



Integrated System Plan Large Stakeholder Group Meeting #4- Summary

Prepared by Kearns & West

Large Stakeholder Group – Meeting #4 Overview

Meeting Objectives:

- Share the results of the Phase 3 Residential Customer Research
- Inform on and discuss ISP System Strategies, Balanced System Plan and Actions
- Inform on next steps for implementing the Integrated System Plan

Topic: ISP Path Forward

Date: September 28, 2023

Time: 9:00 a.m. - 1:00 p.m.

Location: Double Tree by Hilton, Tempe

Of the more than 140 organizations invited, approximately 27 stakeholders from 20 organizations attended. Please see the appendix for the Large Stakeholder Group member roster and attendance information. The [meeting agenda](#) and [presentation](#) are available at the [Integrated System Plan portal](#).

Welcome and Agenda Overview

Angie Bond-Simpson, Senior Director of Resource Management at SRP, welcomed attendees to this final stakeholder meeting for the Integrated System Plan (ISP). She noted the two-year ISP process and the aspirational vision of looking toward a fundamentally different power system by 2035. She thanked the more than 100 SRP employees who contributed across planning areas for their efforts and recognized the consultant team that allowed SRP to leverage best practices in stakeholder outreach, development of analytical frameworks, and study validation.

Bond-Simpson then welcomed the SRP Board and Council Observers and took a moment to acknowledge the passing of SRP Association Vice President John Hoopes. She noted his many contributions to the SRP Board and highlighted some of the causes he championed for the community, including the Phoenix Zoo and Chicanos por la Causa.

After the safety and sustainability minute ([slide 5](#)) presented by Domonique Cohen, Senior Strategic Planning Analyst for Integrated Planning and ISP Communications Lead at SRP, Bond-Simpson reviewed the meeting objectives and the engagement timeline for the Large Stakeholder Group ([slides 6-7](#)), noting incorporation of impacts from the Inflation Reduction Act and the addition of Technical Working Sessions on topics of stakeholder interest.

Joan Isaacson, facilitator from Kearns & West, reviewed the agenda ([slide 9](#)) and explained how stakeholders could ask questions both during the meeting and during the appreciation lunch to follow. She then reviewed the guides for productive meetings ([slide 10](#)). Isaacson introduced

Maria Naff, Manager of Integrated System Planning & Support at SRP, to provide a recap of ISP development process.

Integrated System Plan Development Recap

After thanking stakeholders for their attendance, Naff outlined the need for integrated planning, explaining how rapid change is bringing new opportunities and challenges to SRP ([slides 12-14](#)). She shared that a new system peak load was reached during the past summer and that SRP must evolve its planning methods while maintaining a customer-focused mindset as customers interact with the grid in new ways ([slide 15](#)).

Naff then characterized traditional utility planning as a relay race where the planning areas – resource, transmission, distribution and customer programs – pass the baton as power makes its way to customers ([slide 16](#)). She contrasted that approach with the more holistic process of integrated system planning with all planning areas working closely together to achieve or exceed SRP's 2035 Corporate Goals ([slides 17-18](#)).

Naff continued by outlining the ISP Study Plan, describing it as a robust process designed to evaluate tradeoffs in reliability, sustainability, and affordability to make strategic decisions that will mitigate risks and prepare SRP for the future ([slide 19](#)). She stated that SRP anticipates publishing the ISP report in the first quarter of 2024. She also provided background on the transparent and inclusive stakeholder engagement process and highlighted internal and external collaboration during the 2-year process ([slide 20](#)).

Next, Naff shared some key findings from the ISP study ([slides 21-25](#)). She emphasized the need for system investments and how SRP may need to double or triple its existing resources in the next decade to serve customers – adding both renewables and firm generation to maintain reliability – and add transmission capacity. She concluded by noting that for customer programs and price plans, what works today may not work well tomorrow and thus SRP needs to evolve its offerings and educate customers. Naff then introduced John Sessions and April Smith from Bellomy Market Intelligence.

ISP Phase 3 Residential Customer Research

John Sessions, CEO of Bellomy Market Intelligence, described the focus on bringing the voice of the residential customer to the ISP process and provided Bellomy's background in market research ([slides 27-28](#)). He then introduced April Smith, Director of Client Services at Bellomy Market Intelligence.

