

# Salt River Project (SRP) Integrated System Plan Advisory Group Meeting #3- Summary

*Prepared by Kearns & West*

## Advisory Group – Meeting #3 Overview

### Meeting Objectives

- Discuss how integrated system planning will shape the way Distribution, Transmission, Generation and Customer Programs plans interface
- Introduce the integrated system planning framework and gather feedback on the future scenarios to consider in the Integrated System Plan

**Topic:** Our Power Future, Together

**Date:** January 19, 2022

**Time:** 9:00-11:30 a.m. MST

**Location:** Virtual

Please see the appendix for the Advisory Group member roster and attendance information. The [meeting agenda](#) and [presentation](#) are available at the [Integrated System Plan portal](#).

### Welcome, Schedule Update and Agenda Overview

Kelly Barr, Associate General Manager & Chief Strategy, Corporate Services & Sustainability Executive at SRP, welcomed participants and shared a proposal to extend the schedule for the Integrated System Plan to allow for more detailed collaboration ([slide 4](#)).

Angie Bond-Simpson, Director of Integrated System Planning & Support, reviewed the meeting objectives ([slide 7](#)) and Joan Isaacson, facilitator from Kearns & West, reviewed the [meeting agenda](#). Isaacson noted that in response to stakeholder feedback, Common Spirit Health had been added to the Advisory Group membership. The new representative from the SRP Customer Utility Panel (CUP) was also welcomed ([slide 9](#)).

### Planning Across the Entire System in the Integrated System Plan

Lakshmi Alagappan, Integrated System Plan Consultant from E3, the Integrated System Plan's technical consulting group, introduced the panel discussion featuring SRP program directors. After describing reasons for the shift from traditional utility planning to an Integrated System Plan ([slides 13-17](#)), Alagappan paused for questions.

**Question:** In our sector we also put together strategic plans but nothing beyond four to five years due to uncertainties. What made SRP pick the 2035 timeframe as opposed to 2025?

**Response** [Bond-Simpson]: The 2035 date ties to the 2035 goal setting process. Many decisions have long lead times and through uncertainty analysis we try to plan years in advance for decisions to align with long-term goals.

## Customer Programs

Dan Dreiling, Director of Customer Programs, provided an overview of SRP's customer programs, how those programs relate to SRP's 2035 Sustainability Goals and the planning process ([slides 19-26](#)). He highlighted growing electrification and solar integration.

**Question:** Our organization just kicked off a project for electric vehicle (EV) charging in parking lots and garages. In five years, we could have 2000 or more EVs parked in our spaces, and we recognize that we haven't put in the infrastructure (e.g., cabling). Have you started working with any customers that have large parking capacity to assess the likely needs? Are you thinking of ways to incentivize daytime charging?

**Response** [Dreiling]: Yes, we are seeing more activity in big campuses with industrial customers and there are challenges in scaling up. We are talking to customers and supporting programmatic efforts, such as a fleet assessment service to provide that roadmap.

**Question:** Can you speak to opportunities that SRP is pursuing with government entities for federal subsidies in customer programs?

**Response** [Dreiling]: We are starting conversations on this and are meeting with SRP's public affairs team later this week to develop a plan to try to access federal resources.

**Comment:** We are open to collaboration and will follow up.

**Question:** Does the same approach hold true for EVs?

**Response** [Dreiling]: Yes, SRP's EV strategy team will be part of those conversations as well.

**Question:** In light of the recent western wide heat wave events, can you please speak to the ways SRP is looking to expanded efficiency and demand response to support reliability outcomes?

**Response** [Dreiling]: Yes, energy efficiency is one component. We have expanded energy efficiency and demand response programs with demand response dispatched 9-10 times last summer. We are looking at all of these programs and this is going to help with future needs.

**Question:** Is there a way to assess the total potential of demand side management? Where is SRP optimizing this "resource."

**Response** [Kisicki]: We are exploring and trying to learn more about this aspect. It is in our research plans and we are figuring out how to incorporate it. It will likely play a role in the next 10-15 years.

