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

#### POWER COMMITTEE Thursday, May 23, 2024, 9:30 AM

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

Committee Members: Leslie C. Williams, Chairman; and Nick Brown, Sandra Kennedy, 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 ......CHAIRMAN LESLIE C. WILLIAMS
  - Request for approval of the minutes for the meeting of April 25, 2024.
- 2. <u>2024 SRP Summer Preparedness</u> ......JAY GUERRERO and JACE KERBY

Informational presentation summarizing SRP's activities to prepare for meeting forecasted load in Summer 2024.

Informational presentation summarizing information gathered from the Fall 2023 non-inverter based long-duration storage RFI process.

4. <u>Flatland Energy Storage Project</u> ......BARRY PETREY

Informational presentation regarding the 200 Megawatt (MW) Flatland energy storage project selected from the 2023 All-Source Request for Proposals (RFP).

- 6. <u>Report on Current Events by the General Manager and Chief Executive Officer</u> and Designees ......JIM PRATT
- 7. 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.



#### MINUTES POWER COMMITTEE MEETING

#### April 25, 2024

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 Thursday, April 25, 2024, 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, J.M. White Jr., and S.H. Williams.

Committee Member absent at roll call was K.B. Woods, Vice Chairman.

Also present were Vice President C.J. Dobson; Board Members M.J. Herrera, K.J. Johnson, L.D. Rovey, and P.E. Rovey; Council Vice Chairman J.R. Shelton; Council Liaison J.W. Lines; Council Members M.L. Farmer, B.E. Paceley, and P.A. Van Hofwegen; Mmes. I.R. Avalos, E.N. Barton, M.J. Burger, A.P. Chabrier, L.F. Hobaica, V.P. Kisicki, K.B. Kochenderfer, L.A. Meyers, and G.A. Mingura; Messrs. L. Arthanari, J.D. Coggins, J.A. Cook, J.M. Felty, W.C. Fielder, B.J. Koch, K.J. Lee, A.J. McSheffrey, B.K. Nielsen, B.A. Olsen, J.M. Pratt, G.M. Smedley, and K.J. Tilghman; Andy McCoy of the Arizona Attorney General's Office; Julie Salinas of Bright Night Power; Bridget Sidwell, Danielle Walker, and Zachary Walker of Strata Clean Energy; Collin Thomas of Triple Oak Power; and Gabriella Valderrama of New Leaf 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 Tuesday, April 23, 2024.

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 R.J. Miller, the Committee unanimously approved and adopted the following item on the Consent Agenda:

• Minutes of the Power Committee meeting on February 22, 2024, 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, J.M. White Jr., and S.H. Williams	(6)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Member K.B. Woods, Vice Chairman	(1)

#### Palo Verde – Pinal Central (PV-PC) Participation Agreements

Using a PowerPoint presentation, Bryce K. Nielsen, SRP Director of Transmission Planning, Strategy and Development, stated that the purpose of the presentation was to request approval to enter into the Third and Fourth Amended and Restated PV-PC Participation Agreements.

Mr. B.K. Nielsen provided a map outlining the areas and project owners associated with the PV–PC Participation Agreements. He reviewed the proposed changes reflected in the Third Amendment to the PV-PC Participation Agreement as follows: the 500 kilovolt (kV) transmission line between the Hassayampa and Pinal West switchyards was split into two lines terminating at the Jojoba 500 kV switchyard, which resulted in changes to the ownership interests, capacity entitlements and cost responsibilities . In addition, the splitting of the line required revising the project description to change the definitions of the transmission lines to include the Jojoba Loop-In. Finally, The Third Amendment made miscellaneous grammatical changes.

Mr. B.K. Nielsen next reviewed the proposed changes in the Fourth Amendment to the PV-PC Participation Agreement. Those changes included revisions to reflect the addition of 500/230 kV transformers at Pinal Central; address fault duty credit assessments; incorporate flowgate methodology definitions and language revisions; and reduce the common facility ratios for the Duke and Pinal Central Substations.

Mr. B.K. Nielsen concluded by requesting approval to authorize the General Manager and Chief Executive Officer and the Associate General Manager and Chief Power System Executive, or delegee, to execute: (A) the Third Amended and Restated PV-PC Participation Agreement; (B) the Fourth Amended and Restated PV-PC Participation Agreement; and (C) subsequent amendments that do not materially modify the terms of the PV-PC Participation Agreement.

Mr. B.K. Nielsen responded to questions from the Committee.

