KEARNS & WEST

Salt River Project (SRP)
Integrated System Plan Advisory Group Meeting #6- Summary

Prepared by Kearns & West

KEARNS WEST

Advisory Group – Meeting #6 Overview

Meeting Objectives

- Review the study plan for the Integrated system plan and scenario narratives
- Gather feedback on the draft metrics proposal
- Get to know each other and celebrate completion of the study plan for the first-ever Integrated System Plan

Topic: Integrated System Plan Study Launch
Date: April 15, 2022
Time: 9:00 a.m.-1:30 p.m.
Location: PERA Training and Conference Center – Sandhill West (with virtual option)

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, Agenda Overview and Advisory Group Roundtable

Advisory Group members began convening in-person and virtually at 9:00 a.m. for coffee and networking with the agenda content beginning at 9:30 a.m.

Kelly Barr, Associate General Manager & Chief Strategy, Corporate Services & Sustainability Executive at SRP, welcomed the attendees and thanked Advisory Group members for their commitment to the Integrated System Plan process. After introducing the SRP Board and Council observers, Barr shared updates on SRP's proposed Coolidge Expansion Project, including the Arizona Corporation Commission's denial of a Certificate of Environmental Compatibility for the project and SRP's exploration of next steps. She also introduced Bobby Olsen, the new Senior Director of Corporate Planning, Environmental Services, and Innovation at SRP, including the Integrated System Plan.

Olsen described SRP's 2021 All-Source Request for Proposals (RFP) for new power generation resources and options to meet load growth in 2024, noting that the RFP requests proposals for a wide variety of resources. Olsen commented on the need to make quick decisions and supply chain constraints.

Question: Did SRP expect the outcome of the vote on the Coolidge Expansion Project?
Response: We were very surprised by the decision.

Question [chat]: Can SRP speak to options being considered to ramp up demand response and energy efficiency to meet summer peak?
Response: We continue to aggressively pursue demand response and energy efficiency.

Question [chat]: Some utilities like Florida Power & Light Company are taking an active role to oppose the Department of Commerce investigation regarding imported solar panels and mobilize key constituencies, including local governments in opposition. Is SRP pursuing a similar path?
Response: On the Department of Commerce investigation, we are working with the Large Public Power Council, Edison Electric Institute and the Solar Electric Power Association to encourage a prompt resolution.

Question: We should accelerate demand response and energy efficiency as much as possible. Can we get a sense of scale of whether that gets close to what is needed in the best-case scenario?
Response: Given the potential demand (900 MW), there's not enough capacity to meet needs. Demand response and energy efficiency represent incremental gains.

Question: What does the option set look like? If demand response and energy efficiency don't get us there, what do we need to do?
Response: Before the decision was made on the Coolidge Expansion Project, SRP needed 400 MW from the RFP in 2024 and 1000 MW in 2026 in addition to the planned expansion. Those numbers now go up significantly, so we have to do everything we can.

Question: Does the decision on the Coolidge Expansion Project change the standby rider and ability to place on-site generation?
Response: We know people are interested in this. We are looking at any and all ideas to meet the significant capacity needs. We will need to move quickly and will keep Advisory Group members informed.

Comment [chat]: Dan and his team have done an incredible job and should be celebrated for their work. That being said, we believe a lot more can and should be done and respectfully note that some past decisions, such as SRP's decision to cancel commercial and industrial demand response a few years ago, was a mistake. While we are thrilled SRP has restarted those demand response efforts and has since recommitted to them, I think this moment, including the Arizona Corporation Commission's decision this week, is an important inflection point for SRP to pause on its recent decisions and its opportunities ahead.

Comment [chat]: SRP could consider increasing the purchase price of net-metering ($/kWh) to encourage the adoption of residential and commercial solar.

Joan Isaacson, facilitator from Kearns & West, welcomed the Advisory Group members and reviewed the meeting objectives (slide 6), agenda and guides for the meeting (slide 7-9). She also reviewed the Integrated System Plan Roadmap (slide 10) and described how the process was moving to the *Analyze* phase in developing the study plan (slide 11).

