SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT MEETING NOTICE AND AGENDA

POWER COMMITTEE

Thursday, January 25, 2024, 9:30 AM

SRP Administration Building 1500 N. Mill Avenue, Tempe, AZ 85288

Committee Members: Leslie C. Williams, Chairman; Keith Woods, Vice Chairman; and Nick Brown, Randy Miller, Krista O'Brien, Jack White Jr., and Stephen Williams

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
	 Request for approval of the minutes for the meeting of December 12, 2023.
2.	Salt River Pumped Storage Project UpdateGRANT SMEDLEY and RON KLAWITTER
	Informational presentation regarding SRP's ongoing efforts to assess the development of a pumped hydro energy storage facility on the Salt River.
3.	Financial Plan 2025 (FP25) Load ForecastJED COHEN
	Informational presentation regarding the FP25 Load Forecast, which will be the baseline for the Phase 2 Resource and Financial Plans covering Fiscal Year 2025 and beyond.
4.	New Resource Development and Implementation UpdateGRANT SMEDLEY
	Informational presentation regarding the development status of new generation resources under contract to meet capacity and carbon-free energy needs.
5.	Closed Session, Pursuant to A.R.S. §30-805(B), for the Committee to Consider Matters Relating to Competitive Activity, Including Trade Secrets or Privileged or Confidential Commercial or Financial Information, with Respect to the 2023 All-Source Request for Proposals GRANT SMEDLEY and WILL FIELDER
6.	Report on Current Events by the General Manager and Chief Executive Officer or Designees
7.	Future Agenda Topics

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.



MINUTES POWER COMMITTEE MEETING

DRAFT

December 12, 2023

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, December 12, 2023, from the Hoopes Board Conference 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 L.C. Williams, Chairman; and N.R. Brown, R.J. Miller, K.H. O'Brien, and J.M. White Jr.

Committee Members absent at roll were K.B. Woods, Vice Chairman; and S.H. Williams.

Also present were President D. Rousseau; Vice President C.J. Dobson; Board Members R.C. Arnett, M.J. Herrera, A.G. McAfee, K.L. Mohr-Almeida, and P.E. Rovey; Council Chairman T.M. Francis; Council Vice Chairman J.R. Shelton; Council Liaison I.M. Rakow; Council Member M.R. Mulligan; Mmes. I.R. Avalos, A.N. Bond-Simpson, M.J. Burger, A.P. Chabrier, K.I. Cormier, A.Y. Gilbert, K.A. Heth, L.F. Hobaica, S.C. McCoy, L.A. Meyers, G.A. Mingura, K.S. Ramaley, and C.M. Sifuentes; Messrs. J.D. Coggins, J.M. Felty, C.R. Janick, K.J. Lee, A.J. McSheffrey, M.J. O'Connor, B.A. Olsen, J.M. Pratt, C.P. Reynoso, P.B. Sigl, and R.R. Taylor; and Taylor Greene and Louis Toenjes of General Electric (GE) Power.

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, December 8, 2023.

Chairman L.C. Williams called the meeting to order.

Consent Agenda

Chairman L.C. Williams requested a motion for Committee approval of the Consent Agenda, in its entirety.

On a motion duly made by Board Member N.R. Brown and seconded by Board Member K.H. O'Brien, the Committee unanimously approved and adopted the following item on the Consent Agenda:

Minutes of the Power Committee meeting on November 16, 2023, as presented

Corporate Secretary J.M. Felty polled the Committee Members on Board Member N.R. Brown's motion to approve the Consent Agenda, in its entirety. The vote was recorded as follows:

YES:	Board Members L.C. Williams, Chairman; and N.R. Brown, R.J. Miller, K.H. O'Brien, and J.M. White Jr.,	(5)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Members K.B. Woods, Vice Chairman; and S.H. Williams	(2)

Wildfire Mitigation Efforts Update

Using a PowerPoint presentation, Chris R. Janick, SRP Senior Director of Power Delivery, stated that the purpose of the presentation was to provide information regarding SRP's approaches to mitigating the impact wildfires have on electric facilities and reducing the potential for electric facilities to cause wildfires.

Mr. C.R. Janick stated that SRP's goals for wildfire mitigation are to prevent SRP facilities from causing fires and to protect SRP facilities from fires. He provided a map of SRP's transmission and distribution service territory and the circuit miles of overhead lines.

Mr. C.R. Janick explained how SRP manages vegetation in forest areas, the Eastern Mining area, and urban territories. He discussed the challenges other utilities are facing with vegetation management.

Mr. C.R. Janick said that SRP inspects its 500 kilovolt (kV), 230kV, and 115kV lines annually and its 69kV, 22kV, and 12kV lines every two years, combined with fuel clearing, herbicides, and defensible spacing around poles. He detailed the process for replacing, inspecting, testing, and repairing wood poles.

