

# SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT MEETING NOTICE AND AGENDA – AMENDED

---

## POWER COMMITTEE

Tuesday, January 24, 2023, 9:30 AM

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

Committee Members: Mario Herrera, Chairman; Keith Woods, Vice Chairman; and Robert Arnett, Nick Brown, Kevin Johnson, Kathy Mohr-Almeida, and Stephen Williams  
Association Board of Governors Observer: Larry Rovey

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 MARIO HERRERA
  - Request for approval of the minutes for the meeting of December 13, 2022.
2. Southwest Power Pool’s Markets+ Development ..... JOSH ROBERTSON  
  
Request for approval of SRP’s participation in Phase 1 of Southwest Power Pool’s Markets+ development.
3. Final Financial Plan 2024 (FP24) Load Forecast ..... JED COHEN  
  
Informational presentation regarding the Final FP24 Load Forecast, which is used for resource planning, financial planning, strategic planning, and transmission and distribution planning.
4. 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 a Request for Approval to 1) Amend an Existing 400 Megawatt (MW) Solar Power Purchase Agreement, and 2) Enter into a New Power Purchase Agreement for 394 MW of Solar Energy ..... GRANT SMEDLEY
5. Executive Session, Pursuant to A.R.S. §38-431.03(A)(3) and (A)(4), to Provide an Update and to Have a Discussion or Consultation with Attorneys for Legal Advice Regarding SRP’s Certificate of Environmental Compatibility (CEC) Application Regarding the Coolidge Expansion Project (CEP), SRP v. Arizona Corporation Commission (ACC), Maricopa County Superior Court CV-2022-008624 ..... MICHAEL O’CONNOR and ROB TAYLOR
6. Report on Current Events by the General Manager and Chief Executive Officer or Designees ..... MIKE HUMMEL
7. Future Agenda Topics ..... CHAIRMAN MARIO HERRERA

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.



**THE NEXT POWER COMMITTEE MEETING  
IS SCHEDULED FOR THURSDAY, FEBRUARY 23, 2023**

01/22/2023



MINUTES  
POWER COMMITTEE MEETING

DRAFT

December 13, 2022

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 13, 2022, from the 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 M.J. Herrera, Chairman; K.B. Woods, Vice Chairman; and R.C. Arnett, K.J. Johnson, and S.H. Williams; and Association Board of Governors observer L.D. Rovey.

Also present were District Vice President C.J. Dobson; Board Members N.R. Brown, A.G. McAfee, R.J. Miller, M.V. Pace, J.M. White Jr., and L.C. Williams; Council Chairman T.M. Francis; Council Vice Chairman J.R. Shelton; Council Liaisons A.S. Hatley and T.S. Naylor; Council Member G.E. Geiger; Mmes. K.J. Barr, M.J. Burger, A.P. Chabrier, L.F. Hobaica, L.A. Meyers, G.A. Mingura, D.V. Player, K.S. Ramaley, and P.L. Syrjala; Messrs. L. Arthanari, J.D. Coggins, J.A. Cook, J.M. Felty, C.A. Friedrich, J.V. Giacalone, M. Hummel, K.J. Lee, A.J. McSheffrey, M.J. O'Connor, B.A. Olsen, J.M. Pratt, J.C. Robertson, G. Saint Paul, P.B. Sigl, G.M. Smedley, and R.R. Taylor; Pete Ewen of Freeport-McMoRan; Zach Nelson of Balanced Rock Power; and Robin Park of Origis Energy.

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 9, 2022.

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 Board Member S.H. Williams, the Committee unanimously approved and adopted the following item on the Consent Agenda:

- Minutes of the Power Committee meeting on November 17, 2022, 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; and R.C. Arnett, K.J. Johnson, and S.H. Williams	(5)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	None	(0)

### Western Power Pool's Western Resource Adequacy Program

Using a PowerPoint presentation, Josh C. Robertson, SRP Director of Energy Market Strategy, stated that the purpose of the presentation was to request approval for SRP's participation in the next phase of Western Power Pool's Western Resource Adequacy Program (WRAP).

Mr. J.C. Robertson stated that the Northwest Power Pool (NWPP) was established in 1941 to coordinate resources to maximize efficient electricity production, and today is known as the Western Power Pool (WPP). He said that the WPP coordinates the Reserve Sharing Program, the Western Frequency Response Sharing Group, development of the Resource Adequacy Program Project, and other associated services.