Isaacson next asked SRP project team members to introduce themselves and then facilitated Advisory Group member roundtable re-introductions.

Review of the Integrated System Plan Study Plan

Angie Bond-Simpson, Director of Integrated System Planning & Support at SRP, gave a recap of the Integrated System Plan process, including the study plan components and stages of completion (slide 15). She then described the Modeling Subgroup meetings and how feedback from Advisory Group members has been incorporated (slide 16), thanking members for their attendance and input.

Comment: On the Strong Climate Policy scenario, I appreciate the feedback that was incorporated and the consideration of a mass-based carbon reduction target.

Comment: I second the appreciation for listening to feedback and showing action in response.

Bond-Simpson reviewed the scenarios (slide 17) and sensitivities (slide 18), presented the three strategic approaches with some key updates and the four exploratory studies (slide 19), and provided a recap of Advisory Group member feedback (slide 20).

Question: Would the Minimum Coal strategic approach eliminate all coal by the end of the study period (2035)?
Response: Yes.

Question: Is any of this planning impacted adversely by the decision on the Coolidge Expansion Project?
Response: Before that decision was made, we were entering the Integrated System Plan with a reliability backbone. We are now working to stabilize that.

Question: Has a study been done of the consequences of a significant power outage to the Phoenix metropolitan area? Research on the Texas outage (February 2021) indicates a cost of $100-$150 billion and 100 lives. Given reliability, the supply chain, hotter summers, continued closure of coal plants, and the Coolidge Expansion Project being denied, we would be irresponsible if we didn't have an idea of the impacts from a 2–3-day outage.
Comment: The City of Phoenix has emergency management planning to analyze responses and multiple areas that need to be understood. The lack of air conditioning is one. Extended outages also impact water distribution and treatment. There are cascading effects. The catastrophic scenario includes helping people get to where there is power so they can stay safe.
Response: I am not aware of an SRP study on this topic. The perspectives on water and air conditioning are appreciated. There are also health and transportation concerns.
Comment: For $100 billion we can buy a lot of energy security and it would be a good idea.

Question: Is SRP examining the exploratory studies concurrently? If we are looking at 2025 and beyond, how is the technology evolving so storage becomes a real option?
Response: We are not examining all exploratory studies concurrently. Some studies will have to wait until the strategic approach research is complete. On technology advancements, we have over 30 ongoing research efforts on storage, chemistry and mechanical energy storage.

Question: On exploratory studies, has SRP considered exploring time-of-use on the commercial side?
Response: Some of the most notable contributions are in residential but there are some opportunities in the commercial sector as well.
Comment: As we move into flexibility as an element, the commercial and industrial load is going to be critical.

Question: On storage and distribution, Arizona Public Service is exploring an aggregation tariff that pulls together different sources at the same time. How is SRP thinking about aggregating these sources?
Response: We use the same aggregators as Arizona Public Service. We have our grid enablement roadmap and others. As with energy efficiency, on the customer level we combine one million customers that come from different segments.

Question: Will nuclear and small nuclear reactors be part of what's considered?
Response: Yes, nuclear, wind, geothermal and biomass are all on the table.

Question: Does more people working from home change the plan for time-of-use during the day?
Response: It introduces opportunities with things like electric vehicle charging. Solar energy is abundant during the day so there is an opportunity for a super off-peak period. We have seen some impacts to load shape in terms of increased usage during the day, but the pace of solar implementation means we have more generation available during those hours.
Response: We will have to transition the message from minimizing appliances during the day to optimizing them during the day based on these changes.

Question: We are seeing effects on housing construction due to supply chain constraints on materials and I'm wondering if that changes any of the assumptions. Economic growth is high.
Response: Economic growth is embedded as middle of the spectrum in the scenarios, but none of the scenarios represent business as usual. All the scenarios project growth, with explosive growth being projected in the Desert Boom scenario. Only the Desert Contraction scenario projects lower growth.

Question: We have heard about cyber-security risks in the last week. Is SRP analyzing this? Also, we have heard about the importance of Lake Powell to energy security in the western grid.
Response: We are capturing hydropower availability though Glen Canyon and the other risks you mention are great examples of metrics that will be discussed later.