Mr. C.R. Janick stated that SRP collaborates with the U.S. Department of Agriculture Forest Service, the U.S. Department of the Interior Bureau of Land Management, and the Arizona Department of Forestry and Fire Management with respect to incident command and training. He said that in the summer of 2020, SRP established a reclosing program which enables auto-reclosing in high-risk areas to disable power during fire restrictions, and that SRP coordinates with Arizona Public Service (APS) to verify line integrity before re-energizing.

Mr. C.R. Janick highlighted the importance of SRP's engagement with other utilities and expert consultants in sharing best practices and lessons learned from system events. He discussed the strengths, challenges, and core elements involved in managing a wildfire mitigation plan.

Mr. C.R. Janick defined a Public Safety Power Shutoff (PSPS) as, "temporarily turning off power to specific areas to reduce the risk of fires caused by electric infrastructure." He explained that monitoring weather conditions and risk forecasting determines when warnings are communicated and a PSPS event is executed.

Mr. C.R. Janick highlighted the following complexities associated with a PSPS: duration and frequency of customer outages; customer medical needs; and the unpredictability of extreme weather in the southwest desert. He concluded with a discussion regarding other mitigation considerations, wildfire threat modeling, and SmokeD detecting.

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.

Board Members L.D. Rovey and K.B. Woods; and Council Member J.W. Lines entered the meeting during the presentation.

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

There was no report on current events by Jim M. Pratt, SRP General Manager and Chief Executive Officer.

Future Agenda Topics

Chairman L.C. Williams 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 10:16 a.m.

John M. Felty Corporate Secretary

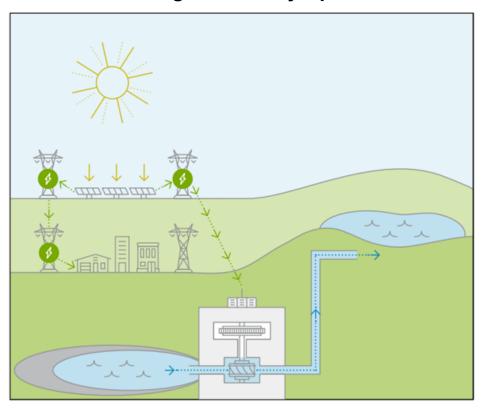


Agenda

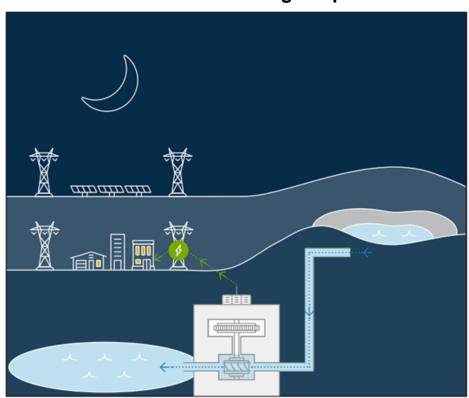
- Recap Technology Overview, Resource Need and Benefit
- Generation and Transmission Alternatives
- Project Milestones for Calendar Year 2024
- Stakeholder Outreach Approach & Update
- Project Development Timeline
- Expected Board Update and Approval Process
- Key Takeaways

