



# Meeting Summary

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## ADEQ EPA CLEAN POWER PLAN TECHNICAL WORK GROUP MEETING SUMMARY

**DATE:** May 12, 2016  
**TIME:** 10:00-11:30 a.m.  
**LOCATION:** ADEQ, Room 3175, 1110 West Washington Street, Phoenix

**STAKEHOLDER ATTENDEES**  
(See attached)

**ADDITIONAL ATTENDEES**  
Kelly Cairo, GCI

**ADEQ Staff**  
Steve Burr  
Kamran Khan  
Marina Mejia  
Tawnya Cook

### AGENDA

The meeting agenda included:

- Introductions
- Ground Rules
- ASU Preliminary Analysis and Work Plan
- Relative Stringency of Performance and State Wide Rate-Based Standards
- Inventory of Rate-Based Plan Needs
- Action Items/Next Steps

### INTRODUCTIONS/GROUND RULES

Steve Burr welcomed attendees and facilitated introductions. Thirteen technical work group members attended in person and via conference call.

Burr explained that former AQD Director Eric Massey accepted a position at APS. Massey had made the Clean Power Plan and vulnerable community issues a priority. Work on the CPP has slowed even more than anticipated with the stay.

### ASU PRELIMINARY ANALYSIS AND WORK PLAN

Burr introduced presenters Eddie Burgess and Maren Mahoney. He noted that there is a memorandum of agreement between ADEQ and ASU to conduct CPP-related analysis, but the department cannot make significant expenditures during the stay. ASU's work is independent at this point.

Highlights of the presentation, comments and questions included:

- ASU activities and work plan includes a preliminary compliance analysis, a CPP scenario reliability analysis, and a CPP scenario economic analysis.
- The preliminary compliance analysis is completed for external review.
- The reliability analysis is being conducted in partnership with NAU and builds upon their production cost modeling. The modeling will be complete in July 2016. CPP scenario reliability analysis is anticipated in Fall 2016.
- The economic analysis is a collaboration between ASU and researchers at Resources for the Future. A CPP scenario economic analysis kickoff meeting is anticipated in June 2016. The CPP Scenario Modeling will be complete in September, and input from the TWG is welcomed.
- ASU will produce a final report in October 2016
- The presenters noted the following:
  - The analysis is for discussion purposes only.
  - It is intended to be complementary to other analyses, not a replacement.
  - It should not be interpreted as policy recommendations from ASU.
  - The focus is on compliance. Does not assess reliability.
  - ASU welcomes an open dialogue on ways to improve this analysis.
- The guiding questions and approach to analysis were reviewed.
- Assumptions were consistent with those anticipated by PACE Global.
- The analysis was performed using publicly available CP3T tool developed by Synapse Energy Economics.
- The four cases analyzed included Arizona with rate option, Arizona with mass option, Arizona plus Navajo with rate option, and Arizona plus Navajo with mass option.
- Presenters reviewed resource additions and assumptions. This study adopted the PACE Global average annual load growth rate (prior to EE/DG). However, the study adjusted annual incremental savings from EE from less than one percent to 1.5 percent.
- Do the resource/levelized cost figures line up with PACE Global figures? PACE assumed all new generating resources needed to meet increased load would be NGCC. ASU assumed a combination of solar and wind based on lower cost.
- Will the reliability study address intermittency? Yes.
- Assumptions about load and demand-side resources were reviewed.
- (Comment): It sounds like PACE Global underestimated EE. It looks like EE is not embedded in the load growth in utilities.
- In an **Arizona rate option plan**, the model predicts more than enough ERCs available compared to those required for each period.
- How was CEIP estimate? This was based on energy efficiency done in the early years. The Synapse model has an algorithm for determining this.
- In the **Arizona plus Navajo rate option plan**, the model also predicts ERC credits above those required, but without as much headroom as the Arizona-only example.
- The **Arizona mass option** looks more challenging, but compliance is possible through banked allowances which should be sufficient for the final period.
- These findings are similar to those from PACE Global.