On a motion duly made by Board Member J.M. White Jr., 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 J.M. White Jr.'s motion to recommend Board approval. The vote was recorded as follows:

YES:	Board Members L.C. Williams, Chairman; and N.R. Brown,	(6)
	R.J. Miller, K.H. O'Brien, J.M. White Jr., and S.H. Williams	
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Member K.B. Woods, Vice Chairman	(1)

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 M.V. Pace entered the meeting during the presentation.

#### Western Resource Adequacy Program (WRAP) Approval to Delay First Binding Season

Using a PowerPoint presentation, Jon A. Cook, SRP Principal Analyst of Predictive Analytics, stated that the purpose of the presentation was to request approval for SRP to delay the District's binding participation in WRAP from Summer 2026 to a season between Summer 2027 and Summer 2030.

Mr. J.A. Cook stated that according to the Electric Power Research Institute (EPRI) "resource adequacy" (RA) is defined as an assessment of whether the current, or projected, resource mix is sufficient to meet capacity and energy needs for a particular grid." He explained that RA studies measure the ability of a resource portfolio to meet loads across a wide range of uncertain future system conditions, accounting for supply and demand variability.

Mr. J.A. Cook provided a list of the utilities currently participating in WRAP. He highlighted the following key features of WRAP: 1) it's rigorous and transparent RA methodology is applied consistently for all participants; 2) it's large, diverse footprint of loads and resources reduces the capacity requirement for the participants; and 3) it's designed to allow capacity sharing between participants during tight conditions.

Mr. J.A. Cook reported that in late 2020, SRP began participating in WRAP stakeholder discussions. In November 2021, SRP began participating in the non-binding Forward Showing Program; and in November 2023, SRP began participating in the non-binding Operations Program. He commented on various benefits available to SRP for its participation in WRAP.

Mr. J.A. Cook stated that on February 10, 2023, the Federal Energy Regulatory Commission (FERC) accepted the WRAP Tariff. He explained that SRP had planned to participate in the binding season in Summer 2026; however, WRAP participants are delaying the binding season to provide time for new resource development and to align with day-ahead markets.

Mr. J.A. Cook said that no WRAP participants are planning to go binding in Summer 2026; therefore, SRP also proposes delaying binding participation. He stated that SRP's priority is critical mass building for Summer 2027, the first potential binding season for WRAP.

Mr. J.A. Cook concluded by requesting approval to authorize the President, Vice President, General Manager and Chief Executive Officer, or Associate General Manager and Chief Planning, Strategy, and Sustainability Executive to execute the necessary agreements and related documents with the Western Power Pool indicating a first WRAP binding season between Summer 2027 and Summer 2030.

Mr. J.A. Cook responded to questions from the Committee.

On a motion duly made by Board Member S.H. Williams, seconded by Board Member J.M. White Jr. and carried, the Committee agreed to recommend Board approval, as presented.

Corporate Secretary J.M. Felty polled the Committee Members on Board Member S.H. Williams' motion to recommend Board approval. The vote was recorded as follows:

YES:	Board Members L.C. Williams, Chairman; and N.R. Brown, R.J. Miller, K.H. O'Brien, J.M. White Jr., and S.H. Williams	(6)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Member K.B. Woods, Vice Chairman	(1)

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.

Mr. B.K. Nielsen left the meeting during the presentation. Ms. S.M. Glover entered the meeting during the presentation.

#### Novo BioPower Biomass (Novo) Power Purchase Agreement (PPA)

Using a PowerPoint presentation, Elvy N. Barton, SRP Senior Manager Water and Forest Sustainability, stated that the purpose of the presentation was to provide information regarding the 14 Megawatt (MW) Biomass PPA with Novo, including an overview of SRP's forest health goals and the benefits of the agreement.

Ms. E.N. Barton stated that SRP continues to increase its leadership role in forest restoration treatments through partnerships, influence, education, and support for the industry to thin 800,000 acres by 2035 in the Salt and Verde watersheds. She

concluded with a summary of benefits under the Novo PPA as follows: 1) 14 MW of highly certain baseload energy; 2) SRP's purchased power is fueled by biomass from the SRP watershed; 3) supports approximately 650 rural jobs and 15 forest product businesses; and 4) municipality biomass power partnership – commitments of \$18 million from four municipalities.

Ms. E.N. Barton 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.

Mr. J.A. Cook; and Gabriella Valderrama of New Leaf Energy left the meeting during the presentation. Leo Bird of Bright Night Power entered the meeting during the presentation. Leo Bird of Bright Night Power; Andy McCoy of the Arizona Attorney General's Office; Julie Salinas of Bright Night Power; Bridget Sidwell, Danielle Walker, and Zachary Walker of Strata Clean Energy; and Collin Thomas of Triple Oak Power left the meeting.