Technology Overview

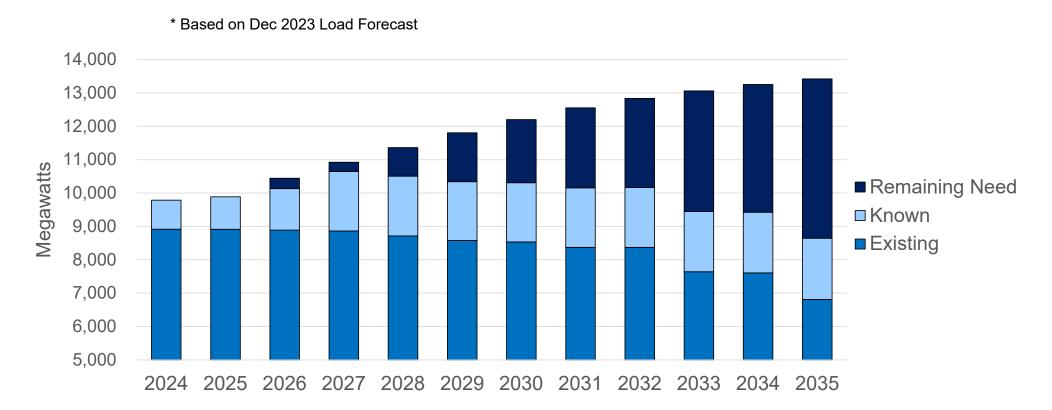
Morning and Midday Operation



Late Afternoon and Overnight Operation

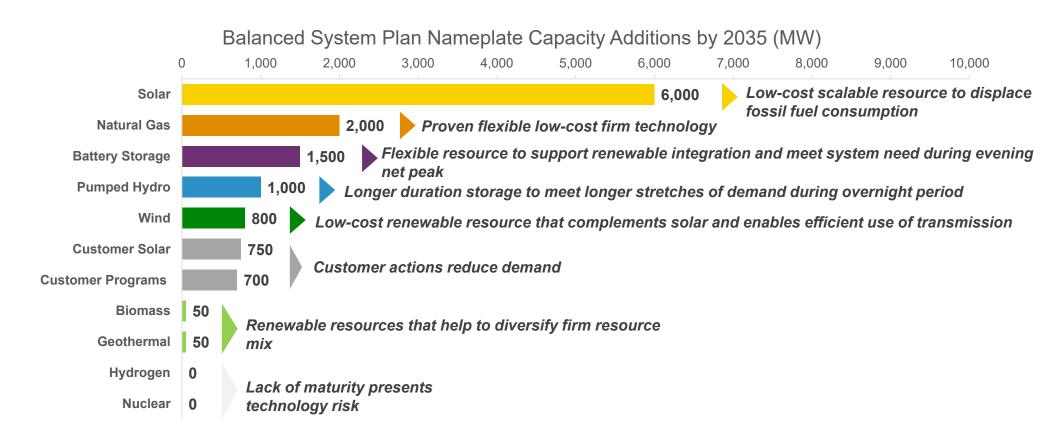


Resource Needs to Meet Summer Peak Demand *



Key Takeaway: SRP needs >3,500 MW by 2033; pumped storage could provide 1,000 MW in this timeframe

Integrated System Plan - Balanced System Plan



01/25/2024 Power Committee, G. Smedley & R. Klawitter

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Pumped Storage Benefits

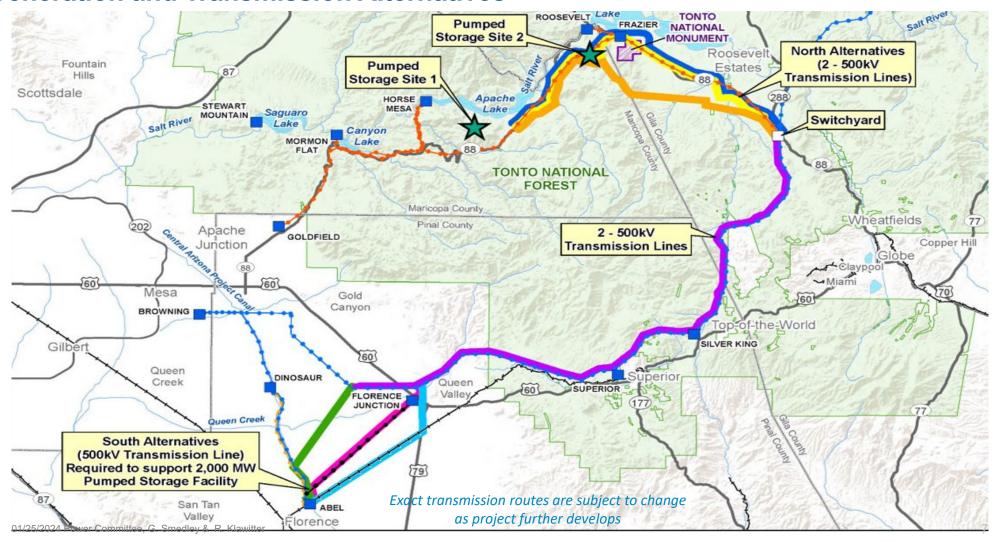
Resource & Supply Chain Diversity

- ~3,000 MW of 4-hour lithium-ion battery storage by 2033
- Supply chain diversity