## Distribution Planning

Vanessa Kisicki, Director of Distribution Strategy, presented on key aspects of distribution, such as the extensive amount of equipment needed to deliver power to over one million customers, the robust and methodical planning for reliability and how a more dynamic distribution system with two-way power flow introduces a new set of considerations ([slides 28-31](#)). She emphasized the large number of data points and inputs and said more detail would be explored in upcoming technical meetings.

**Question:** Is it your opinion that onsite customer-owned solar (around 10 megawatts) would be a low-cost aid to SRP's distribution?

**Response** [Kisicki]: There are a lot of questions about that. It depends on location and how customer-owned solar would be used. It's a case-by-case situation. We see potential for these resources to reduce grid constraints.

## Transmission Planning

Bryce Nielsen, Director of Transmission Planning, Strategy & Development, described considerations in transmission, including the prescriptive requirements imposed by national standards, interconnections with neighboring utilities at the bulk level and the data-intensive simulations SRP runs on hundreds of contingencies down to the microsecond level ([slides 33-36](#)). He commented on the lead times of up to a decade for the siting process and the large number of speculative projects in the requests for interconnection queue, which creates a lot of uncertainty and flux ([slides 37-39](#)).

**Question:** When SRP models transmission, do you have to pay Arizona Public Service for transmission access? Do you try to avoid that charge? Does that factor into siting?

**Response** [Nielsen]: Yes, there is a process for using others' systems. We do pay certain charges in using someone else's system to bring power. We have to do a cost analysis to see if it makes sense to buy existing transmission vs. build our own.

**Question:** Would a regional transmission organization (RTO) aid with this?

**Response** [Nielsen]: There are possibilities and challenges. We have to make sure transmission benefits outweigh the additional costs. Each RTO has a different methodology for allocating transmission costs. We will be doing these analyses as markets continue to develop.

**Question:** Does SRP have a preferred methodology for the governance of an RTO structure?

**Response** [Nielsen]: It depends; we can't look at transmission costs alone. There are other factors.

## Resource Planning

Michael Reynolds, Manager of Resource Analysis & Planning, explained how resource planning for an Integrated System Plan differs from traditional planning. He described how simulations account for millions of interrelated decisions in planning and how modeling allows SRP to quantify costs and select resources ([slides 41-42](#)). He also presented SRP's resource portfolio overview and how geographic diversity, which includes drawing on SRP's service territory with customer participation in programs like demand response as a resource ([slides 43-44](#)), is used to meet demand.

**Question:** With respect to energy efficiency modeling in general, have you reviewed Southwest Energy Efficiency Project's (SWEET) analyses on the recent Tucson Electric Power and Arizona Public Service integrated resource plans? Individual energy efficiency load shapes were input and then the capacity expansion model was allowed to pick particular energy efficiency measures as it was in the best economic interest of ratepayers. Has SRP ever considered a similar approach?

**Response** [Dreiling]: We are interested in reviewing work from other utilities. From our perspective, we have well-developed load shapes, refined over time. We have taken the approach of making optimizations. These are being built into the load forecast currently. It is already part of our portfolio.

**Question:** As it relates to modeling in general, can SRP confirm if in its modeling moving forward it will allow for economic dispatch and retirement of units or if it plans to "hard code" the operations of certain assets? Will the model optimize for the most economic option for ratepayers, or are there other must-run factors?

**Response** [Reynolds]: These are great questions. We do not yet have all the answers. We have to see if that optimization captures all the impacts. We have to look at the whole system and see if there are unintended consequences.

**Comment:** One suggestion is to allow economic dispatch and economic retirement even if it's not the preferred portfolio. That information would be helpful in fleshing out the whole range of options.

**Question:** How do resource and transmission planning address underutilized capacity requests and commitments?

**Response** [Nielsen]: We have in the past allocated a certain capacity. Then if the customers don't build all the capacity in our models, we still have a contractual commitment. We are addressing that with more recent interconnection agreements with claw back provisions where that capacity diminishes over time with non-use.

**Question:** Can you please expand on your planned use of Aurora? Are you using it for production cost modeling only or also for capacity expansion analysis?

