potentially essential for grid reliability on a “standby” or “reserve”

¹⁴ NERC Phase I Reliability Study, pp. 40-41.

¹⁵ See generally *Maintaining Bulk Power System Reliability While Integrating Variable Energy Resources – CAISO Approach* (NERC-CAISO, November 2013), available at www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC-CAISO_VG_Assessment_Final.pdf.

¹⁶ See NERC Phase I Reliability Study, pp. viii-ix, 18.

status for up to two years, in order to safeguard against these units deteriorating into obsolete conditions that would prevent their economical return to service to meet emergency conditions.

This arrangement would be similar to the existing system of “reliability must run” agreements for power plants announced for closure by generators, but deemed essential by grid planners for reliability purposes. The UWUA’s proposal for a “standby” category, however, would entail a much smaller workforce performing only minimal functions necessary to prevent retired units from becoming functionally obsolete.¹⁷

As a practical matter, this would require incentive payments to generators for a limited period of time, with the costs ultimately spread out among all affected ratepayers. Even so, this investment would be modest in comparison to the far greater cost of trying to bring obsolete units back online in the event of a grid emergency, and would benefit consumers by ensuring against electric power disruptions resulting from the sudden loss of substantial fossil-fueled capacity due to CPP implementation.

B. Flexible CPP compliance timelines are essential to ensure grid reliability

The UWUA supports the recommendations of NERC, RTOs, and others that EPA and the states must adopt flexible compliance timelines in order to ensure that implementation of the Clean Power Plan does not pose substantial and unnecessary risks to overall grid reliability.

The fundamental transformation of the grid’s energy resource mix resulting from CPP implementation presents unprecedented planning challenges for system operators and will require construction of significant additional resources, including new generation and transmission facilities. The timelines in the proposed rule, however, fail to recognize these realities.

As proposed, the CPP assumes that State Implementation Plans will be submitted by June 2016, with the possibility for extensions until June 2017 for individual state SIPs and until June 2018 for multi-state plans. Since EPA then has an additional year to approve state plans, impacted fossil-fired units would have no more than two-and-a-half years – and potentially as little as six months – to develop and implement compliance plans in advance of the CPP’s January 2020 starting date for plants to begin to achieve substantial CO₂ emission reductions.

This timeline is unrealistic under even a best-case scenario. In its most recent review of the potential impacts of CPP implementation on grid reliability, NERC surveyed 110 different transmission and generation companies concerning lead time requirements to complete new infrastructure projects. NERC found that installation of a new natural gas combined-cycle generator – from planning and permitting to final construction – takes a minimum of five years. Installation of a new wind generation facility of up to 150 turbines can take more than three years.

¹⁷ At a minimum, the critical functions necessary to prevent a valuable coal-fired unit from quickly becoming obsolete after retirement include maintaining the turbine on “turning gear” to prevent it from warping, as well as essential maintenance tasks for other vital equipment such as generators and transformers.

Planning and final construction of new electric transmission lines are projected to take between seven and 15 years, depending on the size, location, and complexity of the project. Lead time for a new 20-mile natural gas pipeline project averages approximately three years. Larger or more complex pipelines can take even longer.¹⁸

The CPP compliance timeline currently proposed by EPA is therefore clearly unrealistic without compromising grid reliability. As NERC recently observed, the proposed timeline “does not provide enough time to develop sufficient resources to ensure continued reliable operation of the electric grid by 2020.”¹⁹

NERC has therefore proposed a “reliability assurance mechanism” to provide the industry, the states, and other stakeholders with certainty that they will be able to adequately address infrastructure improvements and planning requirements essential for grid reliability without risking CPP compliance penalties.²⁰ NERC’s proposed reliability assurance mechanism would include regulatory authority to make timing adjustments for CPP compliance, based on a demonstrated need for system improvements to meet grid reliability demands.