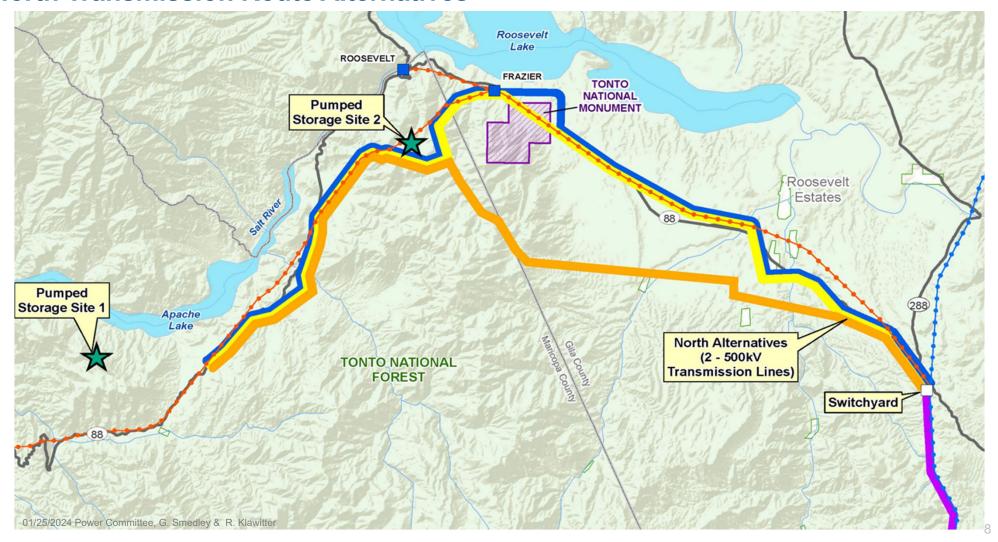
Proven Technology & Long Asset Life

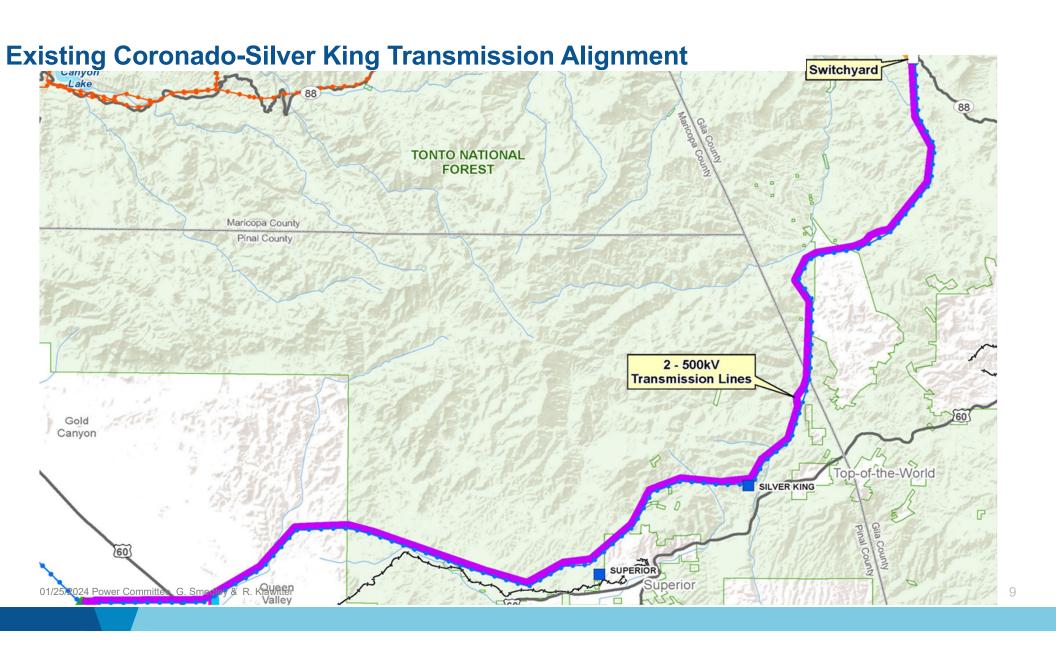
- SRP has ~150 MW in operation today
- ~22,000 MW operating in the US today
- ~91,000 MW across 96 different projects in permitting stage at FERC
- Provides a reliable source of inertia
- 100 years vs. 10-20 years for battery