**Response** [Reynolds]: Aurora will be used in both of those cases and in a couple others. We are likely to examine some potential configurations of how the study will proceed with production cost modeling. Aurora helps with capacity expansion modeling, but we are not sure it captures all system impacts. We may have Aurora pick the options under a set of assumptions and then use those as inputs. We will do capacity expansion testing across different systems.

**Question:** What is the time scale of the analysis, 8760 or representative snapshots?

**Response** [Reynolds] We will be doing 8760 analysis for production cost. For capacity expansion we are not yet sure if we will be looking at a representative month or week.

**Question:** As a carbon free resource, is increasing our use of nuclear energy being considered as an opportunity?

**Response** [Reynolds]: We may include nuclear; the question is not yet answered. This is a far-looking projection and it would need to be online by 2035. There is nothing to preclude using nuclear as an option.

## Principles of Collaboration

Bond-Simpson shared a draft of SRP Principles of Collaboration ([slide 46](#)). She also said that the project team had met with some Advisory Group members to discuss interests in reviewing inputs and outputs, with more meetings scheduled for the following weeks.

## Scenario Planning Framework for the Integrated System Plan

Nick Schlag, ISP Consultant at E3, described the scenario design framework and explained that the initial proposal for scenarios would be shaped by feedback from the Advisory Group ([slides 49-52](#)). He presented prior Advisory Group feedback, themes and key drivers from the December 6, 2021 meeting ([slides 53-55](#)) and then provided an overview of how the key drivers informed the four proposed scenarios: Current Trends, Desert Contraction, Strong Climate Policy and Desert Boom ([slides 56-57](#)).

**Question:** With regard to the slide about 2035 and SRP's capacity ([slide 44](#)), it looked like we were in a better position to deliver energy. Is this the goal of where we want to be? Is that the right way to interpret it?

**Response** [Schlag]: This slide shows just the reliability aspect, which is one leg of the stool.

**Response** [Barr]: In 2035 those open rectangles ([slide 44](#)) are new resources we have to add to the system to meet needs. We will have to add a lot of resources to meet needs in our service territory.

**Question:** Is the illustration showing continuation of the trend? If there is a boom, I guess the remaining need only grows.

**Response** [Barr]: Yes, this illustration shows business as usual and captures what we are experiencing today. There are other scenarios with a slowdown.

**Question:** Will the team provide more specifics on each of these scenarios (e.g., the bounds of low and rapid economic growth)? This information is essential for understanding what these scenarios mean in practice.

**Response** [Schlag]: That is part of the process to work through with this group. In the reference material you can see the different assumptions and levers, but as we continue, we will get into details with specific numbers.

**Question:** Can you explain the thesis of the scenarios? Are they meant to be realistic? I want to understand more about what SRP intends as we develop input to consider.

**Response** [Schlag]: Scenario analysis allows exploration of future conditions. Each scenario defines a set of conditions that are plausible. We don't want something that feels like it's not a possible outcome and we do want to drive some differences in scenarios. It's a balance between enough of a difference that scenarios reflect meaningful differences but that the bounds are realistic.

**Question:** I'm surprised to not see extreme gas price volatility. Where are gas prices captured in the scenarios? Will they be captured in all scenarios?

**Response** [Schlag]: Gas price assumptions are one of the levers to explore through more rigorous sensitivity analysis. In the Strong Climate Policy scenario, costs would be higher due to regulation. We envision at the moment that analysis would test against the Current Trends scenario.

**Question:** Is this resource gap ([slide 44](#)) normal or alarming?

**Response** [Reynolds]: We have a plan to fill that gap, and we believe there is an opportunity to optimize choices before we lock them in. This gap is not normal and is unique due to Arizona's growth. It's sobering to think of the forecasted growth, but this is an opportunity to make the right decisions and transform our system in a more aggressive way.

**Response** [Barr]: In addition to unusual load growth, we are also closing all the coal units except one. We have an increase in load and a decrease in resources. This challenge is front and center at SRP in making this transition with sustainability, reliability and affordability.

