Call to Order
Roll Call

1. **CONSENT AGENDA**: The following agenda item(s) will be considered as a group by the Committee and will be enacted with one motion. There will be no separate discussion of these item(s) unless a Committee Member requests, in which event the agenda item(s) will be removed from the Consent Agenda and considered as a separate item ................................................................. CHAIRMAN LESLIE C. WILLIAMS

   - Request for approval of the minutes for the meeting of June 27, 2023.

2. **Coronado Generating Station (CGS) Repurposing and Gateway for Accelerated Innovation in Nuclear (GAIN) Studies** .................................................KATHLEEN MUNROE; SHANNON BRAGG-SITTON, IDAHO NATIONAL LABORATORY; and AMANDA STEWART, MPR ASSOCIATES, INC.

   Informational presentation regarding the results of the CGS Repurposing Study and the GAIN Study.

3. **Western Markets Initiatives Update** ................................................. JOSH ROBERTSON

   Informational presentation regarding current activities and status of efforts related to the development of regional Western electricity markets.

4. **All-Source Request for Proposals Update** ........................................... GRANT SMEDLEY

   Informational presentation regarding an update on the All-Source Request for Proposals process that was initiated in February 2023, seeking proposals for resources to meet peak capacity needs and provide carbon-free energy.

5. **Report on Current Events by the General Manager and Chief Executive Officer or Designees** .......................................................................................................................... JIM PRATT

6. **Future Agenda Topics** ............................................................... CHAIRMAN LESLIE C. WILLIAMS
The Committee may vote during the meeting to go into Executive Session, pursuant to A.R.S. §38-431.03 (A)(3), for the purpose of discussion or consultation for legal advice with legal counsel to the Committee on any of the matters listed on the agenda.

The Committee may go into Closed Session, pursuant to A.R.S. §30-805(B), for records and proceedings relating to competitive activity, including trade secrets or privileged or confidential commercial or financial information.

Visitors: The public has the option to attend in-person or observe via Zoom and may receive teleconference information by contacting the Corporate Secretary’s Office at (602) 236-4398. If attending in-person, all property in your possession, including purses, briefcases, packages, or containers, will be subject to inspection.
A meeting of the Power Committee of the Salt River Project Agricultural Improvement and Power District (the District) convened at 9:30 a.m. on Tuesday, June 27, 2023, from the Board Room at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona. This meeting was conducted in-person and via teleconference in compliance with open meeting law guidelines. The District and Salt River Valley Water Users’ Association (the Association) are collectively known as SRP.

Committee Members present at roll call were M.J. Herrera, Chairman; K.B. Woods, Vice Chairman; R.C. Arnett, N.R. Brown, K.J. Johnson, K.L. Mohr-Almeida, and S.H. Williams; and Association Board of Governors observer L.D. Rovey.


In compliance with A.R.S. §38-431.02, Andrew Davis of the Corporate Secretary’s Office had posted a notice and agenda of the Power Committee meeting at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona, at 9:00 a.m. on Friday, June 23, 2023.

Chairman M.J. Herrera called the meeting to order.

Consent Agenda

Chairman M.J. Herrera requested a motion for Committee approval of the Consent Agenda, in its entirety.

On a motion duly made by Board Member R.C. Arnett and seconded by Vice Chairman K.B. Woods, the Committee unanimously approved and adopted the following item on the Consent Agenda:

- Minutes of the Power Committee meeting on May 25, 2023, as presented
Corporate Secretary J.M. Felty polled the Committee Members on Board Member R.C. Arnett’s motion to approve the Consent Agenda, in its entirety. The vote was recorded as follows:

YES: Board Members M.J. Herrera, Chairman; K.B. Woods, Vice Chairman; R.C. Arnett, N.R. Brown, K.J. Johnson, K.L. Mohr-Almeida, and S.H. Williams (7)

NO: None (0)

ABSTAINED: None (0)

ABSENT: None (0)

Coolidge Expansion Project (CEP) and Amended Certificate of Environmental Compatibility (CEC) Application

Using a PowerPoint presentation, Jim M. Pratt, SRP General Manager and Chief Executive Officer, stated that the purpose of the presentation was to provide an update on the CEP, the amended CEC application process at the Arizona Corporation Commission (ACC), and the SRP appeal pending at the Arizona Court of Appeals; and answer questions about the CEP. He introduced Rob R. Taylor, SRP Associate General Manager and Chief Public Affairs and Corporate Services Executive.