<u>Closed Session: Amend PPA for 14 MW</u> <u>Energy from a Biomass Facility</u>

Chairman L.C. Williams called for a closed session for the Power Committee at 9:55 a.m., 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 amend a PPA for 14 MW of energy from a biomass facility.

The Committee reconvened into open session at 10:07 a.m. with the following members and other present: Vice President C.J. Dobson; Board Members N.R. Brown, M.J. Herrera, K.J. Johnson, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, L.D. Rovey, P.E. Rovey, J.M. White Jr., L.C. Williams, S.H. Williams, and K.B. Woods; Council Vice Chairman J.R. Shelton; Council Liaison J.W. Lines; Council Members M.L. Farmer, B.E. Paceley, R.W. Swier, and P.A. Van Hofwegen; Mmes. I.R. Avalos, E.N. Barton, M.J. Burger, A.P. Chabrier, S.M. Glover, L.F. Hobaica, V.P. Kisicki, K.B. Kochenderfer, L.A. Meyers, and G.A. Mingura; and Messrs. L. Arthanari, J.D. Coggins, J.M. Felty, W.C. Fielder, B.J. Koch, K.J. Lee, A.J. McSheffrey, B.A. Olsen, J.M. Pratt, G.M. Smedley, and K.J. Tilghman.

Leo Bird of Bright Night Power; Andy McCoy of the Arizona Attorney General's Office; Julie Salinas of Bright Night Power; Bridget Sidwell, Danielle Walker, and Zachary Walker of Strata Clean Energy; and Collin Thomas of Triple Oak Power reentered the meeting.

#### Signal Butte Energy Storage Project

Using a PowerPoint presentation Will C. Fielder, SRP Resource Acquisition Lead, stated that the purpose of the presentation is to provide information regarding the 250 MW Signal Butte energy storage project selected from the 2023 All-Source Request for Proposals.

Mr. W.C. Fielder detailed the following aspects of the energy storage project: 1) Grid-Charge Storage (Lithium-Ion battery) developed by Aypa Power (initial developer was Eolian Energy); 2) has a capacity of 250 MW / 1,000 MW per hour (MWh) (4-hours); 3) interconnection at Browning 230 kilovolts (kV) receiving substation, located in Mesa, Arizona; and 4) expected commercial operation date is May 4, 2026. He concluded that the project contributes to near-term capacity need for 2026, and is one of the highest scoring projects for 2026 commercial operation with favorable terms.

Mr. W.C. Fielder 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. E.N. Barton left the meeting during the presentation. Martha Belshaw of New Leaf Energy entered the meeting during the presentation.

Martha Belshaw of New Leaf Energy; Leo Bird of Bright Night Power; Andy McCoy of the Arizona Attorney General's Office; Julie Salinas of Bright Night Power; Bridget Sidwell, Danielle Walker, and Zachary Walker of Strata Clean Energy; and Collin Thomas of Triple Oak Power left the meeting.

#### Closed Session: 250 MW Energy Storage Agreement

Chairman L.C. Williams called for a closed session for the Power Committee at 10:10 a.m., 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 enter into a 250 MW energy storage agreement.

The Committee reconvened into open session at 10:22 a.m. with the following members and other present: Vice President C.J. Dobson; Board Members N.R. Brown, M.J. Herrera, K.J. Johnson, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, L.D. Rovey, P.E. Rovey, J.M. White Jr., L.C. Williams, S.H. Williams, and K.B. Woods; Council Vice Chairman J.R. Shelton; Council Liaison J.W. Lines; Council Members M.L. Farmer, B.E. Paceley, R.W. Swier, and P.A. Van Hofwegen; Mmes. I.R. Avalos, M.J. Burger, A.P. Chabrier, S.M. Glover, L.F. Hobaica, V.P. Kisicki, K.B. Kochenderfer, L.A. Meyers, and G.A. Mingura; and Messrs. L. Arthanari, J.D. Coggins, J.M. Felty, W.C. Fielder, B.J. Koch, K.J. Lee, A.J. McSheffrey, B.A. Olsen, J.M. Pratt, G.M. Smedley, and K.J. Tilghman. Leo Bird of Bright Night Power; Andy McCoy of the Arizona Attorney General's Office; Julie Salinas of Bright Night Power; and Bridget Sidwell and Zachary Walker of Strata Clean Energy reentered 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.

