

# Arizona Public Service - May RPAC Meeting Minutes

Date	Location	Start	Stop
5/22/2024	Virtual	9:00 a.m.	12:00 p.m.

## MEETING OBJECTIVES

- Recap the April RPAC meeting and provide the status of previous action items.
- Discuss the SRB mechanism and APS’s plans for the SRB stakeholder process.
- Explain the Sustainability Issues Assessment shared with members in April.
- Provide an overview of the state of the hydrogen industry.
- Discuss the state of the hydrogen industry from an OEM standpoint.
- Review and address stakeholder comments on the 2023 IRP.
- Forecast next steps and future RPAC engagement opportunities.

Attendees	Organization	Title/Role
Jeffrey Allmon	Pinnacle West - APS	Senior Attorney
Sandy Bahr	Sierra Club	Director, Grand Canyon Chapter
Tara Beske	APS	Business Advisor, Resource Management
Jonathan Blair	E3	Senior Managing Consultant
Kate Bowman	Vote Solar	Regulatory Director
Vern Braaksma	APS	Senior Account Manager
Diane E. Brown	Arizona PIRG	Executive Director
Walter Clemence	Capital Power	Senior Advisor, US Regulatory
Brian Cole	APS	Vice President, Resource Management
Adam Constable	APS	Federal/State Regulatory Consultant
Yessica Del Rincon	APS	Communications Consultant
Sage Dillon	APS	Manager, Strategic Stakeholder Communications
Gary Dirks	ASU	Senior Director, Global Futures Laboratory
Bentley Erdwurm	Residential Utility Consumer Office	Public Utilities Analyst
Mike Eugenis	APS	Manager, Resource Planning & Analysis
Ben Fitch Fleishmann	Interwest Energy Alliance	Director, Markets and Transmission
Erin Ford Faulhaber	Residential Utility Consumer Office	Deputy Director
Jill Freret	APS	Director, Resource Integration & Fuels
Nicole Hill	Nature Conservancy	AZ Climate Program Director
Jessica Hobbick	APS	Director, Rates and Rate Policy
Stephen Jennings	AARP	Associate State Director
Autumn Johnson	Tierra Strategy	CEO

Sam Johnston	Interwest Energy Alliance	Policy Manager
Ashley Kelly	APS	Director, Transmission Operations & Mtc Admin
Todd Komaromy	APS	Director, Resource Planning
Melissa Krueger	APS	Associate General Counsel
Rachael Leonard	APS	Manager, Regulatory Compliance
Matthew Lind	1898 & Co.	Director of Resource Planning
Nitin Luhar	Mitsubishi	Consultant
Dugan Marieb	Pine Gate Renewables	Regulatory Associate
Nicholas McDonald	APS	Business Systems Consultant
Tyler Moore	APS	Manager, Resource Management Market Policy
Pamela Nicola	APS	Manager, Sustainability
Amanda Ormond	Western Grid Group	Director
Greg Patterson	AZ Competitive Power Alliance	Director
David Peterson	APS	Corporate Strategy Advisor
Nicole Rodriguez	APS	Consultant, Strategic Communications
Alex Routhier	Western Resource Advocates	Senior Clean Energy Policy Analyst
Nick Schlag	E3	Partner
John Sherry	Holland & Hart LLP	Associate
Robin Shropshire	Griffith Energy	Asset Manager
Jackie Solares	St. Vincent de Paul	Director, Sales and Business Development
Reece Taylor	APS	Financial Analyst
Kent Walter	APS	Director, Western Market Affairs
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.

### Ashley Kelly | APS/Director, Transmission Operations & Mtc Admin | System Reliability Benefit Mechanism

**Summary:** Ashley Kelly, Director of Transmission Operations and Mtc. Admin, began the meeting with an overview of the System Reliability Benefit (SRB) mechanism. Ashley explained the qualifying factors of SRB-eligible resources, contents of the SRB tables that will be provided at Quarterly Stakeholder Meetings, and the benefits that SRB mechanism would provide for APS and its customers. Ashley also previewed APS's plans for the SRB stakeholder process.

- **Question - RPAC Member:** Please explain how the requirement that an asset be utility owned will affect generation that is bid into an RFP. At what point does the project have to be utility owned?
  - **Response - Ashley Kelly:** Power Purchase Agreements (PPAs) already have concurrent recovery mechanisms within our Power Supply Adjuster (PSA). The SRB mechanism helps to level the playing field between owned assets and PPAs by offering a more equivalent recovery mechanism. Bids will still go through a competitive process and the best fit resources for the system will be selected.
- **Question - RPAC Member:** Can you give examples of projects that APS might submit for SRB?