Mr. R.R. Taylor reviewed the CEC application timeline from September 13, 2021 through June 21, 2023, and detailed the events leading up to the settlement agreement with the Randolph community with respect to the community support and mitigation conditions. He introduced Bobby A. Olsen, SRP Associate General Manager and Chief Planning, Strategy, and Sustainability Executive.

Continuing, Mr. B.A. Olsen stated that the total costs for the amended CEC mitigation conditions is approximately $23,751,000, and the total CEP costs, inclusive of the CEC conditions, with 12 units is approximately $775,000,000. He listed benefits of the CEP and said that the CEP will enable integration of additional renewables. Mr. B.A. Olsen provided a summary of SRP’s existing Financial Plan 2024 (FP24) resource plan with the CEP.

Mr. B.A. Olsen reported that SRP has a continued need for 500MW of capacity in 2026/2027, and the CEP remains the lowest cost option for that capacity and can be online by the needed timeframe. He stated that SRP never offered nor accepted a specific capacity factor limit; and neither the Line Siting Committee nor the ACC included a capacity factor limit as a CEC condition. Mr. B.A. Olsen reviewed air permit limitations regarding pollutant caps established by the U.S. Environmental Protection Agency (EPA), and stated that the actual Coolidge plant operations are expected to be primarily driven by reliability requirements set by SRP, Western Electricity Coordinating Council (WECC), and North American Electric Reliability Corporation (NERC); and the plant is anticipated to have low capacity factors. He discussed air permit and CEC impacts on the capacity factor of the new units.
Mr. B.A. Olsen concluded with a discussion of next steps and answers to questions previously submitted by Board Member R.J. Miller.

Messrs. B.A. Olsen and R.R. Taylor responded to questions from the Committee.

Copies of the PowerPoint slides used in this presentation are on file in the Corporate Secretary’s Office and, by reference, made a part of these minutes.

Ms. A. Rickard and Mr. G.M. Smedley left the meeting. Council Members M.L. Farmer and R.W. Swier; Tammi Watson of Central Arizona Project (CAP); and Bruce Chapman, a member of the public, entered the meeting during the presentation.

Closed Session: Energy Storage Agreements  
Copper Crossing Energy and Research Center

Chairman M.J. Herrera called for a closed session for the Power Committee at 10:55 a.m., pursuant to A.R.S. §30-805(B), to consider matters relating to competitive activity, including trade secrets or privileged or confidential commercial or financial information, with respect to a request for approval to enter into energy storage agreements and ground leases for two five-megawatt (MW), ten-hour duration energy storage projects to be installed at the Copper Crossing Energy and Research Center.

Mmes. C.M. Hallows and E.J. Roelfs; Nikos Bountas of Strata Clean Energy, Ian Calkins of Copper State Consulting Group, Ryan Roton of Siemens Energy, Autumn Johnson of Tierra Strategy, Tammi Watson of CAP; and Bruce Chapman, a member of the public, left the meeting. Ms. K.S. Ramaley; and Messrs. C.A. Friedrich and C N. Hunter entered the meeting.


Messrs. C.A. Friedrich and C.N. Hunter left the meeting.

Closed Session: Natural Gas Transportation Capacity Contracts

Chairman M.J. Herrera called for a closed session for the Power Committee at 11:20 a.m., pursuant to A.R.S. §30-805(B), to consider matters relating to competitive
activity, including trade secrets or privileged or confidential commercial or financial information, with respect to a request for approval to enter into one or more natural gas transportation capacity contracts.


Mr. T. Copper entered the meeting.

Closed Session: Large Industrial Customer – Renewable Energy Supply Agreement

Chairman M.J. Herrera called for a closed session for the Power Committee at 11:39 a.m., pursuant to A.R.S. §30-805(B), to consider matters relating to competitive activity, including trade secrets or privileged or confidential commercial or financial information, with respect to a request for approval of a renewable energy supply agreement for a large industrial customer.