Generation and Transmission Alternatives

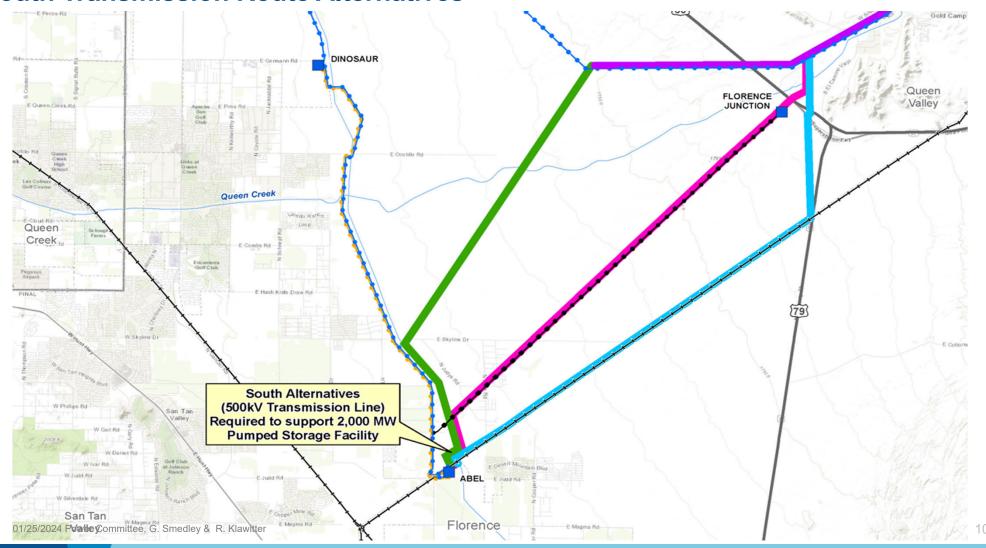


North Transmission Route Alternatives





South Transmission Route Alternatives

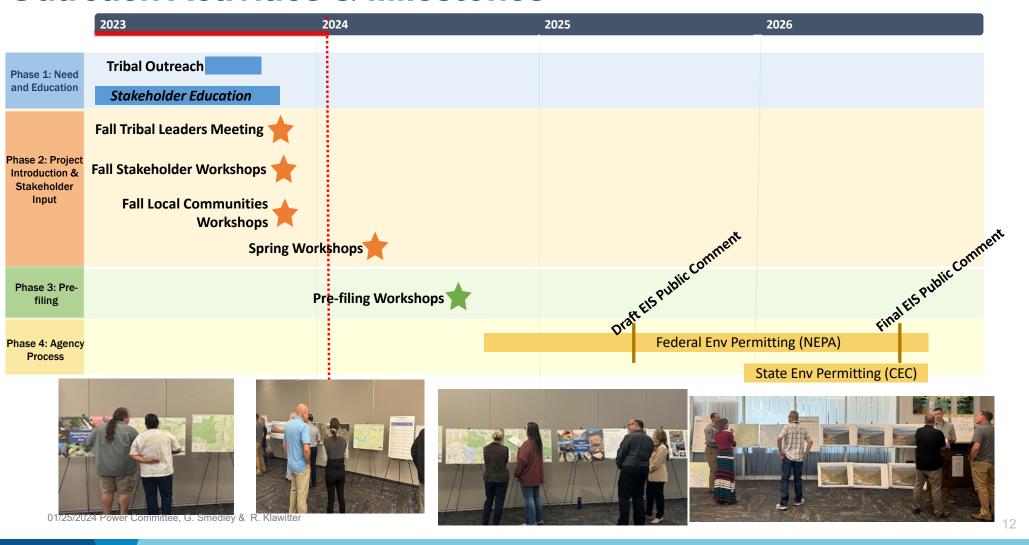


Project Milestones for Calendar Year 2024

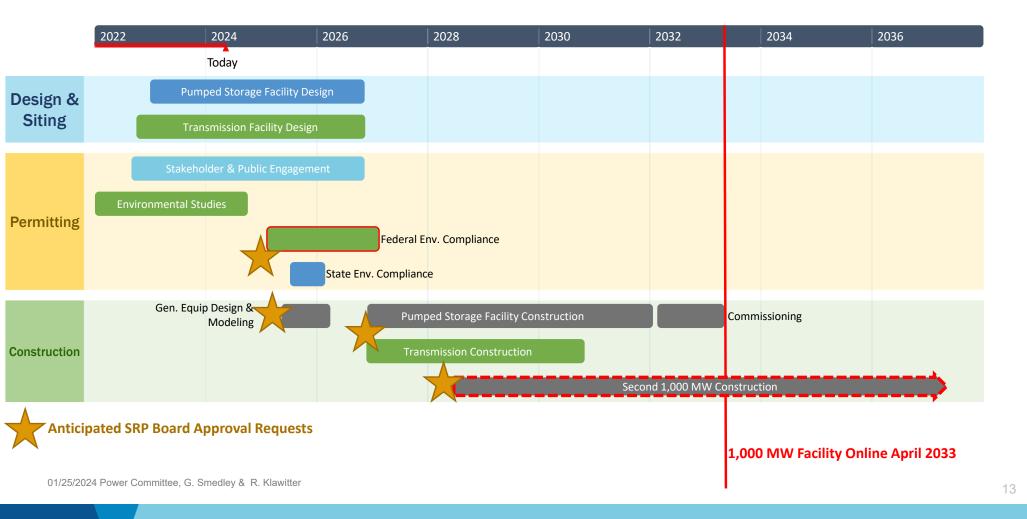
- Completion of necessary engineering and geotechnical investigation to initiate Federal permitting under National Environmental Policy Act (NEPA)
- Initiation of NEPA
- Transmission interconnection application submission and associated studies
- Development of plans for major equipment procurement



Outreach Activities & Milestones



Project Development Timeline



Key Takeaways

- Pumped storage is an important strategic investment
- Site selection with stakeholder input planned this spring to inform NEPA starting fall 2024
- Power Committee and Board will receive regular updates
- Board Resolution request in September 2024 prior to NEPA
- Board approval requests as necessary throughout project development
- Timely achievement of major project milestones necessary to meet 2033 online date for first 1,000 MW

Project Website: SRP.net/pumped-storage

thank you!

