Arizona Public Service - September RPAC Meeting Minutes

Date	Location	Start	Stop
9/25/2024	Virtual	9:00 a.m.	11:30 a.m.

MEETING OBJECTIVES

- Recap the July RPAC meeting and provide the status of previous action items.
- Update members on plans for the RPAC going forward.
- Provide an update on regional natural gas transport.
- Discuss APS's Microgrid RFP.
- Provide an overview of ACC Staff's proposed order on APS's 2023 IRP.
- Update members on recent developments in the Western Market.
- Forecast next steps and future RPAC engagement opportunities.

Attendees	Organization	Title/Role
Sandy Bahr	Sierra Club	Director, Grand Canyon Chapter
Kate Bowman	Vote Solar	Regulatory Director
Diane E. Brown	Arizona PIRG	Executive Director
Ben Fitch Fleischmann	Interwest Energy Alliance	Director, Markets and Transmission
Lisa Hickey	Interwest Energy Alliance	Senior Regulatory Counsel
Stephen Jennings	AARP	Associate State Director
Autumn Johnson	Tierra Strategy	CEO
Sam Johnston	Interwest Energy Alliance	Policy Manager
Nitin Luhar	Mitsubishi	Consultant
Claire Michael	Wildfire	Director, Climate Equity
Amanda Ormond	Western Grid Group	Director
Greg Patterson	AZ Competitive Power Alliance	Director
Caryn Potter	SWEEP	Arizona Representative
Jackie Solares	St. Vincent de Paul	Director, Sales and Business Development
John Sherry	Holland & Hart LLP	Associate
Laura Wickham	SWEEP	Senior Arizona Associate
Patrick Woolsey	Sierra Club	Senior Arizona Associate
Scott Yaeger	Rockland Capital	Vice President, Power Marketing
Cynthia Zwick	Residential Utility Consumer Office	Director

Matt Lind | 1898 & Co./Director of Resource Planning | Welcome & Meeting Agenda

- No questions.

Mike Eugenis | APS/Director, Resource Planning | RPAC Update

Summary: Mike Eugenis, Director of Resource Planning, began the meeting by sharing his plans for the RPAC with members. The frequency of RPAC meetings and meeting topics will continue to be focused on topics relevant to APS's Resource Planning efforts, and that in 2025, APS will seek additional presentation opportunities for RPAC members.

Nick Schlag | E3, Partner | Regional Natural Gas Transportation

Summary: Nick Schlag, Partner at E3, followed Mike's update with overview of the current state of natural gas transportation in the Southwest region. Nick provided detail on the characteristics of natural gas supply, discussed pending policy that could impact natural gas transportation, and addressed the constraints on natural gas transportation.

- **Question – RPAC Member:** Do you anticipate Western utilities getting in the business of building out the natural gas transportation system?
  - **Response – Nick Schlag**: Historically, gas companies have sold gas and developed the infrastructure to supply gas. Electric utilities have mostly stayed out of the business of owning pipelines. I can't guarantee that this will remain the case, but there is a long history of the electric industry working with the gas industry to obtain the transportation services necessary to provide natural gas to power plants.
- **Question – RPAC Member**: Is anyone at APS thinking about ways to decrease reliance on natural gas?
  - **Response – Nick Schlag**: Our presentation is largely focused on the natural gas transportation system, which is one dimension of a multi-faceted process. It is important that we think about this in the context of making sure that all components of the planning equation are balanced appropriately.
  - **Response – Mike Eugenis**: Natural gas is an important component of a resource portfolio that enables APS to utilize dispatchable and flexible resources that make it easier to integrate the large amount of renewables that we are contracting for.
- **Question – RPAC Member**: Has APS considered using battery resources to meet its energy needs and reduce its dependency on natural gas?
  - **Response – Mike Eugenis**: APS has a large amount of investment in battery storage resources going forward, and we plan to have multiple gigawatts online in the next 5 years. The scale of APS's investment in battery resources dwarfs the small amount of natural gas that we are procuring.
- **Question – RPAC Member**: Regarding the natural gas additions in Arizona shown on slide 17, is there sufficient capacity for 2 gigawatts of new natural gas? And at what point will utilities stop contracting gas projects until there is new pipeline capacity?
  - **Response – Mike Eugenis**: For all of the natural gas projects APS has pursued, we have verified that there is sufficient natural gas transport capability to be able to integrate those facilities into our fleet and continue to provide reliability.
- **Question – RPAC Member**: Does APS know in what year this will restrict its ability to build new natural gas?
  - **Response – Mike Eugenis**: It depends on a host of factors, the largest one being extra high load factor growth. Because the shape of that load is stable throughout the year, it is more difficult to find a portfolio of resources to serve that need outside of additional dispatchable generation.
- **Question – RPAC Member**: Is APS having conversations about infrastructure development?
  - **Response – Mike Eugenis**: APS is evaluating all options. It is our responsibility to make sure that we look at every opportunity to ensure that we provide reliable service to our customers at the least cost.