Ms. E.J. Roelfs; Ian Calkins of Copper State Consulting Group; and Tammi Watson of CAP entered the meeting.

Report on Current Events by the General Manager and Chief Executive Officer or Designees

Jim M. Pratt, SRP General Manager and Chief Executive Officer, reported on a variety of federal, state, and local topics of interest to the Committee.
Future Agenda Topics

Chairman M.J. Herrera asked the Committee if there were any future agenda topics. None were requested.

There being no further business to come before the Power Committee, the meeting adjourned at 11:53 a.m.

John M. Felty
Corporate Secretary
Overview of Results of CGS Repurposing & GAIN Studies

Power Committee Meeting - Open Session
Kathleen Munroe, Shannon Bragg-Sitton, Amanda Stewart | August 22, 2023
Agenda

- Studies Overview
- GAIN Studies (Advanced Nuclear)
- Kiewit Study Results
- Key Takeaways
- Future Planning Considerations
- Next Steps
Coal Communities Transition (CCT) / Concurrent Studies

Economic Impacts of Reduced Operations & Closures of Springerville & Coronado Generating Stations

SRP Coal Community Transition

SRP Coronado Repurposing Study

Dept. of Energy GAIN

Economic Impact of Expanding Broadband Service in Apache County

Transportation & Workforce

Coronado Repurposing Study – Exploring clean energy replacement options

(a Department of Energy initiative) Study suitability of advanced nuclear reactors as a replacement technology
Coronado Generating Station – GAIN Repurposing Study Update

August 22, 2023

Shannon Bragg-Sitton, Idaho National Lab
Amanda Stewart, MPR Associates
Coronado Generating Station – Repurposing Study

Primary Objective: Assess the feasibility of transitioning from coal to nuclear; Learnings can be applied to other coal units within commuting distance from CGS

- Siting Evaluation (leveraging EPRI’s Siting Guide)
  - Assess CGS site suitability
  - Identify strengths and weaknesses
  - Support selection of candidate nuclear technologies

- Nuclear Technology Assessment (leveraging EPRI’s Nuclear Technology Assessment Guide)
  - Identify candidate nuclear technologies
  - Identify potential next steps

- Economic Impact Assessment
  - Evaluate economic outcomes and community impacts from:
    a) Coal plant retirement
    b) Introduction of a nuclear power plant
CGS Initial Siting Evaluation Results

• No exclusionary or avoidance factors were identified at CGS. Construction of a nuclear power plant at CGS is feasible based on initial screen.

• Ample land, supporting infrastructure, and interconnection access identified as strengths.

• Key siting considerations identified for future evaluation include:
  – Water Availability
  – Ecological Impacts on Endangered or Threatened Species
  – Continued Engagement with Native and Local Communities

• Results of the initial siting evaluation served as inputs to the CGS Nuclear Technology Assessment.

Based on the positive findings from the initial siting evaluation, SRP may want to consider nuclear as a viable replacement technology at CGS.
CGS Initial Nuclear Technology Assessment Results

- Small and medium advanced reactors (50 MWe - 600 MWe) were identified as the candidate technology.

- Several potential designs were identified that could meet SRP's goals and business objectives.
  - Primary purpose is to generate electricity
  - Maturity could support SRP's deployment window
  - Capacity spans range of MW to provide flexibility

Based on the results of this initial nuclear technology assessment and work related to siting, CGS remains a viable location to host one of several potential nuclear reactor designs.
CGS Economic Impact Assessment Results

- The study evaluated regional socio-economic data and provides an estimate for different deployment scenarios

- Nuclear deployment results in significant positive economic impact for communities surrounding CGS. Economic impacts dependent on generating capacity and reactor design.

