

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

BOARD OF DIRECTORS

Monday, November 4, 2024, 9:30 AM

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

Call to Order
Invocation
Pledge of Allegiance
Roll Call
Safety Minute

1. Customer Utility Panel (CUP) Chair's Report
.....CUP CHAIR MICHAEL HUTCHINSON
2. **CONSENT AGENDA:** The following agenda item(s) will be considered as a group by the Board of Directors and will be enacted with one motion. There will be no separate discussion of these item(s) unless a Board Member requests, in which event the agenda item(s) will be removed from the Consent Agenda and considered as a separate item PRESIDENT DAVID ROUSSEAU
 - A. Request for approval of the minutes for the meeting of October 7, 2024.
 - B. Request for approval of the Monthly Cash Statement for September 2024 (recommended by the Finance and Budget Committee on October 24, 2024).
3. Report of the Power Committee Meeting of October 24, 2024
.....DIRECTOR JACK WHITE JR.

Request for approval of SRP's participation in Phase 2 of Southwest Power Pool's (SPP) Markets+ development.
4. Discussion on Closed Session and Executive Session.....MICHAEL O'CONNOR

Informational presentation regarding the differences between a closed session, pursuant to A.R.S. §30-805, and an executive session, pursuant to A.R.S. §38-431.03 (A)(3).
5. The Sound Grid Partners Report DIRECTOR RANDY MILLER

Discussion and potential Board vote to reject the Sound Grid Partners report dated May 15, 2024, which was previously presented on an informational basis to the SRP Board and Council at a Work-Study Session.

6. Report on Current Events by the General Manager and Chief Executive Officer and Designees.....JIM PRATT
 - A. Power System.....JOHN COGGINS
 - B. Finance and Information Services..... BRIAN KOCH
 - C. Water Stewardship..... LESLIE MEYERS
7. Reservoir Report / Weather Report.....JAMES WALTER
8. Council Chairman's ReportCOUNCIL CHAIR ROCKY SHELTON
9. President's Report / Future Agenda Topics PRESIDENT DAVID ROUSSEAU

The Board 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 Board on any of the matters listed on the agenda.

The Board may go into Closed Session, pursuant to A.R.S. §30-805(B), for discussion of 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 BOARD MEETING IS SCHEDULED FOR
MONDAY, DECEMBER 2, 2024**

10/31/2024

SAFETY MINUTE: HOLIDAY SAFETY SRP BOARD

**SARA MCCOY
DIRECTOR, RISK MANAGEMENT
NOVEMBER 4, 2024**



Delivering water and power™

HOLIDAY SAFETY REMINDERS

Decorations

- Protect yourself and others from falling
- Be sure outdoor decorations are secured
- Avoid electrical overloads
- Reduce risk of fire from candles or Christmas trees

Prevent Food Illness

- Clean often, keep food at safe temperatures

Travel

- Proper equipment and emergency kit for safety in winter weather





MINUTES
BOARD OF DIRECTORS
SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT
DRAFT

October 7, 2024

In accordance with a written order and call signed by the President of the Salt River Project Agricultural Improvement and Power District (the District) and filed with Corporate Secretary J.M. Felty, a meeting of the Board of Directors of SRP convened at 9:30 a.m. on Monday, October 7, 2024, 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.

President D. Rousseau called the meeting to order, and Corporate Secretary J.M. Felty entered into the minutes the order for the meeting, as follows:

Tempe, Arizona
September 30, 2024

NOTICE OF MEETING

I, David Rousseau, the duly elected and qualified President of the Salt River Project Agricultural Improvement and Power District (the District), do hereby order a meeting of the Board of Directors to be held at 9:30 a.m. on Monday, October 7, 2024, from the Board Room at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona. The purpose of the meeting is to discuss, consider, or make decisions on the matters listed on the agenda.

WITNESS my hand this 30th day of September 2024.

/s/ David Rousseau
President

Vice President C.J. Dobson offered the invocation. Corporate Secretary J.M. Felty led the Pledge of Allegiance.

Board Members present at roll call were President D. Rousseau; and Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, S.D. Kennedy, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams.

Board Member absent at roll call was Director R.C. Arnett.

Also present were Vice President C.J. Dobson; Governor L.D. Rovey of the Association;

Council Chair J.R. Shelton; Council Vice Chair T.M. Francis; Council Members M.L. Farmer, E.L. Gorsegrner, M.R. Mulligan, T.S. Naylor, and B.E. Paceley; I.R. Avalos, P.R. Bruner, M.J. Burger, C.C. Burke, A.P. Chabrier, A.C. Davis, J. Ding, J.M. Felty, J.W. Hubbard, V.P. Kisicki, B.J. Koch, K.J. Lee, S.C. McCoy, L.A. Meyers, N.J. Mullins, M.J. O'Connor, B.A. Olsen, T.B. Perry, J.M. Pratt, K.S. Ramaley, J.I. Riggs, C.M. Sifuentes, P.B. Sigl, and P.L. Syrjala of SRP; Autumn Johnson of Tierra Strategy; Tammi Watson of Central Arizona Project (CAP); Alex Routhier of Western Resource Advocates (WRA); and Mike Mace of Public Financial Management, Inc. (PFM).

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 meeting of the Board of Directors at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona, at 9:00 a.m. on Friday, October 4, 2024.

Safety Minute

Using a PowerPoint presentation, Sara C. McCoy, SRP Director of Risk Management, provided a safety minute regarding Halloween hazards, including watching out for pedestrians, heat precautions, and holiday excitement.

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.

S.C. McCoy left the meeting after the presentation.

Consent Agenda

President D. Rousseau requested a motion for Board approval of the Consent Agenda, in its entirety, as presented.

On a motion duly made by Director M.J. Herrera and seconded by Director M.V. Pace, the Board approved and adopted the following Items A, B, C, and E on the Consent Agenda:

- A. Approval of the minutes for the meetings of August 27, September 9, and September 17, 2024
- B. Approval of the Monthly Cash Statement for August 2024 (recommended by the Finance and Budget Committee on September 26, 2024)
- C. Approval to sell 536 square feet of excess property located along the north side of Ray Road, east of Cooper Road, near the Consolidated Canal to the Town of Gilbert (recommended by the Facilities and Support Services Committee on September 26, 2024). The resolution reads as follows:

**RESOLUTION OF THE BOARD OF DIRECTORS OF SALT RIVER
PROJECT AGRICULTURAL IMPROVEMENT AND POWER
DISTRICT AUTHORIZING THE SALE OF 536 SQUARE FEET OF
DISTRICT OWNED EXCESS LAND, LOCATED IN MARICOPA
COUNTY, ARIZONA**

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF
DIRECTORS OF THE SALT RIVER PROJECT AGRICULTURAL
IMPROVEMENT AND POWER DISTRICT AS FOLLOWS:**

The sale of SRP owned excess property identified in “Exhibit A” attached hereto (“Property”) by the Salt River Project Agricultural Improvement and Power District (the “District”) to the Town of Gilbert, a municipal corporation, is hereby approved: and

The President, David Rousseau, and Vice President, Christopher J. Dobson, of the District be, and each is hereby authorized and directed, in the name and on behalf of the District, to execute and deliver a Special Warranty Deed (“Deed”) for the property; and

The Management and Staff of the Land Department are hereby authorized and directed, in the name and on behalf of the District, to execute and deliver any and all documents, except the Deed, which are necessary or advisable to fulfill the purpose and intent of the Board approved terms and conditions of the Agreement, and carry into effect the intent of this Resolution.

EXHIBIT A

LEGAL DESCRIPTION OF THE REAL PROPERTY

**SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER
DISTRICT**

A portion of land situated in the Southwest Quarter of Section 24, Township 1 South, Range 5 East of the Gila and Salt River Meridian, Maricopa County, Arizona, described as follows:

The South 12.00 feet of that parcel of land described in Document 2019-0040937, Maricopa County Records, Arizona.

Contains 536 square feet more or less.

END OF DESCRIPTION

- E. Approval to convey 0.169 acres of SRP fee property in exchange for 0.169 acres of Mesa County Club, Inc. fee property (recommended by the Facilities and Support Services Committee on September 26, 2024). The resolution reads as follows:

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE SALT RIVER
PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT
AUTHORIZING THE EXCHANGE OF APPROXIMATELY 0.169 ACRES OF
DISTRICT-OWNED PROPERTY FOR 0.169 ACRES OF FEE PROPERTY,
LOCATED IN MARICOPA COUNTY, ARIZONA**

**NOW, THEREFORE, BE IT RESOLVED, BY THE BOARD OF
DIRECTORS OF THE SALT RIVER PROJECT AGRICULTURAL
IMPROVEMENT AND POWER DISTRICT AS FOLLOWS:**

The conveyance of fee property as depicted in "Exhibit A" (the "Property") attached hereto by the Salt River Project Agricultural Improvement and Power District (the "District") to Mesa Country Club, Inc., an Arizona limited liability company ("MCC") as part of the land exchange, is hereby approved; and

The President, David Rousseau, and Vice President Christopher Dobson, of the District be, and each is hereby authorized and directed, in the name and on behalf of the District, to execute and deliver a Special Warranty Deed ("Deed") for the Property; and

The Senior Director, Manager, and Staff of the Land Department are hereby authorized and directed, in the name and on behalf of the District, to execute and deliver any and all documents, except the Deed, which are necessary or advisable to fulfill the purpose and intent of the Board approved terms and conditions of the exchange of the Property, and carry into effect the intent of this Resolution.

EXHIBIT A

Legal Descriptions and Parcel Exhibit Maps

(Consisting of the following 3 pages)

EXHIBIT "A"**LEGAL DESCRIPTION****SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT**

A portion of land within Tract 12, as depicted in Book 48 Page 1, Maricopa County Records, Arizona, situated in Section 9, Township 1 North, Range 5 East of the Gila and Salt River Meridian, Maricopa County, Arizona, described as follows:

Commencing at the South quarter corner of said Section 9, being an "X" on a sewer manhole rim, from which the Southeast corner of said Section 9, being an Aluminum Cap Flush, bears North 89 Degrees 08 Minutes 55 Seconds East, a distance of 2,507.31 feet (Basis of Bearing);

Thence North 89 Degrees 08 Minutes 55 Seconds East, along the South line of said Tract 12, also being the South line of said Section 9, a distance of 44.17 feet;

Thence North 00 Degrees 51 Minutes 05 Seconds West, departing said South line, a distance of 20.00 feet to the **Point of Beginning**;

Thence North 00 Degrees 50 Minutes 04 Seconds West, a distance of 199.16 feet;

Thence North 88 Degrees 58 Minutes 24 Seconds East, a distance of 273.74 feet;

Thence North 89 Degrees 08 Minutes 55 Seconds East, a distance of 166.96 feet to the Westerly Right-of-Way line of the Power Canal;

Thence South 36 Degrees 23 Minutes 48 Seconds East, along said Right-of-Way line, a distance of 14.38 feet;

Thence South 89 Degrees 08 Minutes 55 Seconds West, departing said Right-of-Way line, a distance of 175.31 feet;

Thence South 88 Degrees 58 Minutes 24 Seconds West, a distance of 262.06 feet;

Thence South 00 Degrees 50 Minutes 04 Seconds East, a distance of 181.65 feet;

Thence South 62 Degrees 35 Minutes 13 Seconds West, a distance of 13.08 feet to the **Point of Beginning**.

Containing 7365 square feet, more or less.

