



Southwest Power Pool, Inc.

STRATEGIC PLANNING COMMITTEE TASK FORCE – Clean Power Plan

Friday, December 4, 2015

9 AM – 2 PM

AEP Office, Dallas, Texas

• A G E N D A •

1. Call to Order Mike Wise
2. Review of Past Action Items Michael Desselle
3. Rate Base versus Mass Base Whitepaper Sam Ellis
4. Federal Plan Comments..... Sam Ellis
5. Draft Talking Points Lanny Nickell
6. Discuss Scope items 2b and 5 Lanny Nickell
7. Status of Stakeholder Discussions Lanny Nickell
8. Next Steps & Action Items..... Mike Wise

Southwest Power Pool
SPCTF – CLEAN POWER PLAN
Thursday, October 15, 2015
Teleconference

• M I N U T E S •

Agenda Item 1 – Call to Order and Administrative Items

SPCTF Clean Power Plan Chairman Mike Wise called the meeting to order at 2:00 PM. Other Task Force members in attendance included: Richard Ross (AEP); Burton Crawford by phone (KCPL); Lauren Quillian (Xcel); Dennis Florom (LES); Wayne Penrod (Sunflower); and Dale Niezwaag by phone (BEPC). SPP Staff included Lanny Nickell, Michael Desselle, Sam Ellis, Mike Ross, Sam Loudenslager, and Dustin Smith. Other participated in person or by phone (Attendance – Attachment 1).

Richard Ross moved and Lauren Quillian seconded adoption of the 9/18/2015 minutes (Minutes 9/18/2015 – Attachment 2). Additionally, the order of agenda items was rearranged to move agenda item #5 earlier in the meeting.

Agenda Item 2 – Review of Past Action Items

Michael Desselle reviewed past action items. With respect to the Task Force Scope Modification Item (Scope Document Clean and Redline – Attachment 3), Michael provided an update on the SPC's modification and adoption of the Scope document (Scope Document Final – Attachment 4).

Agenda Item 5 – Mass- v. Rate-Based Survey Results

Dustin Smith presented a summary of the Member survey results (CPPRTF Member Survey Results – Attachment 5). Dustin reminded the Task Force that SPP staff was directed to conduct a survey of SPP members to gauge member preference of the rate-based or mass-based compliance approaches offered in the CPP final rule. He noted that the survey recipients were advised that their responses would not be binding and disclosed on an individual basis. Finally, Dustin noted that the goal of the survey is to inform the CPPRTF of SPP membership preferences which could help shape SPP's dialogue with environmental regulators and other stakeholders.

The Task Force discussed that the results seem to contradict each other. One consensus point seemed also to be that a rate-based approach may result in the need for more infrastructures. A consensus was formed that an understanding of all the implications was needed and that reliability concerns associated with either option may be the issue to comment on. Staff was tasked to develop a strawman and highlight the reliability implications.

Agenda Item 3 – Reliability Issues Identified

Sam Ellis discussed and highlighted reliability issues in his presentation on the qualitative assessment of the Federal Plan discussed in the next agenda item.

Agenda Item 4 – Qualitative Assessment of Federal Plan

Sam Ellis presented a Qualitative Assessment of Proposed Federal Plan (Qualitative Assessment of Proposed Federal Plan – Attachment 6). Sam highlighted 5 key questions from Federal Plan review:

1. Should the mass-based approach include a reliability set-aside?
2. Are there relative reliability advantages from a mass-based or rate-based approach?
3. Should planning authorities weigh in the process of subjecting a state to the FIP?
4. Should the federal plan (FIP) include a reliability safety valve?
5. Are there other qualitative considerations related to the FIP?

Areas of consensus include that either methodology (rate-based or mass-based) will be reliable but that consistency of approach amongst adjacent states enhances reliability, so SPP should encourage states to work together. A consensus also developed that any Federal Implementation Plan must include a Reliability Safety Valve (RSV) and a Reliability Assurance Mechanism. Sam recapped that the answers

to Questions 3 and 4 coalesced to “yes”. With respect to other qualitative considerations, Task Force members were asked to send any additional considerations to Sam.

Agenda Item 6 – Status of Stakeholder Discussions

Lanny Nickell provided an update on recent outreach activities. He specifically mentioned the recent Webinar held with SPP states environmental regulators. He also highlighted recent meetings and discussions in Missouri, Kansas and Arkansas.

Agenda Item 7 – Next Steps

Mike Wise noted that the Task Force needs to also address 2 items within its scope at the next meeting: 2b - grid reliability, energy market, and strategic implications within SPP and between SPP and its neighbors resulting from implementation of proposed carbon trading market rules contained in the EPA's proposed FP; and, 5 - Evaluate opportunity for SPP to facilitate or play a role in formation of a regional carbon trading market. Mike supported a continuation of Staff's outreach activities. Task Force members noted that we have enough background to begin the development of an outline for comments to be submitted in anticipation of the CPP publication in the Federal Register. Finally, the Task Force should begin to develop some consensus talking points.