Smith described the focus on understanding how customers prioritize and strike a balance across affordability, sustainability and reliability, and outlined the multi-phased methodology

for customer research, noting that participants were representative of SRP customers and that surveys also were available in Spanish ([slides 29-30](#)). Overall, about two in five customers ranked affordability as their first priority with limited-income customers – about one-third of SRP’s customer base – being more likely to rate it first ([slide 32](#)). She stated that participants gave overall positive ratings of experiences with SRP, noting that numbers were 10-15 percentage points higher than for other utilities ([slide 33](#)).

Next, Smith described the choice exercise designed around the ISP framework ([slides 35-36](#)). She explained how participants were shown illustrative energy mixes based on the ISP and bill impacts presented as dollar amounts based on their recent bills and asked to select either one of two possible energy plans or choose to stay with their current plan. She explained that Bellomy was able to evaluate over 9,000 system configurations to derive customer preference ratings.

Smith presented the results, indicating that monthly bill impact is of greatest importance to customers ([slide 38](#)). She also described how customers wanted to “have it all” by preferring zero bill impacts, no outages, and an energy mix with over 80% carbon-free resources ([slide 39](#)). She noted that cost constraints force tradeoffs with customers expressing the need to balance costs with sustainability ([slide 40](#)). Smith concluded by presenting customers' ideal future energy system with a threshold for bill increases around 10% ([slide 41](#)). She stated that it will be important for SRP to focus on customer needs in planning the future system ([slide 42](#)).

Q&A

Question: Did Bellomy test whether customers felt differently with higher bills this summer?

Response: We did not field the survey over the summer.

Question: For the key finding about the threshold of 10% bill impacts, did Bellomy run those statistics for people with limited incomes?

Response: The trend was similar for all groups.

Question: Did you run an analysis with Coronado and Springerville retiring and the cost of renewables to include depreciation?

Response: One Strategic Approach in the ISP was Minimum Coal. It analyzed a future with Springerville closing early (and replaced with only carbon-free options), which will be shared later in the presentation.

ISP Final Products: System Strategies

Bond-Simpson outlined the three products of the ISP, emphasizing how the System Strategies, Balanced System Plan and ISP Actions are interdependent and interrelated ([slide 45](#)). She reminded that the goal of the ISP was not to select or predict a future but rather to design a

system that would perform well in any plausible future. The seven System Strategies are the product of the ISP to inform the planning and operating of the power system to achieve SRP's 2035 goals and will be presented to SRP's Board for approval ([slide 46](#)). She then reviewed each System Strategy.

The System Strategy for energy investments, Bond-Simpson explained, plans for renewable and storage resources to reduce fuel consumption and improve sustainability ([slides 47-48](#)). For capacity investments, pairing of renewables with firm capacity supports reliability and maintains affordability with natural gas representing an opportunity to transition to emerging firm resources ([slides 49-50](#)). She noted that when it was allowed, natural gas was selected as firm capacity in all models of the ISP study regardless of cost sensitivities.

Bond-Simpson commented that a typical Integrated Resource Plan would end at this point and include only the first two strategies, but that the ISP considers additional strategies. The third System Strategy for proactive transmission planning enables load growth and the addition of generating resources ([slides 51-52](#)). The System Strategy for distribution readiness recognizes how increasing electrification may drive up demand and change how customers use energy ([slides 53-54](#)).

She continued by explaining how the System Strategy for partnerships and suppliers addresses how to manage costs and availability for capital-intensive assets with long lead times ([slides 55-56](#)). Bond-Simpson commented on leveraging the potential for incentives from the Inflation Reduction Act. The System Strategy for evolving customer programs and pricing considers how these levers can help SRP meet new system needs, such as building load during times when more solar resources are online ([slides 57-58](#)). She noted that shifting demand will require customer education.

Bond-Simpson concluded by describing how the System Strategy for strategic investments in the existing system recognizes how these assets serve as the foundation for the future system, highlighting preventative maintenance, cybersecurity, planned retirements and repurposing of sites ([slides 59-60](#)). Before pausing for questions, she stated that the System Strategies would be brought to the SRP Board for approval the following week.

Q&A

Question: How is SRP monetizing needed transmission upgrades, specifically for the Eastern Valley? How will this be paid for?