End of Description



EXHIBIT "A"

BASIS OF COORDINATES

COORDINATES SHOWN HEREON ARE GRID COORDINATES BASED UPON THE ARIZONA STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (202), NAD 83 DATUM (CORS). COMBINED GRID TO GROUND SCALE FACTOR IS 1.00015346594049

GRID COORDINATES OF THESE POINTS WERE BASED UPON CONTINUOUSLY OPERATING REFERENCE STATION: SRPXCUT

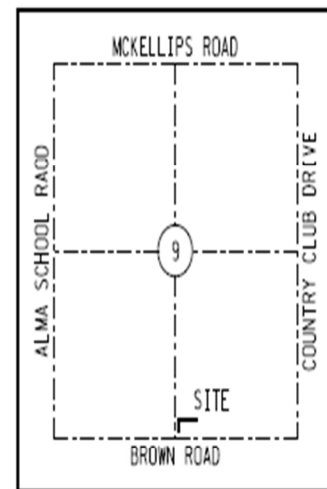
POINT NAME: SRPXCUT
LATITUDE: 33°26'27.33424"(N)
LONGITUDE: 111°56'58.89000"(W)

ABBREVIATION TABLE

SRP SALT RIVER PROJECT
MCC MESA COUNTRY CLUB
BCHH BRASS CAP IN HAND HOLE
FND FOUND
MCR MARICOPA COUNTY RECORDER
MH MANHOLE
SEC SECTION
ACF ALUMINUM CAP FLUSH
POB POINT OF BEGINNING
POC POINT OF COMMENCEMENT
NFNS NOT FOUND, NOT SET
NTS NOT TO SCALE

LEGEND

----- SECTION LINE
----- FEE STRIP SRP TO MCC EXTENTS
----- TIE LINE
◆ SECTION CORNER (AS NOTED)



VICINITY MAP (NTS)
T1N, R5E
G&SRM

BASIS OF BEARING

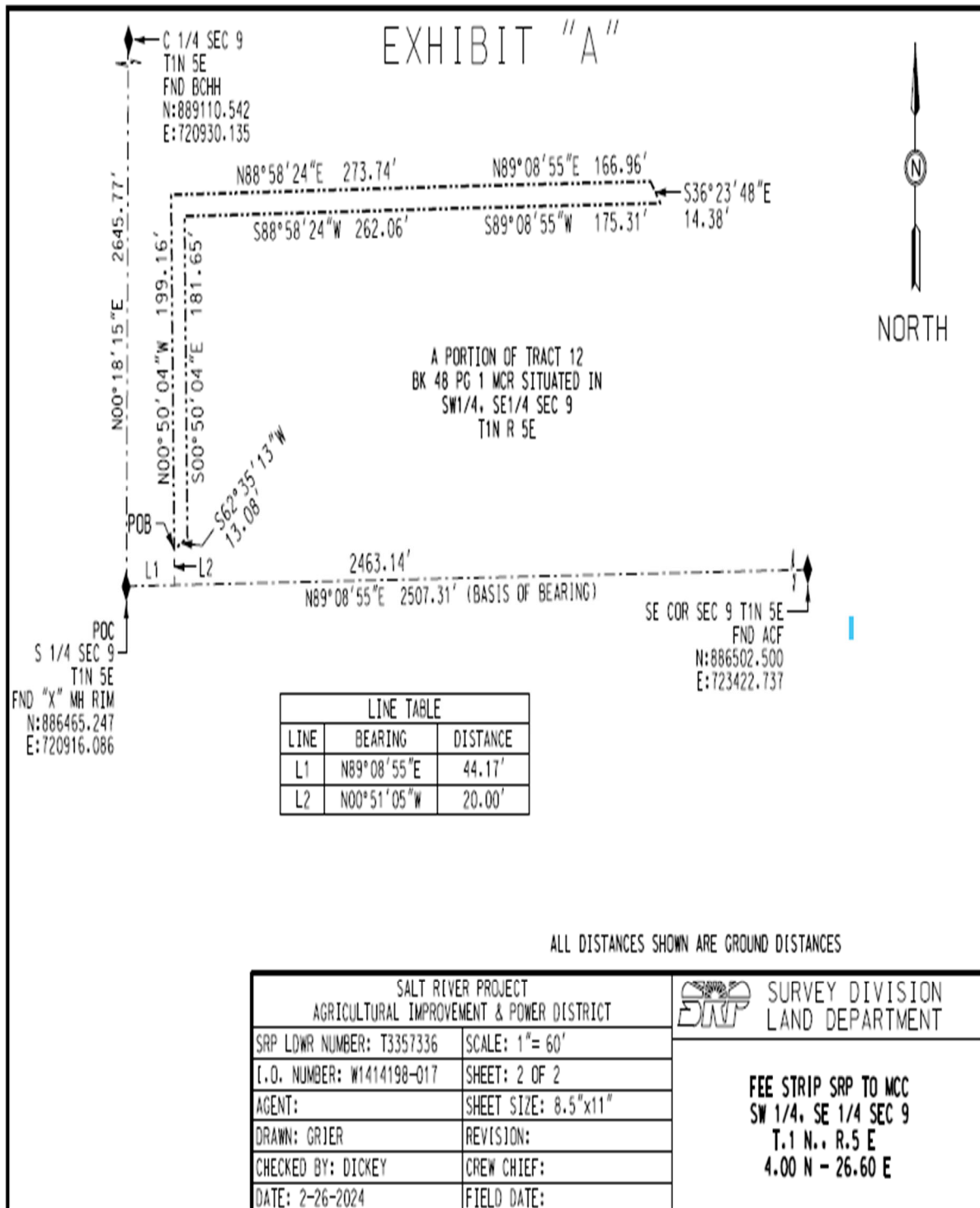
NORTH AMERICAN DATUM OF 1983 (NAD83),
ARIZONA CENTRAL ZONE (202), STATE
PLANE COORDINATE SYSTEM (SPCS).



NOTES

THIS EXHIBIT IS INTENDED TO ACCOMPANY A LEGAL DESCRIPTION. TRACT BOUNDARIES SHOWN HEREON WERE PLOTTED FROM RECORD INFORMATION. NO ATTEMPT WAS MADE TO VERIFY TRACT BOUNDARIES. PER PARAGRAPH 8, SUBPARAGRAPH D OF THE LAND SURVEYING MINIMUM STANDARDS OF THE ARIZONA BOUNDARY SURVEY MINIMUM STANDARDS, THIS SURVEY IS NOT SUBJECT TO MINIMUM MONUMENTATION STANDARDS.

SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT & POWER DISTRICT		SURVEY DIVISION LAND DEPARTMENT
SRP LDNR NUMBER: T3357336	SCALE: 1"= 60'	
I.O. NUMBER: W1414198-017	SHEET: 1 OF 2	FEE STRIP SRP TO MCC SW 1/4, SE 1/4 SEC 9 T.1 N., R.5 E 4.00 N - 26.60 E
AGENT:	SHEET SIZE: 8.5"x11"	
DRAWN: GRIER	REVISION:	
CHECKED BY: DICKEY	CREW CHIEF:	
DATE: 2-26-2024	FIELD DATE:	



Corporate Secretary J.M. Felty polled the Directors on Director M.J. Herrera's motion to approve Items A, B, C, and E on the Consent Agenda. The vote was recorded as follows:

YES:	President D. Rousseau; and Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, S.D. Kennedy, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams	(14)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Director R.C. Arnett	(1)

Using a PowerPoint presentation, Christy C. Burke, SRP Director of Land, responded to questions from the Board regarding the use of eminent domain to acquire appropriate land rights for a new 69 Kilovolt (kV) transmission line that will connect the existing Browning Substation to the existing Hartman Substation.

On a motion duly made by Director J.M. White Jr. and seconded by Director M.J. Herrera, the Board approved and adopted the following Item D on the Consent Agenda.

- D. Approval for the use of eminent domain to acquire necessary land rights for a new 69kV transmission line that will connect the existing Browning Substation to the existing Hartman Substation. This connection will serve customer load in the Southeast Valley (recommended by the Facilities and Support Services Committee on September 26, 2024). The resolution reads as follows:

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE SALT RIVER
PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT
AUTHORIZING THE USE OF EMINENT DOMAIN IN CONNECTION
WITH THE BROWNING – HARTMAN 69kV TRANSMISSION LINE
PROJECT AND RELATED FACILITIES**

WHEREAS, Management of the Salt River Project Agricultural Improvement and Power District ("SRP") has presented to the Board of Directors (the "Board") a project to improve the electric system of SRP, which is commonly referred to as the Browning-Hartman 69kV Transmission Line Project and related facilities; and

WHEREAS, a map showing the basic configuration and location of the Project is attached to this Resolution as Diagram 1; and

WHEREAS, Management has provided additional presentation materials that are made a part of the Board record (the "Presentation Materials"); and

WHEREAS, the presentation and Presentation Materials addressed, among others, the following facts:

1. The Project is described as a new 69kV transmission line that will connect the existing Browning Substation to the existing Hartman Substation.
2. The Project is needed to meet the electrical needs of the SRP electric system and, in particular, the growth needs of its customers and to provide added reliability to the electric system.
3. To construct and operate the Project, SRP must acquire appropriate land rights, which are delineated in the Presentation Materials, over the real property described in Exhibit A attached hereto. Such land rights include, without limitation, the rights to construct, install, reconstruct, replace, remove, repair, operate and maintain: a line or lines of poles, towers, or other supporting structures; conductors, cables, wires, communication and signal lines; guys, anchorage, crossarms, braces, transformers, vaults, manholes, and pad-mounted equipment; underground conduits, conductors, pipes, cables, wires; fiber optic, microwave, and antennae for communication or data transmission purposes; and other appliances, appurtenances, and fixtures (collectively, "Facilities") for the transmission and distribution of electricity, communication signals and data, and for all other purposes connected therewith.
4. Construction of the Project is critical to maintain network reliability and to meet the current and anticipated electric system needs of SRP and its customers.
5. SRP must acquire the rights of way and other land rights necessary to construct and operate the Project. In this regard SRP may find it necessary to exercise its rights of eminent domain granted by A.R.S. Sections 48-2340, 48-2341 and 12-111, *et seq.*

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT AS FOLLOWS:

1. The Board finds that the Project is necessary and critical to SRP for the operation of its electric system and to meet the electric load and reliability needs of SRP's customers.
2. The Board finds that the land rights delineated in the Presentation Materials, over the real property described in Exhibit A, and such additional rights as may be otherwise necessary or customary for the construction of the Project, and each of them, are reasonably needed to meet the proposed

increase in load for the SRP power system and provide added reliability to the power electric system to meet the needs of SRP's customers.

3. The Board finds that it is critical to the electric load and reliability needs of SRP electric customers that the Project be constructed in a timely manner.
4. The Board finds that it is appropriate, where reasonably necessary, that SRP exercise its rights of eminent domain in order to acquire the easements, rights of way, fee interests, and other land rights needed for the Project.
5. The Board hereby authorizes the power of eminent domain, where reasonably necessary, in order to acquire the easements, rights of way, fee interests, and other land rights over the property described in Exhibit A and in the Presentation Materials, and as may be reasonably necessary or customary to construct, maintain, and operate the Project.

