UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION	**)** **)**	**Docket No. AD15-4-000**

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: The North American Electric Reliability Corporation's Report on the Potential Impacts of the Environmental Protection Agency's Proposed Clean Power Plan—Chapter 7 Reliability Assurance Mechanism

Dear Ms. Bose:

On February 19, 2015,[1] the Federal Energy Regulatory Commission ("FERC" or the "Commission") held the first of a series of technical conferences to discuss implications of compliance approaches to the Environmental Protection Agency's ("EPA's") proposed Clean Power Plan ("CPP"). The technical conferences were focused generally on issues related to electric reliability, wholesale electric markets and operations, and energy infrastructure, with a specific focus on how developing compliance approaches to the proposed CPP could potentially impact electric reliability.

On April 21, 2015, the North American Electric Reliability Corporation ("NERC") published a report entitled *Potential Reliability Impacts of EPA's Proposed Clean Power Plan – Phase 1*, which provides an analysis of scenarios and identifies the

[1] Technical conferences were held for the Western Region on February 25, 2015, for the Eastern Region on March 11, 2015, and for the Central Region on March 31, 2015.

potential risks to reliability resulting from the resource transformation called for in the proposed CPP.[2] Included in NERC's report is a chapter describing NERC's recommendation for inclusion of a reliability assurance mechanism in the CPP final rule. In particular, Chapter 7 provides an overview of the rationale for why a reliability assurance mechanism is needed and additional detail regarding the ways in which a reliability assurance mechanism could work in concert with other efforts. Chapter 7 also outlines a specific series of roles for providing reliability guidance and independent assessments. Chapter 7 concludes with a recommendation that the EPA adopt a reliability assurance mechanism in the CPP final rule.

Chapter 7 is provided herein for the Commission's information. Please do not hesitate to contact us with any questions.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins
Associate General Counsel
North American Electric Reliability Corporation
1325 G Street NW, Suite 600
Washington, D.C. 20005
(202) 400-3000
holly.hawkins@nerc.net

Counsel for the North American Electric Reliability Corporation

Dated: April 21, 2015

[2] NERC's report is available at the following link: http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential%20Reliability%20Impacts%20of%20EPA%E2%80%99s%20Proposed%20Clean%20Power%20Plan%20-%20Phase%20I.pdf

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 21st day of April, 2015.

/s/ Holly A. Hawkins

Holly A. Hawkins
Counsel for the North American Electric Reliability Corporation

Potential Reliability Impacts of EPA's Proposed Clean Power Plan

Chapter 7—Reliability Assurance Mechanism

Chapter 7 – Reliability Assurance Mechanism

Maintaining Reliability Assurance

NERC's *Initial Reliability Review*[31] recommended that the EPA, FERC, the DOE, and state utility regulators employ a wide array of tools and regulatory authority to formulate a reliability assurance mechanism. Such a reliability back-stop could include timing adjustments and the granting of extensions to an entity's implementation of and compliance with its CPP implementation plan where there is a demonstrated reliability need. The key findings and conclusions presented in this Phase I assessment confirm that a reliability assurance mechanism is needed to ensure the reliability of the BPS during both the plan's development and implementation periods.[32] A defined reliability assurance mechanism, integrated within the EPA's final CPP rule, would recognize the respective roles of regulated entities, states or regions, FERC, the DOE, the EPA, and NERC while preserving BPS reliability and managing emerging and impending reliability risks.

These materials provide an overview of the rationale for why a reliability assurance mechanism is needed and additional detail regarding the ways in which a reliability assurance mechanism could work in concert with other efforts. While NERC's potential role would not be to propose certifying or approving the validity of implementation plans, reliability assessments and technical guidance on whether a specific plan could create or have the potential to create a reliability issue could be of assistance.