- Does this take the EPA plan of loss of allowances for closed plants after the compliance period into account? The study uses the EPA allocation method, but not necessarily plant retirements. I would have to check on this.
- The **Arizona plus Navajo mass option** shows significant excess allowances available for banking or sale to other mass-based states. This is due to planned Navajo retirements.
- Since the four corners plants are in New Mexico, but the energy is used in Arizona, who gets the credits? These are tribal land credits and would be available to be sold. The sale would be determined by Arizona utility owners.
- Arizona should consider the most likely outcome of whether the Navajo Nation will be under a FIP. If so, a mass-based plan would make sense.
- APS, SRP, and the Navajo Nation have requested to EPA that there should not be a Navajo plan.
- Will we have any indication of whether/when there will be a FIP? This will be important for choosing an option? We should check with EPA.
- We should keep in mind there are two pathways available for the Navajo units. All three units could remain in operation, but slow operations. Or, as the model assumed, one unit will shut down. We should confirm that this is the intended path, as this could cause problems in the final period.
- The study found all rate or mass options could meet goals in all scenarios, with the Arizona mass option compliance to be met through banked allowances.
- The study reviewed historic allowance prices, hypothetical costs and benefits to EGU owners, and hypothetical monthly impact to consumer bills.
- (Comment): This seems like something that should be included in the economic outlook being worked on at ASU by Professor Hanneman.
- Have utilities seen this or reacted to this study? Not yet, this is the first presentation of the information.
- Would this information be helpful to ACC? There are many assumptions. I am concerned about this level of detail without significant consideration of the assumptions.
- The study used \$15/ton for allowances because that is a fairly high figure.
- Documents on website and available to the public should include the caveat that all studies of this type are heavily dependent upon assumptions made.
- The hypothetical costs under the Arizona plus Navajo mass option shows meeting compliance only through the purchase of allowances, and business as usual.
- (Comment): If renewables are added to the equation, we should reexamine potential savings.
- Have you run this through with baseline RE and EE as shown in the Pace Global report? Yes, there are more periods where Arizona would not meet the goals.
- Both rate or mass options appear feasible for Arizona.
- Overall, Arizona stands to benefit from an excess of ERCs or allowances, however each EGU owner's situation is unique.
- Incremental EE and RE considered in "baseline" is important.
- Combining Arizona plus Navajo unlocks a large number of allowances under a mass approach/

- Please provide any additional questions or feedback to: [Edward.Burgess@asu.edu](mailto:Edward.Burgess@asu.edu), or [Maren.Mahoney@asu.edu](mailto:Maren.Mahoney@asu.edu).

### **RELATIVE STRINGENCY OF PERFORMANCE AND STATE WIDE RATE-BASED STANDARDS**

Burr reviewed a spread sheet he developed which compares performance rates and state goals. The spreadsheet now includes data for all states. WRA and others have asked why these figures show such a difference between performance rates and state goal for ERCs. This is due to baseline assumptions for initial compliance. He noted that the advantage of using performance rates is that this is trading ready.

There was a suggestion to add this spreadsheet to the website, and to offer this tool to other states.

### **INVENTORY OF RATE-BASED PLAN NEEDS**

Burr explained that because ADEQ is less familiar with rate-based plans, the department would benefit from discussion about how this type of plan might operate. He asked the group if they would like a presentation on ADEQ's baseline understanding of components of a rate-based program with follow up discussion at the next meeting. Stakeholders agreed this would be a useful discussion.

### **ACTION ITEMS/NEXT STEPS**

The next meeting will be held Thursday, July 28 from 10-11:30a.m. The agenda will include a presentation on rate-based plan needs and discussion.

There was a suggestion that if utilities attended the next meeting that highlights of the ASU presentation should be revisited.

- *Action Item:* Burr to consult with EPA on when any Navajo FIP would be announced.
- *Action Item:* Burr to prepare presentation on Rate-Based Plan Needs and Discussion
- *Action Item:* Staff to send July 28 meeting notification now and a reminder two weeks prior to meeting.

Burr thanked attendees for their participation in the meeting.

## **STAKEHOLDER ATTENDEES (IN PERSON AND BY PHONE) AND ORGANIZATION**

Andy Berger	Tri-State Generation and Transmission Association
Edward Burgess	ASU
Nonso Chidebell-Emordi	ACC
Bob Gray	ACC
Hollie Hohlfelder	Energy Strategies, LLC
Johnny Key	Freeport-McMoRan Inc.
Toby Little	ACC
Ann Livingston	Southwest Energy Efficiency Project
Maren Mahoney	ASU Energy Policy Innovation Council
Amanda Ormond	Advanced Energy Economy
Bruce Polkowsky	EDF
John Reissen	Tri-State Generation and Transmission Association
Todd Weaver	Freeport-McMoRan Inc.