Response: There is more work to be done to factor in specifics on locations and respective cost impacts. The strategy is designed to be future-proof or resilient across a wide range of outcomes. It will be important to consider specifics in meeting the 10% threshold for cost increases.

Response [Adam]: Money comes from revenue or borrowing. Many of our costs are fixed and as load grows it helps fund these efforts. We may need to borrow over time.

Question: How is SRP thinking about proactive interregional partnerships?

Response: We will address this in an ISP Action. SRP will be much more proactive in pursuing regional projects. We need a broader array of diverse resources and have to consider interstate resources.

Question: How do electricity markets in the West fit in?

Response: We have analyzed components of electricity markets in the ISP Study Plan. Our strategy is to be involved in working groups with both SPP Markets+ and the California Independent System Operator Extended Day-Ahead Market (CAISO EDAM). We think a market solution will be of interest if there are net benefits for SRP customers. We need to consider resource adequacy for reliability and want to ensure that any costs to participate in markets are outweighed by benefits for our customers.

ISP Final Products: Illustrative Balanced System Plan

In the next section, Bond-Simpson, spoke about how SRP plans to implement the System Strategies through the Balanced System Plan, which is the second product of the ISP ([slide 64](#)). She emphasized how the Balanced System Plan must be flexible and responsive and how this illustrative plan helps align to the vision of the ISP.

Bond-Simpson first reviewed the total capacity of generating resources, noting how the system is projected to double in size over the next decade – mostly through the tripling of renewable and storage resources – with thermal capacity remaining the same ([slide 65](#)). She then presented the diversified resource additions and described how these might shift under different conditions, if for example transmission for projected wind resources is not available ([slide 66](#)). In the 2035 energy mix ([slide 67](#)), she described how natural gas acts as a shield from price spikes in the market and against needing to shed load and is thus not running often. She next presented transmission additions in the Balanced System Plan as taking a “least regrets” approach ([slide 68](#)) and showed plans for about 65 new substation bays on the distribution system ([slide 69](#)).

Moving to sustainability and affordability metrics, Bond-Simpson described the finding from the ISP study that the least cost strategic approach, Tech Neutral, was the highest in emissions and that the Minimum Coal strategic approach had the highest costs. She commented that the residential customer research indicated that SRP customers don’t want the bare minimum: They want to know how far SRP can go in reducing emissions without substantial price increases. She then presented the emissions comparison for the Balanced System Plan, which shows an 82% reduction in carbon intensity and 61% reduction in mass-based emissions from 2005 ([slide 70](#)).

Bond-Simpson then shared the costs for the Balanced System Plan, indicating that \$121 per megawatt-hour is just below the median costs for the ISP scenarios and strategic approaches. Before showing the estimated bill impacts, Bond-Simpson emphasized that the ISP study was

not a rates analysis. She then presented the price increase relative to inflation and Tech Neutral, the lowest cost strategic approach ([slide 71](#)). The bill impact is estimated at 5%, which is below the 10% threshold identified through customer research.

ISP Final Products: ISP Actions

Bond-Simpson introduced the ISP Actions as the final product of the ISP, describing them as guardrails for implementation ([slide 75](#)) and welcomed members of the project team to the stage to present each of the 10 actions.

Adam Peterson, Director of Corporate Pricing at SRP, explained that as the grid undergoes rapid change pricing must also evolve. He described how ISP Action #1 for a residential time-of-use pilot would evaluate customer response to new pricing signals ([slide 76](#)) and how ISP Action #2 would engage and involve all SRP customers in evolving time-of-use programs ([slide 77](#)). He noted the importance of customer education in these two ISP Actions.

Dan Dreiling, Director of Customer Programs at SRP, presented ISP Action #3 on customer programs, noting the need to refresh and refine customer programs on a regular basis to continue to optimize and provide value to SRP customers as they participate in programs ([slide 78](#)). On ISP Action #4 for electric vehicle management, Dreiling spoke about creating an enterprise-wide roadmap for managing vehicle charging and shifting behavioral impacts ([slide 79](#)). He also described how ISP Action #5 considers the benefits and costs of greater electrification in SRP's service territory, emphasizing the opportunities to use new electrified loads to reduce net load and manage the system more efficiently ([slide 80](#)).