Mr. J.C. Robertson explained how WPP's WRAP standardizes how utilities across the west access resource adequacy; is built on rigorous methodology and sound principles; mitigates potential for double counting of resources; and provides support during times of critical system need. He outlined WRAP's framework and timeline with respect to the next phase (Phase 3B).

Mr. J.C. Robertson reviewed SRP's commitments in WRAP, benefits of Phase 3A participation, and Phase 3B budget and funding. He said that SRP has benefited from its participation in Phase 3A of the WPP's WRAP, and continued participation in Phase 3B will provide SRP the opportunity to third-party validation of SRP's planning process; formally commits SRP to the development of the Resource Adequacy Program Project; demonstrates SRP's commitments to maintaining reliability and participating in regional programs; ensures a standardized approach to resource adequacy assessments throughout the west; and provides access to regional capacity during potential capacity shortage events.

Continuing, Mr. J.C. Robertson noted that SRP's cost for Phase 3B is approximately \$6.8 million through 2028, with an estimated one time payment of \$305,000 due upon signing; and with yearly costs estimated between \$906,000 to \$1.2 million for the next six years. He said that if SRP decides to exit the program, a two-year notice is required.

Mr. J.C. Robertson concluded by requesting approval of SRP's participation in the next phase (3B) of WPP's WRAP and to authorize the President, Vice President, General Manager and Chief Executive Officer, Associate General Manager and Chief Financial Executive or Associate General Manager and Chief Power System Executive to execute: 1) the Memorandum of Understanding between the WPP and SRP; 2) the Work Order Under General Services Agreement for Participation in Phase 3B of the WRAP Implementation; 3) the WRAP Agreement; and 4) any subsequent amendments to such agreements and work order that do not materially modify the terms of the agreements.

Mr. J.C. Robertson responded to questions from the Committee.

On a motion duly made by Vice Chairman K.B. Woods, seconded by Board Member S.H. Williams and carried, the Committee agreed to recommend Board approval, as presented.

Corporate Secretary J.M. Felty polled the Committee Members on Vice Chairman K.B. Woods' motion to recommend Board approval. The vote was recorded as follows:

YES:	Board Members M.J. Herrera, Chairman; K.B. Woods, Vice Chairman; and R.C. Arnett, K.J. Johnson, and S.H. Williams	(5)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	None	(0)

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.

President D. Rousseau; Board Member P.E. Rovey; Council Member N.J. Vanderwey; Ms. E.J. Roelfs; Mr. R.T. Judd; Ian Calkins of Copper State Consulting Group; Ryan Roton of Siemens Energy; and Collin Thomas of Triple Oak Power entered the meeting during the presentation.

#### Extension of El Paso Natural Gas Company Transportation Service Agreements

Using a PowerPoint presentation, Joe V. Giacalone, SRP Manager of Fuel Supply and Trading, stated that the purpose of the presentation was to request approval to extend SRP's existing Transportation Service Agreements (TSAs) with El Paso Natural Gas Company (EPNG), which provide firm pipeline capacity to SRP's gas plants. He said that the agreements include the legacy TSA, expiring in 2027, and the summer only TSA, expiring in 2032. Mr. J.V. Giacalone stated that EPNG and SRP have reached terms to extend the TSAs, which will include the construction of the Copper Crossing lateral.

Mr. J.V. Giacalone reviewed the gas transportation requirements and principles; gas transportation market; timing of the negotiations; negotiated extension terms, costs, and key benefits. He said that by negotiating early, SRP was offered exclusive terms and avoided the risk of being outbid. Furthermore, at the expiration of each TSA, SRP has the right to match the best bid and retain the transportation capacity.

Mr. J.V. Giacalone noted that the legacy TSA negotiated extension is from 2023 to 2049, and the summer only TSA negotiated extension is from 2032 to 2047. The negotiated annual gas transportation costs will be \$39.1 million from 2023-2027 and \$37.1 million from 2027-2047. He concluded by requesting approval to authorize the President, Vice President, General Manager and Chief Executive Officer, Associate General Manager and Chief Financial Executive or any designee of the foregoing, to execute the extension of the two EPNG TSAs, together with any subsequent amendments to such agreements that do not materially modify the terms thereof.

Mr. J.V. Giacalone responded to questions from the Committee.

On a motion duly made by Board Member R.C. Arnett, seconded by Board Member S.H. Williams and carried, the Committee agreed to recommend Board approval, as presented.