Agenda Item 8 – Action Items

Deliverables include:

- Task Force members to provide to Sam Ellis other qualitative considerations;
- Address Scope Items 2b and 5 at next meeting;
- Strawman for both Mass-Based and Rate-Based approach;
- Staff to draft outline of Federal Plan Comments;
- Develop consensus talking points at next meeting.
- Schedule follow-up meeting on December 4.

Respectfully Submitted,

Michael Desselle
Secretary



Mass-based and Rate-based Comparison

November 24, 2015



Revision History

Date or Version Number	Author	Change Description	Comments
11/24/2015	Sam Ellis	Initial draft	

Report Name

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One of the goals of the Clean Power Plan Task Force of the Strategic Planning Committee (“CPPTF”) is to perform a qualitative assessment of rate-based and mass-based approaches. The purpose of this document is to document the key qualitative considerations of mass-based and rate-based approaches.

Determining supply of allowances and credits

Using the proposed mass-based methodology, the total number of available allowances is known at the beginning of each compliance period. Because the supply of allowances is known in advance, some believe that there is more economic certainty that can be attached to trading of allowances, particularly in forward markets, which might mean such markets are more liquid in the long-run.

[Having more price-certainty with such compliance instruments also allows participants in SPP’s markets to better know their costs and formulate offers that allow the market to dispatch resources based on more definitive cost information. More price certainty would tend to make SPP’s markets operate more efficiently.](#)

Since the total allowances are pre-determined based on projections, one potential disadvantage of the mass-based approach is that states experiencing higher load growth than anticipated may find the mass-based caps more burdensome than rate-based compliance.

Under the proposed rate-based approach, certain types of resources generate emissions rate credits throughout the compliance period that can be applied to other resources in order to bring each resource’s overall emissions rate below a required target (pounds of CO₂ per MWh of output). Since the generation of credits is not known in advance, forward markets may be inflated to reflect additional risk premiums associated with the uncertainty of how many credits will be available in future periods. However, additional credits can be generated based on demand, and so there may be less long-term economic scarcity impact associated with a rate-based approach since the supply of credits is not fixed.

Under the proposed rate-based approach, pre-existing zero- and low-emissions resources cannot generate credits to offset production of higher-emissions generation. Some have expressed concern that, as a result, existing renewables may be economically disadvantaged compared to newly-constructed renewable energy.

Monitoring, verification and tracking

The proposed mass-based approach is more similar to existing EPA compliance programs, such as ARP SO₂ trading program, NO_x Budget Trading Program, CAIR, and CSAPR. The EPA states that that most generation resources already have the monitoring in place to track emissions against a mass-based approach. Hence, compliance with a mass-based plan may be easier, and many expect measurement and verification under a mass-based plan to be less expensive.

Under a rate-based approach, new monitoring and tracking mechanisms might be necessary, resulting in more expense and effort than would be required under a mass-based approach. Also, the EPA states that any liability for the validity of an emissions rate credit is associated with the resource owner who submits the credit as part of its compliance, so trading credits may be more risky than trading allowances.

Issues with allocation

Under a mass-based approach, there are different ways allowances can be allocated to resource owners. Under the proposed federal plan, the EPA is proposing to set aside allowances from overall emissions targets to provide incentives for additional renewable generation to be constructed. States have additional options to consider when allocating allowances. There will be a lot of time, effort, and potentially contentious discussion involved in determining the best way to allocate allowances and what set-asides, if any, are appropriate.

In its proposed mass-based plan, the EPA proposes to allocate allowances to resource owners based on historical generation (MWh) levels rather than based on the emissions rates of the individual resources. The EPA also plans to consider resources that haven’t produced energy for a period of time to be retired, and the allowances associated with retired generation resources will be reallocated. This provides resource owners incentive to keep (potentially inefficient) resources from retirement in order to retain the allowances associated with them and, as a result, may detriment market efficiency in the long run.

In a rate-based plan, resources are assigned a target emissions rate and can meet that rate either by reducing CO₂ emissions or applying rate credits to bring its overall rate below the assigned target. Hence, the rate-based approach avoids much of the allocation contention that the mass-based approach could entail. Some resources, such as certain coal plants, will have to procure credits generated from other resources to comply since they cannot lower their emissions rate below their assigned cap.

Leakage under mass-based plans

Under a mass-based plan, the EPA has concerns with incentives inherent in mass-based plans to shift energy production to generation not subject to the requirements of 111(d). The EPA requires states to address such “leakage” in their plans, and they have proposed establishing a set-aside in the federal plan to reduce incentives for leakages to occur. Based on interactions with states and various stakeholders, leakage is one of the more contentious concepts in the mass-based plan, with some asserting that the EPA has no authority to require mitigation of potential leakage since other sections of the Clean Air Act, such as 111(b), apply to emissions of newer generation resources.