Mr. W.C. Fielder left the meeting during the report.

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 10:23 a.m.

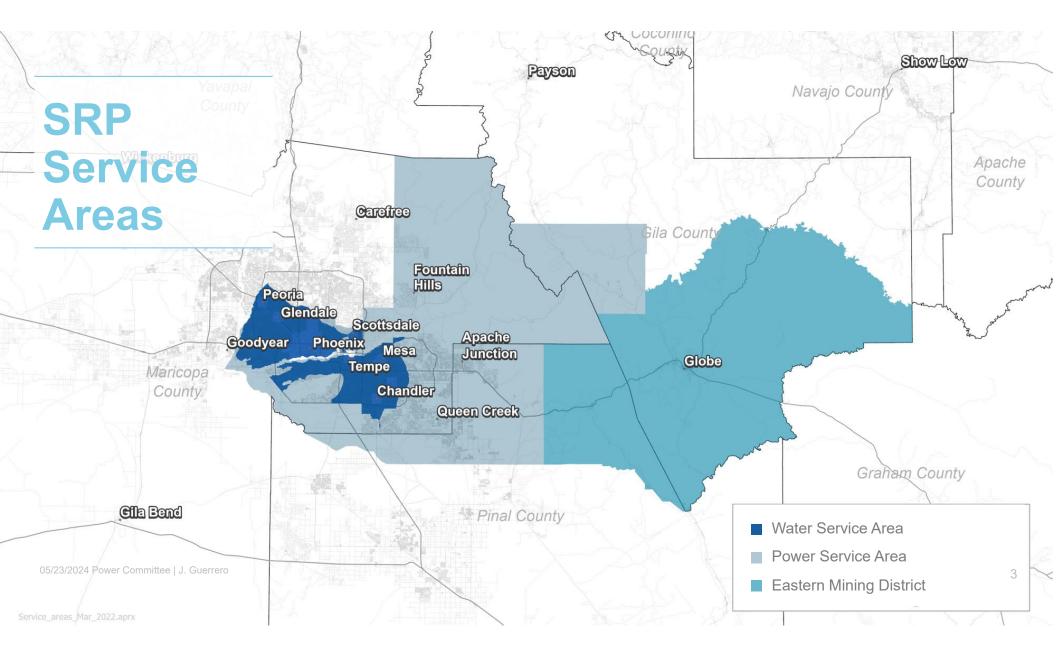
John M. Felty Corporate Secretary

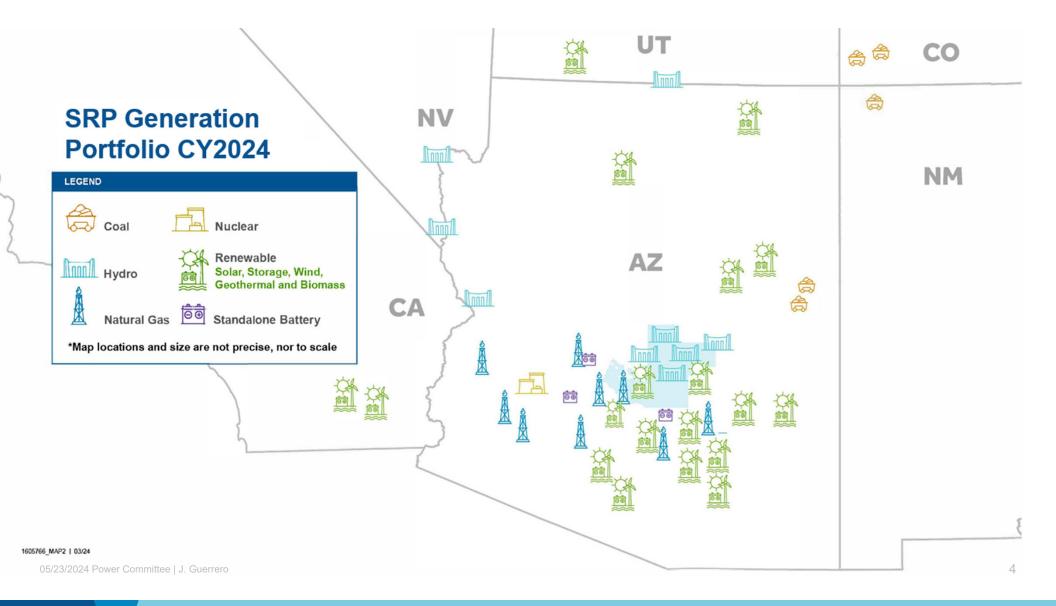
# 2024 SRP Summer Preparedness

**Power Committee** 

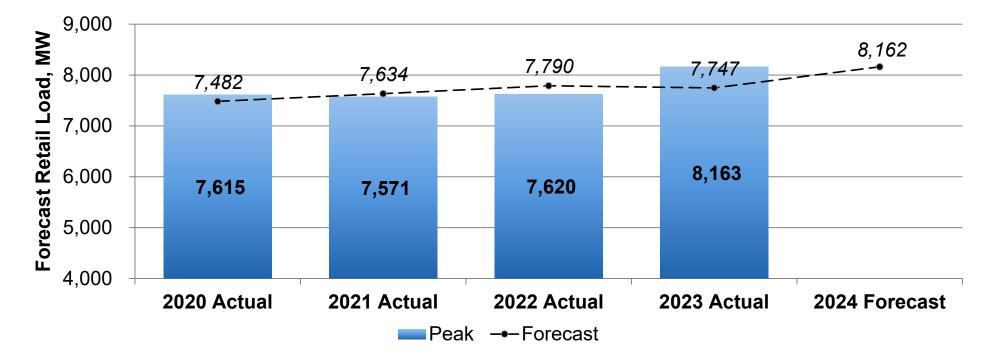
Jay Guerrero and Jace Kerby | May 23, 2024

# Jay Guerrero Manager, Operations Planning

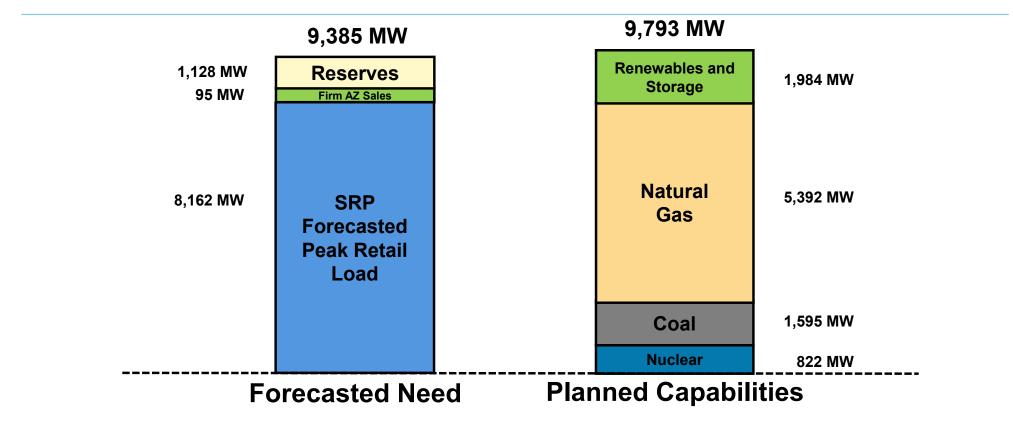