Corporate Secretary J.M. Felty polled the Committee Members on Board Member R.C. Arnett's motion to recommend Board approval. The vote was recorded as follows:

YES:	Board Members M.J. Herrera, Chairman; K.B. Woods, Vice Chairman; and R.C. Arnett, K.J. Johnson, and S.H. Williams	(5)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	None	(0)

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.

Messrs. J.A. Cook and J.C. Robertson left the meeting during the presentation. Mr. C.N. Hunter entered the meeting.

#### Long-Duration Energy Storage Pilot Request for Proposals

Using a PowerPoint presentation, Chico N. Hunter, SRP Manager of Innovation and Development, stated that the purpose of the presentation was to summarize the Request for Proposals issued for a long-duration energy storage pilot, supporting Phase 3 of the development of the Copper Crossing Energy and Research Center (CCERC).

Mr. C.N. Hunter reminded the Committee that Phase 1 consists of two 49.5 Megawatt (MW) gas turbines, and Phase 2 consists of up to 55 MW advanced solar. He explained that Phase 3 will focus on an energy storage pilot program and described its role with respect to retail load capacity.

Mr. C.N. Hunter highlighted the following diversity needs for energy storage: safety, reliability, operational flexibility, short duration, long duration, and affordability. He said that the Requests for Proposals are requesting 10 MW/10-hour duration pilot project proposals and 10-year power purchase agreements.

Mr. C.N. Hunter stated that SRP is working with Electric Power Research Institute (EPRI) in tracking thermal, mechanical, electrochemical, and chemical technologies, and that 14 technology businesses have been invited to participate in the Requests for Proposals. He reviewed the Department of Energy's funding opportunity with respect to long duration storage issued on November 14, 2022, which could share up to 50% of the cost.

Mr. C.N. Hunter concluded with a discussion regarding the evaluation criteria and approach; project schedule and next steps; and key takeaways.

Mr. C.N. Hunter 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.

Board Member A.G. McAfee; Council Vice Chairman J.R. Shelton; Ms. P.L. Syrjala; Mr. J.V. Giacalone; and Ryan Roton of Siemens Energy left the meeting during the presentation. Association Vice President J.R. Hoopes; Board Member A.M. Herrera; Messrs. G.A. DeLizio, R.J. Klawitter, and B.J. Koch entered the meeting during the presentation.

#### Closed Session: Development of Pumped Hydro Storage

Chairman M.J. Herrera called for a closed session for the Power Committee at 10:29 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 contracting for sufficient engineering and design for the continued development of pumped hydro storage.

Ian Calkins of Copper State Consulting Group; Pete Ewen of Freeport-McMoRan; Zach Nelson of Balanced Rock Power; Robin Park of Origis Energy; and Collins Thomas of Triple Oak Power left the meeting.

The Committee reconvened into open session at 10:43 a.m. with the following Members and other present: President D. Rousseau; District Vice President C.J. Dobson; Board



Members N.R. Brown, R.J. Miller, M.V. Pace, P.E. Rovey, J.M. White Jr., and L.C. Williams; Council Chairman T.M. Francis; Council Liaisons A.S. Hatley and T.S. Naylor; Council Members G.E. Geiger, A.M. Herrera, and N.J. Vanderwey; Mmes. K.J. Barr, M.J. Burger, A.P. Chabrier, L.F. Hobaica, L.A. Meyers, G.A. Mingura, D.V. Player, K.S. Ramaley, and Messrs. J.D. Coggins, G.A. DeLizio, J.M. Felty, M. Hummel, C.N. Hunter, R.T. Judd, R.J. Klawitter, B.J. Koch, K.J. Lee, A.J. McSheffrey, M.J. O'Connor, B.A. Olsen, J.M. Pratt, G. Saint Paul, P.B. Sigl, G.M. Smedley, and R.R. Taylor.

Ian Calkins of Copper State Consulting Group; Pete Ewen of Freeport-McMoRan; Zach Nelson of Balanced Rock Power; and Collins Thomas of Triple Oak Power entered the meeting.

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

Mike Hummel, SRP Associate General Manager and Chief Executive Officer, reported on a variety of federal, state, and local topics of interest to the Committee.

Messrs. C.N. Hunter, B.A. Olsen, and R.J. Klawitter left the meeting during the report.

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 10:57 a.m.