- **Response - Ashley Kelly:** It could be any upcoming future APS owned resource that meets the qualifications. The qualifications are technology agnostic, so it would be dependent on what is successful from an RFP and the timing of when APS submits an SRB application.
- **Question - RPAC Member:** What will SRB projects compete against in the ASRFP process? Will they be bid in as utility owned, self-built bids and compete in the same pool as PPAs?
- **Response - Ashley Kelly:** For a project to qualify for the SRB, the project must be APS owned, but not necessarily built by APS. APS recovers PPA costs through an alternative mechanism, the PSA. The SRB should be thought of as an alternative mechanism for recovery outside of a Rate Case. Regardless of what a bid looks like, there are different options for APS to recover costs.
- **Question - RPAC Member:** At the RFP stage, would the bid need to identify that it would be recovered through SRB, or could the company determine that later?
- **Response - Ashley Kelly:** The company would determine the recovery mechanism for an APS owned asset outside of the RFP process.
- **Question - RPAC Member:** Have you considered the impact that the timing of APS's ownership of SRB-eligible projects could have on the RFP process?
- **Response - Jeff Allmon:** The SRB mechanism is intended to address situations where projects would otherwise be recovered through base rates. If a project comes in under a rent-to-own scenario, the payments on the front end wouldn't go through an SRB-like mechanism because APS wouldn't own the project. The only point that the recovery mechanism could shift is if it becomes possible for the Company to own it, but the overall economics of proposed deals are evaluated on the front end of the RFP process.
- **Question - RPAC Member:** Are there protections in place to ensure that the ASRFP is truly All-Source and not targeted?
- **Response - Jeff Allmon:** The public processes that accompany the SRB, like the hearing process and the other items listed on the screen, are intended to be protection mechanisms for that. The SRB mechanism is not intended to change anything in respect to the RFP process.
- **Response - Mike Eugenis:** There are protections in the RFP process currently. APS uses an independent monitor that reviews how we evaluate bids, and we perform a portfolio analysis inclusive of all bids, which allows different bid types to compete head-to-head.
- **Question - RPAC Member:** What timeline are you anticipating for an SRB process for an individual project?
- **Response - Ashley Kelly:** It can vary. The plan of administration sets minimum-day timelines. There is a minimum-day timeline between the notice of intent and the application of 60 days, staff has 90 days to do a staff report or request a hearing, then there is a 14-day period after that for other parties to request a hearing or file a response to staff. Depending on how this process unfolds, anywhere from 4 months to a year is in the scope of what's achievable.
- **Question - RPAC Member:** When will quarterly public stakeholder meetings commence, and will they be standing quarterly meetings?
- **Response - Ashley Kelly:** APS plans to hold the first formal Quarterly SRB Meeting in July and will host the following quarterly meetings one month after the end of each quarter. The SRB tables will be updated for each meeting. Quarterly SRB meetings will be paired with RPAC meetings but will remain separate because the SRB stakeholder process is public and the RPAC is not.
- **Question - RPAC Member:** Are Quarterly SRB Meetings starting in July because APS has a project that it is attempting to put through the SRB process?
- **Response - Ashley Kelly:** APS's interpretation of ACC Decision No. 79293 is that quarterly meetings must start in July, regardless of the status of the SRB tables. APS has not made a determination on any future resources and their recovery path. The way that the SRB is laid out, the tables will need to be updated with all qualifying projects, even if APS elects not to seek recovery through the SRB.
- **Question - RPAC Member:** With the Quarterly SRB Meetings being paired with the RPAC, there shouldn't be any reason for it to be a surprise for the members of this group if an SRB process were to commence, correct?
- **Response - Ashley Kelly:** That is correct, APS will post the notice of intent in a new docket as well as the old rate case docket. There will also be a new section on the APS Resource Management website containing links to meeting minutes, notices, updated tables, and the link to the docket

when APS files an application for a notice of intent. There should be many avenues for members to be notified of a notice of intent.