<table>
<thead>
<tr>
<th>Annual Economic Impacts</th>
<th>Current CGS Operations</th>
<th>462 MW Nuclear Scenario</th>
<th>924 MW Nuclear Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (County-wide) (direct, indirect, and induced)</td>
<td>450</td>
<td>575</td>
<td>1,000</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$40M</td>
<td>$50M</td>
<td>$85M</td>
</tr>
<tr>
<td>Economic Output</td>
<td>$300M</td>
<td>$340M</td>
<td>$675M</td>
</tr>
</tbody>
</table>

SRP should continue to engage with CGS surrounding communities to assess readiness to host nuclear power plant at CGS.
Path Forward

• GAIN study is the first step of many required to make decisions regarding nuclear at CGS.

• Based on GAIN study results, nuclear continues to be a replacement technology option worth exploring at CGS.

• Should SRP decide to continue to explore nuclear at CGS, the following next steps are recommended:
  • Develop project timeline
  • Engage with design vendors
  • Continue to monitor and evaluate nuclear industry progress
  • Continue to engage with local community and tribal leaders
  • Begin deployment planning in parallel with technology monitoring
Kiewit Study
Kiewit Study Process

Blended/Iterative process

- Comprehensive List of Technologies
- Feasibility Screening
- Technical Evaluation
Study Results

Phase 1
Technologies feasible for deployment at CGS site by 2033
- Battery Storage
- Biomass
- Long Duration Energy Storage*
- PV Solar
- Wind

Phase 2
Technologies that lack the maturity, supply chain or critical infrastructure to be online by Spring 2033
- Advanced Nuclear
- Hydrogen-fired Power Plant
- Long Duration Energy Storage
- Natural Gas Power Plant

*potential near-term R&D pilots
Key Takeaways

• The Kiewit Study confirmed that several low and zero-carbon technologies are site compatible and could be considered for Spring 2033 implementation.

• Based on study results and growing energy needs, SRP intends to develop plans to repurpose the CGS site following the cessation of coal operations.

• Development plans will likely include two phases:
  
  • Phase 1 is the period closely following plant closure. The most feasible technology options are Battery Storage, Biomass, Long Duration Energy Storage (LDES), PV Solar and Wind.
  
  • Phase 2 timing is to-be-determined. These technologies need time to demonstrate reliability (mature). This list includes hydrogen-fired generation, LDES, advanced nuclear, natural gas as a bridge to low/no-carbon generation and others.
Future Planning Considerations

**CGS Specific Considerations**
- Decision needed by 2028 for a project to be online by 2033
- Resource allocation for phased development
- CGS site uniquely suitable for certain technologies

**Other Considerations**
- Transmission preservation / availability
- Impact from other Arizona utility coal retirements
- Phase 2 technology & infrastructure development
Next Steps

- Share findings and key takeaways with the Community
- Establish development plan and timeline
- Develop transmission strategy
- Commence due diligence activities to support a 2028 resource decision
- Based on best available information determine preferred Phase 2 options
- Engage with other Arizona utilities on transmission expansion & Phase 2 opportunities
- Return to SRP Board to seek approval for resource recommendations
Questions
thank you!
Western Markets Initiatives Update

Power Committee Meeting

Josh Robertson | August 22, 2023
### SRP Priorities for New Market or RTO Participation

<table>
<thead>
<tr>
<th><strong>Customer Benefits</strong></th>
<th><strong>Governance</strong></th>
<th><strong>Transmission Cost Allocation</strong></th>
<th><strong>Generation Resource Sufficiency</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Net benefits</td>
<td>• Independence / transparency</td>
<td>• New project cost allocated based on needs and measurable benefits</td>
<td>• Maintain vertically integrated utility structure</td>
</tr>
<tr>
<td>• Load and resource diversity</td>
<td>• Public Power representation</td>
<td>• Transmission costs recovered via “license plate” charge</td>
<td>• Self scheduling of generation</td>
</tr>
<tr>
<td>• Maintain or enhance reliability</td>
<td>• Local resource decision making</td>
<td>• Utility input on grid operations</td>
<td>• Resource adequacy construct</td>
</tr>
<tr>
<td>• Path to RTO</td>
<td>• Utility input on grid operations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Expanded Day-ahead Market Footprints

CAISO
EDAM
Participants

SPP Southwest Power Pool
Markets + Phase One
Markets+ Working Groups and Task Forces