Melissa Martinez, Manager of Distribution Planning at SRP, addressed ISP Action #6, the distribution enablement roadmap ([slide 81](#)). She described how the roadmap will position SRP to enable customer-sited resources while ensuring grid reliability and customer satisfaction.

Grant Smedley, Director of Resource Planning, Acquisition and Development at SRP, presented ISP Action #7 on resource selection, explaining that SRP will need to be in an almost constant procurement process, which may occur more frequently than every 2 years ([slide 82](#)). He noted that while they may pursue some self-build options to leverage provisions of the Inflation Reduction Act, SRP will also continue to partner with others. He also presented ISP Action #8 on the coal transition action plan, commenting on how SRP wants to leverage firm capacity and preserve transmission in the transition ([slide 83](#)).

Justin Lee, Manager of Transmission Planning at SRP, shared ISP Action #9 on proactive siting. He described plans for identifying locations where generation and transmission can be co-located, noting that a key finding of the ISP was that location matters for transmission ([slide](#)

84). On ISP Action #10 for regional transmission, Lee described the need to diversify and perhaps look beyond Arizona to access geothermal and wind resources ([slide 85](#)).

Q&A

Question: What role does distributed generation have in the ISP?

Response: Distributed generation is an important resource and a big part of the Balanced System Plan. While it can't meet all capacity needs, it is part of the solution, and we are taking meaningful steps to prepare the grid to accommodate higher levels of distributed generation so that our customers can add it if they wish to do so.

Question: How much has SRP looked at tradeoffs of investment in distributed solar and storage on one hand and transmission costs and requirements on the other? What about investments in customer-sited energy efficiency, especially air conditioning that impacts peak load?

Response: This is why an ISP is important. In the future, to optimize the whole system we have to optimize on the customer side as well. We are laying the foundation for that. Customer programs are currently load modifiers. In the future, we need to look at geographical requirements and volatility impacts to the local system (e.g., clouds). The next step would be expanding customer programs in the Balanced System Plan.

Response: Our Efficient Homes program is a critical element of our plans to manage the system peak. We have a large AC Replacement rebate program with over 9,500 units replaced last year and we continue to be focused on multi-speed and variable capacity units which is an important part of driving the benefits forward.

Question: Does SRP imagine the demand for electric vehicle charging to be significant?

Response: We are optimistic and have aspirational targets for the enablement of electric vehicles. We do feel that the loads will be significant in the future, and we are preparing our grid for this. It's important that we leverage a combination of appropriate price plans, customer programs, and customers communications to shape this future load.

Question: Does SRP imagine people will be charging at home or at work? The latter implies a lot of needed infrastructure.

Response: We anticipate charging will take place in both locations. Our focus has been on residential and business EV charging as our portfolio of programs to serve both segments continues to grow. Workplace charging will be an opportunity for us. That is where price plans and incentive programs come in, so we make sure people aren't charging during our system peak and we shift usage to the daytime hours.

Question: On the interconnection queue and reform process, we want an organized queue but also diverse and innovative projects. How does that fit into resource management?

Response: Currently SRP follows a process for large generator interconnection projects that requires projects to be entered into a queue; the queue sets the order in which the projects will be studied. This existing process is currently under review. Many projects in the queue today

are speculative, which is clogging up the process and making it more expensive. The ongoing effort to reform the interconnection process aligns with the ISP in that it will help to bring on more renewables and find projects that are real. However, this interconnection queue reform process is separate from the ISP. To learn more about the interconnection queue reform efforts you can visit our OASIS site.

Next Steps for Implementing the ISP and Wrap Up

Bond Simpson thanked the presenters and then presented the next steps, highlighting that the System Strategies would be presented to the SRP Board the following week ([slide 88](#)). She concluded by thanking the attendees and encouraging them to seek out SRP project team members during lunch to network and pose additional questions.