- **Comment – RPAC Member**: The costs of building out infrastructure should be included in your resource portfolio scenarios shared with the Commission, and if APS plans to invest in natural gas infrastructure, those pipelines should be hydrogen capable.
- **Question – RPAC Member**: Is 100% of APS's gas generation sourced from firm gas supply? And should capacity accreditation treat gas generation differently based on whether it has firm or interruptible supply?
  - **Response – Mike Eugenis**: The vast majority of APS's natural gas fleet has firm supply associated with it. This is a nuanced question, as it relates to the hourly burns anticipated into the future compared to the shape of the product that was purchased from the natural gas pipelines. Additionally, APS relies on marketers and other entities within the natural gas market to be able to supplement its firm natural gas supply, and to be able to provide natural gas at a lower cost than what is seen in our contracts. The blend between firm and interruptible natural gas capacity supply is something that APS is focused on into the future as pipelines become increasingly constrained. APS is continuing to evaluate the level of risk that it is comfortable with in this space.
  - **Response – Nick Schlag**: Regarding capacity accreditation, I have not seen a technical analysis that quantifies the difference firm and interruptible supply that considers all factors, like the demand on the pipelines and the locational aspects, performed in any part of the country. This is an area of continued research and potential improvement in resource adequacy planning but is a challenging one to perform immediately.
- **Question – RPAC Member**: Are the costs of building out infrastructure included in your resource portfolios?
  - **Response – Mike Eugenis**: Yes, to the extent that we need additional pipeline infrastructure to support a new facility, we take all relevant costs into consideration as we develop portfolios.

Sarah Noll| APS/Manager, CT Product Development| Microgrid RFP

Summary: Sarah Noll, Manager of CT Product Development, updated members on APS's microgrid RFP, issued on September 3rd. Sarah highlighted the characteristics of a microgrid and shared APS's goals for its microgrid RFP. Sarah explained that APS is not seeking ownership opportunities for microgrid resources, and that the projects that come as a result of the microgrid RFP will be customer sited. The goal of the microgrid RFP is to identify developers and technologies that will be able to meet customer needs. Sarah also shared a timeline for the microgrid RFP as a part of her presentation.

- **Question – RPAC Member**: How does the microgrid RFP differ from other targeted RFPs? And which customers were notified about the microgrid RFP?
  - **Response – Sarah Noll**: The microgrid RFP is different than other RFPs because APS is not procuring resources as a result of this RFP. It is going to be driven by customer interest, so our customers have choices. Customers have not been notified directly of this RFP, but rather vendors interested in participating. APS reached out to around 20 vendors across the industry and we are happy to get others who are interested connected.
- **Question – RPAC Member**: How does APS benefit from the microgrid RFP if APS is not procuring resources?
  - **Response – Sarah Noll**: The benefit for APS is that we are able to identify vendors that could partner with our customers. We have a lot of customers come to us that are interested in microgrids, and we want to ensure that we provide them with potential partners in that space for them to develop and build microgrids on their own. We would partner with them as they are interested to procure PPAs for those microgrids as we need them.
- **Question – RPAC Member**: If APS is pursuing a PPA for those microgrid resources, would that aspect be similar to an RFP?
  - **Response – Sarah Noll**: APS is not going to be signing contracts as a result of this RFP. The intent is to perform a market assessment of available vendors and technologies. It is important that vendors are experienced so that we can ensure that our customers are set up for success. This enables us to create a database that we can reference when customers come to us.
- **Question – RPAC Member**: Is the Microgrid RFP more like an RFI than an RFP?

- Response – Sarah Noll: It has some similar characteristics to an RFQ as well, but there is another level of review involved. There is an independent monitor in this process, which makes it more similar to an RFP.
- Question – RPAC Member: Could APS deny interconnection requests for projects that don't go through this process?
  - Response – Jeff Almon: APS would not deny interconnection by virtue of not participating in this process. Any project that seeks interconnection will still be required to meet APS's standards for resources that operates in parallel with the grid. That will be evaluated separately from this process. Whether someone participates in this process is not going to be a new requirement.
- Question – RPAC Member: Will APS share the microgrid RFP with RPAC members?
  - Response – Sarah Noll: We are happy to provide more information for anyone that is interested.

Mike Eugenis| APS/Director, Resource Planning | ACC Staff Proposed Order – 2023 IRP

Summary: Mike Eugenis, Director of Resource Planning, provided an overview of the ACC Staff's proposed order on APS's 2023 IRP. Mike refreshed members on where APS stands in its 2023 IRP acknowledgement process, provided an overview of Staff's recommendations, and welcomed feedback from members on Staff's recommendations, specifically Staff's proposed treatment of modeling software licenses. Mike shared that APS plans to release comments on Staff's proposed order and will address the proposed treatment of modeling software licenses.