**Comment:** On the point of natural gas price volatility or a large fire, maybe a subsection of these scenarios is a Black Swan event (e.g., Texas cold snap in 2021). If you combined the Desert Boom and Desert Contraction scenarios with regard to extreme climate, that's a different scenario. Whether scenarios include the right amount of dispatchable generation is also important to consider.

**Question:** In regards to the Strong Climate Policy scenario, in the chart that was sent out, this scenario shows a lever with a temperature rise of low. The Paris Accord [aims] to encourage the implementation of carbon reduction measures, globally, that can prevent the global temperature to rise beyond 1.5°C. Temperatures are still going to rise regardless; we are just trying to control how much temperatures are going to rise by reducing our carbon emissions.

**Response [Schlag]:** Low here doesn't mean no temperature rise. It indicates perhaps a slightly lower rise due to global efforts to reduce impacts. It's a matter of how much.

**Question:** I'm assuming you don't have the underlying detail for all variables. Is that the subject of the discussion in February?

**Response [Schlag]:** We are still working on specific assumptions that go into the scenarios, which SRP will be providing at a subsequent Advisory Group meeting. We want feedback on whether the scenarios are pointing in the right directions and have the right diversity.

**Question:** So much is going to hinge on the assumptions. These four scenarios give a diverse look but it's important to determine the sensitivities. Those are going to allow analysis of each potential driver. The details matter. Are the trajectories on a 2025, 2030, etc. time horizon? That will be critical. At what stage, and how, do you want input on those assumptions?

**Response [Bond-Simpson]:** We recognize that and have the technical meetings to take those deep dives. We want the assumptions outlined before we start analysis.

**Question:** Has the load growth projected in the scenarios taken into consideration growth in low-income communities and the inability to pay for services, current and emerging?

**Response [Schlag]:** We will be coming back with more details in future meetings.

## Upcoming Meetings

- Advisory Group Optional Study Session on February 11, 2022, 9:00-11:00 a.m. MST
- Advisory Group Meeting #4 on February 15, 2022, 9:00-1:00 p.m. MST
- Advisory Group Meeting #5 on March 14, 2022, 9:00 a.m.-1:00 p.m. MST

## Appendix

### Meeting Attendance

Advisory Group Member Organizations (members in attendance on 1/19 are indicated in bold)

**Arizona Hispanic Chamber of Commerce**

**A New Leaf**

**American Association of Retired Persons (AARP)**

**Arizona State University (ASU)**

**Arizona Public Interest Research Group (PIRG)**

Building Owners and Managers Association (BOMA)

**Chicanos Por La Causa**

City of Phoenix

**CommonSpirit Health**

**CMC Steel Arizona**

**CyrusOne**

**Environmental Defense Fund (EDF)**

Intel

Kroger

**Local First**

**Mesa Public Schools**

PAC Worldwide

Pinal County

**SRP Customer Utility Panel (CUP)**

Salt River Pima-Maricopa Indian Community (SRPMIC)

**Southwest Energy Efficiency Project (SWEEP)**

**Western Resource Advocates (WRA)**

**Wildfire**

### Key SRP Staff

Kelly Barr, Integrated System Plan Project AGM Sponsor

Mike Jones, Integrated System Plan Project SRP Planning Coordination Council Sponsor

Angie Bond-Simpson, Integrated System Plan Project Lead

Bryce Nielsen, Director of Transmission Planning, Strategy & Development

Dan Dreiling, Director of Customer Programs

Vanessa Kisicki, Director of Distribution Strategy

Michael Reynolds, Manager of Resource Analysis & Planning

Domonique Cohen, Integrated System Plan Communications Lead

Jed Cohen, Integrated System Plan Project Co-Lead

### Key Facilitation Team

Lakshmi Alagappan, E3

Joe Hooker, E3

Nick Schlag, E3

Alyson Scurlock, Kearns & West

Joan Isaacson, Kearns & West

Karen Lafferty, Kearns & West

Taylor York, Kearns & West

### Observers

John Hoopes, SRP Board Vice President

Anda McAfee, SRP Board Member

Jack White, SRP Board Member

Larry Rovey, SRP Board Member

Randy Miller, SRP Board Member

Rocky Shelton, SRP Council Member

Suzann Naylor, SRP Council Member