John M. Felty  
Corporate Secretary



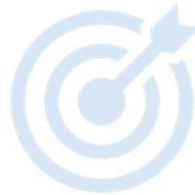
# Southwest Power Pool Markets+

Power Committee Meeting

Josh Robertson | January 24, 2023

# Western Markets 2035 Goals

- Incremental approach market entry
- Ensure net benefits for SRP
- Enhance or maintain system reliability
- Realistic timing of full RTO, 2030



## LEADERSHIP | 2035 CORPORATE GOALS

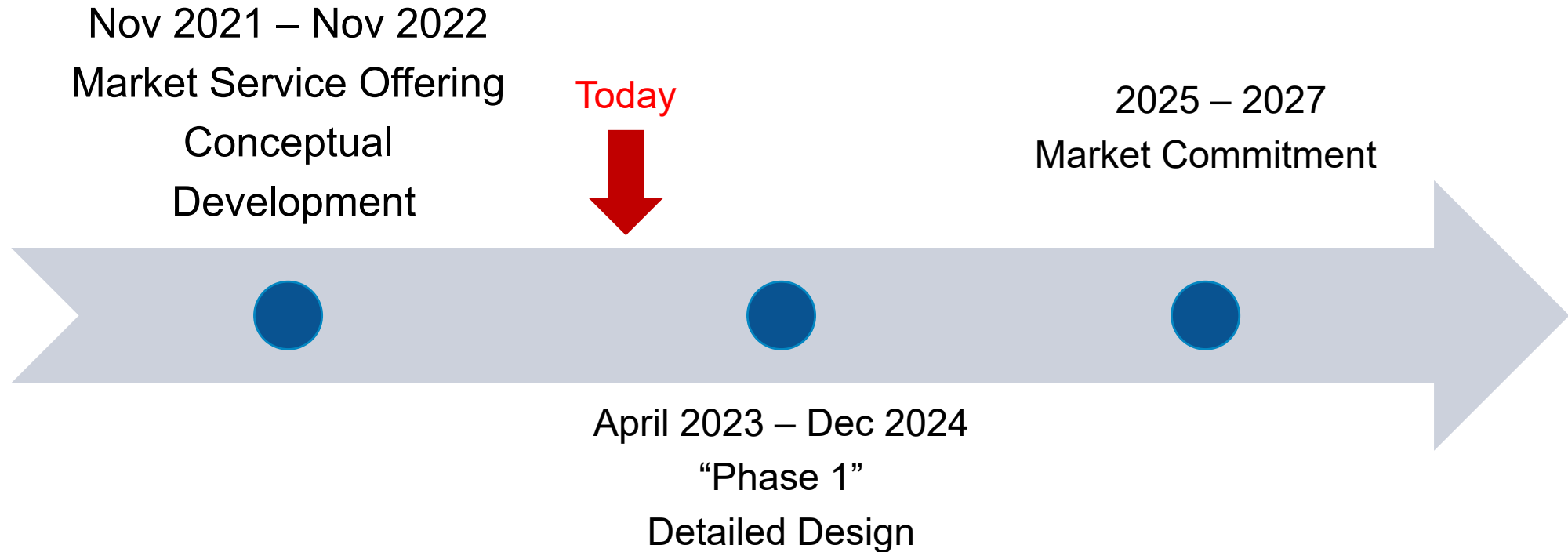


### GOAL 3

**Integrate and operate emerging clean technologies and engage in industry and regional efforts to advance decarbonization and address growing energy demand.**

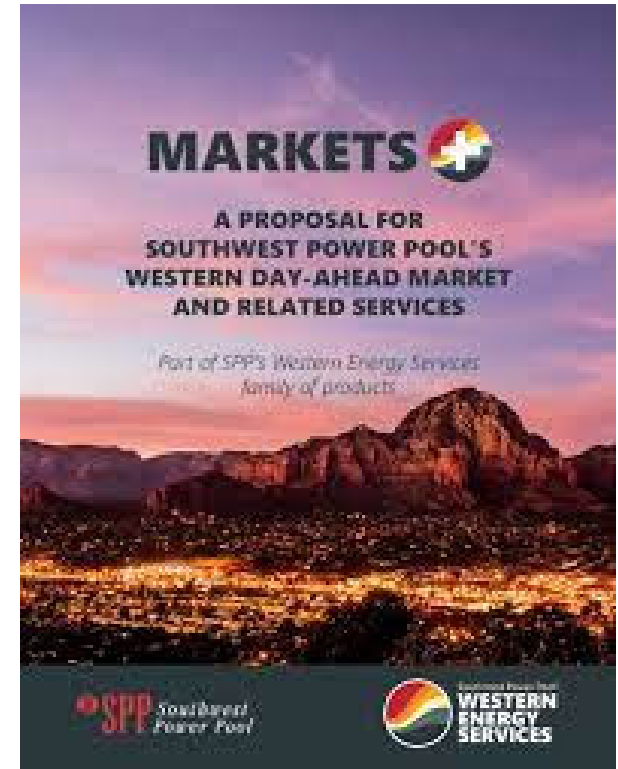
- A. Participate in coalitions and industry partnerships to conduct research and demonstration projects that support and prepare SRP for the deployment of emerging technologies and infrastructure.
- B. Take a proactive role in the development and operation of regional Western electric markets that provide value for SRP and our customers.**