C. The CPP and related State Implementation Plans should include policies designed to mitigate the adverse impacts on utility workers and their communities

Finally, the UWUA is concerned that CPP implementation plans must take into account the economic dislocations that will inevitably occur as the rule is implemented over the next several years, and that regulators must plan in advance for programs to assist workers and communities that find themselves the innocent victims of the nation’s ongoing shift toward low-carbon energy policies.

As noted above, the EPA has projected that up to 49 GW of coal-fired generation will likely be taken offline by 2020 as a result of implementation of CPP, and yet few if any regulatory proposals have addressed the urgent need to provide transitional support for the skilled workers who will be dislocated in the process. In our view, any policy that transfers the full costs of compliance onto victimized workers and their communities in the form of shattered local economies is bad policy.

The UWUA urges that federal and state regulators should adopt a surcharge mechanism – for example, in State Implementation Plans and/or in other regulatory frameworks – on the transmission, distribution, and generation of electric power to mitigate the adverse impacts of CPP implementation on workers and communities. This would spread the full costs of the national transition toward a new energy policy to all electric power consumers, rather than leaving only some communities and workers to suffer the consequences of this historic policy shift.

The resources from this surcharge would be used for:

¹⁸ NERC Phase I Reliability Study, pp. 36-41.

¹⁹ NERC Initial Reliability Review, p. 22.

²⁰ NERC Phase I Reliability Study, pp. 52-55.

- Wages, benefits, and retraining for workers displaced as a result of closing power plants and affected fossil fuel extraction sites;
- Expansion of economic development programs to enable communities to respond to power plant closures or downsizing; and
- Support for other elements of the low-carbon transition, such as deployment of carbon capture and sequestration, the ramp-up of combined heat and power in industrial sites, and support for climate-resilient infrastructure projects where plants are closing.

The UWUA’s proposal is hardly unprecedented. When states began to transition several years ago from a regulated to a competitive retail utility environment, there was a great deal of concern that utility companies would be left with “stranded costs” of investments in generation that might not be recovered. This was considered unacceptable, and policies were adopted to ensure the transition did not leave utilities with large debt obligations. Customers paid various forms of “stranded cost” fees to ensure that company shareholders were protected.²¹

The current transition poses similar concerns, but this time the “stranded costs” involve workers and communities instead of utility company profits. As the U.S. transitions toward a low-carbon energy future, economic assistance must be provided to the stranded communities and workers who stand to lose everything from the transition through no fault of their own.

Beyond simple notions of fairness, mitigating these adverse impacts would provide important grid reliability and economic benefits. An effective transition plan for workers and communities would help ensure that the skilled utility workforce necessary to modernize the U.S. electric grid will be available, and would also foster new economic development to replace lost tax revenues at the local level resulting from generating plant closures.

D. UWUA recommendations

The UWUA urges that FERC, EPA, state public utility commissions, and other federal and state regulators should adopt policies ensuring that implementation of the Clean Power Plan and State Implementation Plans will not only significantly reduce carbon emissions, but will also protect the reliability of the U.S. electric grid and provide safeguards to the workers and communities that will be adversely impacted by CPP implementation.

In particular, the UWUA makes the following recommendations:

- 1. Grid reliability must be ensured by promoting new investments in power generation and grid infrastructure, and by safeguarding fuel diversity in the nation’s energy resource mix.**

²¹ California’s Assembly Bill No. 1890, adopted in 1996, is the leading example of this approach.