# **Peak Hour Retail Load Forecast**



# **Summer Peak 2024 Outlook**



# **Fuel Status**

- Nuclear Full requirements under contract.
- Coal Full requirements under contract. Inventory at coal plants are at/above target levels prior to summer run.

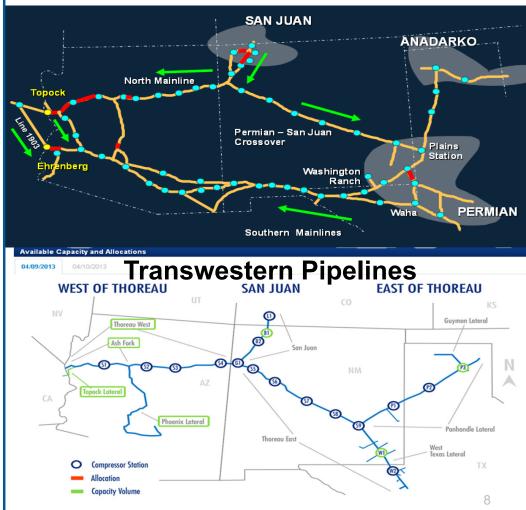


# **Natural Gas Supply**

- Full transport requirements secured balanced between both natural gas pipelines, with access to Permian and San Juan gas basins.
- SRP employs a natural gas hedging program.