- **Question - RPAC Member:** How many SRB processes can APS apply for each year?
- **Response - Ashley Kelly:** The first application doesn't have a time bound for APS to file a notice of intent. After that, APS is limited to one reset or application in a given year. APS could apply for multiple resources within a single application and is allowed up to 5 adjustments per year before a rate case would be required.
- **Question - RPAC Member:** What is 3% of your revenue requirement this year?
- **Response - Jessica Hobbick:** 3% of the proposed \$3.8 Billion base revenue is roughly over \$100 Million.
- **Question - RPAC Member:** So, APS could invest a minimum of \$50 Million and a maximum of \$100 Million?
  - **Response - Jessica Hobbick:** Currently, yes.
  - **Response - Jeff Allmon:** The floor cost of \$50 Million is the total cost of the investment, the revenue requirement value is only what the increase would represent for a year, which are the carrying charges, not the total cost of the project.
- **Question - RPAC Member:** What is the upper bound of the absolute amount that could be ran through an SRB in a single year?
  - **Response - Jessica Hobbick:** There is a 3% year-over-year cap, which means it would need to fall beneath roughly \$100 Million. There is also an earnings test that the company has to pass to achieve recovery, which could adjust the 3% cap.
- **Question - RPAC Member:** Could you give an example of what the total amount that could be put through this mechanism in a single year is, and what the potential increase for a rate payer is in that year?
  - **Response - Jessica Hobbick:** I'd be happy to do that. If it is helpful, at the current 3%, if \$100 Million were the revenue requirement being processed through the SRB, that would result in just over \$3 of a bill impact to the average residential customer.
- **Question - RPAC Member:** Could this impact continue year-over-year until the project is paid off?
  - **Response - Jessica Hobbick:** It could continue to increase depending on the generation being recovered through the SRB.
  - **Response - Jeff Allmon:** Another helpful piece of context for the potential magnitude is that these resources are going to undergo a prudency review. These are resources that would otherwise flow into customers rates through a rate case. It is important that we keep a practical lens of what could happen relative to the amount that we are able to procure.
- **Comment - RPAC Member:** The Commission is unlikely to deem an asset not prudent after APS has obtained that asset, and this process could make it even more difficult for that to happen.
  - **Response - Jeff Allmon:** It is similar to the process that would occur in a rate case. There is a hearing involved, and the mechanism allows for those same protections to function with the SRB.
  - **Response - Ashley Kelly:** To add to that, there is no point where APS could begin recovering until the asset is in service, serving customers. The asset would be in service before we recover it, similar to the rate case process today.
- **Question - RPAC Member:** Why might the Company elect the SRB recovery mechanism versus rate basing an asset? Are regulatory lag and IRA tax credits factors?
  - **Response - Ashley Kelly:** Regulatory lag is a big one, as well as providing rate gradualism for customers. In regard to IRA tax credits, if an asset is eligible for benefits, that would be offset as a part of this recovery process. Annual resets incorporate production tax credits received. There wouldn't be a company benefit because tax credits would be represented in the mechanism.
  - **Response - Mike Eugenis:** When APS makes decisions around cost effectiveness and what resources provide the most value for our customers during the ASRFP process, we don't account for regulatory lag in our calculation. The SRB focuses on reducing the regulatory lag associated with an owned asset's procurement. It doesn't have any material impact on a resource's cost effectiveness from our perspective in resource planning, it just allows APS to earn that return before going through the full Rate Case Process.

- **Question - RPAC Member:** Will you make the analysis of rate impacts of moving forward in a rate case versus the SRB available, and is the \$3 per month bill impact that has been mentioned the average for all customer classes?
  - **Response - Ashley Kelly:** Yes, we can take a look at that. The \$3 per month impact is the highest limit of what that impact could be for an average residential customer.
- **Question - RPAC Member:** So, someone that uses less energy will pay less, and someone that uses more energy will pay more?
  - **Response - Jessica Hobbick:** That is correct, yes.

### Pamela Nicola | APS/Manager, Sustainability | Corporate Sustainability Survey

**Summary:** Pamela Nicola, Manager of Sustainability, provided background for the corporate sustainability survey that was shared with RPAC members in April. Pam explained the purpose of survey and how APS plans to use the results. Pam also shared on how different topics were selected for the survey. Pam finished her presentation by outlining APS’s next steps with its Corporate Sustainability Survey.