- a. The CPP and State Implementation Plans should encourage substantial investments in new energy and grid infrastructure. FERC should work with EPA and other regulators to encourage policies that will promote urgently-needed investments to protect grid reliability, including new power generating and transmission facilities.
- b. Regulators must recognize that coal generation will continue to play an important role in meeting our essential power needs. The final Clean Power Plan, State Implementation Plans, and other policies should reinforce the continued viability of existing coal-fired plants, while also promoting new technologies to enable substantial additional reductions in carbon emissions from these critical facilities.
- c. FERC – working in conjunction with EPA, the RTOs, state public utility commissions, and other stakeholders – should identify and evaluate potential grid reliability impacts stemming from CPP compliance, and recommend solutions to mitigate those impacts that can be incorporated into State Implementation Plans.
- d. FERC, the RTOs, and state regulators should also work with generators and other stakeholders to conduct annual reliability evaluations at the state level, and to recommend corrective measures to address identified reliability issues. These evaluations could then be used as a basis for approving CPP compliance extensions or waivers, especially in the early years of implementation.
- e. FERC and the RTOs should adopt a clear set of standards providing for the expanded use of “reliability must run” agreements to ensure continued operation of fossil-fueled plants considered essential for grid reliability, but that might otherwise close due to CPP implementation. FERC and RTOs should also consider increasing reserve margins for both supply-side (“spinning”) and demand-side (“non-spinning”) resources in order to maintain grid stability.
- f. The UWUA supports NERC’s suggestion that a system of generator capacity payments or similar incentives should be developed to support the long-term economic viability of any fossil-fueled units that may be switched to low-capacity “peaking” status in order to meet CPP compliance mandates.
- g. A similar incentive structure should be developed to ensure that retired fossil-fueled units identified by regulators as potentially essential for grid reliability will be maintained by generators in a “reserve” status for up to two years to meet unexpected grid stability concerns. This arrangement would be similar to “reliability must run” contracts currently administered by RTOs, but with a significantly smaller workforce to perform only the essential functions necessary to prevent closed units from deteriorating into obsolete conditions.

- h. Technologies such as carbon capture and sequestration are essential not only to support existing coal-fired facilities to ensure grid reliability, but also as an indispensable component of any workable plan to address climate change. With countries such as China and India expected to build substantial numbers of new coal-fired plants to power their growing economies, global reductions in carbon emissions from power plants will simply become unattainable without the development and widespread use of carbon capture technology.

The UWUA firmly believes that the U.S. must play a leading role in developing, implementing, and exporting carbon capture and related technologies in order to significantly reduce carbon emissions from coal-fired generation plants around the globe.

2. Regulators must provide for flexible compliance timelines to ensure grid reliability.

- a. Regulators must provide for flexible compliance timelines to ensure that power companies, grid planners, the states, and other relevant entities will have sufficient time to plan, develop, and install new generation and transmission infrastructure that will be essential to safeguard grid reliability.
- b. The UWUA supports NERC’s proposal for a “reliability assurance mechanism” in the final CPP rule as well as in State Implementation Plans.

3. Regulators must develop plans with concrete funding mechanisms to assist the workers and communities that become “stranded” because of the historic shift toward low-carbon energy policies.

- a. Federal and state regulators must plan in advance for the economic dislocations that will inevitably result from implementation of the Clean Power Plan. This must include an adequate funding source to assist workers and communities adversely impacted by the shift toward low-carbon energy sources.
- b. State Implementation Plans and other policies should emphasize the development of new energy projects and technologies in the communities most impacted by this shift in national policy, with guarantees that displaced workers will be able to find new, sustainable jobs as the electric power industry evolves.
- c. Finally, federal and state regulators should promote adoption of a surcharge mechanism – for example, in State Implementation Plans or within other regulatory frameworks – on the transmission, distribution, and generation of electric power to help mitigate the adverse impacts of CPP implementation on workers and communities.

These funds should be used for wages, benefits, and retraining assistance for displaced workers; expansion of economic development programs to enable

communities to adequately respond to power plant closures or downsizing; and new investments in energy and transmission infrastructure projects in the communities most impacted by CPP implementation.

E. Conclusion

The UWUA believes that the goal of substantially reducing carbon emissions can be accomplished without compromising grid reliability or the economic security of impacted workers and their communities. This can be achieved if regulators adopt sensible policies designed to safeguard the environment, the reliability of the grid, and the dedicated utility workers who have invested careers to power the U.S. economy and whose skills will be essential to modernize the generation industry and electric power grid of the future.