Financial Plan 2025 Load Forecast

Power Committee

Jed Cohen | January 25, 2024

Forecast – Key Drivers

- Economy/Population Outlook
- Economic Development
- SRP Customer Programs
- Electric Vehicles
- Rooftop Solar
- Customer-Owned Batteries
- Weather



















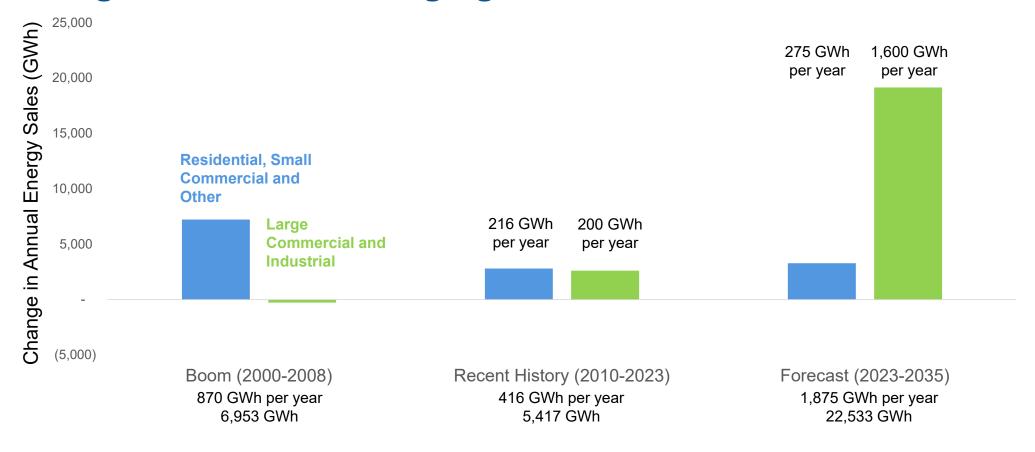








Large Customers Emerging as Main Driver of Growth



Headline Economic Drivers

1. U.S. economy is performing better than expected

U.S. Markets

Fed staff drop US recession forecast, Powell says

Reuters

2. Population growth is outpacing expectations

Nearly half of California residents are considering leaving the state, a poll finds. Many cite the cost of living as the main reason why.

Itzel Luna USA TODAY

Published 5:46 a.m. ET June 28, 2023 | Updated 1:37 p.m. ET June 28, 2023

3. Economic development pipeline continues to grow while some projects experience delays

LG ENERGY SOLUTION TO INVEST \$5.5 BILLION TO BUILD BATTERY MANUFACTURING COMPLEX IN QUEEN CREEK

The complex marks the largest single investment for a stand-alone battery manufacturing facility in North America, creating thousands of jobs

Trends in Key Industries Driving Growth



Data Center Industry

- Data center landscape shifting towards a 'colocation' or rental-based model
- Al boom is shocking the industry into further growth
- U.S. data center industry projected to grow by about 10% annually through 2030 (Mordor Intelligence, McKinsey)



Semiconductor Industry

- Growth in product demand driven by consumer devices, EVs, and big data technologies.
- Headwinds include the availability of inputs and skilled labor

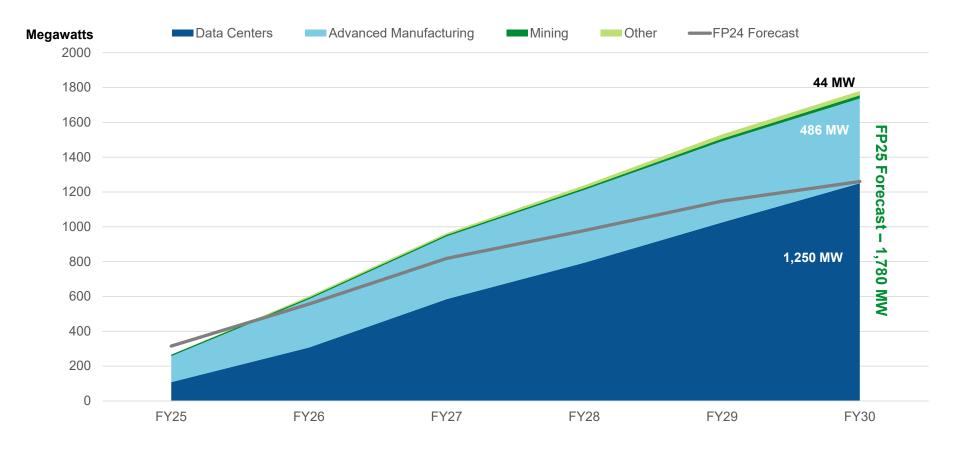
China Restricts Exports of Two Metals Used in High-Performance Chips

Industry executives see export ban on gallium and germanium as retaliation over chip curbs by U.S. and others

By Sha Hua Follow Updated July 3, 2023 12:45 pm ET

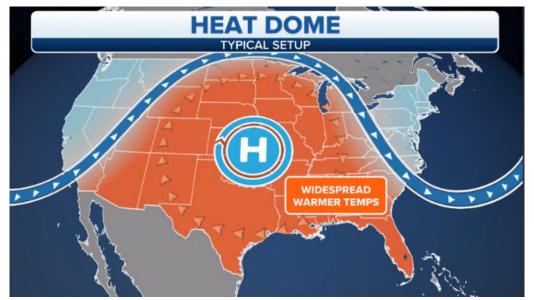
 Global industry projected to grow to \$1 trillion by 2030 (Deloitte), with annual growth rate of 6 -12% through 2030 (Fortune Business Insights, McKinsey, Semico Research)