A NERC assessment of the overall potential impacts of the proposed CPP plans on state, multi-state, and regional grid reliability as plans are being developed and submitted to the EPA is also important for understanding the infrastructure and solutions that would need to be deployed to meet CPP requirements. Reliability assessments would (1) serve as a reliability resource to evaluate either state implementation plans during their development or aggregate entity plans once formulated, (2) enable interested stakeholders to identify grid reliability challenges and develop mitigation strategies, and (3) enhance the effectiveness and efficiency of plans by ensuring that they account for transmission and generation availability and performance, and other relevant operational and planning information from system operators and planners.

Identifying a Need for a Reliability Assurance Mechanism

The FERC-approved NERC Reliability Standards provide for the reliable operation of the BPS and help ensure that instability, uncontrolled separation, or cascading failures of the system will not occur as a result of a sudden disturbance or the unanticipated failure of system elements. Because the NERC Reliability Standards must be complied with *at all times*, the availability of a defined reliability assurance mechanism in the CPP would provide protection or relief to states, regions, and industry entities as reliability challenges occur in CPP development or during the plan's implementation.

A wide range of factors, both anticipated as well as those that could emerge during the CPP's implementation period, could impact a state's or region's conformance with the proposed CPP implementation plans. Some of these factors include the following:

- variability and uncertainty of infrastructure lead times (both generation and transmission);

[31] http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/Potential_Reliability_Impacts_of_EPA_Proposed_CPP_Final.pdf.

[32] Other entities have also argued that a reliability assurance mechanism is needed to ensure that reliability is maintained during the CPP's implementation. For example, the ISO/RTO Council, in its February 19, 2015 statement, provides four mechanisms, in which states will provide a foundation to assure reliability during both the planning process and implementation. These four mechanisms are:

1. Regional and multi-regional reliability assessments of the CPP plans to evaluate reliability and timing needs;
2. Established criteria for the EPA to evaluate CPP plan reliability impacts;
3. "Glide path" flexibility where it is needed due to the timing of necessary electric infrastructure development; and
4. Adoption of a safety valve process to address grid reliability impacts during the plan's implementation.

- the complexity of multi-regional coordination, which will require time to develop and can only be accomplished once definitive plans are in place;
- the technical and logistical feasibility of infrastructure development;
- NERC's mandatory transmission planning and adequacy standards, which establish BPS reliability performance requirements that must be maintained;
- unanticipated issues that could significantly alter and delay construction plans; and
- the CPP implementation period through 2030, which could introduce economic, policy, regulatory, legislative, technological, or other drivers that affect reliability plans.

NERC, as a recognized reliability authority, is capable of evaluating the reliability implications of these anticipated factors, system conditions, and infrastructure changes. In both CPP plan development among the states and implementation by industry entities, technical assessments that help determine projected reliability constraints and alignment with other reliability criteria (i.e., as required by state, ISO/RTO, or interconnection rules) would be of benefit. Additionally, system simulation and analyses to demonstrate potential reliability issues (e.g., resource adequacy, power flow and dynamics modeling, voltage stability assessment, and frequency response analysis) could also be performed.

Elements of a Reliability Assurance Mechanism

The principal elements of an effective reliability assurance mechanism should include alignment of reliability, implementation plans, regulation, and overall certainty. For the CPP, these elements will involve the regulated entities, states or regions, FERC, the DOE, the EPA, and NERC. An effective reliability assurance mechanism should also include the following elements:

- state or regional CPP plans with state and federal regulatory alignment;
- a reliability assessment by NERC of CPP plans;
- an evaluation against distinct reliability criteria and inter-area coordination;
- consideration of other reliability assurance mechanism options, including:
  - infrastructure implementation options and target impacts;
  - adjustments to implementation targets;
  - reliability-must-run generation;
  - entity- or state-specific implementation plan modifications; and
  - reliability-specific adaptations and provisions to maintain reliability.

During the CPP development stage, states or regions will be responsible for developing plans that support the CPP's targets. In developing those plans, reliability assessments and evaluations by NERC, as requested by states, would help support efforts to ensure that reliability can be maintained during the CPP implementation period as planned infrastructure is built. Based on these reliability evaluations, states could then determine whether a plan could be implemented to meet the CPP requirements. If more time is needed to support a demonstrated reliability need, a reliability assurance mechanism could be used to provide relief and align the plan with CPP targets.