Bond-Simpson showed how developing an Integrated System Plan results in 42 system plans to examine (slide 21). She displayed the study plan matrix (slide 22) and the study schedule (slide 23), explaining that the future meeting cadence would be established in early Summer.

Isaacson asked Advisory Group members to share their key takeaway from the recap of the Integrated System Plan study plan on cards (in-person) or via chat (virtual). Advisory Group members who submitted comments noted the complexity and amount of data involved in considering 42 system plans, the number of unknown variables and those beyond SRP's control, and suggestions for informing the public (slide 24).

Metrics Draft Proposal and Discussion

Jed Cohen, Integrated System Planning Lead at SRP, defined metrics (slide 26) and metric criteria (slide 27) and explained how they will be used for evaluating and comparing the power system performance of different plans in Fall 2022. He shared the metrics brainstorming results from the March 14, 2022, Advisory Group meeting (slide 28) and top themes from Advisory Group feedback (slide 29). Cohen then introduced Kyle Heckel, Senior Analyst for Integrated System Planning & Support at SRP.

Heckel described the proposed metrics categories (slide 30). He described metrics for affordability, sustainability, reliability and customer preference (slides 31-34). He also described metrics outside the scope of this first Integrated System Plan (slide 35).

Question: Can you please confirm if "total cost" is the same as "revenue requirement"? Does it include the cost of externalities (e.g., carbon, water, pollution)?
Response: The total cost is exclusively the revenue requirements.

Question: Are there any considerations on additional metrics with total cost plus externalities? If not, what's the rationale?
Response: We have had discussions on the social cost of carbon and sustainability but not affordability. We can take that consideration back to the team.

Question: How are costs being calculated?
Response: We assume changes in cost allocation remain constant. Updates to cost allocation will take place in a future pricing process in 2023 and results from the Integrated System Plan should provide insights for that effort. We currently have a placeholder for our next pricing process for late 2023 but the need will be continuously monitored and nothing has been confirmed.

Question: Are residential bill impacts averaged over the year or by season?
Response: It is an annual impact, but we do have customer pricing programs and are open to input. Annually, we might see a $10 per month increase impact during a peak summer month, but a spring month may only increase by $1.50, for example. SRP has programs that allow customers to pay an average bill every month so there are ways to manage seasonality.
Comment: Looking at the whole year distorts the analysis.

Comment: Equity should not just be assumed and should be expressed more explicitly in the final study plan.

Question: Metrics could include public health metrics (e.g., premature deaths, morbidity). On energy burden, could those metrics be incorporated here? Could SRP look at zip codes and conduct geospatial analysis from a distribution perspective?
Response: We do have some recommendations from the metrics brainstorming and some that are beyond the scope of the Integrated System Plan. We are building out the ability to work at that level of granularity.

Comment: Arizona just came in last place for food waste, and I want to acknowledge that not factoring that in affects the metrics for energy and water.

Question: How are you getting customer feedback and what is the expected response rate to get accurate results?
Response: We are looking at upwards of 400 survey responses from residential customers. With that number we would be at a ±5% margin of error.

Question: Can you go over assumptions for reserve margins? Is there a reason why the reliability metrics do not generally include reserve margins or is the same reserve margin planned for each portfolio?
Response: We have discussed including the planning reserve margins. It is an input for the model and varies across scenarios. We recognize it's a minimum constraint and the models might exceed that minimum. We did not include it in this initial proposal since we don't anticipate much variation.
Comment: It would be good to include other standard practice metrics such as loss of load expectation and expected unserved energy.

Comment: Heat in urban areas needs to be considered as a metric.

Isaacson introduced two questions about the proposed metrics:

1. What do you like about the proposed metrics for the Integrated System Plan?
2. Do the metrics allow us to assess the benefits, costs, and risks of different system plans for the first Integrated System Plan? If not, what else should be considered?

Advisory Group members attending in-person wrote their individual responses on sticky notes and posted them on chart paper in the room. Members attending virtually sent their responses via chat and a project team member posted them on chart paper (slide 38).