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Reliability Implications

Among the factors with mass-based and rate-based approaches that could impact reliability is how generation resource retirements are a factor. As discussed earlier, the mass-based portion of the federal plan proposes reallocating allowances (eventually) for retired resources. This provides some incentive for resource owners to keep inefficient resources available at some minimum level in order to provide credits. It also may create reliability coordination challenges if such resources are

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minimally available for system emergencies or are otherwise not able to respond to reliability challenges.

Conversely, the proposed rate-based federal approach may provide some incentives for high-CO₂ producing resources to retire sooner than they might under a mass-based approach. The resulting shift in generation could result in more new construction as well as shifts in existing generation, which would require additional transmission expansion in order to reliably operate the system with changes in power flows.

Although either approach provides incentives to construct renewables, the proposed federal rate-based plan allows newer low-carbon resources (such as renewables) to generate rate credits while existing ones cannot. Thus, rate-based plans may have more incentive to add renewables than mass-based plans since, under a mass-based plan, any low-carbon resource generation contributes toward reducing the number of allowances required. Since most renewables in SPP's system are not synchronized generation, the challenges with planning and reliability coordination associated will increase as asynchronous generation is added to the system.



Comments on Proposed Federal Plan

November 24, 2015

Revision History

Date or Version Number	Author	Change Description	Comments
11/24/2015	Sam Ellis	Initial draft	

One of the goals of the Clean Power Plan Task Force of the Strategic Planning Committee (“CPPTF”) is to perform a qualitative assessment of the EPA’s proposed federal implementation plan (“FIP”) that SPP can use to provide comments to the EPA. This document contains discussion of certain areas of the FIP based on discussions with staff, the CPPTF, and other stakeholders that SPP believes would minimize reliability concerns with the Clean Power Plan.

The EPA should have a consolidated review process for proposed State and Federal Plans

SPP proposes that the EPA conduct a concurrent, consolidated review process of state plans to ensure that individual state plans (as well as federal plans developed for states) can operate together reliably on a regional basis.

In many states, electric customers rely on a mix of generation resources from within and outside of their state to provide electricity. In order to fully assess the reliability impacts that the actions of one state may have on another, a consolidated review of all plans should be performed, ideally before any of the plans have been submitted for final EPA approval. SPP has concerns that individual state plans may not have the flexibility needed to operate reliably, or a federal plan might approach operations much differently for a state (or a combination of individual state plans and subregional plans) than the states which surround it.

The EPA should consult planning authorities and reliability coordinators in developing federal plans

The EPA should work with impacted reliability coordinators and planning authorities (“PA/RCs”) in developing a federal plan for a specific state prior to submitting the plan for comments. The EPA may need to consider plans from other states in the surrounding region before determining whether a mass-based or rate-based approach is appropriate for a given state. Also, if EPA provides for any reliability set-asides in a federal plan, PA/RC analysis may provide some basis for the allocation of such set-asides. Furthermore, mitigating reliability concerns (must-run resources, voltage stability, load pockets, etc.) may be addressed with a combination of flexible time-based actions (e.g., borrowing from future periods) in the federal plan and planning actions developed by the planning authority. Mitigating reliability issues are the responsibility of the PA/RCs who have the tools to evaluate both state and federal plans.

Both federal and state plans should require a reliability safety valve

As contemplated, the reliability safety valve (“RSV”) is to be used for an “unforeseeable . . . extraordinary, unanticipated, potentially catastrophic event.” Although the proposed rules for federal plans are expected to contain market-based flexibility, the RSV should be available in a federal plan for extreme, unforeseen events that require immediate action. The market-based flexibility that is proposed in a federal plan may not be effective to deal with these events if surrounding state plans are not compatible with the federal plan imposed on a state in the same region. The EPA may need to consider how the RSV is deployed if contained in a federal plan and whether states would have a similar role as they do under state plans.

Regional precedent should be considered in formulating a federal plan

The EPA should defer consideration of a blanket mass-based or rate-based approach for federal plans until it is apparent whether there is a predominant regional preference for a particular approach. Given that different areas of the country rely on different fuel sources and have varying capacity for installation of renewable energy (such as wind or solar), there may be strong indications that a rate-based plan might be more appropriate than a mass-based plan, or vice versa, if the surrounding states have already indicated a predominate approach in their plans.

SPP

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Talking Points

- SPP studies indicate a regional approach to CPP compliance is more cost effective than a state-by-state approach and less disruptive of the reliability and economic benefits provided by SPP's Integrated Marketplace.
- A regional compliance approach does not have to be a single compliance plan for a geographic region, but could be accomplished by a consortium of state compliance plans that are interoperable and rely on market-based solutions.
- States are encouraged to coordinate with each other and develop plans, even if litigating, rather than waiting for EPA's Federal Plan to be imposed on them.
- SPP is the Planning Authority and Reliability Coordinator for its Region and is best equipped to assess state plans for reliability impacts to the SPP region.
- SPP stands ready to assist any way that it can to ensure a reliable, cost effective approach to compliance.