During the plan implementation stage, an approved state or regional plan well underway may experience unexpected and unplanned challenges in deploying infrastructure and resources during the plan's implementation. As described in this report, external factors contribute to planning challenges and uncertainty and could impact reliability, including the siting and permitting of electric facilities (generation and transmission), the effects of neighboring areas implementing their plans, the price of fuel, and changes in customer behavior

and electricity demand. As a result, some states or regions may not meet their plan targets while maintaining reliability. In these circumstances, a reliability assurance mechanism could be used to ensure that there are no adverse reliability impacts in implementing the CPP.

A reliability assurance mechanism should recognize the need for flexibility in meeting overall CPP target objectives by providing flexibility to address unique state and local reliability impacts during implementation. A reliability assurance mechanism would also provide overall regulatory certainty for states and entities and reliability assurance for the BPS.

NERC's role in an effective reliability assurance mechanism, described in more detail below, would be to provide the context for conducting reliability evaluations and assessments during the CPP's development and implementation periods. As the CPP rule and corresponding implementation plans developed by entities, states, and regions are finalized, reliability assurance requirements and guidance could be identified. In cases where plans have identified an adverse state, regional, or inter-regional reliability impact that has not been adequately mitigated or addressed, the final rule should provide regulatory certainty that a reliability assurance provision is available to adequately address infrastructure and resource needs without penalizing the states or industry entities.

NERC's Role in a Reliability Assurance Mechanism

There are three primary periods during which NERC could provide a reliability assessment and guidance for states and entities as plans are developed to implement and comply with the CPP. These reliability-focused steps could serve to support reliability assurance during refinement of state or regional plans as well as during implementation of plan elements. They are:

1. **During the CPP Plan Development Period:** As states are developing their state implementation plans or regional implementation plans, NERC could serve as a resource in assessing reliability or identifying potential reliability concerns. While NERC's role would be advisory and non-binding, NERC could develop written guidance and criteria by which plans may be developed, reviewed, and evaluated.
2. **During the Plan Review and Approval Period:** After the CPP final rule has been issued and prior to the initial submittal dates for state and regional implementation plans, NERC plans to undertake its Phase II assessment of the CPP, currently anticipated by mid-2016. Additionally, NERC would continue to conduct its long- and short-term reliability assessments, which would reflect aggregate entities' implementation plans within state or regional CPP plans. Reliability assessments and review of the plans before they are finalized could identify areas where there may be a reliability issue.
3. **During the Plan Implementation Period:** As actual, emerging, or anticipated reliability issues are identified, factors that might impact an entity's ability to ensure reliability while satisfying the CPP may occur. Those factors include:
    a. insufficient time to implement infrastructure additions or modifications needed to maintain reliability;
    b. unanticipated conditions or circumstances directly affecting implementation plans, leading to reliability issues;
    c. an entity identifying an impending conflict between assuring reliability and satisfying the CPP implementation plan; or
    d. an entity determining that meeting the requirements of the CPP implementation plan will require load to be shed.

The proposed framework outlined in Figure 24 offers more detail on how reliability-focused steps throughout all stages of the CPP's implementation—including during CPP plan development, CPP plan review and approval, and CPP plan implementation—could be pursued.