# Southwest Power Pool (SPP) Markets+ Timeline



# Markets+ Phase 1 Scope of Activities and Deliverables

- Market Governance and Committee Structure
- Detailed market design and protocols
- Tariff Language
- Outreach
  - Stakeholders
  - Regulatory



# SRP Priorities for New Market or RTO Participation

## Customer Benefits

- Net benefits
- Load and resource diversity
- Maintain or enhance reliability

## Governance

- Independence / transparency
- Public Power representation
- Local resource decision making
- Utility input on grid operations

## Transmission Cost Allocation

- New project cost allocated based on needs and measurable benefits
- Transmission costs recovered via “license plate” charge

## Generation Resource Sufficiency

- Maintain vertically integrated utility structure
- Self scheduling of generation
- Resource Adequacy Construct

# Current Comparison of Day-Ahead Market Opportunities

	<b>CAISO – EDAM</b>	<b>SPP – Markets+</b>
Governance	Joint authority	Independent board
Resource Adequacy Framework	Not common – Resource Sufficiency Evaluation	Common
Path to full RTO	Requires legislation	Can be incorporated
Load & Resource Diversity	Good	Unknown
Local Decision Making	Maintained	Maintained
Timing	2024	2026



# Benefits of Funding Markets+ Phase 1

Voting rights

- Forums
- Each participant appoints one senior level management employee as a representative

Representation

- Standing committees
- Ad hoc task forces

# Markets+ Phase 1 Budget and Funding

## Projected Costs (total for all participants)

- \$9.7 million with 21-month implementation schedule
- After 21-month period, \$500,000 per month if needed

## Funding

- Obligation share based on 2021 Net Energy for Load (NEL)
- SRP's portion: approximately \$1.2M initial and \$61K per month

## Agreement

- Under development
- SRP execution subject to final terms

# Request for Approval

Management requests that the Power Committee recommend that in accordance with the terms discussed herein, the Board authorize the President, Vice President, General Manager and Chief Executive Officer, or Associate General Manager and Chief Power System Executive to execute:

- (i) The SPP Phase 1 Funding Agreement between SPP and SRP; and
- (ii) Any subsequent amendments to such agreements and work order that do not materially modify the terms of the agreements.