05/23/2024 Power Committee | J. Guerrero

### **EPNG Pipelines**



# New Resources for 2024

- Eleven Mile: 300 MW Utility-Scale Solar and Storage
- Sierra Estrella: 250 MW Storage
- Superstition: 90 MW Storage
- Brittlebush: 200 MW Utility-Scale Solar
- Babbitt Ranch: 161 MW Wind
- Copper Crossing: 99 MW Gas Turbines
- Palo Verde: 50 MW Nuclear



# **Jace Kerby**

# Director, Transmission Line Design, Construction & Maintenance

# Generation, Transmission & Distribution Readiness

- Asset Management
- Situational Awareness
- Emergency Preparations



05/23/2024 Power Committee | J. Kerby

# **Asset Management**

- Risk and Data-Based Approach to Equipment Replacements
- Condition & Inspection-Based Proactive and Corrective Maintenance
- Other Preventive Maintenance
- Annual Maintenance of Cooling Systems

05/23/2024 Power Committee | J. Kerby



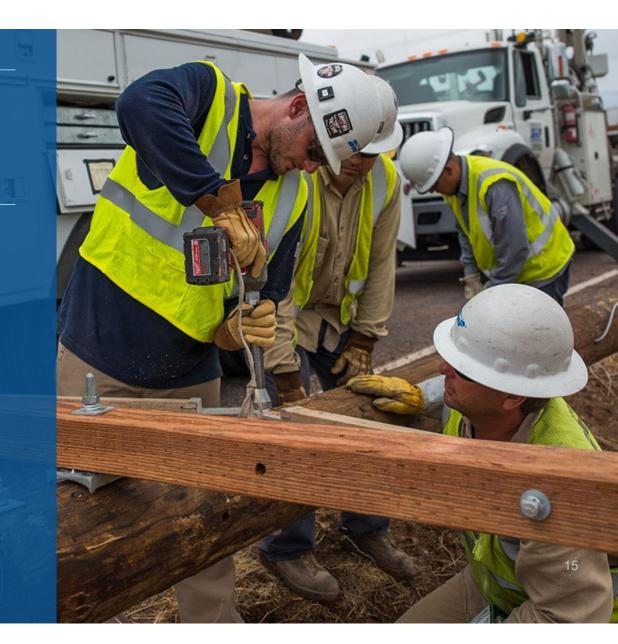
# Situational Awareness

- Daily Operational Briefings / 2X Daily During Extreme Heat
- Inter-Utility Coordination & Support
- Outage Coordination



# Emergency Preparations

- Storm, load shed & heat training drills
- Pre-storm equipment staging and staffing
- Outage restrictions and notifications



05/23/2024 Power Committee | J. Kerby



# Long Duration Energy Storage Pilot Request for Information Update

**Power Committee | Open Session** 

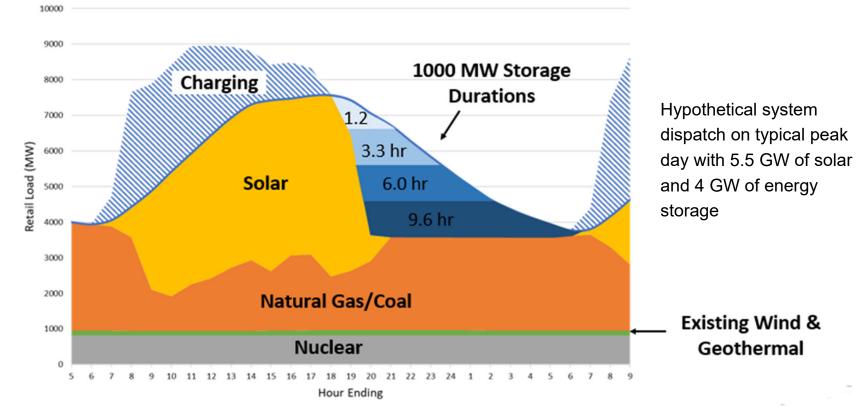
Chico Hunter | May 23, 2024

### Agenda

- Role of long duration energy storage (LDES)
- Emerging LDES technologies
- 2022 Request for Proposals (RFP)
- 2023 Request for Information (RFI)
- Planned 2024 Energy Storage Pilot RFPs

