



Southwest Power Pool, Inc.

STRATEGIC PLANNING COMMITTEE TASK FORCE – Clean Power Plan

Conference Call

Friday, September 18, 2015

9:00 PM – 11:00 AM

Conference Call

• A G E N D A •

1. Call to Order and Introductions.....Mike Wise
2. Review Task Force Scope.....Mike Wise
3. Summary of Federal PlanSam Ellis
4. Preview Webinar ContentLanny Nickell
5. Next Steps.....Mike Wise
6. Action ItemsMichael Desselle

Clean Power Plan Proposed Federal Plan Summary

CPPRTF 9/18/2015



Helping our members
work together to
keep the lights on...
today and in the future

Introduction

- **The Environmental Protection Agency (EPA) has proposed a federal plan to implement CO₂ emission guidelines defined in the Clean Power Plan**
- **EPA will implement the federal plan in any state that does not submit an approvable state plan as described in the Clean Power Plan**
- **The federal plan proposes two approaches:**
 - **Rate-Based plan**
 - **Mass-Based plan**
- **Federal plan will provide a framework for trading of credits/allowances between parties**

Introduction

- **States may submit plans that incorporate portions of the federal plan**
 - **Encourages state adoption of federal trading rules**
 - **Facilitate interstate trading of emissions credits or allowances**
- **EPA proposes that states may submit partial plans**
 - **“Carve out” areas where states wish to adopt areas different from federal plan**
- **Proposes distinct compliance periods**
 - **3 years (2022-2024), then 3 years (2025-2027)**
 - **2 years (2028-2029), and then every two years after**

Purpose of federal plan

- **A model for state plans**
 - **Model rules in federal plan are “presumptively approvable” by the EPA**
- **Applies to state plans that are disapproved (in whole or in part) by the EPA**
- **Applies to states that do not submit a federal plan**
 - **States initially without an approved plan may transition to a state plan later**

Two proposed approaches

- **Rate-based**
 - Applied to specific resources
 - Target is pounds of CO₂ per MWh
 - Emissions Rate Credits
 - “ERCs”
 - “Zero CO₂” per MWh
- **Mass-based**
 - Applied to specific states (or regions)
 - Target is short tons of CO₂ per state
 - Emissions allowances
 - More similar in concept to existing emissions programs

ERCs and allowances generally may not be comingled

RATE-BASED PROPOSAL

Rate-Based Approach: Goals & Standards

- Requirements for compliance rest on affected generation (EGUs) in the form of federally enforceable emission standards expressed as a rate of emissions of CO₂ per unit of energy output (lbs./MWh)
- Emission performance rates and standards are defined separately for two subcategories of EGUs:
 - Natural gas-fired stationary combustion turbines
 - i.e., Natural Gas Combined Cycle Units (NGCC units)
 - Fossil fuel fired Steam Generating Units (SGUs)
 - i.e., utility boilers and Integrated Gasification Combined Cycle units (IGCC units)

Mechanism for Emission Crediting

- **EGUs subject to emission performance requirements will either:**
 - need to emit at or below emission rate standards, or
 - acquire Emission Rate Credits to achieve compliance
- **Emission Rate Credits (ERCs):**
 - Tradable units that represent 1MWh of electric generation (or reduced electricity usage) with zero associated CO₂ emissions
 - Used to adjust the measured and reported CO₂ emission rate of an affected EGU
 - Issued on an annual basis

Mechanism for Emission Crediting (cont'd)

- **ERCs will be issued for:**
 - **Affected EGUs that perform at a rate below the emission rate standard**
 - **CO₂ emission rate compared to an emission rate standard**
 - **Affected Natural Gas Combined Cycle units**
 - **Incremental generation; shifting from steam**
 - **Special ERCs that can be applied to fossil steam (GS-ERCs)**
 - **New nuclear units and additional nuclear capacity**
 - **Renewable Energy providers; including Biomass**
- **Responsibility for validity of the ERCs rests with the EGU**

Federal Plan and State Plan Interactions

- **Interstate Trading**
 - EGUs within states that are covered by the federal plan will be allowed to trade ERCs with each other
- **States entering/exiting trading program**
 - The rate-based trading federal plan may be replaced by a state plan for a future compliance period; the new plan would go in effect at the beginning of a compliance period

Rate-Based Approach, Other Items

- ERCs will be registered and tracked in EPA's allowance tracking system (ATCS)
- EGUs may assign designated representatives
- Specific standards proposed for Evaluation, Measurement and Verification (EM&V)
 - EPA proposes that “control area operators” provide monthly data for renewable energy credits
- EPA seeks comment on timeframes for reporting and truing up accounts
 - Propose November following end of compliance period

