



Meeting Summary

ADEQ EPA CLEAN POWER PLAN TECHNICAL WORK GROUP MEETING SUMMARY

DATE: March 31, 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
Eric Massey
Steve Burr
Kamran Khan
Marina Mejia

AGENDA

The meeting agenda included:

- Introductions
- Ground Rules
- CPP Arizona Rate-Mass Assessment Summary
- Brainstorm: What areas need more technical attention
- Action Items/Next Steps

INTRODUCTIONS/GROUND RULES

Air Quality Division Director Eric Massey welcomed attendees and facilitated introductions. Approximately 25 technical work group members attended in person and via conference call.

Massey reviewed ADEQ's position in light of the stay issued by the Supreme Court in February. Work on the CPP will slow, but not stop. The department will continue to investigate some elements – such as the workings of a rate-based plan and processes for working with the Arizona Corporation Commission – in order to produce a future state plan and avoid the imposition of a federal plan. Work will also continue on elements with crossover benefits, such as information about criteria pollutants and work with vulnerable communities.

This course of action is consistent with input received from the TWG and CPP stakeholder group, as well as the direction provided by legislators and other government officials.

TWG members should be receiving meeting information from Tawnya Cook via e-mail. Those who have not should contact her at Cook.Tawnya@azdeq.gov.

CPP ARIZONA RATE-MASS ASSESSMENT SUMMARY

Massey asked work group members whether they had additional questions or follow-up comments regarding the rate-mass assessment summary provided previously by PACE Global Energy Consulting. The Arizona Utility Group commissioned PACE Global to help understand how EPA's CPP goal would affect Arizona.

Highlights of the discussion included:

- The PACE Global study utilized the CPP rule as written and suggests a path forward with a rate-based plan. We should consider a broader perspective, with additional use of renewable energy and energy efficiency.
- ADEQ needs to spend time understanding a rate-based approach, which is very different from the mass-based programs the department typically uses.
- The department should spend time developing processes with the ACC, such as how an Emission Rate Credit desk might work.
- ADEQ reviewed assumptions that went into producing the PACE Global study such as capacity figures and load growth to better understand how the entire model works.
 - Can information about the cost for replacement energy be provided?
 - Production cost modeling drove the model.
 - Is there a plan to go back and put in the economics? The model shows meeting the CPP target but what made the projections?
 - The model is designed to project rate and mass based on business-as-usual assumptions. It is up to utilities to look at changing those assumptions in an IRP setting with the ACC.
- Would a mass-based plan come out better with different technologies in the assumptions? It seems premature to jump to a decision to use a rate-based plan.
 - A decision has not been made. ADEQ is using this time during the stay to investigate rate plans because we are much less familiar with the workings of this type of program.
- How will the department look at other mass-based scenarios?
 - Work with ASU was planned to include cost modeling, reliability modeling, etc. This is on hold due to the expense of modeling and consistent with our direction to avoid spending state resources during the stay. It is why we are investigating the rate side and how planning with the ACC would work. Our focus is to gain knowledge in areas we are less familiar with and be prepared to put forth a state plan to avoid a federal plan.
 - Can we get a high-level overview of the work planned with ASU?
 - ASU is coordinating with NAU modelers and an economics professor at ASU. Some preliminary analysis on compliance gaps under a business as usual scenario has been completed. The next step will be to work with NAU on production cost modeling under compliance scenarios and economy-wide impacts of the rule on a macro economics scale.

- A preliminary analysis and work plan can be an agenda item at the May 12th meeting.
- I don't think we've answered the economic question for the rate payer.
 - We do need to explore these issues, but it's a matter of timing and what is appropriate to investigate under the stay.
- If the rest of the Western grid is also solving for carbon, their actions may affect Arizona anticipated outcomes. We need to consider interactions on a larger scale.
- Though it looks like Arizona is on a compliance path under a rate-based program, each utility will face a different compliance gap.
 - Utilities have reached consensus that the rate plan is best approach for Arizona; however, this may not be the best approach for each individual utility. Rate payers' needs should be looked at through the ACC.
 - How can an approach be better for the state, but not better for individual utilities?
 - The modeling approach was not designed to show compliance with the CPP, it is cost-dispatch modeling. Utility plans were fed into the model, and the least-cost option shows to be the rate-based approach.
 - The modeling did not include capacity expansion. Modeling did include new NGCC, reliability, and expansion of renewables as indicated in utility plans. Also, the model didn't make assumptions about future cost of carbon.
- I am concern about the production on tribal land and how that meshes with the overall Arizona plan. Power from these plants is essentially considered purchased power. How does this affect the results in the model?
 - Units located on tribal lands are in their own jurisdiction. They are not included in rate- or mass-based calculations.
 - The Navajo unit retiring in 2020 should be considered regarding buying credits.
 - If tribal lands end up on a federal plan, but the rest of the state is rate-based, how will that affect the Arizona program?
 - It is unlikely that the Navajo nation would adopt a CPP. EPA may find it not necessary to adopt a plan, or EPA will adopt a plan.
 - There is an NGS agreement to offset carbon generation under consideration.
- No further work being contemplated with PACE Global. The report was the final deliverable.
- APS's IRP was deferred due to uncertainty around CPP. The IRP is now anticipated April 1, 2017.
 - Resource guides for preliminary plans show types of things we are considering for 2017 IRP. There will also be further refinements. The preliminary IRP does spell out some of these considerations on the APS website.
 - Preliminary IRPs are available at <http://edocket.azcc.gov/> (enter 15-0094 in the Year-Matter area for docket information on the IRP).
 - SRP is in the same situation with the IRP waiting on the CPP.
- Colorado is looking at modeling different scenarios. Will Arizona do other types of modeling?
 - This is a cost issue that is not appropriate to pursue during a stay.
- SRP also has assets in Colorado and has been involved in some of these types of data requests.