### **Role of Long Duration Energy Storage**

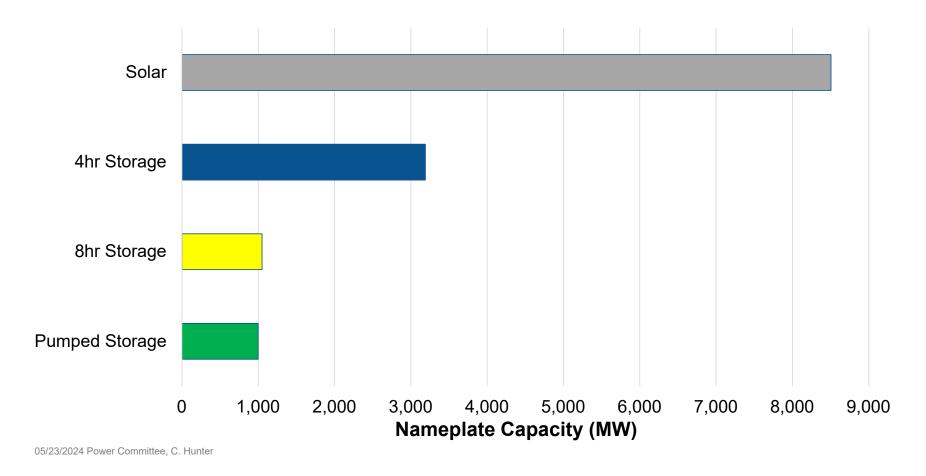
Example Summer Day With Significant Solar and Storage Deployment



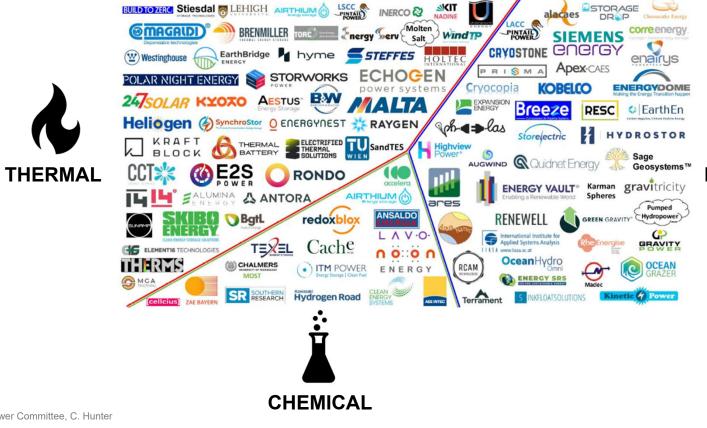
05/23/2024 Power Committee, C. Hunter

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### Solar and Storage in FP25 Through FY35



### **Diverse Emerging Energy Storage Landscape**





### **2022 LDES Pilot Request for Proposals (RFP)**

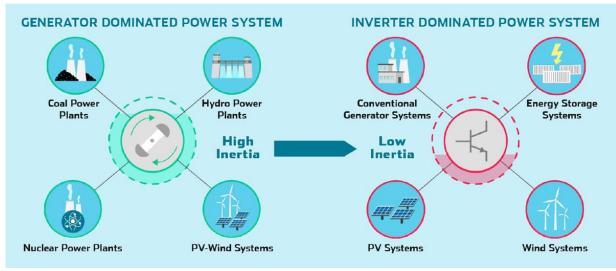
### • Issued LDES RFP Sept. 2022

- 10 MW, 10-hour duration
- 10-year Energy Storage Agreement
- Two finalists selected, one contracted
  - CMBlu, organic flow battery
  - 5 MW, 10-hour duration
  - Board approved Aug. 2023
  - Executed contracts Oct. 2023
  - Planned online Dec. 2025



### **2023 LDES Request for Information (RFI)**

- Need for inertia as more inverter-based resources are added to the grid
- Solicit information from non-inverter-based energy storage vendors
- Use information to develop RFP in 2024



https://www.skeletontech.com/skeleton-blog/wind-turbine-inertia-supporting-the-grid-with-active-power

### **14 Proposals Evaluated in the LDES RFI**



## Long Duration Energy Storage Pilot RFPs

### Inverter-based LDES pilot RFP

- 5 MW, 10 hr. duration
- Power purchase agreement
- Commercial Operation Date: No later than 2028
- Non-inverter-based LDES pilot RFP
  - 5-50 MW, 10 hr. duration
  - Power purchase agreement
  - Commercial Operation Date: No later than 2029

Tentative Schedule				
Issue RFPs	JunJul. 2024			
Bids Due	OctNov. 2024			
Short List Selection	Jan. 2025			
Board Update	Mar. 2025			
Request Board Approval	Summer 2025			