Diagram 1



EXHIBIT "A"

SRP JOB NUMBER: T3206422

DATE: 08-21-2024

SRP JOB NAME: TLA: BROWNING- HARTMAN 69KV LINE ADDITION
TRANSMISSION SYSTEM IMPROVEMENT JOB

PAGE: 1 OF 3

TTRSS: 01S07E11

AN EASEMENT WITHIN THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 1 SOUTH, RANGE 7 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

COMMENCING AT THE SOUTH QUARTER CORNER OF SAID SECTION 11, BEING A BRASS CAP FLUSH, FROM WHICH THE CENTER OF SAID SECTION 11, BEING A PIPE, BEARS NORTH 00 DEGREES 44 MINUTES 17 SECONDS WEST, A DISTANCE OF 2640.42 FEET (**BASIS OF BEARINGS**);

THENCE ALONG THE WEST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 11, NORTH 00 DEGREES 44 MINUTES 17 SECONDS WEST, A DISTANCE OF 2586.77 FEET TO THE **POINT OF BEGINNING**;

THENCE CONTINUING ALONG SAID WEST LINE, NORTH 00 DEGREES 44 MINUTES 17 SECONDS WEST, A DISTANCE OF 53.65 FEET;

THENCE ALONG THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 11, SOUTH 89 DEGREES 42 MINUTES 35 SECONDS EAST, A DISTANCE OF 859.17 FEET;

THENCE DEPARTING SAID NORTH LINE, SOUTH 81 DEGREES 31 MINUTES 39 SECONDS WEST, A DISTANCE OF 327.72 FEET;

THENCE NORTH 89 DEGREES 43 MINUTES 06 SECONDS WEST, A DISTANCE OF 517.99 FEET;

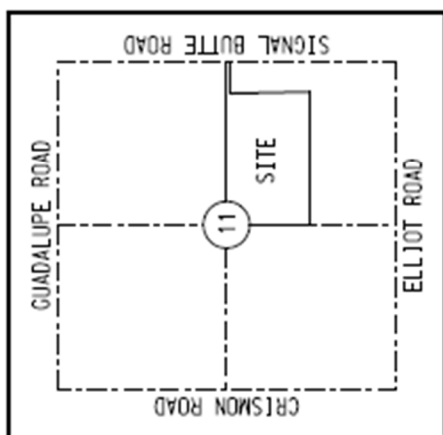
THENCE SOUTH 77 DEGREES 43 MINUTES 56 SECONDS WEST, A DISTANCE OF 16.73 FEET TO SAID **POINT OF BEGINNING**.

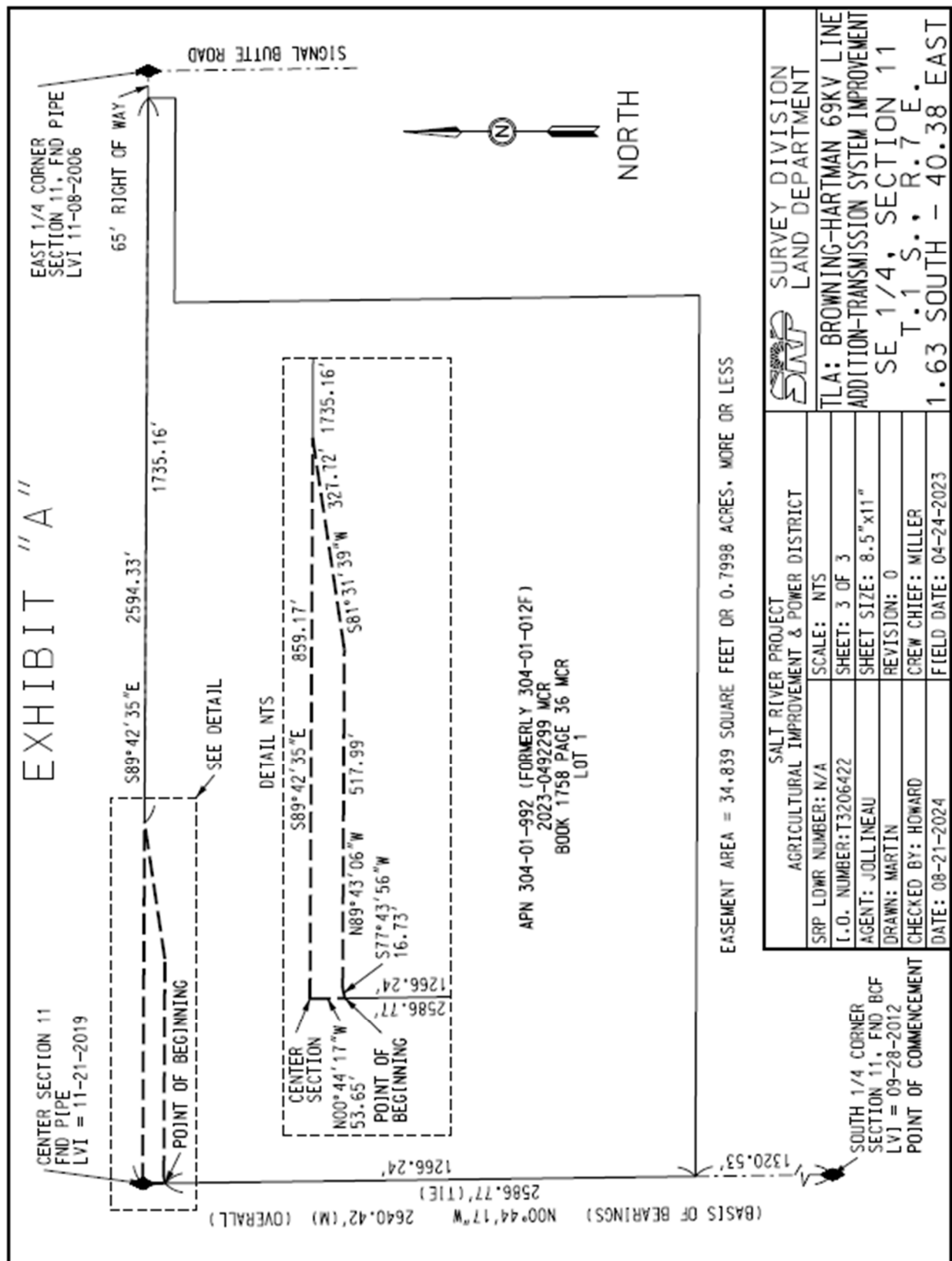
SAID EASEMENT CONTAINS AN AREA OF 34,839 SQUARE FEET OR 0.7998 ACRES, MORE OR LESS.

END OF DESCRIPTION



EXHIBIT "A"





Corporate Secretary J.M. Felty polled the Directors on Director J.M. White Jr.'s motion to approve Item D on the Consent Agenda. The vote was recorded as follows:

YES:	President D. Rousseau; and Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, K.L. Mohr-Almeida, S.D. Kennedy, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams	(13)
NO:	Director R.J. Miller	(1)
ABSTAINED:	None	(0)
ABSENT:	Director R.C. Arnett	(1)

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

C.C. Burke and N.J. Mullins of SRP left the meeting after the presentation.

Report of the Power Committee Meeting of September 26, 2024

At 9:43 a.m., President D. Rousseau called for a closed session of the Board of Directors, 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 power purchase agreements or energy storage agreements for the following projects selected from the 2023 All-Source Request for Proposals (RFP): 1) a 400 Megawatt (MW) grid-charged battery project; 2) a 150 MW solar and battery project; 3) a 130 MW solar and battery project; and 4) a 200 MW solar and battery project.

J. Ding, and T.B. Perry of SRP; Autumn Johnson of Tierra Strategy; Tammi Watson of CAP; Alex Routhier of WRA; and Mike Mace of PFM left the meeting.

The Board reconvened into open session at 9:46 a.m. with the following Members and others present: President D. Rousseau; Vice President C.J. Dobson; Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, S.D. Kennedy, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams; Governor L.D. Rovey of the Association; Council Chair J.R. Shelton; Council Vice Chair T.M. Francis; Council Members M.L. Farmer, E.L. Gorsegner, M.R. Mulligan, T.S. Naylor, and B.E. Paceley; and I.R. Avalos, P.R. Bruner, M.J. Burger, A.P. Chabrier, A.C. Davis, J.M. Felty, J.W. Hubbard, V.P. Kisicki, B.J. Koch, K.J. Lee, L.A. Meyers, M.J. O'Connor, B.A. Olsen, B.L. Petrey, J.M. Pratt, K.S. Ramaley, J.I. Riggs, C.M. Sifuentes, P.B. Sigl, and P.L. Syrjala of SRP.

Report of the Finance and Budget Committee Meeting of September 26, 2024Closed Session

At 9:47 a.m., President D. Rousseau called for a closed session of the Board of Directors, 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 execute a seven-year Major Maintenance Parts Agreement with Power Systems Manufacturing.

The Board reconvened into open session at 9:50 a.m. with the following Members and others present: President D. Rousseau; Vice President C.J. Dobson; Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, S.D. Kennedy, R.J. Miller, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams; Governor L.D. Rovey of the Association; Council Chair J.R. Shelton; Council Vice Chair T.M. Francis; Council Members M.L. Farmer, E.L. Gorseigner, M.R. Mulligan, T.S. Naylor, and B.E. Paceley; and I.R. Avalos, P.R. Bruner, M.J. Burger, A.P. Chabrier, A.C. Davis, J.M. Felty, J.W. Hubbard, V.P. Kisicki, B.J. Koch, K.J. Lee, L.A. Meyers, M.J. O'Connor, B.A. Olsen, B.L. Petrey, J.M. Pratt, K.S. Ramaley, J.I. Riggs, C.M. Sifuentes, P.B. Sigl, and P.L. Syrjala of SRP.

J. Ding, and T.B. Perry of SRP; Autumn Johnson of Tierra Strategy; Tammi Watson of CAP; Alex Routhier of WRA; and Mike Mace of PFM entered the meeting.

Continuing, Director M.V. Pace reported that Management, at the Finance and Budget Committee meeting of September 26, 2024, requested approval of a resolution authorizing the President, Vice President, General Manager and Chief Executive Officer, Associate General Manager and Chief Planning, Strategy, and Sustainability Executive, or Associate General Manager and Chief Financial Executive, to execute the following: 1) one or more long-term, prepaid commodity transactions (each, a Transaction), each entered into on or before September 30, 2025, subject to the conditions and limitations, as further set forth in the proposed form of resolution which has been provided to the Board for adoption; and 2) in furtherance of the Transactions, one or more assignment and assumption agreements with respect to selected Power Purchase Agreements.

On a motion duly made by Director M.V. Pace, seconded by Director J.M. White Jr. and carried, the Board granted approval, as recommended by the Finance and Budget Committee.

Corporate Secretary J.M. Felty polled the Directors on Director M.V. Pace's motion for approval. The vote was recorded as follows:

YES:	President D. Rousseau; and Directors N.R. Brown, C. Clowes, M.J. Herrera, K.J. Johnson, S.D. Kennedy, K.L. Mohr-Almeida, K.H. O'Brien, M.V. Pace, P.E. Rovey, J.M. White Jr., L.C. Williams, and S.H. Williams	(13)
NO:	Director R.J. Miller	(1)
ABSTAINED:	None	(0)
ABSENT:	Director R.C. Arnett	(1)

The resolution reads as follows:

**RESOLUTION OF THE SALT RIVER PROJECT AGRICULTURAL
IMPROVEMENT AND POWER DISTRICT AUTHORIZING THE
PURCHASE OF ENERGY AND/OR NATURAL GAS UNDER ONE OR
MORE PREPAID TRANSACTIONS; AND AUTHORIZING THE
EXECUTION AND DELIVERY OF ONE OR MORE COMMODITY
SUPPLY CONTRACTS AND ASSIGNMENT AGREEMENTS RELATING
TO SAID PURCHASES**

WHEREAS, Salt River Project Agricultural Improvement and Power District (the "District") has an ongoing need for power supplies to serve its growing customer base; and

WHEREAS, one or more entities (each, an "Issuer") (i) will acquire, obtain financing, and manage secure and economically priced supplies of electric energy and/or natural gas (the "Commodities") for sale to municipalities and other governmental entities, and (ii) has planned to acquire those long-term Commodity supplies from certain supplier(s) (each, a "Supplier") on a prepaid discount basis, using the proceeds of certain tax-exempt bonds issued by the Issuer (the "Bonds"); and

WHEREAS, Issuer has caused or will cause to be prepared one or more Commodity Supply Contracts (each, a "Commodity Supply Contract"), providing for the purchase of Commodities by the District from Issuer, and Issuer will pledge its interests in the Commodity Supply Contract(s) to support its obligations with respect to the Bonds; and

WHEREAS, the District will pay for the Commodities delivered pursuant to a Commodity Supply Contract only if and as such Commodity is delivered and will have no responsibility or liability with respect to any debt service on any Bonds; and