Expected Growth in Large Customer Load



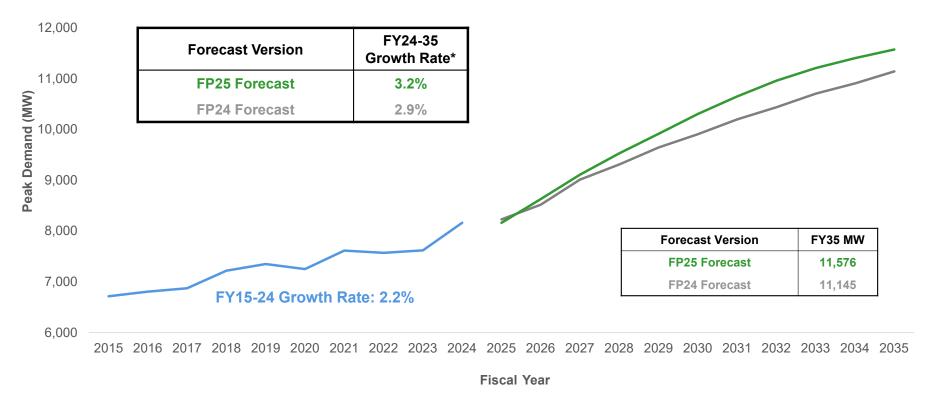
Temperature and Load Forecasting

- 'Heat dome' led to record hot summer in 2023
- Customer growth and the heat dome caused a record 543 MW year-over-year increase in peak demand
- The peak planning temperature for the Peak
 Demand Forecast increased from 115° to 116° F
- Climate trends included in every forecast to reflect long-term warming



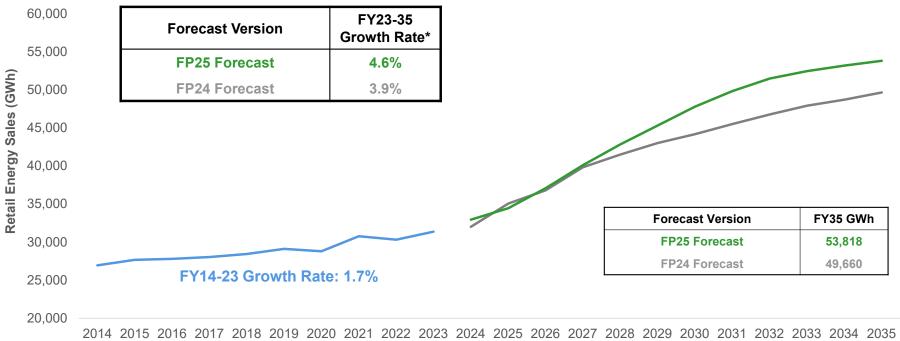
Source: FOX Weather

FP25 Peak Demand Forecast



^{*} Growth rates calculated as compound annual growth

FP25 Energy Demand Forecast



Fiscal Year

^{*} Growth rates calculated as compound annual growth

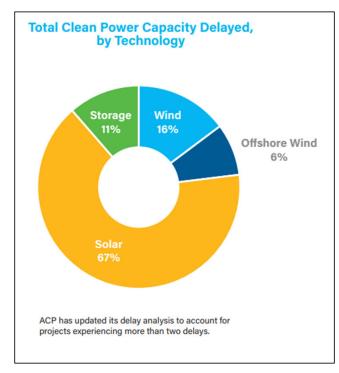
Key Takeaways

- Growth rates for electricity demand through 2035 were revised upwards for the FP25 Forecast
- Near-term downward revision to the Forecast primarily due to:
 - Delays to large customer projects
- Medium-term upward revision to the Forecast primarily due to:
 - Increased data center demand projections
- SRP will continue to monitor key trends in the data center and advanced manufacturing industries

thank you!



Resource development delays continue across the U.S.



Source: American Clean Power Association

TEN MILLION HOMES

More than 56 gigawatts of clean power projects, enough to power nearly 10 million homes, have been delayed since late 2021, according to an ACP analysis. Solar energy facilities account for two thirds of those delays due in part to U.S. import restrictions.

Source: Reuters

Wood Mackenzie December 2023 Market Report¹:

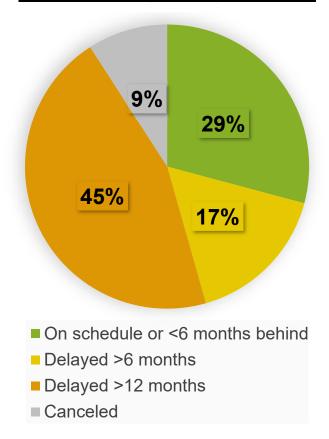
"We expect 60% of the total capacity under construction with a target COD of 2023 to successfully become operational this year."