- Other states' actions will affect Arizona. There are a tremendous number of alternatives when considering potential interactions. At some point, Arizona needs to understand that there is some flexibility. I think it is likely ADEQ will be among first to make a decision and others will follow.

BRAINSTORM: WHAT AREAS NEED MORE TECHNICAL ATTENTION?

Massey asked the work group to keep in mind that the department has been directed to not spend significant dollars on the CPP during the stay. He noted that an Arizona-driven plan, not a federally driven plan, is in the best interest of the state. Appropriate areas the department intends to pursue include looking for crossover opportunities such as outreach to vulnerable communities, work on criteria pollutants, and potential impacts to ozone (due to redistributing energy production from coal-fired to natural gas fired units).

Highlights of stakeholder comments and questions related to moving forward in an appropriate way included:

- I'm interested in CEIP. How does this affect development in the state? How can we capitalize on the time window for credits in the program?
- ERC desk – It will be useful to look at funding, operations, structure, and work flow on a high level. Robust measurement verification also will be needed.
 - Coordinating with ACC will be important.
- I heard EPA is trying to finalize model rules, but it may not be legal to do so under the stay.
 - Internal work can continue, but EPA cannot officially approve plans.
- Utilities have requested that EPA maintains the baseline year; however, EPA said they are not willing to make this commitment.
 - EPA may not be able to commit.
 - Regarding CEIP baseline date of 2012, it would be good to know if there is a sweet spot in the gap between the baseline year and what can be counted under the CEIP.
- SRP presented a conversion for trading between rate- and mass-based programs. Do others have different conversion methods?
 - WRA has another method. This will be an issue for EPA to decide. Comments were sent during the comment period.
- Even if rate/mass states can't trade ERCs, we still trade electricity. This also applies to transactions with the Navajo Nation. Assumptions about how electricity is generated will be an issue.
- Another ERC trading example might be RE generated outside Arizona resulting in ERCs.
- Allocations would be appropriate to discuss toward the end of the year.
- SWEEP is completing a study with Synapse that includes RE. A presentation on this study could be part of a future agenda
- Was sensitivity to load growth and compliance part of the PACE Global study?
 - No, PACE Global supplied their own assumptions.
 - The importance of the load growth may be hugely influenced with underlying assumptions on consumer side.

- We should look at distributed generation as well.
- From July/2014 through July/2015, Maricopa County ranked second in growth for counties in US. Growth assumptions built into plans should consider this factor.

ACTION ITEMS/NEXT STEPS

Massey asked the group whether they would like to meet again on Thursday, May 12. There was general consensus and the group agreed to meet from 10-11:30a.m. The May 12 meeting agenda will include ASU's preliminary analysis and work plan.

- *Action Item:* Massey and Ed Burgess to confer regarding ASU presentation.
- *Action Item:* ADEQ and SWEEP to confer regarding RE study.

Massey thanked attendees for their continued interest in the process and the feedback provided.

STAKEHOLDER ATTENDEES (IN PERSON AND BY PHONE) AND ORGANIZATION

Andy Berger	Tri-State Generation and Transmission Association
Edward Burgess	ASU
Jeff Burks	Energy Strategies, LLC
Nonso Chidebell-Emordi	ACC
Gary Crane	Southwest Power Group
Cosimo Demasi	TEP
Doug Fant	Southwest Power Group
Bob Gray	ACC
Hollie Hohlfelder	Energy Strategies, LLC
Chico Hunter	SRP
Johnny Key	Freeport-McMoRan Inc.
Toby Little	ACC
Ann Livingston	Southwest Energy Efficiency Project
Maren Mahoney	ASU Energy Policy Innovation Council
Bill McClellan	SRP
Amanda Ormond	Advanced Energy Economy
Bruce Polkowsky	EDF
John Reissen	Tri-State Generation and Transmission Association
Paul Smith	APS
Frank Snyder	Sundevil Power
Todd Weaver	Freeport-McMoRan Inc.
Jeff Yockey	TEP
Ellen Zuckerman	Southwest Energy Efficiency Project