WHEREAS, the District previously entered into power purchase agreements (each, a "PPA") with third party developers (each, a "Developer") of renewable energy facilities (each, a "Facility") pursuant to

which the District purchases the electric energy ("Energy") generated by those Facilities (the "Renewable Energy"); and

WHEREAS, the District has an opportunity to pay discounted prices for the Renewable Energy by entering into a limited assignment and assumption agreement with the Supplier and Developer(s) with respect to one or more PPAs (an "Assignment Agreement") under which (i) the District will assign, and the Supplier will assume, the District's rights to take delivery of, and the District's obligation to pay for, the Renewable Energy under the applicable PPA, (ii) Supplier will cause the Renewable Energy to be delivered to Issuer, and (iii) Issuer will sell and deliver the Renewable Energy to the District, under the Commodity Supply Contract, at a discount relative to the annual notional value that would have been originally paid by the District on a calendar year basis pursuant to the underlying PPA (the "Original Energy Price"); and

WHEREAS, the District will have the right, at its discretion and in order to maintain operational flexibility, to switch to discounted market-based Energy or natural gas purchases under each Commodity Supply Contract; and

WHEREAS, pursuant to Arizona Revised Statutes, § 48-2301 et seq. (the "Act"), the Board of Directors of the District (the "Board") may enter into, execute, acknowledge, deliver and perform all contracts or agreements that it finds are in the best interest of the District to carry out or accomplish any of the purposes under the Act; and

WHEREAS, the Board has determined that it is desirable and in the best financial interest of the District that the District purchase the Commodities from Issuer under the terms of one or more Commodity Supply Contracts, each entered into on or before September 30, 2025, providing in the aggregate for the purchase of no more than 3.5 million MWh/calendar year (or, if applicable, the equivalent amount of natural gas), each for a term not exceeding 30 years, and each providing a minimum discount of at least four percent (4%) to the Original Energy Price (or, if applicable, an equivalent discount per MMBtu with respect to the purchase of natural gas or an equivalent discount per megawatt hour with respect to the purchase of market-based Energy), with each providing a minimum estimated savings of \$2 million/calendar year (collectively, the "Purchase Criteria"); and

WHEREAS, the Board has determined that, to facilitate the Commodity Supply Contracts, it is desirable and in the best financial interest of the District that the District enter into one or more Assignment

Agreements; and

WHEREAS, the Board desires to authorize the proper officers of the District to take all necessary steps to finalize and enter into (i) Commodity Supply Contracts meeting the Purchase Criteria, and otherwise under terms and conditions approved by an Authorized Officer (as hereinafter defined) ("Qualifying Commodity Contracts"), and (ii) Assignment Agreements related to the Qualifying Commodity Contracts, each with respect to a PPA selected by an Authorized Officer, for a term not exceeding that of the applicable Qualifying Commodity Contract, and otherwise under terms and conditions approved by an Authorized Officer ("Selected Assignment Agreements").

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT AS FOLLOWS:

SECTION 1. Authorization of Transaction. The Board hereby finds and determines that it is desirable and in the best interest of the District and is in furtherance of one or more purposes authorized or permitted under the Act, to enter into one or more Qualifying Commodity Contracts and Selected Assignment Agreements. The Board hereby authorizes and approves the purchase of the Commodities and the consummation of all transactions contemplated by any Qualifying Commodity Contract, and the assignment of the PPAs that are the subject of the Selected Assignment Agreements.

SECTION 2. Execution of Documents. The President, Vice President, General Manager & Chief Executive Officer, Associate General Manager & Chief Planning, Strategy and Sustainability Executive, and Associate General Manager & Chief Financial Executive (each, an "Authorized Officer") are, and each of them hereby is, authorized to execute and deliver the Qualifying Commodity Contracts and Selected Assignment Agreements (each in such form as may be approved by the Authorized Officer(s)), and all documents, certificates and any other deliverables related thereto, with such changes, additions, and deletions as are approved by such Authorized Officer executing the same (said execution being conclusive proof of approval of the Qualifying Commodity Contract, Selected Assignment Agreements, and other documents). The Secretary and the Assistant Secretary of the District are each hereby authorized to cause the seal of the District to be affixed to such documents and to attest the same as necessary.

SECTION 3. Authority of Officers. Each Authorized Officer, and other employees of the District directed by an Authorized Officer are, and each of them hereby is, authorized to: execute such certificates, documents, and other instruments, and take any other actions reasonably required or desirable to complete the transactions contemplated by any Qualifying Commodity Contract and Selected Assignment Agreement, including, but not limited to, (i) cooperating with any Issuer and the underwriters of the Bonds, and their agents and representatives (collectively, the "Issuer Representatives"), (ii) providing the Issuer Representatives with information relating to the District as is necessary for use in the preparation and distribution of any preliminary or final official statement or other disclosure document used in connection with the sale of the Bonds, and (iii) delivering any necessary tax certificates or documentation necessary to evidence the District's compliance with any tax or continuing disclosure requirements arising as a result of the District's execution of a Qualifying Commodity Contract or Selected Assignment Agreement; and to take such actions

consistent with this Resolution, and to do such other acts and things, as may be necessary or advisable in connection with the purchase of the Commodities under any Qualifying Commodity Contract and the assignment of any PPA under a Selected Assignment Agreement.

SECTION 4. Amendments. Following the execution of any Qualifying Commodity Contract or Selected Assignment Agreement, each Authorized Officer, and other officers and employees of the District directed by an Authorized Officer are, and each of them hereby is, authorized to execute any amendments thereto that do not materially modify the terms thereof.

SECTION 5. Effective Date. This Resolution shall take effect immediately.

T.B. Perry, B.L. Petrey, and P.L. Syrjala of SRP left the meeting.

SRP 2024 Series Bond Sale Review

Using a PowerPoint presentation, Jason I. Riggs, SRP Assistant Treasurer and Director of Treasury Operations and Compliance, stated that the purpose of the presentation was to provide information regarding the sale of the SRP 2024 Series Bonds that took place in September 2024. They provided an overview of the 2024 Series Bond Sale, including the final par value amount and the initial pricing day target.

J.I. Riggs reviewed the approved parameters and the final execution of the bond sale. They provided a maturity subscription chart from 2026 through 2053 and a debt service chart from 2025 through 2054. J.I. Riggs explained the sources and uses of funds. They discussed previously approved capital projects and how the bond issuance helps SRP achieve its corporate objectives. J.I. Riggs concluded with a refunding outlook. They introduced Mike Mace of PFM.

Next, M. Mace reviewed the market environment following the execution of the bond sale, an investor summary, the pricing day progression of the 2024 Series Bonds compared to the pricing day progression of the 2023 Series Bonds, premium bond pricing structure, and bond pricing comparisons to other public power issuers. They stated that investor demand allowed for reduced interest rates; a strong market led to very low credit spreads; and the positive result from this bond sale positions SRP for continued favorable market access for its capital program.

J.I. Riggs of SRP and M. Mace of PFM responded to questions from the Board.

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.

J.I. Riggs of SRP; and Mike Mace of PFM left the meeting after the presentation.

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

J.M. Pratt reported on a variety of federal, state, and local topics of interest to the District.

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.

Director L.C. Williams; Council Members M.L. Farmer and M.R. Mulligan; and Autumn Johnson of Tierra Strategy left the meeting during the presentation.

Status of Financial and Information Services

Using a PowerPoint presentation, Brian J. Koch, SRP Associate General Manager and Chief Financial Executive, reviewed the financial summary through August 2024 and year-to-date. They discussed projected cash inflows and outflows from Fiscal Year 2025 (FY25) through FY30. B.J. Koch provided key dates on the FY25 financial calendar.

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

Status of Water Stewardship

Using a PowerPoint presentation, Leslie A. Meyers, SRP Associate General Manager and Chief Water Resources and Services Executive, provided an update on the water conservation 2025 sustainability goal. They reviewed current programs and projects within Gilbert, Mesa, Tempe, Avondale, Chandler, and Goodyear. L.A. Meyers discussed future programs and projects, including SRP's in-person Water Conservation Expo in March and virtual expo in July of 2025.

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.

J.C. Walter of SRP entered the meeting.

Reservoir and Weather Report

Using a PowerPoint presentation, James C. Walter, SRP Surface Water Manager, reviewed the cumulative watershed precipitation outlook for Water Year 2024 (October 2023 –September 2024). They provided an update on monsoon season 2024 watershed precipitation. J.C. Walter discussed the surface runoff and pumping data for September 2024 and year-to-date.

J.C. Walter reviewed the reservoir storage data for the Salt River, Verde River, C.C. Cragin Reservoir, Lake Pleasant, San Carlos Reservoir, and Upper and Lower Colorado River Basin systems as of October 1, 2024. They concluded with an October weather outlook, a 7-day precipitation forecast, and the Fall/Winter 2024 seasonal outlook.

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.

Council Chair's Report

There was no report by Council Chair J.R. Shelton.

President's Report/Future Agenda Topics

President D. Rousseau asked the Board if there were any future agenda topics. Director R.J. Miller requested: 1) an update regarding the Gila River Indian Community solar panels over canals project; 2) a future agenda topic on Closed versus Executive Sessions; and 3) a future agenda topic to discuss a Sound Grid Partners report. Director K.H. O'Brien requested a presentation on a market evaluation of green bonds in public power or private utilities.

There being no further business to come before the Board, the meeting was adjourned at 11:30 a.m.

John M. Felty
Corporate Secretary

Statement of Cash Received and Disbursed

September 2024

(\$000)

	District	Association	Total Month	Year-to-Date
Funds Balance Beginning of Period	\$ 804,357	\$ 489	\$ 804,846	\$ 785,829
Cash Receipts:				
Electric Revenues	525,568	---	525,568	2,071,209
Water Revenues	---	1,293	1,293	5,685
Electric Customer Deposits	4,230	---	4,230	21,354
Reimbursement on Joint Ownership Projects	9,816	---	9,816	68,322
Construction Contributions and Advances	44,072	---	44,072	192,977
Proceeds from Bond Sales	---	---	---	---
Proceeds from Other Borrowings	---	---	---	---
Transfers from Segregated Funds	---	---	---	119,222
Sales Tax Collected	35,809	---	35,809	167,491
Margin and Collateral Received - Net	29,010	---	29,010	8,064
Other Cash Receipts	30,198	---	30,198	70,548
Total Cash Receipts	678,703	1,293	679,996	2,724,872
Fund Transfers - Net	(3,720)	3,720	---	---
Cash Disbursements:				
Purchased Power and Fuel	143,465	---	143,465	602,723
Operations and Maintenance	82,413	1,606	84,019	472,777
Employee Payroll and Payroll Taxes	53,152	3,033	56,185	333,509
Purchased Inventory	30,413	---	30,413	136,635
Cash Segregated for -				
Bond Interest	19,253	---	19,253	97,499
Bond Principal	9,898	---	9,898	49,490
Other Debt - Principal Repayment	---	---	---	---
Other Debt - Interest Expense	1,096	---	1,096	7,670
Capital Expenditures	100,448	---	100,448	464,040
Advances on Joint Ownership Projects	---	---	---	---
Transfers to Segregated Funds	---	---	---	119,597
In Lieu and Ad Valorem Taxes	---	---	---	60,125
Sales Tax Remitted	43,213	---	43,213	154,486
Miscellaneous Cash Disbursements	2,638	---	2,638	17,936
Total Cash Disbursements	485,989	4,639	490,628	2,516,487
Funds Balance End of Period	\$ 993,351	\$ 863	\$ 994,214	\$ 994,214

Cash Position

September 2024

	(\$000)		
	District	Association	Total
Composition of Funds Balance			
Cash and Cash Equivalents	\$ 660,546	\$ 863	\$ 661,409
Other Temporary Investments	134,020	---	134,020
Other Non-Current Investments	198,785	---	198,785
General Fund	993,351	863	994,214
Segregated Funds			
Electric System Debt Reserve Fund	80,612	---	80,612
Debt Service Fund	150,211	---	150,211
Rate Stabilization Fund	---	---	---
Nuclear Decommissioning Fund	702,030	---	702,030
Post-Retirement Benefits Fund	1,330,070	---	1,330,070
Construction Fund	15	---	15
RHCP Fund	12,863	---	12,863
HHCP Fund	9,086	---	9,086
SPRHCP Fund	3,700	---	3,700
Four Corners Mine Reclamation Trust	15,693	---	15,693
Other Special Funds	9,189	---	9,189
Total Segregated Funds	\$ 2,313,469	\$ ---	\$ 2,313,469



Day-Ahead Markets Q&A

October 2024

The purpose of this document is to provide Board members and other stakeholders with the responses to questions related to SRP's participation in a day-ahead market.