MASS BASED PROPOSAL

Mass-Based Approach Overview

- Allowances (short tons of CO₂) created for maximum authorized emissions for affected EGUs
- Each state may determine its own approach for distributing allowances
- Proposes distinct compliance periods
 - 3 years (2022-2024), then 3 years (2025-2027)
 - 2 years (2028-2029), and then every two years after
- Resulting allowances may be traded
- Some allowances set aside for other uses

Initial Distribution of Allowances

- **Allowances for entire compliance period distributed at the same time**
 - Allowances may be applied to different years within the compliance period
 - EPA proposes that unused allowances may be banked for future compliance periods
- **Proposed to distribute based on affected EGUs' share of historic generation 2010-2012**
 - Some normalization applied
 - State mass goals then applied to EGUs pro rata
 - EPA seeks comments on other distribution methods

Massed-Based Set Asides

- **Allowances will be set aside from state goals for the following:**
 - **Output-based allocation**
 - Used to discourage “leakages” in combined-cycle generation
 - All compliance periods except for first
 - **Renewable Energy (RE)**
 - Allowances for eligible RE projects
 - All compliance periods
 - **Clean Energy Incentive Program**
 - Used to encourage early action
 - First compliance period only

Leakages

- **Federal and state plans must address leakages**
 - **Incentives using set-asides to shift generation from affected to non-affected EGUs**
 - **States may provide other evidence that leakages will not occur, for example**
 - **State regulation of emissions for new fossil EGUs**
 - **Allocation method of allowances to counteract incentives**
 - **Demonstration that leakages are unlikely to occur**

Mass-Based Other Considerations

- **Generation retirement**
 - Units that do not operate for 2 consecutive calendar years continue to receive allowances for a period of time
 - Also applies to units modified or reconstructed such that they're no longer an affected EGU
- **Tracking**
 - Tracking similar to already-existing emissions rules
 - Uses existing tracking and compliance (ATCS)

Mass-Based Other Considerations

- **True-ups**
 - **Period of time after end of period to trade and record allowances**
- **States have much flexibility in allocating allowances**
 - **Even if otherwise operating under federal plan**
 - **Interstate regions**
 - **Allowance auctions**

Clean Energy Incentive Programs (CEIPs)

- Incentives for achieving CO₂ reductions early
- Provisions proposed in both rate- and mass-based
- Allocated ERCs or allowances based on
 - Incremental wind and solar
 - Demand-side energy efficiency in low-income communities

Electric Reliability Considerations

- The EPA will consult with planning authorities in developing the federal plan
- Accepting comments on whether to include set-aside allowances for reliability emergencies
- EPA believes both rate-based and mass-based approaches contain sufficient flexibility to mitigate reliability issues
 - EPA believes reliability safety valve is not needed for the federal plan
- EPA may not have considered interactions between federal plan and potential state plans for a given region

Southwest Power Pool, Inc.
Clean Power Plan Review Task Force Charter
Organizational Group Scope Statement
August 25, 2015

Purpose

The Clean Power Plan Review Task Force (CPPRTF) is responsible for reviewing the EPA's Clean Power Plan (CPP) and proposed Federal Plan (FP), recommending the role that SPP should play in assisting states' compliance approaches, and informing Staff and Member dialogue with environmental regulators.

Scope of Activities

In carrying out its purpose, the CPPRTF will:

1. Review the CPP and the EPA's proposed FP.
2. Summarize grid reliability, energy market, and strategic implications within SPP and between SPP and its neighbors resulting from:
 - a. Development of state plans across the SPP region in an uncoordinated and inconsistent fashion, given the options afforded states by the EPA in the final rule.
 - b. Implementation of proposed carbon trading market rules contained in the EPA's proposed FP.
3. Qualitatively assess implications of rate-based versus mass-based compliance approaches and the interoperability between the two approaches.
4. Recommend any comments SPP should submit in response to the proposed FP.
5. Evaluate opportunity for SPP to facilitate or play a role in formation of a regional carbon trading market.
6. Recommend SPP's role in assisting states' compliance approaches.
7. Develop educational materials for the members, RSC and environmental agencies.

Representation

CPPRTF membership consists of up to 5 representatives from the Strategic Planning Committee, including the chair. Meetings are open, however by sufficient notice; the CPPRTF may limit attendance during specific portions of a meeting by an affirmative vote of the CPPRTF for reasons that are consistent with the SPP Bylaws.

Duration

Temporary

Reporting

The CPPRTF reports to the Strategic Planning Committee.