Feedback on Metrics Proposal

Nick Schlag, consultant from E3, the Integrated System Plan's technical consulting group, presented Advisory Group member's responses about the proposed metrics, noting trends and grouping responses by topic (slide 41).

Question 1: What do you like about the proposed metrics for the Integrated System Plan?

Schlag reviewed feedback from Advisory Group members on how the metrics are comprehensive, have a sense of completeness and are sufficient at this point. He noted positive feedback on tracking mass-based CO_2 emissions and using customer surveys.

Question 2: Do the metrics allow us to assess the benefits, costs, and risks of different system plans for the first Integrated System Plan? If not, what else should be considered?

Schlag next reviewed feedback on other considerations for metrics, commenting on the importance of equity and the need to analyze a level deeper for affordability and specific customer impacts, including geospatial analysis. He also noted the requests for more specific metrics on the level of reliability, loss of load expectation and potential risks to the power system. He connected sustainability metrics to Advisory Group member's requests for attention to equity and a desire to see more detailed metrics on air pollution (e.g., ozone and particulate matter) and public health.

Schlag also reported on other comments citing the need to quantify flexibility and adaptability over time in an uncertain future. Lakshmi Alagappan, consultant from E3, highlighted the suggestion to benchmark the metrics against other utilities.

Question: The general economic strategy for Arizona is based on growth and attracting high energy and water users to the state. Is that kind of growth being factored in?
Response: Our support of the community is part of a feedback loop. We receive information and strategize together as the Arizona utilities, the Phoenix area and the state overall.

Wrap Up and Upcoming Meetings

Isaacson reminded Advisory Group members that they would be asked via email for feedback about the best way to present the Integrated System Plan scenarios to the Large Stakeholder Group at the April 29, 2022, meeting. Bond-Simpson shared the dates for future meetings (slide 43 and listed below).

Bond-Simpson and Olsen thanked everyone for their attendance and participation, expressing appreciation for Advisory Group members' contributions and engagement in the Integrated System Plan process.

- Large Stakeholder Group Meeting #2 on April 29, 2022, 8:00-10:00 a.m.
- Large Stakeholder Group Technical Working Session #1 on April 29, 2022, 10:15 a.m.-12:00 p.m.
- Advisory Group Meeting #7 on May 10, 2022, 9:00 a.m.
- Joint Integrated System Plan and Sustainability Advisory Group Topical Meeting on Heat Resilience in June, TBD

Appendix

Meeting Attendance

Advisory Group Member Organizations (members in attendance on 4/15 are indicated in **bold**)

Arizona Hispanic Chamber of Commerce
A New Leaf - *in-person*
American Association of Retired Persons (AARP)
Arizona State University (ASU) - *in-person*
Arizona Public Interest Research Group (PIRG)
Building Owners and Managers Association (BOMA)
Chicanos Por La Causa
City of Phoenix - *in-person*
CommonSpirit Health - *virtual*
CMC Steel Arizona - *virtual*
CyrusOne - *in-person*
Environmental Defense Fund (EDF) - *virtual*
Intel
Kroger
Local First - *in-person*
Mesa Public Schools
PAC Worldwide
Pinal County - *in-person*
SRP Customer Utility Panel (CUP) - *in-person*
Salt River Pima-Maricopa Indian Community (SRPMIC) - *in-person*
Southwest Energy Efficiency Project (SWEEP) - *in-person*
Western Resource Advocates (WRA) - *in-person*
Wildfire

Key SRP Staff

Kelly Barr, Integrated System Plan Project AGM Sponsor
Adam Peterson, Director of Corporate Pricing
Angie Bond-Simpson, Director of Integrated System Planning & Support
Bobby Olsen, Senior Director of Corporate Planning, Environmental Services, and Innovation
Dan Dreiling, Director of Customer Programs
Domonique Cohen, Integrated System Plan Communications Lead
Jed Cohen, Integrated System Planning Lead
Kyle Heckel, Integrated System Plan Project Manager

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

SRP Board and Council Observers

Suzanne Naylor, SRP Council Member - *in-person*