Day-Ahead Market Participation Questions & Answers

- **Approval Item supported by prior presentations:** 1) 12/05/2022 Western Markets Update – Informational Session 2) 12/13/2022 WPP Western Resource Adequacy Program (WRAP) – Approval 3) 01/24/2023 Phase 1 of Southwest Power Pool's Markets+ – Approval 4) 08/22/2023 Western Markets Update – Informational Session 5) 10/31/2023 Western Markets – Board/Council Study Session 6) 04/25/2024 WRAP Update and Approval to Delay First Binding Season – Approval 7) 06/20/2024 Update on Western Markets Initiatives - Informational Session 8) 08/27/2024 Organized Day Ahead Market Participation and Overview of Impacts of SRP's Business Processes - Board/Council Study Session 9) 09/26/2024 Evaluation of Day-Ahead Market Alternative Using SRP's Energy Market Principles - Informational Session
- **E3 WMEG Western Day Ahead Market Production Cost Impact Study – June 2023**
Prior presentations and Cost Impact Study are available via the Board & Council Portal. Please contact the Corporate Secretary's Office should you need access.

1. What are the day-ahead electricity market options available today and what are their timelines?

SRP is considering two day-ahead electricity market options: Markets+, proposed to be operated by the Southwest Power Pool (SPP) with an independent board of directors, and the Extended Day-Ahead Market (EDAM), proposed by the California Independent System Operator (CAISO) under the shared authority of an independent Governing Body and the CAISO Board of Governors. EDAM will go live in 2026, with its first two participants, PacificCorp and Portland General Electric, along with the CAISO Balancing Authority. Markets+ is scheduled to go live in 2027.

2. How will SRP's customers benefit from the company's participation in a day-ahead market?

SRP's participation in a day-ahead market aligns with SRP's mission to provide reliable, affordable, and sustainable energy to its customers. This participation is expected to result in cost savings for SRP customers, with studies indicating annual savings between \$23.9 million to \$47.5 million compared to current market participation. The day-ahead market will optimize resource utilization across a potentially diverse market footprint, which might include large hydrogeneration, solar, and wind resources. The diverse footprint, with different peak times will efficiently supply excess capacity during high-demand periods. Participation in a market with diverse resources and load profiles offers better matching of supply with demand, reducing overall costs and enhancing efficiency. Additionally, participation in a day-ahead market might serve as an incremental step towards potential future participation in a Regional Transmission Organization (RTO), which has the potential to unlock further economic benefits and improve transmission planning and operation. The market design will also support the integration of renewable energy sources, aligning with SRP's sustainability goals, including greenhouse gas tracking and reporting for enhanced emissions transparency. The design will allow resources like solar, wind, and hydropower to participate in electricity trading. This is coupled with other market resources, such as batteries, to manage the intermittency of these renewable sources reliably and cost-effectively. Overall, SRP's participation in a day-ahead market is

expected to provide net benefits for customers by reducing costs, optimizing resources, and supporting SRP's long-term sustainability goals.

3. Which of the day-ahead markets does SRP management expect will provide the greatest benefits to SRP's customers?

SRP's market strategy is to continue its incremental approach to organized market participation, ensure net benefits for SRP customers, enhance, or maintain system reliability, and have a future viable pathway for full RTO participation. Using SRP's Energy Market Principles as a guide, SRP management believes that the Markets+ day-ahead market will provide the greatest benefits to SRP's customers. Participation in Markets+ is generally projected to result in greater cost savings for SRP customers compared to EDAM. Additionally, Markets+ offers a robust governance structure that promotes independence, transparency, inclusivity, and stakeholder-driven decision-making, ensuring that public power utilities, like SRP, have a significant voice in market decisions. All participants in Markets+ will adhere to a shared resource adequacy program, ensuring sufficient resources are available to reliably serve load across the entire market footprint, preventing any participants from leaning on others and promoting equitable investment in resources. Furthermore, Markets+ supports SRP's strategy for future market engagement, offering a clear path towards full RTO participation. Overall, SRP management believes that SPP Markets+ aligns better with SRP's principles for market participation and will provide net benefits for SRP's customers.

4. How will joining a day-ahead market affect customer rates?

Participating in a day-ahead market is projected to bring substantial cost savings for SRP customers, with studies estimating annual savings ranging from \$23.9 million to \$47.5 million compared to current Business as Usual market participation. Any savings from day-ahead market participation will benefit SRP's customers.

5. What role did the WMEG study play in SRP's decision making? What other resources (i.e., third-party studies, internal studies) and sources of data are being leveraged to inform SRP's day-ahead market decision?

The Western Markets Exploratory Group (WMEG) was a group of 25 investor-owned utilities and public power entities across the Western Interconnection interested in exploring pathways to Western organized markets. In total, the group represented over 95 GW of peak load and over 16.5 million customers in the Western Interconnection. The WMEG engaged Energy & Environmental Economics, Inc. (E3) to perform a Cost Benefit Study (CBS) examining the economic impact that joining either the EDAM or the Markets+ option would have for each WMEG entity and for the Western Interconnection overall. The starting database for the study was a data set created by the Western Electric Coordinating Council (WECC) with subsequent modifications for both WMEG member areas and non-WMEG areas. The CBS benefited significantly from contributions by staff from each WMEG member in providing input data – including load growth projections, updated generator additions and retirement information, as well as generator operational parameters, costs, and percentage shares that are owned and or contracted to different WMEG entities, which was necessary for calculating the adjusted production cost impact of different market participation plans for each entity. SRP believes that having 25 utilities providing detailed data and input into the CBS enhanced the WMEG study's reliability by ensuring a diverse and comprehensive dataset, reducing biases, and increasing the

robustness of the findings. Currently, SRP is working with E3 to develop additional scenarios and analysis.

In addition to WMEG studies, SRP retained Utilicast to perform a Gap Assessment comparing today's operations where SRP is in the CAISO's Western Energy Imbalance Market (WEIM) using CAISO's Reliability Coordinator (RC) services to two different mutually exclusive scenarios: 1) SRP participates in EDAM and WEIM and continues using CAISO as its Reliability Coordinator and 2) SRP participates in Markets+, withdraws from CAISO's WEIM and switches its Reliability Coordinator to SPP's Western RC. In addition to its day-ahead market gap analysis findings, Utilicast highlighted staffing and systems changes for SRP to consider in its long-term strategy. According to Utilicast's assessment of the two different day-ahead market designs and potential impact on SRP's strategy, if SRP wants to maintain its path to RTO options, the Markets+ path appears to have a more direct route than EDAM.

In addition to the external consultant studies and analysis, SRP performed a thorough review of both market options against SRP's Energy Market Principles. The Energy Authority, as a consultant to SRP, assessed SRP's review of the market options and provided support for the findings.

6. Why does SRP need to make its day-ahead market decision in 2024?

Over the past few years, SRP staff have been actively involved in the development processes for EDAM and Markets+. The first presentation on day-ahead markets to the SRP Board was in December 2022. This was followed by several updates to the Board on Western Markets and a [public session](#) in 2023, which was part of SRP's Integrated System Plan technical workshops. SRP management presented that SPP Markets+ aligns better with SRP's principles for market participation and will provide net benefits for SRP's customers.

The timing of SRP's decision to join Markets+ is crucial, as it could affect the future viability of this choice. Markets+ relies on sufficient participants' commitment to succeed. Without this, the market may not form, and SRP could miss the chance to join the market it views as the better option. Although EDAM is a voluntary market, entities need an alternative to maintain their trading practices in the West. If Markets+ does not move forward and the West consolidates into a single market with CAISO, SRP may not have any choice but to participate because it can be anticipated that the bilateral market would diminish.

7. Which day-ahead market option will provide the greatest reduction of greenhouse gas emissions?

SRP's management expects that actual greenhouse gas (GHG) emission reductions will depend on individual utilities and whether they are subject to state compliance obligations or their own commitments. SRP is evaluating day-ahead market participation with consideration for SRP's sustainability goals. It is important for SRP to participate in a day-ahead market that will facilitate tracking emissions from purchases and sales. Both day-ahead market options provide that framework. SRP and other entities continue to be concerned that the current EDAM design allows California to deem a disproportionate share of carbon free resources as delivered to California, resulting in a disadvantage to other entities for meeting state or corporate goals.

8. Does SRP believe that EDAM's governance issues would be sufficiently addressed should California adopt Steps 1 and 2 of the governance changes proposed in the West-Wide Governance Pathways Initiative?

The CAISO Board of Governors has approved the Pathways Initiative Step 1 proposal, which does not require approval from the California state legislature. Step 1 does not sufficiently alter the existing governance structure, as market governance remains under California's ultimate authority. The Pathways Step 2 concept will require California state legislation; however, previous legislative efforts have failed and the outcome of this effort is unknown. The Pathways Initiative is unlikely to result in a governance framework comparable to SPP's Markets+ because CAISO's EDAM and WEIM are market designs and tariffs developed under CAISO's existing governance framework, lacking a transparent, stakeholder-driven design that ensures equitable outcomes. Most importantly, the Pathways Initiative does not address the fundamental issue of CAISO being both a market operator and market participant, which leads to blurred lines during dispute resolution discussions. In addition, The CAISO is a California state agency with a Board of Governors appointed by the California Governor and confirmed by the state senate. The Board appoints the CEO of the CAISO and CAISO is mandated to serve the needs of California consumers. The Pathways Initiative is still in development, with an evolving scope and uncertain outcome.

9. Why is SRP considering exiting WEIM so soon after investing in systems to support participation? What investment will be lost? What benefits will be lost?

SRP's 2035 Corporate Goal is to shape and participate in regional Western electric markets that provide value for the company and its customers. To achieve this, SRP is carefully evaluating market developments and adopting a gradual approach to entering these markets. The initial step was joining the CAISO WEIM market in 2020, following an implementation process that began in 2017. The next phase in this incremental approach is participating in a day-ahead market, with the potential to eventually evolve into a fully operational RTO.

Participating in WEIM provided SRP with several benefits, including staff training, situational awareness, and cultural transformation, enabling SRP to learn how to participate in an organized market. Additionally, SRP achieved greater operational efficiencies. As SRP transitions to Markets+, these positive changes will be retained. Most of the investments in hardware and software (such as meters) made for WEIM will also be utilized in the new day-ahead market.

In its decision-making process, SRP considered the benefits and costs of continuing participation in the WEIM, as well as any advantages of switching markets. SRP's decision timing for joining Markets+ is 7 years since its WEIM implementation began. This period has provided SRP ample time to prepare for the next step in market participation.

Requested Follow-up

Power Committee Meeting Handout

October 24, 2024

1

Question asked during "Day-Ahead Markets Evaluation" presented by The Energy Authority (TEA) to Power Committee

Question: Can you [TEA] provide financial benefits from public power entities that have joined an RTO?

Answer: TEA's response provided in the following slides.