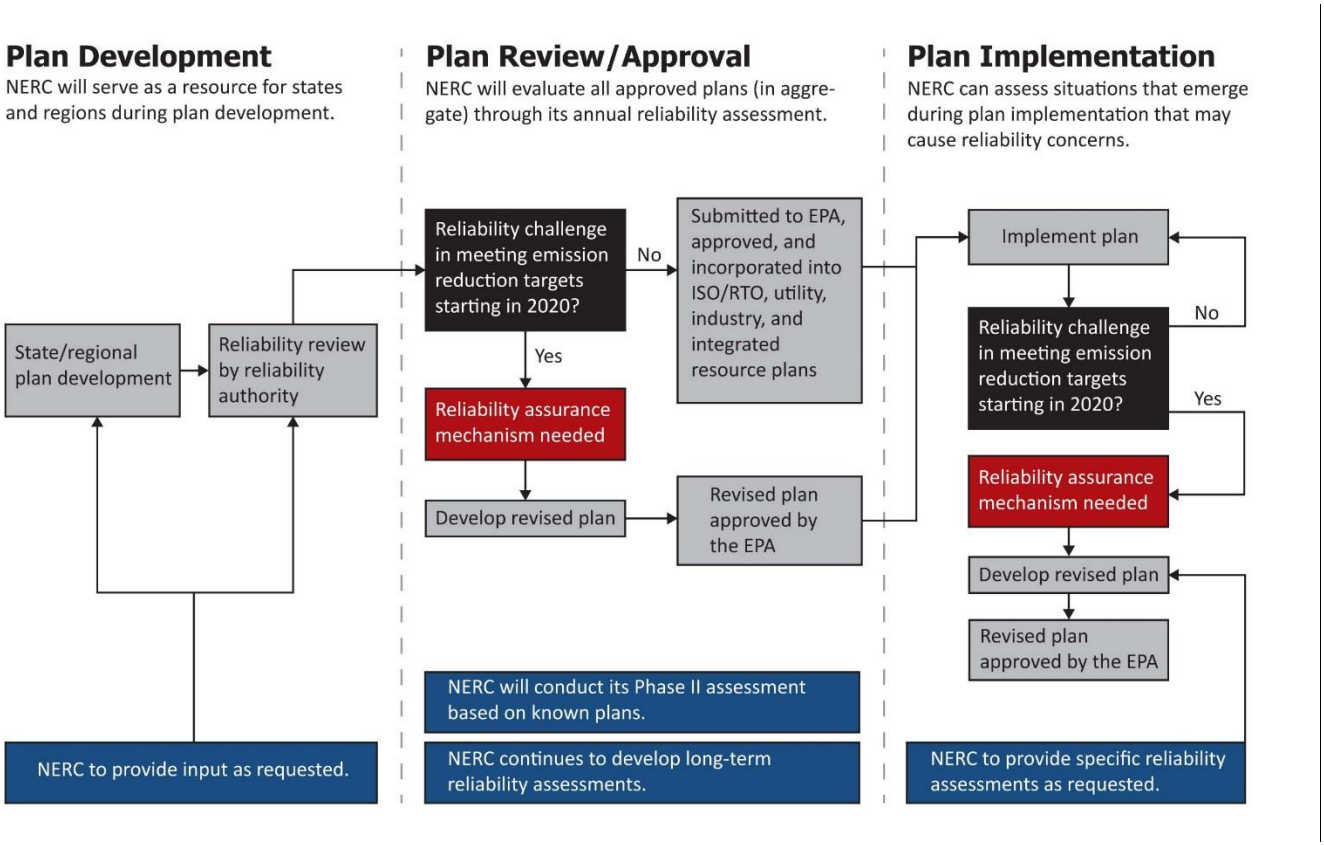

Figure 24: A Framework for NERC's Advisory Role and the Reliability Assurance Mechanism

In the framework proposed above, NERC is available to work with states, FERC, the DOE, the EPA, and others throughout the process to ensure this reliability information is available to them as progression toward environmental plans and CPP requirements is being made.

Conclusions

NERC recommends adoption of a reliability assurance mechanism in the CPP final rule that could be based on the specific roles described above. Further, NERC recommends that policy makers help ensure that state or regional implementation plans that are developed to meet the CPP requirements provide assurances that reliability can be sustained during the CPP's implementation period. Plans that require greater infrastructure development of either gas pipelines, transmission, supply resources, or other assets will require time to ensure these infrastructure accommodations can be made with reliability certainty. A reliability assurance mechanism, along with sufficient timelines to accommodate infrastructure development, can facilitate a reliable transition and ensure BPS reliability.