- Question – RPAC Member: Has APS received any pushback on its 2023 IRP portfolio selection that raises concern?
  - Response – Mike Eugenis: Staff's recommendation for acknowledgement seems indicative that the 2023 IRP met the requirements associated with delivering a quality product that is representative of APS's plans into the future. The preferred portfolio is a part of that plan that has support from ACC staff. APS is willing to respond to any comments from the Commission.
- Comment – RPAC Member: In the proposed order, Staff recommends modifications to how stakeholder access to the Aurora model is handled. I want to put that out there for other RPAC members, and I think that the utilities should weigh in on this recommendation.
  - Response – Mike Eugenis: This is an important aspect of Staff's proposed order that there has been a lot of conversation around. We welcome others to share their thoughts on Staff's proposed treatment of access to modeling software.
- RPAC Member Comments on Staff's Proposed Order: Various RPAC members shared their perspectives on Staff's proposed treatment of access to modeling software. Members' comments were largely focused on the upfront cost of modeling licenses, the process for reimbursement, and the Commission's IRP review process.
- Question – RPAC Member: Do you have a comment on Staff's recommendation regarding APS's technology agnostic portfolio, and do you expect more scrutiny on APS's Clean Energy Commitment?
  - Response – Mike Eugenis: APS does anticipate more scrutiny in this space. It is an important topic for the Commission and Staff to continue to dive into. As we continue our modeling, we will continue to mature in our analysis of how the CEC is taken into effect as we continue our resource plans into the future. Many of the questions we got at the Staff IRP Workshop were targeted around this area, and it was a learning opportunity for as my team puts together portfolios in the future there are some more things to consider in terms of how they will be interpreted by others.
- Question – RPAC Member: Is APS confident asserting that the clean energy resources in the technology agnostic portfolio are consistent with the least cost portfolio?
  - Response – Mike Eugenis: APS is confident that renewable resources are an important part of a least cost portfolio going forward. The 2023 IRP was instructive of that. Renewable resources were critical to maintaining least cost for APS customers and APS continues to maintain a reliable system with those resources.

Tyler Moore| APS/Manager, Market Policy | Western Market Update

Summary: Tyler Moore, Manager of Market Policy, closed out the meeting with a presentation on developments in the Western market. Tyler reminded members of APS's market preference for

Southwest Power Pool's (SPP) Markets Plus, which was shared with the group at the April 2024RPAC meeting. Tyler shared that APS has been co-authoring issue alerts comparing the two Day-ahead markets., provided an overview of the analysis supporting APS's decision. Tyler also shared that APS will return to the RPAC November to provide another update before APS makes its decision later in Q4.

- **Question – RPAC Member**: Can you talk about the financial support APS has provided Markets Plus in its first phase, and APS's plans for Phase 2?
  - **Response – Tyler Moore**: APS has contributed to the funding of Phase 1 of Markets Plus development. APS will return to this group to provide an update on or decision regarding APS's financial commitment for Phase 2.
- **Question – RPAC Member**: What does APS plan to share when discussing plans for Phase 2?
  - **Response – Tyler Moore:** The intent is to bring back updated production cost models and update our recommendations with any new learnings from those updates.
- **Question – RPAC Member**: How does the Pathways initiative play into APS's Western Market considerations?
  - **Response – Omaya Ahmad**: Pathways is in development and is currently in the process of submitting its step 2 proposal, which is slated as its final proposal recommendation. They are aiming to have a completed proposal in November. The draft will be out for stakeholders to review at the upcoming stakeholder meeting on October 4th. In the step 2 proposal, CAISO would maintain its dual role as an operator and a market participant. This is not how SPP has its governance set for its independent status. The phase 2 proposal is still in development, and APS is advocating for more independence to be included. APS has interest as a participant in the market as well as a neighbor to the market for Pathways to be successful.
- **Question – RPAC Member**: What are APS's thoughts on the differences between the E3 WMEG studies and the Brattle study, and their use of zonal and nodal studies?
  - **Response – Tyler Moore**: I'm not familiar with the nuances of the methodology used to conduct the Brattle study, but in E3's WMEG study, there was a large focus on the assumptions that were used and ensuring that high quality data was used. There are different insights that can be derived from a zonal study compared to a nodal study, in the instance of WMEG, APS was comfortable with a zonal study.
- **Question – RPAC Member**: What qualities of Arizona's generation mix are driving APS's PCM results to favor Markets Plus while other utilities PCM results favor EDAM?
  - **Response – Tyler Moore**: APS hasn't explored the underlying assumptions of the Brattle studies used by other utilities in a manner that allows us to compare the two studies, but those assumptions may indicate the reasons for the different results between the two studies.
- **Question – RPAC Member**: It seems like the different results between E3's WMEG study and the Brattle study are caused by detailed nuances in their assumptions, rather than factors like strategic connectivity or regional sharing opportunities. Is that correct?
  - **Response – Tyler Moore**: It is possible that updates made to factors like transmission connectivity in the WMEG study may differ from the Brattle study, leading to different results.

Matt Lind | 1898 & Co./Director of Resource Planning | Next Steps & Closing Remarks

- No questions.