# Flatland Energy Storage Project

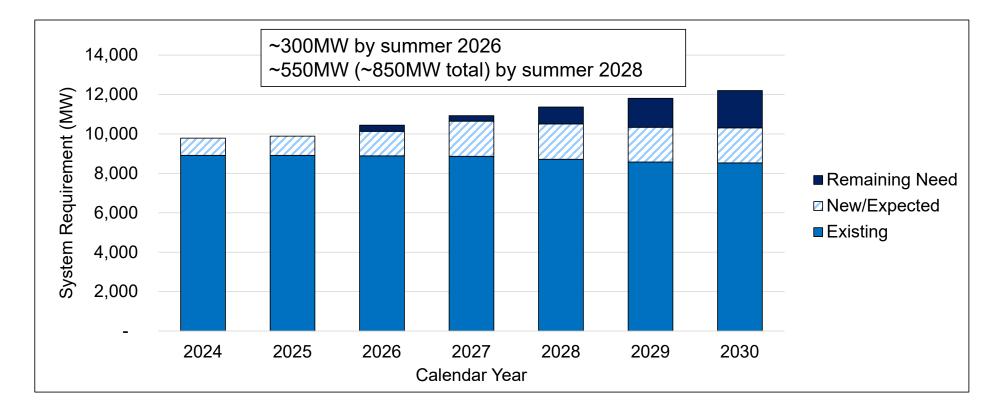
**Power Committee** 

Barry Petrey | May 23, 2024

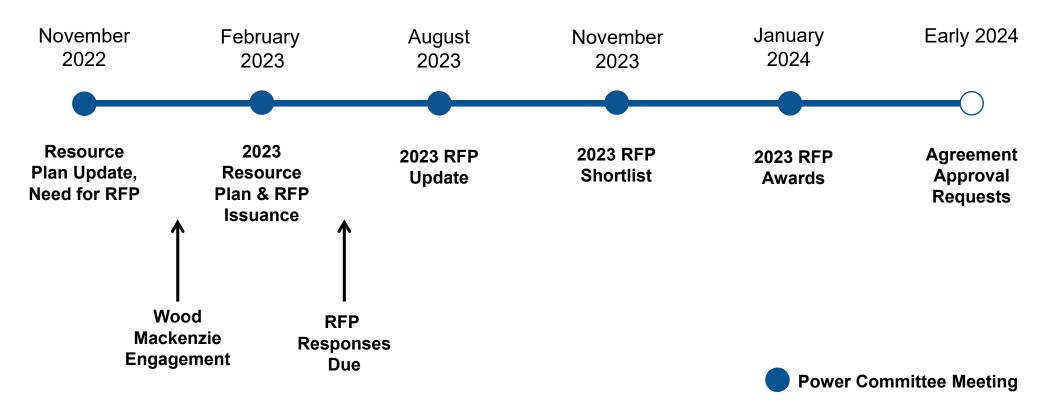
### Agenda

- Peak Resource Need
- 2023 All Source RFP Review
- Project Information
- Benefits

### **Updated Procurement Targets to Serve Capacity Needs**



### **Review of Request for Proposals (RFP) Timeline**



## **Project Information**

**Resource Type:** Storage Addition to Brittlebush Solar Park (Lithium-Ion Battery)

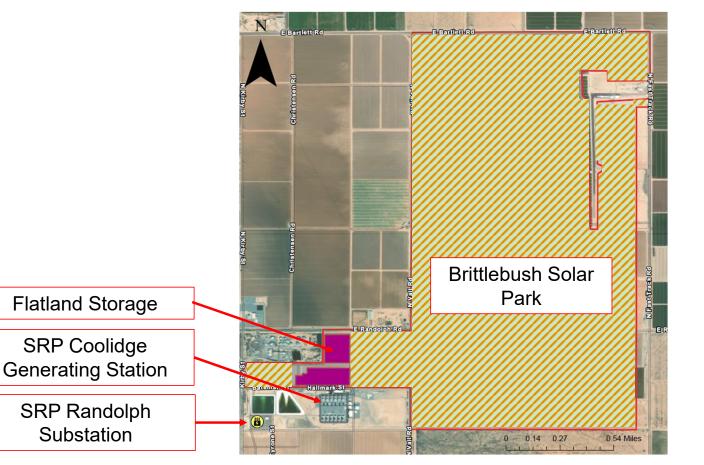
• 200 MW Brittlebush Solar Park – June 2024

Capacity: 200 MW / 800 MWh (4-hours) Projected Commercial Operation: March 1, 2026 Location: Coolidge, AZ Developer: EDP Renewables Interconnection: Randolph 230kV



5/23/2024 Power Committee | B. Petrey

### **Brittlebush Solar Park & Flatland Storage**



5/23/2024 Power Committee | B. Petrey

### **Benefits**

- Contributes to near-term capacity need for 2026
- One of highest scoring projects for 2026 commercial operation
- Favorable terms
- Battery addition to existing contracted solar facility