2



3

Study Background & Objectives

- Client was previously in a purely bilateral market, then an imbalance market, then a full Regional Transmission Organization (RTO).
- Client observed their share of RTO transmission projects & RTO administrative fees increasing over time.
- Locally high transmission congestion raised questions whether transmission projects were beneficial.
- Client and their Board in an existing RTO wanted to understand if the RTO:
 - Benefited their customers
 - Lowered their wholesale power supply costs

10/24/2024 Power Committee Meeting - Handouts

4

TEA
The Energy Authority

4

Study Approach & Assumptions

Approach:

- TEA modeled a historical back cast & a five-year future projection that compared:
 - RTO Case:
 - Assumed client resided within RTO and included market costs (transmission, admin.)
 - Bilateral Case:
 - Assumed client resided outside the RTO but bought/sold from the RTO
- The back cast allowed us to calibrate models against actual observed results in the RTO.

Assumptions:

- Remained mostly the same (generating units, load, fuel pricing, and PPA contracts)
- Major differences in assumptions:
 - RTO Case:
 - Included client share of RTO transmission projects, RTO admin fees
 - Bilateral Case:
 - No cost sharing in RTO transmission projects, no RTO admin fees
 - Addition of an hourly \$/MWh hurdle rate to buy/sell with the RTO
 - Higher operating reserves volume
 - Costs to maintain the Balancing Authority (BA) function

10/24/2024 Power Committee Meeting - Handouts

5



5

Study Results

Study results for different utilities would yield different results.

For client, RTO market was beneficial in all but one back cast year, and all projected years

- Client is generally net long energy and significant benefit from selling excess energy to the RTO when units were available.
- Client experienced a year with numerous outages, which resulted in the RTO being slightly more expensive than a stand-alone case.
- Client has considerable dispatchable range on resources, allowing for ramping down during low-priced hours and purchasing under the cost of self generation.
- RTO case resulted in significantly lower emissions. Client able to benefit from purchasing high renewables in RTO footprint.
- Client units ran significantly more in the bilateral case, which may increase maintenance costs.

10/24/2024 Power Committee Meeting - Handouts

6



6



Informational Presentation Regarding Closed and Executive Sessions

M. J. O'Connor | November 4, 2024



Arizona Law Regarding Closed Sessions

A.R.S. § 30-805(b) provides:

Notwithstanding any other law, records and proceedings relating to competitive activity, including trade secrets or privileged or confidential commercial or financial information, if disclosure of the information could give a material advantage to another entity, are not open to public inspection and may not be made public except by order of the public power entity's governing body. The information protected as confidential under this section is any information that is similar to the information that would be confidential under section 40-204 if reported by a public service corporation to the Arizona corporation commission.

Arizona Law Regarding Closed Sessions

- Limited in scope
- Not open to the public
- Information discussed in closed session is confidential
- Can only be made public by vote of governing body (but must consider contractual non-disclosure agreements)
- Governing body may vote and take action in a closed session

Arizona Open Meeting Law

A.R.S. § 38-431.03 provides:

- The District is Subject to the Open Meeting Law;
- Permits the public to attend meetings (exceptions: confidential and privileged topics);
- Promotes transparency in decision making process;
- Prohibits “Meetings” that are not properly noticed;
- Scope of meetings is limited to items on the agenda;
- Prohibits gathering (in person or electronically) of a quorum of board related to topics that should be addressed in public; and
- Allows for Executive sessions – which are **not** open to the public

Arizona Open Meeting Law

A.R.S. §38-431. Definitions

In this article, unless the context otherwise requires:

1. "Advisory committee" or "subcommittee" means any entity, however designated, that is officially established, on motion and order of a public body or by the presiding officer of the public body, and whose members have been appointed for the specific purpose of making a recommendation concerning a decision to be made or considered or a course of conduct to be taken or considered by the public body.
2. "Executive session" means a gathering of a quorum of members of a public body from which the public is excluded for one or more of the reasons prescribed in section 38-431.03. In addition to the members of the public body, officers, appointees and employees as provided in section 38-431.03 and the auditor general as provided in section 41-1279.04, only individuals whose presence is reasonably necessary in order for the public body to carry out its executive session responsibilities may attend the executive session.
3. "Legal action" means a collective decision, commitment or promise made by a public body pursuant to the constitution, the public body's charter, bylaws or specified scope of appointment and the laws of this state.
4. "Meeting" means the gathering, in person or through technological devices, of a quorum of members of a public body at which they discuss, propose or take legal action, including any deliberations by a quorum with respect to such action.

Arizona Open Meeting Law

A.R.S. §38-431. Definitions

In this article, unless the context otherwise requires:

5. "Political subdivision" means all political subdivisions of this state, including without limitation all counties, cities and towns, school districts and special districts.

6. "Public body" means the legislature, all boards and commissions of this state or political subdivisions, all multimember governing bodies of departments, agencies, institutions and instrumentalities of this state or political subdivisions, including without limitation all corporations and other instrumentalities whose boards of directors are appointed or elected by this state or political subdivision. . .

Arizona Open Meeting Law

A.R.S. § 38-431.01. Meetings shall be open to the public

A. All meetings of any public body shall be public meetings and all persons so desiring shall be permitted to attend and listen to the deliberations and proceedings. All legal action of public bodies shall occur during a public meeting.

B. All public bodies shall provide for the taking of written minutes or a recording of all their meetings, including executive sessions. For meetings other than executive sessions, such minutes or recording shall include, but not be limited to:

1. The date, time and place of the meeting.
2. The members of the public body recorded as either present or absent.
3. A general description of the matters considered.
4. An accurate description of all legal actions proposed, discussed or taken, and the names of members who propose each motion. The minutes shall also include the names of the persons, as given, making statements or presenting material to the public body and a reference to the legal action about which they made statements or presented material.

Arizona Open Meeting Law

A.R.S. § 38-431.03 provides:

A. On a public majority vote of the members constituting a quorum, a public body may hold an executive session but only for the following purposes:

1. Discussion or consideration of employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting. The public body shall provide the officer, appointee or employee with written notice of the executive session as is appropriate but not less than twenty-four hours for the officer, appointee or employee to determine whether the discussion or consideration should occur at a public meeting.
2. Discussion or consideration of records exempt by law from public inspection, including the receipt and discussion of information or testimony that is specifically required to be maintained as confidential by state or federal law.
3. Discussion or consultation for legal advice with the attorney or attorneys of the public body.

Arizona Open Meeting Law

A.R.S. § 38-431.03 provides:

4. Discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation.
5. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations with employee organizations regarding the salaries, salary schedules or compensation paid in the form of fringe benefits of employees of the public body.
6. Discussion, consultation or consideration for international and interstate negotiations or for negotiations by a city or town, or its designated representatives, with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city or town.

Arizona Open Meeting Law

A.R.S. § 38-431.03 provides:

7. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property.
8. Discussion or consideration of matters relating to school safety operations or school safety plans or programs.
9. Discussions or consultations with designated representatives of the public body in order to discuss security plans, procedures, assessments, measures or systems relating to, or having an impact on, the security or safety of buildings, facilities, operations, critical infrastructure information and information technology maintained by the public body. Records, documentation, notes, or other materials made by, or provided to, the representatives pursuant to this paragraph are confidential and exempt from public disclosure under this chapter and title 39, chapter 1.

Arizona Law Regarding Executive Session

- **Executive Sessions are limited in scope**
- **Must provide admonition regarding confidentiality**
- **The courts narrowly construe the scope of executive sessions**
- **Not open to the public**
- **Governing body may not take action - such as approval of contract in an executive session**

Approval of Confidential/ Competitive Information Contracts

- Should only be done in closed session pursuant to A.R.S. § 30-805(b)

Questions & Answers



REJECTION OF SOUND GRID PARTNERS VALUE OF SOLAR STUDY

Randy Miller

11/04/2024

Agenda

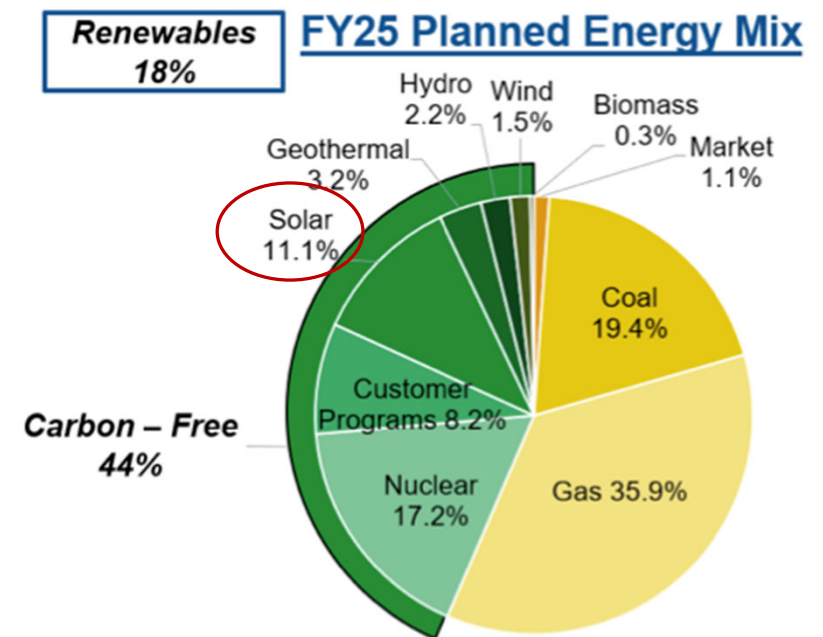
- Good news: SRP's solar is trending in the right direction
- Bad news: SRP's GHG mass emissions are going up
- Problems with the Sound Grid Partners Value of Solar study
- Current SRP Rates Reduce Rooftop Solar adoption (APS has 2.6 times more)
- Behind the Meter (BTM) Solar plus Batteries Can Help!
 - GHG Reductions
 - System Peak Reductions
- Recommendations that Board Should Set for New Solar Rate Plans

Good news: SRP's solar is heading in the right direction

SRP is trending towards 11% solar net generation.

- 3.4% for FY23
- 5.5% for FY24
- 11.1% for FY25

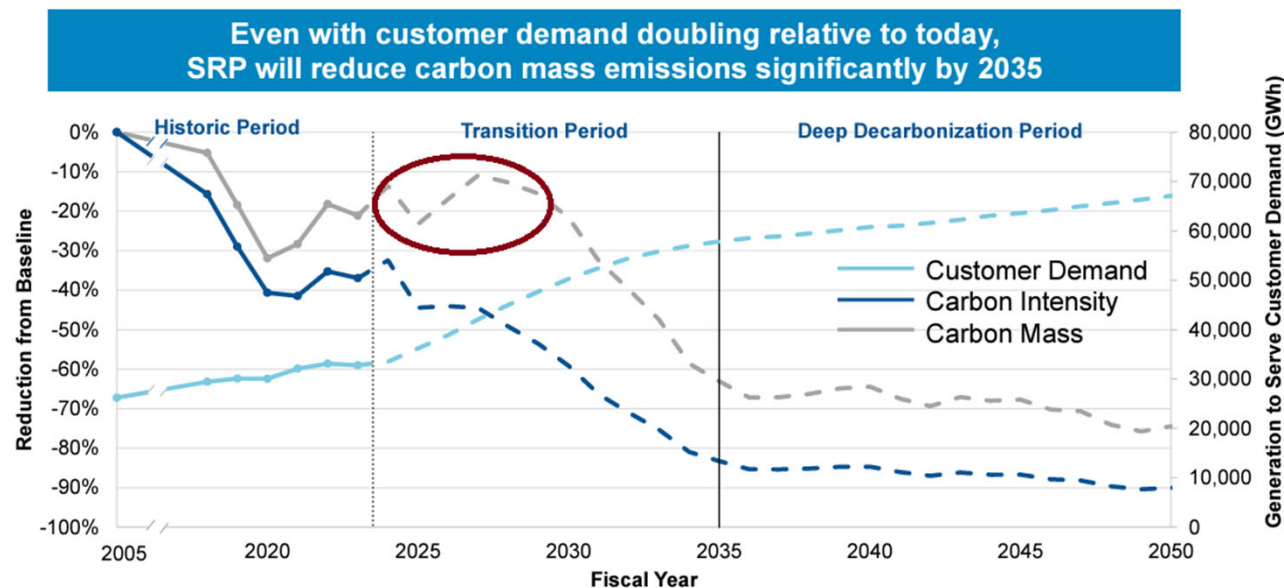
This is real progress!