- **Question - RPAC Member:** Broadening sustainability to mean almost anything that the utility does seems like an effort to minimize the importance of the clean energy transition, should I be concerned about APS’s commitment to its clean energy goals?
  - **Response - Pamela Nicola:** I would not be concerned; APS is still very much committed to the Clean Energy Commitment. We look at sustainability more broadly because it represents a variety of things that the Company needs to have long term success across a variety of categories and is not limited to only environmental well-being.
- **Question - RPAC Member:** Will you be sharing the survey results with this group?
  - **Response - Pamela Nicola:** Absolutely. In roughly 6 weeks, when the data has processed, we can work with the RPAC team to get on the agenda.
- **Question - RPAC Member:** Did APS consider including topics like conservation and limiting growth in the survey? Is APS working to limit or manage growth?
  - **Response - Pamela Nicola:** When we combined topics, we looked at growth in terms of reliability and affordability, as growth directly affects both of those areas.
  - **Response - Mike Eugenis:** There are pieces of this that APS doesn’t control, as APS has the regulatory obligation to serve customers into the future. However, APS has publicly stated that there is a need to navigate this transition in a responsible manner and that it will take time to develop the necessary resources and transmission. There is some benefit to having customer growth from a rates perspective. As APS invests in renewable technologies, by having an incrementally larger customer base, those costs can be spread among more entities, minimizing rate impact for existing customers. It is an unprecedented time for the industry.

### 10-Minute Break

### Nick Schlag | E3, Partner | The State of the Hydrogen Industry

**Summary:** Nick Schlag, Partner at E3, provided an update on the state of the hydrogen industry. The topics Nick addressed included hydrogen demand, the role of hydrogen in the energy sector, production pathways, transportation and storage, and environmental considerations. There is a significant need for firm generation alongside renewables and storage. While much is still unknown regarding its logistics, several pieces of recently passed legislation directly support the emergence of the hydrogen industry. The hydrogen industry continues to develop rapidly as utility interest in using hydrogen as a “clean firm” resource grows.

- **Question - RPAC Member:** How much hydrogen switching would be needed to meet the new EPA rules for gas plants running more than 40% of the time?
  - **Response - Nick Schlag:** Given how recently these rules have been released, I can’t offer a direct answer to this at this point.

- **Question - RPAC Member:** Do you expect for pipeline buildout to be as slow as transmission buildout, or will it be a under the Natural Gas Act instead of the Federal Power Act and be more expeditious?
  - **Response - Nick Schlag:** I didn't mean to imply that we would be waiting 20 or 30 years the same way we have for some of the transmission projects that have experienced delays. In general, when we look at the history of pipeline development, that has happened at a more rapid pace for new natural gas pipelines than it has for electric transmission. There is not a direct equivalence in the timelines, but the timing will play a factor in how quickly that type of new infrastructure can be built.
- **Question - RPAC Member:** Does the natural gas act govern hydrogen pipeline buildout?
  - **Response - Nick Schlag:** I am not sure about that.
- **Question - RPAC Member:** Is there an emphasis on pink hydrogen because it is a good technological option for producing hydrogen, or is that because of policy reasons that support nuclear?
  - **Response - Nick Schlag:** From the electrolyzer's perspective, it makes no technical difference whether the electrons that go into the electrolyzer were produced by nuclear or any other resource on the grid. I can't comment on the exact motivations of those who wrote the laws, but it seems to be more of a policy question around which types of generation resources the policy is intended to encourage. The focus seems to be on the carbon intensity of what goes into the electrolyzer.
- **Comment - RPAC Member:** It is important to think about how much the utilities should be spending to support hydrogen when there are other technologies that we know have to go to hydrogen.
- **Question - RPAC Member:** When you cite the comparison cost between hydrogen and natural gas, is that cost comprehensive of all factors?
  - **Response - Jonathan Blair:** The hydrogen cost is derived from the cost of producing it, the capital investment in the infrastructure, and the O&M associated with the production. This is an all-in cost and is representative of the true comparison.
- **Question - RPAC Member:** Can you give us a macro perspective of the water usage of hydrogen compared to the other technologies that we're already familiar with?
  - **Response - Jonathan Blair:** It largely depends on the amount of production. When we talk about green hydrogen, water is used as a feedstock. When we talk about blue hydrogen, natural gas is used as a feedstock. In comparison, conventional technologies use water to cool thermal resources, and that water is evaporated and returned to the environment. When we talk about green hydrogen production, we aren't talking about a cooling function. The water is split into hydrogen and oxygen, then that hydrogen is used elsewhere. There are innovations looking into how to use water efficiently, but these processes are inherently different. Because green hydrogen uses water as a feedstock, hydrogen production is going to be water intensive to the degree of production the electrolyzer is committed to.