Appendix A Meeting Attendance

Large Stakeholder Group Organizations (groups represented on 9/28/23 are shown in **bold**)

AARP
ACLPI
Advanced Energy Economy
AEPCO
AES Clean Energy
Air Products
Amazon
American Lung Association
AMPUA
AMWUA
Apache County Economic Development
Apex Clean Energy
Apple Inc.
Arizona Cattle Growers Association
Arizona Center for Law in the Public Interest
Arizona Chamber of Commerce
Arizona Commerce Authority
Arizona Competitive Power Alliance
Arizona Cotton Growers
Arizona Energy Policy Group
Arizona Farm Bureau
Arizona Hispanic Chamber of Commerce
Arizona Lodging and Tourism Association
Arizona Power Authority
Arizona Public Service
Arizona Residential Utility Customer Office
Arizona Solar Deployment Alliance
Arizona Solar Energy Industries Association
Arizona State Lands Department
Arizona State University
Avangrid Renewables
AzCPA
AZ Thrives
AZ PIRG
AZ Strategies
AZ Sustainability Alliance
Basha's
Beatitudes Campus
Boeing

Bureau of Land Management
Candela Renewables
Casa Grande
Chicanos Por La Causa
City of Apache Junction
City of Chandler
City of Mesa
City of Phoenix
City of Tempe
Commercial Metals Company
CommonSpirit Health
Coolidge
Copper State Consulting Group
Cushman & Wakefield
Cyrus One
Digital Realty
DMB
East Valley Chamber of Commerce
East Valley Partnership
Enel Green Power North America, Inc.
Environment America
Environmental Defense Fund
EPRI
First Solar
Forest Service U.S. Department of
Agriculture
Fort McDowell Yavapai Nation
Freeport-McMoRan
Gamage & Burnham Attorneys at Law
General Electric
Gila Bend
Gilbert
Glendale
Google
Greater Phoenix Economic Council
Greater Phoenix Leadership
Greenlots
HoHoKam irrigation & Drainage District



Home Builders Association of Central
Arizona
Intel
Interwest Energy Alliance
Kroger Co. (Ralphs and Food4Less)
Kyl Center for Water Policy
Leeward Energy
Local First Arizona
Mercy Gilbert Medical center/Dignity
Health
Mitsubishi Power
Nature Conservancy/ Arizona Thrives
Navajo County
New leaf/Mesa-CAN
NextEra Energy Resources
Northern Arizona University
NREL
PAC WORLDWIDE
Page
Phoenix Chamber of Commerce
Pinal County
Pinal County Board of Supervisors District 2
Queen Creek Unified School District
Roosevelt Water Conservation District
RUCO
Salt River Pima-Maricopa Indian Community

Scottsdale
Seguro Energy
Sierra Club
Southwest Energy Efficiency Project
SRP Customer Utility Panel
St. Johns
Strata Solar
Sustainable Energy power Alliance
TEP
Tierra Strategy
Town of Florence
Town of Springerville
Tucson Electric Power
Turn a New Leaf
United Dairymen of Arizona
University of Arizona
Valle Del Sol Strategic Initiatives: The Real
Arizona Coalition
Valley Partnership
Veregy
Walmart
West Marc
Western Grid Group
Western Resource Advocates
Wildfire

Other Organizations in Attendance

Arevia Power
B3 Strategies, LLC
Origis Energy
Stellar Renewable Power

Key SRP Staff

Adam Peterson, Director of Corporate Pricing
Angie Bond-Simpson, Senior Director of Resource Management
Dan Dreiling, Director of Customer Programs
Domonique Cohen, Senior Strategic Planning Analyst
Duncan Kraft, Planning Analyst for Integrated Planning
Grant Smedley, Director of Resource Planning, Acquisition and Development
Justin Lee, Manager of Transmission Planning
Kyle Heckel, Senior Engineer for Integrated System Planning
Maria Naff, Manager of Integrated Planning
Melissa Martinez, Manager of Distribution Planning



Key Project Team

April Smith, Bellomy Market Intelligence
John Sessions, Bellomy Market Intelligence
Joe Hooker, E3
Lakshmi Alagappan, E3
Brisa Aviles, Kearns & West
Karen Lafferty, Kearns & West
Joan Isaacson, Kearns & West

Board & Council Observers

Chris Dobson, SRP District Vice President
Anda McAfee, SRP Board Member
Jack White, SRP Board Member
Larry Rovey, SRP Board Member
Rocky Shelton, SRP Council Member
Mark Mulligan, SRP Council Member
Suzanne Naylor, SRP Council Member