FY25 actuals will be somewhat less than 11% due some renewables coming online after start of FY25

Bad news: SRP's GHG Mass emissions are increasing

SRP's Lower Carbon Mass Trajectory



Problems with the Sound Grid Partners Value of Solar study

- Stated “subsidy” of solar rates unclear, not demonstrated
- Ignored the value of reductions in GHG emissions from behind the meter solar resources. (The value should include SRP all-in costs for: Sustainability programs, **real estate** (“the size of San Francisco”), transmission, 9GW of planned solar and battery infrastructure)
- Inappropriate treatment of avoided energy purchases (replaced by on-site solar) as a cost, akin to arguing that ratepayer actions to reduce their energy use equate to costs to SRP.
- Cost assumptions for both utility and ratepayer solar both appear old/unreasonable
- Sound Grid Partners asserted that all residential batteries derate at 100F and shutdown at 122F. This is false. There are several residential storage battery models that have much higher derate/shutdown ratings suitable for AZ garages.

Current SRP Rates Have Already Reduce Rooftop Solar adoption (APS has 2.6 times more)

- SRP increased costs to customer bills of at least \$12/month is completely out of line with other utilities. APS is currently in a rehearing of their rate case that proposed a \$2.93/month Grid Access Charge
- Sound Grid Partners used SRP ratepayer installation costs as the baseline metric for residential solar install prices (\$3,900 - \$4,000/KW)
 - This is much higher than the National Renewable Energy Lab found in their FY23 report of \$2,680/KW *
- SRP installations have a higher costs for 2 reasons caused by poor “Customer Generation” rate plan designs
 - In order to avoid impacts of demand charges found in many of the SRP “Customer Generation” rate plans, installers must install additional equipment (load controllers, no export inverters, etc)
 - The SRP export rate of \$0.0281 makes it undesirable for ratepayers to maximize their generation therefore reducing the economies of scale of installing larger systems.

* <https://www.nrel.gov/docs/fy23osti/87303.pdf>

Behind the Meter Solar plus Batteries Can Help!

- Residential load contributes most of the evening peak load
- Shaving this evening peak load at the source reduces capacity requirements for the entire grid: distribution, transmission, and generation.
 - Reduces SRP capital outlays for peaking infrastructure
 - Achieves SRP GHG reduction goals
 - SRP should offer a battery incentive with rate plans that incent evening peak shaving
- SRP customers want to bring *capital* and *real estate* to partner in reducing GHG...and yes, to also save on their electric bill

Recommendations for Proposed Behind The Meter (BTM) Solar Rate Plans

#1 – Proposed Rates result in Increased Solar Installations

Proposed solar rate plans will be judged successful only if installations increase

- Recommend having 3-4 solar companies from *SRP Preferred Solar Installers* list review proposed plan(s) before board vote and indicate if they expect installations will increase
- If there is a cutoff date for the old rates, there should be no spike in applications before the cutoff date (like massive spike in Dec. 2014, E-27)
- Success of new rates can be measured going forward using installation data posted to ACC site: <https://arizonagoessolar.org> (as of March APS had 2.6x more residential solar installations than SRP)

Conclusion

- Battery thermal management has improved with several manufacturers and models now derating at 140°F suitable for AZ garages
- BTM Solar plus Battery cost and grid benefits:
 1. Some SRP Real estate costs avoided (for “land the size of San Francisco”)
 2. Ratepayers make investments in solar and battery infrastructure
 3. SRP and community benefit from GHG reductions
 4. SRP system benefits from peak shaving at the load source

ALL of the above make it *intuitively obvious* (no “sausage grinder”) that SRP and its ratepayers benefit from BTM solar and battery.

SRP *should* and *can* be the leader in partnering with ratepayer solar plus batteries!

Appendix

APS and SRP Residential Solar

APS has 2.6 times more
Residential solar as of
March

- APS residential solar (3/10/2022)*
 - 141,000 homes: 1,300 MW
 - residential solar generating capacity was 20% higher YoY from 2020
 - ranks 4th nationally for the percentage of residential customers with rooftop solar systems
 - 15% of all single-family homes in APS territory have a solar system and that number continues to grow.

*<https://www.aps.com/en/About/Our-Company/Newsroom/Articles/APS-solar-power-brightens-path-for-cleaner-greener-Arizona>

Example Customer Battery Program: Rocky Mountain Power - WattSmart

Used by RMP for:

- frequency response
- peak load management
- transmission relief
- daily load cycling

Program experienced
50%
growth in 2023

Table 18: 2023 Cost Effectiveness Results by Program¹²

Program	Benefit/Cost Test				
	PTRC	TRC	UCT	PCT	RIM
DSM Portfolio	1.03	0.93	2.00	1.46	0.55
Energy Efficiency Portfolio	0.86	0.78	1.83	1.43	0.45
Non-Residential Energy Efficiency Portfolio	1.11	1.01	1.72	2.09	0.41
Residential Energy Efficiency Portfolio	0.68	0.62	2.13	0.96	0.51
Wattsmart Homes	0.47	0.43	1.54	0.85	0.40
Home Energy Reporting	13.13	11.93	11.93	n/a ¹³	1.44
Low Income Weatherization	1.14	1.03	1.03	2.54	0.44
Wattsmart Business	1.11	1.01	1.72	2.09	0.41
Irrigation Load Control Program ¹⁴	Pass	Pass	Pass	n/a	Pass
AC Load Control Program ¹⁵	Pass	Pass	Pass	n/a	Pass
Wattsmart Battery Program ¹⁶	Pass	Pass	Pass	n/a	Pass
Wattsmart Business Demand Response	Pass	Pass	Pass	n/a	Pass

Positive Value of Solar Studies

There are nationally recognized best practices for conducting fair and accurate cost / benefit studies. See the National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources for best practices, as well as the following recent studies that serve as good examples: 2024 TX ERCOT grid study, 2024 ME study, 2024 PR study.

Battery temperature information

Popular solar battery models, focusing on their derating temperatures:

1. Tesla Powerwall: Typically derates above 140°F (60°C).
2. LG Chem RESU: Generally has a derating temperature around 131°F (55°C) to 149°F (65°C) depending on the specific model.
3. Sonnen Eco: Typically derates around 140°F (60°C).
4. BYD Battery-Box: Some models can handle temperatures up to 131°F (55°C) or higher before derating.



Rejection of Sound Grid Partner's Report Findings

Subject: Rejection of Sound Grid Partner's Report Findings on Subsidies in Existing Solar Rate Plans

We, the undersigned, are writing to formally reject the findings of the report titled *Value of Customer-Sited Solar and Energy Storage: Analysis of Grid and Customer Values*, submitted to Salt River Project by Sound Grid Partners, LLC, on May 15, 2024.

Upon thorough review, we find that the report does not substantiate the claim that a subsidy for residential solar host customers is embedded in current rate plans. While the report raises this point, it lacks evidence to support this conclusion, failing to demonstrate how current price plans provide any such subsidy. The methodology used appears speculative, lacks transparency, and is insufficiently supported by data. Additionally, the sensitivity analysis—curiously based on a non-solar pilot rate plan—does not strengthen this claim, as it fails to demonstrate a meaningful impact on SRP's financials or customer costs under varied assumptions.

Moreover, a significant flaw in the report is its failure to assign value to carbon emission reductions. This oversight is glaring, given global and local decarbonization efforts, particularly those of SRP. While sustainability is one of SRP's three core pillars and receives significant discussion, planning, and advertising resources, progress toward SRP's 2035 decarbonization goals remains slow. A glaring example is SRP's adoption rate of utility-scale solar is at 5.5% (FY24) compared to Arizona's power utility average of 15.4%, including SRP^[1].

Notably, increasing residential solar capacity could reduce carbon emissions more swiftly than SRP's own carbon reduction efforts. SRP's track record in reducing carbon emissions has been suboptimal, as highlighted by ongoing plans that project carbon increases before any meaningful reductions occur (SRP Board and Council Work Study Session, 6/6/2024, slide 7).

In contrast, residential solar, if encouraged through rate plans, could provide tangible near-term reductions in carbon emissions—an essential factor completely ignored by the report.

For these reasons, we cannot accept the report's findings, particularly its failure to prove the existence of financial subsidies and its disregard for the critical value of carbon emission reductions.

We recommend partnering with our residential solar ratepayers to jump-start SRP's decarbonization efforts. Effective partnership requires SRP management to propose solar and solar + storage residential rate plans that increase adoption of residential solar instead of suppressing adoption as intoned by the study. Reinstatement of a residential battery incentive should be considered. Collaborating with, rather than opposing, our customers is simply the right approach to demonstrate SRP's commitment to working with the community and customers to achieve mutual decarbonization goals.

Sincerely,

Randy Miller, SRP Board of Directors Division 8

Mark Mulligan, SRP Council, Division 8

[1] <https://www.chooseenergy.com/solar-energy/solar-energy-production-by-state/>

Solar energy generation by state



JasonDoiy/iStock/Getty images

California once again takes first place among the top states generating electricity from solar power this month. The Golden State produced 26.8% of the United States' total of 32,718 thousand megawatt-hours, according to ChooseEnergy.com's October's solar energy generation report. The report analyzes the [most recent solar energy data](#) from the U.S. Energy Information Administration (EIA).

Following is a breakdown of the rest of the states (all shown in thousand megawatt-hours) using the EIA's most recent data from July 2024:

Solar energy production in the United States

The United States' percentage of electricity generated from solar energy increased 0.6% from June to July. Solar energy production increased 22.9% nationwide from June 2023 to June 2024.

The following table ranks the best and worst states for solar energy production (shown in thousand megawatt-hours) in June and July, number 1 represents the best state for solar energy production. The table also highlights the solar energy generation percentage change from month to month. Alabama, Alaska, Georgia, New Hampshire, South Dakota, and North Dakota did not report solar energy production in July.

Solar power production by state

State	2010	2011	% change	2012
Alabama	NA	NA	NA	NA
Alaska	NA	NA	NA	NA
Arizona	1,666	1,668	0.1	5
Arkansas	289	291	0.7	21
California	8,693	8,770	0.9	1
Colorado	726	753	3.7	10
Connecticut	215	214	-0.5	28
Delaware	41	41	0.0	43
Florida	2,223	2,188	-1.6	3
Georgia	1,039	924	-11.1	7
Hawaii	221	226	2.3	27
Idaho	176	169	-4.0	29
Illinois	487	505	3.7	16
Indiana	380	384	1.1	18

Iowa	116	118	1.7	35
Kansas	26	27	3.8	46
Kentucky	42	48	14.3	42
Louisiana	115	161	40.0	30
Maine	208	243	16.8	26
Maryland	295	286	-3.1	23
Massachusetts	670	679	1.3	12
Michigan	260	276	6.2	24
Minnesota	283	287	1.4	22
Mississippi	166	145	-12.7	31
Missouri	96	99	3.1	36
Montana	60	63	5.0	39
Nebraska	34	32	-5.9	45
Nevada	1,701	1,685	-0.9	4
New Hampshire	NA	NA	NA	NA
New Jersey	560	556	-0.7	14
New Mexico	498	526	5.6	15

New York	869	879	1.2	8
North Carolina	1,440	1,348	-6.4	6
North Dakota	NA	NA	NA	NA
Ohio	532	592	11.3	13
Oklahoma	63	69	9.5	37
Oregon	330	336	1.8	20
Pennsylvania	260	261	0.4	25
Rhode Island	147	145	-1.4	32
South Carolina	399	376	-5.8	19
South Dakota	54	57	5.6	40
Tennessee	129	124	-3.9	34
Texas	4,502	4,669	3.7	2
Utah	679	700	3.1	11
Vermont	52	55	5.8	41
Virginia	981	868	-11.5	9
Washington	132	141	6.8	33

West Virginia	33	35	6.1	44
Wisconsin	375	432	15.2	17
Wyoming	60	65	8.3	38
United States	32,536	32,718	0.6	

States with the highest percentage of power from solar energy

Solar energy is just one component of a state's monthly total electricity generation. States produce power from a variety of sources, including solar energy. Other common energy sources include coal, [natural gas](#), [nuclear](#), and [wind power](#). Some states may not generate as much electricity as others, but they do produce a higher percentage of solar energy than other power sources.