**thank you!**



# Final Financial Plan 2024 Load Forecast

Power Committee

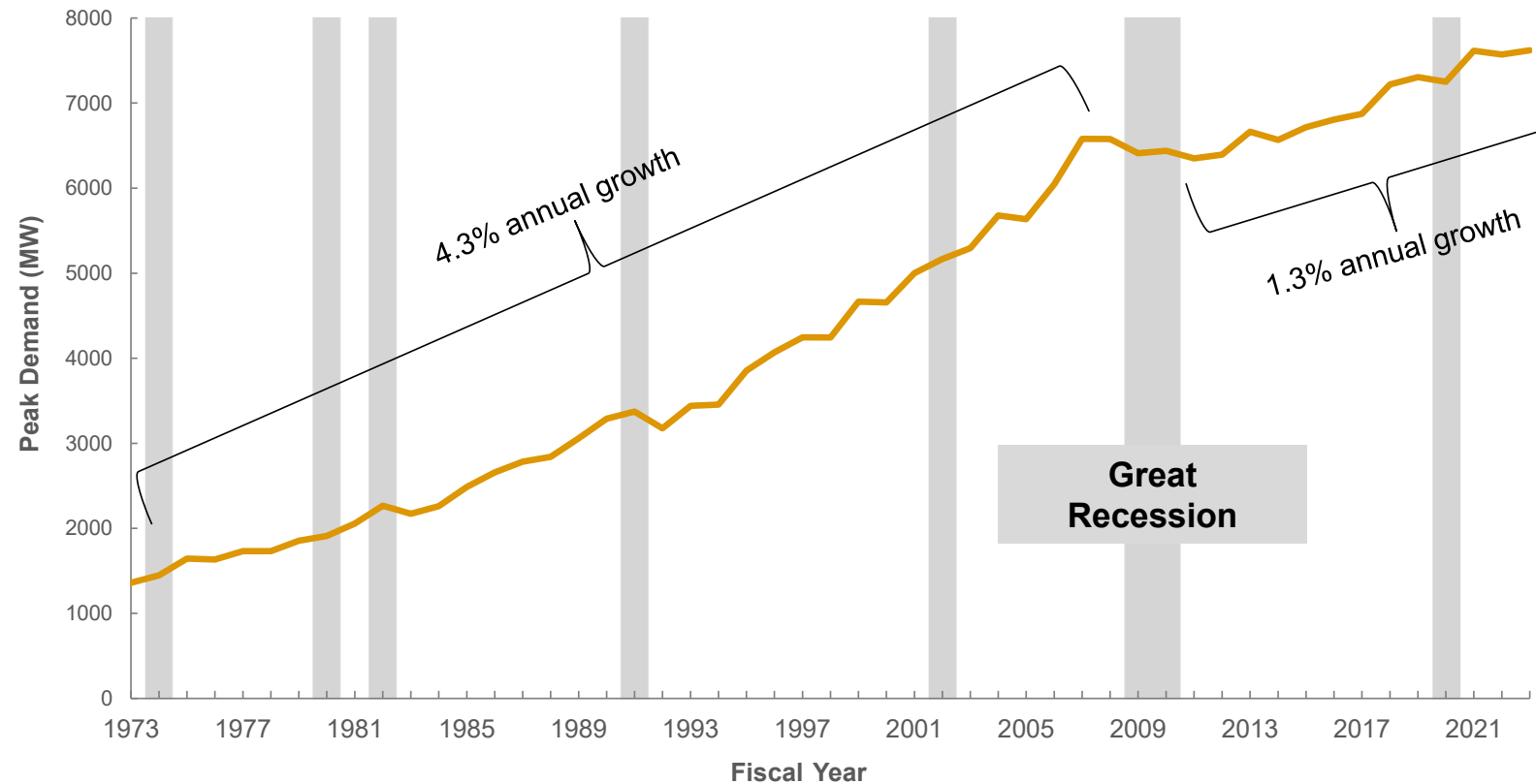
Jed Cohen | January 24, 2023

# Forecast – Key Drivers

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



# A Long View of Peak Load Growth



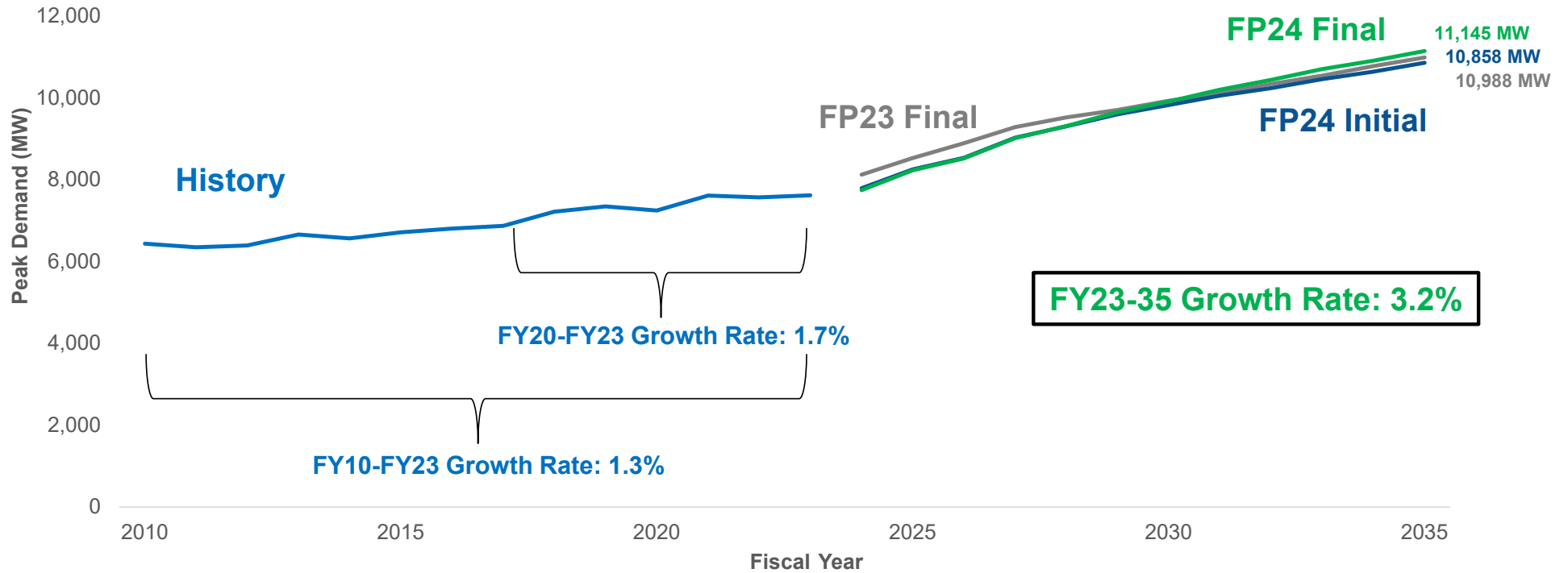
**Full period growth rate is 3.4% per year.**