### Nitin Luhar | Mitsubishi, Consultant | OEM Hydrogen Perspective

**Summary:** Nitin Luhar, with Mitsubishi Hitachi Power Systems, shared an overview of the state of the hydrogen industry from an OEM perspective.

- **Question - RPAC Member:** I have a question for APS. Looking into the future, where does APS anticipate obtaining hydrogen from?
  - **Response - Mike Eugenis:** There are many unknowns with hydrogen into the future. APS does not have a position on whether it will be a producer of hydrogen or receive offtake from another facility. APS values the cost effectiveness of any resources it looks into investing in. Whichever of those resources becomes the most reliable and cost-effective option will probably be maintained.

## Mike Eugenis | APS/Manager, Resource Plan & Analysis | 2023 IRP Stakeholder Comment Responses

**Summary:** Mike Eugenis, Manager of Resource Planning, closed out the meeting by updating the group on APS's response to stakeholder comments progress. APS is required to file a response to stakeholder comments that were filed earlier in the year by May 31, 2024. Mike provided a more detailed breakdown of each of the topics that came out of the stakeholder comments that were shared with the group during the April meeting.

- **Question - RPAC Member:** When you say 1,451MW of incremental gas net of retirements, does this refer to other gas plants being retired, or are you talking about coal retirements?
  - **Response - Mike Eugenis:** This refers to the net of other gas plants being retired.
- **Question - RPAC Member:** Can you show us where to find these numbers in the IRP?
  - **Response - Mike Eugenis:** In the IRP Response to Rules section, there are a handful of tables that talk about our capacity additions from nameplate and on peak perspectives. Those two sections have this information in it. As we reviewed these materials after publishing the IRP, we found that it was difficult to ascertain exactly what the incremental buildouts were. We appreciate the feedback and will likely change how we provide this information in the future.
- **Question - RPAC Member:** Can you tell me how to see that?
  - **Response - Mike Eugenis:** I'm happy to work with you in a 1-on-1 session to go through our calculation so you can see exactly where those are.
- **Question - RPAC Member:** Can you remind us of which gas plants are retiring?
  - **Response - Mike Eugenis:** There are a couple of older peaking units at a handful of APS facilities, West Phoenix, Ocotillo and Saguaro that are approaching their end-of-life.
- **Question - RPAC Member:** So, the plants will continue, but some of the turbines are being retired?
  - **Response - Mike Eugenis:** That is correct, all of those locations have multiple units and some of those will be retired.
- **Question - RPAC Member:** Regarding the EPA rules, how will the procurement and planning team incorporate the reality that base load gas plants will need carbon capture, or to run less, into the future?
  - **Response - Mike Eugenis:** APS did not incorporate the EPA rules into the IRP because they weren't finalized at that time. Some notable revisions have occurred from the proposed rules to the recently released, final rules that APS is updating its modeling to include. Resource Planning has been working with the legal team to better understand the final rules over the past couple of weeks and anticipates that this information will be incorporated in short order. APS consistently updates its resource plan outside of the IRP process and this is something that we will be capturing for the current and next ASRFP.
- **Question - RPAC Member:** What could the cost impact look like in the model if you aggregated two units running at 40% instead of one at 80%?
  - **Response - Mike Eugenis:** There is a lot of interest around the industry in the implications that the EPA GHG rules will have on resource buildout. There is in some ways an incentive to build more facilities to remain under the capacity factor limitation. We will see how this effects costs as we get more information and integrate that into our modeling.
- **Question - RPAC Member:** Is there a requirement to provide modeling licenses to RPAC members, or does APS do this voluntarily?
  - **Response - Mike Eugenis:** It is required by the Commission. As a part of the acknowledgement of the 2020 IRP, APS received an order that gave us criteria that we needed to adhere to as a part of the 2023 IRP process.
- **Question - RPAC Member:** Will APS continue providing licenses?
  - **Response - Mike Eugenis:** I will need to double check the Commission language to verify whether the order is applicable in perpetuity or just for the 2023 IRP.
  - **Follow-up:** APS verified that the requirements in the Commission's most recent IRP acknowledgement order directing APS to provide modeling licenses to RPAC members is not limited to the 2023 IRP.

- **Question - RPAC Member:** Is APS going to affirmatively commend the stakeholder process and say how important it has been for the outcome in its filing?
  - **Response - Mike Eugenis:** There is mostly a focus on providing additional information in general, I don't think we specifically commend the process.
  - **Response - Todd Komaromy:** That is covered in the IRP itself as well.

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

- No questions.