"...these constraints will push 2024 projects to 2025 and beyond."

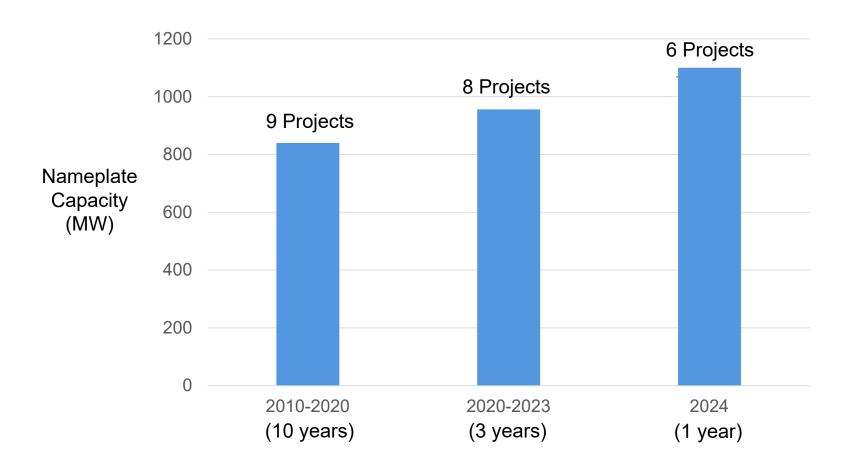
SRP also continues to experience delays

- SRP continues to experience delays with bringing new resources online
 - Ongoing supply chain constraints
 - Lengthy interconnection process
 - Permitting issues
 - Summer commissioning challenges
- SRP is working diligently with developers to minimize delays

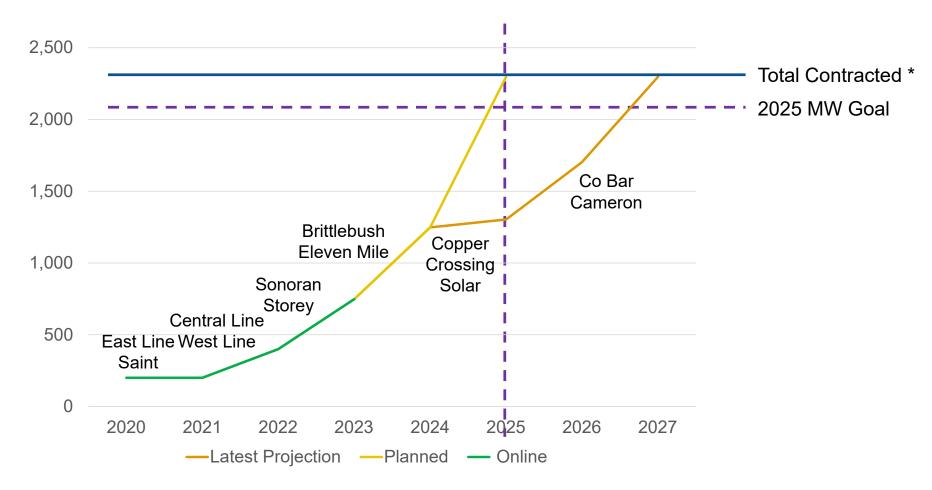
Status of New Resources Under Contract and in Development (2,195 MW)



SRP is adding new resource projects at an unprecedented pace

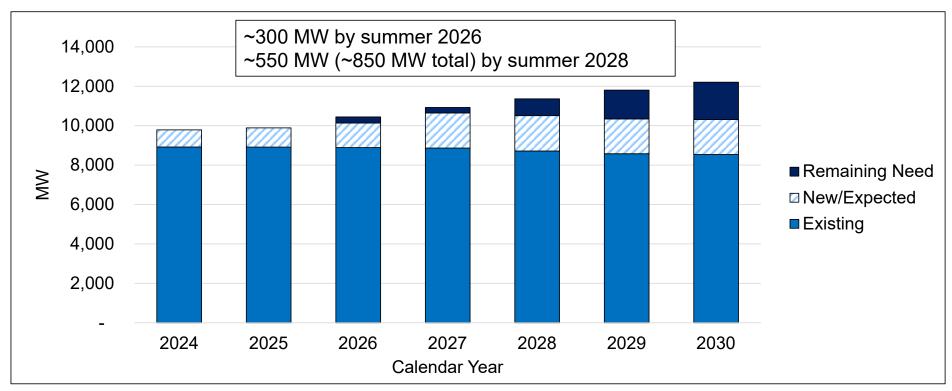


Progress Towards 2025 MW Solar Goal



SRP must continue to add resources

Remaining Capacity Needs



Based on latest load forecast (December 2023)

Next Steps

- Complete 2023 All-Source RFP for needs in 2026-2028
- Issue 2024 All-Source RFP for needs in 2028-2030





thank you!