**Peak load grew by 125 MW per year on avg.**

**But there is volatility year-to-year**

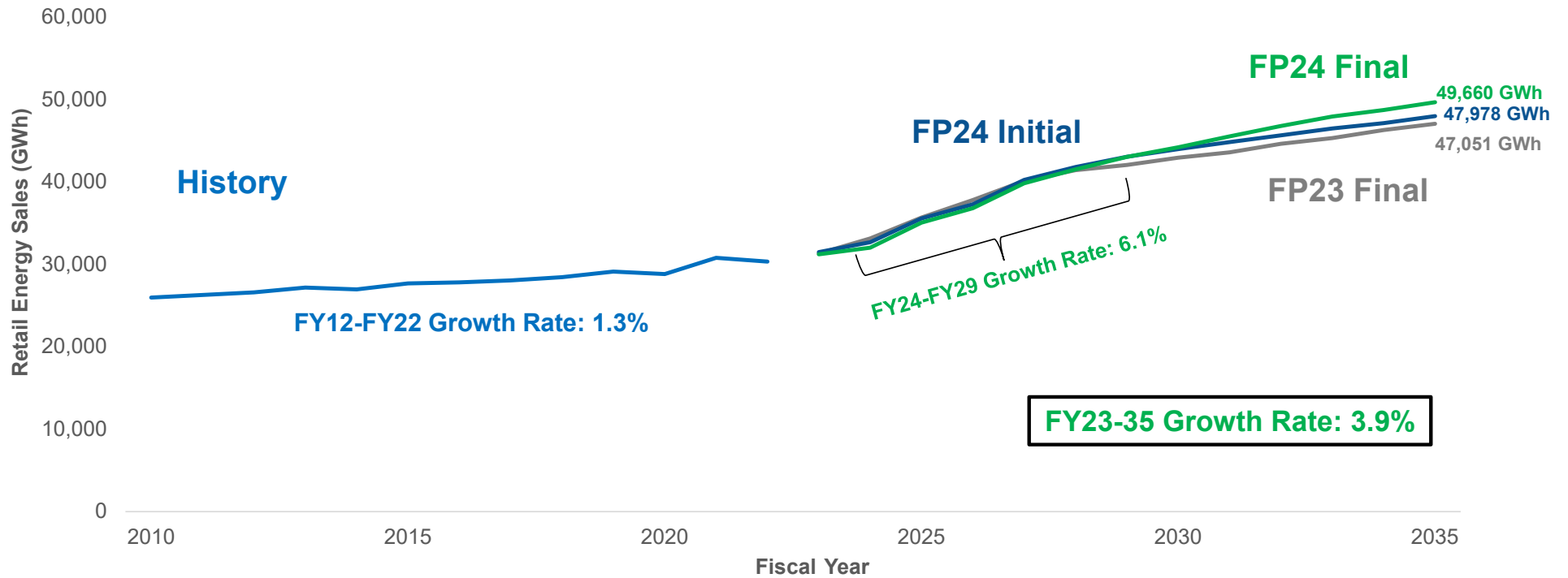


# Final FP24 Peak Load Forecast



\* Growth rates calculated as compound annual growth

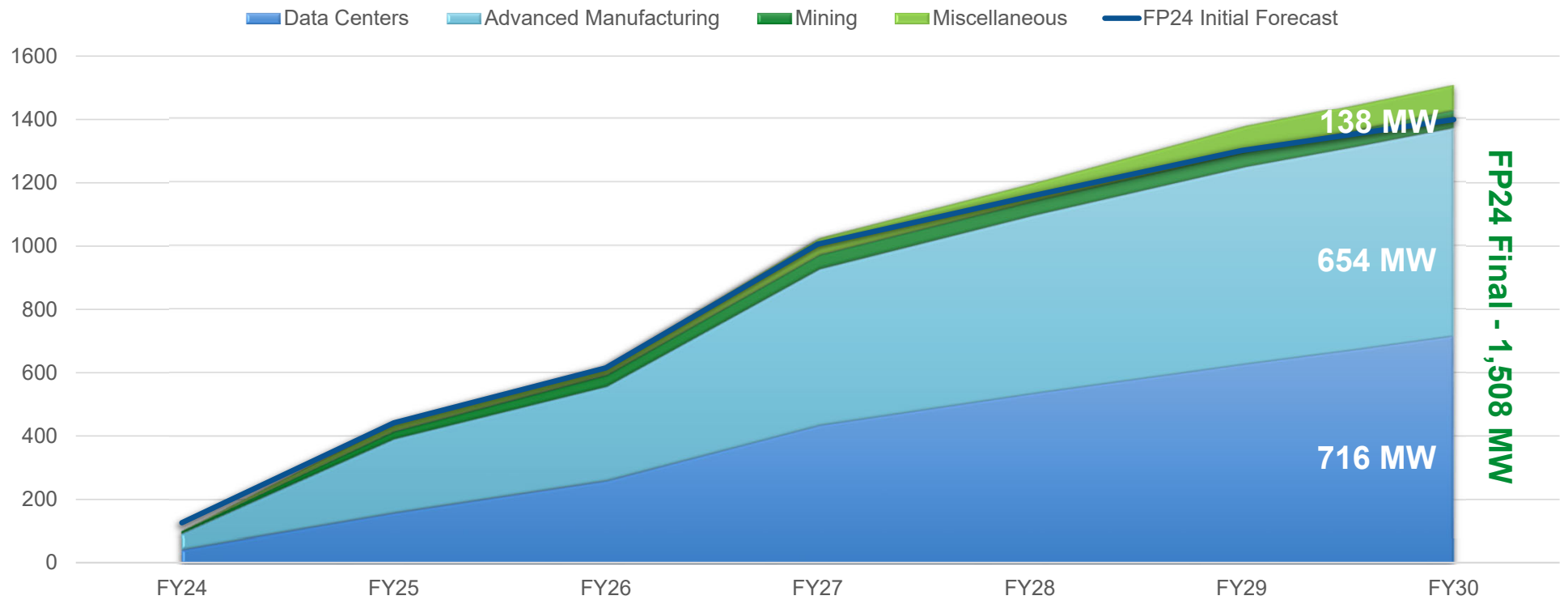
# Final FP24 Energy Forecast



\* Growth rates calculated as compound annual growth

# Growth in the Large Customer Project Pipeline

Megawatts

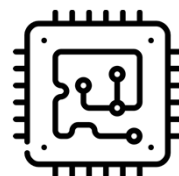


# Major Industries in Strong Positions for Growth



## Data Center Industry

- Industry growth driven by high performance computing, cloud services, data storage and emerging technologies such as virtual reality and internet of things
- Digital media sector, including music, video games, and streaming is growing by 6% per year (Statista)
- Projected annual industry growth rate of 18.5 - 24.3% through 2027 (Allied Research, Emergen, Markets&Markets)



## Semiconductor Industry

- Fourth-most traded product in the world behind crude oil, motor vehicle parts, and refined oil (Datex Corp analysis)
- Growth in product demand driven by consumer devices, EVs, and big data technologies
- Projected annual industry growth rate of 6 - 12% through 2030 (Fortune Business Insights, McKinsey)

Image credit: Flaticon.com

# Key Takeaways & Next Steps

- Growth rate of the Final FP24 Load Forecast is in line with the Final FP23 Load Forecast
- Near-term downward revision to the Forecast due to:
  - Increased risk of recession to the U.S. economy
  - Delays to large customer projects
- Medium-term upward revision to the Forecast due to:
  - Additional large customer projects moving forward in the pipeline
- SRP will continue to closely monitor key indicators for recession and the economic development pipeline
- Informational updates will be provided in May

**thank you!**