- Markets+ Participant Executive Committee
  - Market Design Working Group
    - Greenhouse Gas Task Force
    - Congestion Rent Task Force
  - Transmission Working Group
  - Operations Reliability Working Group
    - Rates Task Force
  - Seams Working Group
    - Resource Adequacy Task Force
Western Market Exploratory Group (WMEG) Cost Benefit Study (CBS)

• Goal was to provide information on benefits of joining either Markets+ or EDAM
• Simulates scenarios with different market footprints
• Focuses on variable production costs and energy market prices
• Based on expected future resource plans provided by utilities
WMEG Participation

SRP    Puget Sound
APS    Xcel
TEP    Avista
AEPCO  BANC
PNM    BPA
Black Hills Chelan
LADWP  El Paso
Portland Grant
Seattle Northwestern
Platte  Tacoma
River   Tri-State
NV Energy WAPA
PacifiCorp
Idaho
Market Footprints Considered for WMEG Core CBS Analysis - Example

Single EDAM Footprint

Split EDAM – SPP Footprint

Map Legend
- EDAM Footprint
- SPP Footprint
WMEG CBS WECC-wide Results (2026)

- A single market footprint is the least costly for the WECC as a whole
- Cost savings under a single footprint are not evenly distributed – there are winners and losers
CBS Results WMEG vs. Non-WMEG Members (2026)

- As a whole WMEG participant costs increase under CAISO market
- As a whole WMEG participants costs decrease under SPP market
WMEG CBS SRP Results (2026)
WMEG CBS Conclusions

• SRP results for SPP Markets+ footprint slightly better than for CAISO EDAM
• Overall production cost differences between footprints are modest
• Individual entity and regional results vary widely
• Impacts of not joining a day-ahead market if others do are likely reduced liquidity and higher costs
Western Markets Strategy Next Steps

- Continue involvement in Markets + Phase 1 development
- Monitor EDAM tariff and participant commitments
- Additional studies and modeling
- Continue efforts to maintain utility alignment
- SPP Markets+ Initiative (MPEC) Meeting at SRP
- Future decision points
thank you!
Initial Procurement Targets for 2023 All-Source RFP

1. Peak Capacity (resources that provide capacity at summer peak)
   - At least 200 MW by May 2026
   - At least an additional 300 MW for a total of 500 MW by May 2027

2. Carbon-Free Energy (accelerate planned carbon-free resource additions)
   - Up to 500 MW by May 2027
Updated Remaining Peak Capacity Needs *
(with Coolidge Expansion Project included)

* Based on latest (January 2023) load forecast. Will be updated after next load forecast is published (late 2023).
Next Steps for Peak Capacity Component

- Obtain pricing for 2028 (complete)
- Identify peak capacity needs after next load forecast is published (late 2023)
- Determine procurement targets and timing (late 2023)
- Finalize acquisition of properties under contract in western Pinal County for future self-build options (late 2023)
Drivers for Earlier Procurement of Carbon-Free Resources

• SRP continues to experience delays with bringing new resources online
  • Ongoing supply chain constraints
  • Interconnection process
  • Summer commissioning challenges

• Large customers continue to seek renewable resources
  • 530 MW dedicated renewables requested by 2027
Summary of Proposals for Carbon-Free Energy Resources

- 21 interested parties proposed projects
- Projects include varying online dates, technologies, capacities and pricing (configurations)
- 28 unique projects with 44 configurations under review

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Number of Unique Projects</th>
<th>Number of Configurations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Wind</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Wind + Solar</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
Evaluation Criteria – Carbon-Free Energy

Operating Characteristics 10%
- Flexibility
- Resource Diversity

Affordability 40%
- Energy Cost

Sustainability 10%
- Land Use
- Water Use

Executability 40%
- Development Considerations
  - Counterparty Risk
  - Location
Next Steps for Carbon-Free Component

• Shortlist top scoring projects and negotiate term sheets (September-October)

• Review proposed carbon-free resource selections with Power Committee (November)

• Negotiate agreements and seek Board approvals (December-March 2024)