Nationally, solar energy accounted for about 7.6% of the [electricity produced](#) in July. Vermont is the top state in this list, with about 38.7% of its electricity coming from solar generation, California is second on the list with 36.4% of its electricity coming from solar energy. Following are the states that produced the highest percentage of their power from solar energy:

Top 10 states generating electricity from solar energy

Vermont	55	142	38.7
California	8,770	24,118	36.4

Nevada	1,685	5,217	32.3
Massachusetts	679	2,347	28.9
Hawaii	226	811	27.9
Maine	243	1,144	21.2
Utah	700	3,568	19.6
New Mexico	526	3,640	14.5
Rhode Island	145	1,027	14.1
Colorado	753	5,653	13.3

Get your free solar savings estimate

You can significantly lower your energy costs by investing in solar panels. Enter some basic information below and we'll provide an instant, free estimate of solar cost and savings for your home.

Top 10 states for solar power production the United States.

California	8,770	26.8
Texas	4,669	14.3
Florida	2,188	6.7

Nevada	1,685	5.2
Arizona	1,668	5.1
North Carolina	1,348	4.1
Georgia	924	2.8
New York	879	2.7
Virginia	868	2.7
Colorado	753	2.3

How has solar energy production changed since last year?

Alabama	NA	NA	NA
Alaska	NA	NA	NA
Arizona	1,215	1,668	37.3
Arkansas	109	291	167.0
California	7,675	8,770	14.3
Colorado	619	753	21.6

Connecticut	185	214	15.7
Delaware	38	41	7.9
Florida	1,690	2,188	29.5
Georgia	849	924	8.8
Hawaii	200	226	13.0
Idaho	144	169	17.4
Illinois	393	505	28.5
Indiana	315	384	21.9
Iowa	110	118	7.3
Kansas	24	27	12.5
Kentucky	29	48	65.5
Louisiana	63	161	155.6
Maine	134	243	81.3
Maryland	261	286	9.6
Massachusetts	625	679	8.6
Michigan	197	276	40.1
Minnesota	272	287	5.5

Mississippi	66	145	119.7
Missouri	93	99	6.5
Montana	38	63	65.8
Nebraska	15	32	113.3
Nevada	1,290	1,685	30.6
New Hampshire	NA	NA	NA
New Jersey	567	556	-1.9
New Mexico	347	526	51.6
New York	740	879	18.8
North Carolina	1,345	1,348	0.2
North Dakota	NA	NA	NA
Ohio	224	592	164.3
Oklahoma	24	69	187.5
Oregon	339	336	-0.9
Pennsylvania	164	261	59.1
Rhode Island	118	145	22.9

South Carolina	362	376	3.9
South Dakota	NA	57	NA
Tennessee	123	124	0.8
Texas	3,778	4,669	23.6
Utah	570	700	22.8
Vermont	51	55	7.8
Virginia	680	868	27.6
Washington	121	141	16.5
West Virginia	5	35	600.0
Wisconsin	202	432	113.9
Wyoming	25	65	160.0
United States	26,626	32,718	22.9

Related solar energy articles

- [The cost of solar energy](#)
- [Solar energy and Texas rooftops](#)
- [Solar energy generation by state](#)
- [Long duration battery storage could help solar growth](#)
- [The cost of solar panels](#)
- [Washington D.C. Solar](#)
- [Electricity rates by state](#)

Need more information?

Are you a journalist or researcher writing about this topic who needs to know more about historical rates? [Send us details about what you need](#) and we'll get back to you with an answer and a relevant quote from one of our rate experts.

Solar generation FAQs

How is solar energy measured?

Solar energy production is measured in megawatt-hours. One megawatt-hour equals 1,000 kilowatt-hours, which are used to measure residential energy use on electricity bills.

Why is solar becoming more popular?

The [cost of residential solar panels](#) has fallen by 40% in the last decade, according to the [Solar Energy Industries Association](#). Decreasing prices combined with federal and state incentives have led to an increase in the popularity of [home solar panels](#). Federal, state, and local governments have also set varying renewable energy goals, encouraging power plants to invest in sources like solar energy.

How do solar panels work?

Solar panels convert sunlight into electricity that we use to power our homes. To do this, the panel modules capture energy from the sun and turn it into direct current (DC) energy. Solar arrays have an inverter, which converts the DC energy into alternating current (AC) energy — the type of electricity that powers your home. If you keep your solar panel system connected to the power grid, you can also pull electricity from the grid when your system isn't producing energy.



Salt River Project

Value of Customer-Sited Solar and Storage Study Results

Summary of analysis and findings

June 6, 2024



Usage Statement

The contents and recommendations within this report are the work of Sound Grid Partners, LLC and do not represent conclusions, endorsements, or commercial offers from or to any other party.

All information herein represents SGP's current understanding of the technical and economic characteristics of SRP's grid at the time of completion of this analysis. The results and recommendations of this report are subject to change as grid dynamics and market conditions evolve over time.



Sound Grid Partners, LLC
212 Broadway Avenue East, #22774
Seattle, WA 98122

Executive summary: key aspects of study



Study objective: carefully compare the benefits and costs of different approaches to building solar and storage to help guide the most effective path to decarbonization

- Quantitative and objective: capture all realizable benefits and costs, across different scales of assets, and from multiple perspectives
- Leverage third-party to apply state-of-the-art modeling with industry standard approach
- SRP-specific, reflecting current grid and market dynamics while building on past studies, models and pilots
- Point in time study (study year 2026) to provide depth, minimize assumptions and decrease variability

Executive summary: analysis overview



Study objective: carefully compare the benefits and costs of different approaches to building solar and storage to help guide the most effective path to decarbonization

- **Defined 39 likely scenarios** for customer-sited and bulk-scale solar and storage in study year 2026
- **Modeled costs and benefits** for each scenario:
 - Modeled customer solar and storage to calculate bill reduction
 - Modeled the SRP system to calculate the impact of solar and storage on system costs such as capacity and energy
 - Computed asset costs using SRP customer data and industry sources
- **Compared options** using benefit/cost ratios
- **Identified technical insights** for the most cost-effective way to add solar and storage

Attribute	Scenario elements
Assets studied	Solar Solar and storage Storage
Asset size	Residential (6 – 10 kW) C&I (0.3 – 10 MW) Bulk-scale (250 MW)
Customer classes	Residential (E13, E27, E28) Small C&I (E32, E61) Large C&I (E65, E67)
Asset control	Customer control Occasional SRP control Full SRP control

Benefits and costs analyzed



This study focused on realizable, quantifiable values of different carbon-free energy sources

Benefits and Costs	Customer-sited assets	Bulk-scale assets
Capacity	X	X
Energy	X	X
Ancillaries	X	X
Transmission and Distribution	X	
RECs	X	X
Resiliency	X	
Bill reduction	X	
Program costs	X	
Asset costs	X	X

\$/kW-year unit






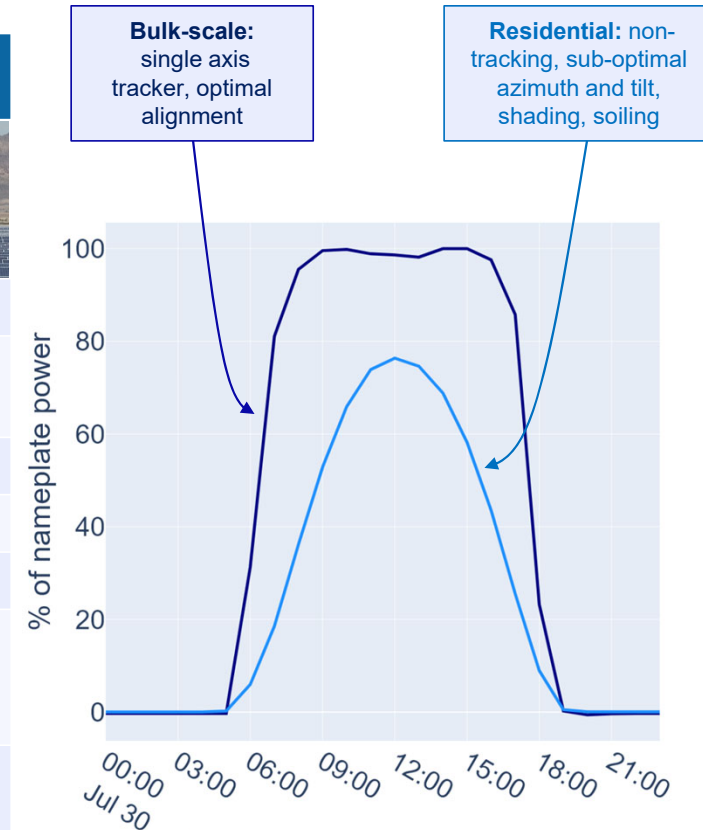
This study uses **\$/kW-year** unit for benefits and costs to allow for equivalent comparisons between different solar and storage configurations:

1. Based on asset capability rather than energy generated
2. Accounts for differences in kWh value across the full year
3. Accounts for differing asset lifetimes
4. Enables direct comparisons between costs and values measured during a test year

Comparison of solar installation types



	Residential	Large C&I	Bulk-scale
Typical characteristics			
Typical owner	Customer	Customer	Developer or utility
Grid connection point	BTM 120/240 V _{AC}	BTM 480 V _{AC} – 69 kV _{AC}	Transmission 69 – 345 kV _{AC}
Typical nameplate power	5 – 10 kW	3 – 10 MW	50 – 300 MW
Capacity factor	18%	33%	33%
Annual yield	~1,750 kWh/kW _p	~2,900 kWh/kW _p	~2,900 kWh/kW _p
Orientation and tracking	Fixed Aligned with roof tilt and azimuth	Typically single-axis tracking	Single axis tracking Azimuth optimized
Installed capital cost (2023 \$, with incentives, no financing)	\$3,900 - \$4,000/kW	\$1,200 - \$1,300/kW	\$700/kW - \$900/kW



Comparison of storage installation types



	Residential	Large C&I	Bulk-scale
Typical characteristics			
Typical owner	Customer	Customer	Developer or utility
Grid connection point	BTM 120/240 V _{AC}	BTM 480 V _{AC} – 69 kV _{AC}	Transmission 69 – 345 kV _{AC}
Design	Standard consumer product	Varies	Integrated product engineered for site
Typical nameplate power	5 – 10 kW	3 – 10 MW	10 – 300 MW
Typical nameplate duration	2 hours	4 hours	4 hours
Battery cooling	None	Varies, likely integrated HVAC or liquid cooling	Integrated HVAC or liquid cooling
Thermal de-rate	Begins derate at 100°F Shutdown at 122°F	None due to cooling	None due to cooling
Installed capital cost (2023 \$, with incentives, no financing)	\$3,000/kW - \$3,500/kW \$1,500/kWh - \$1,750/kWh	\$1,900/kW - \$2,100/kW \$475/kWh - \$525/kWh	\$1,300/kW - \$1,500/kW \$325/kWh - \$375/kWh

Key technical insights from analysis



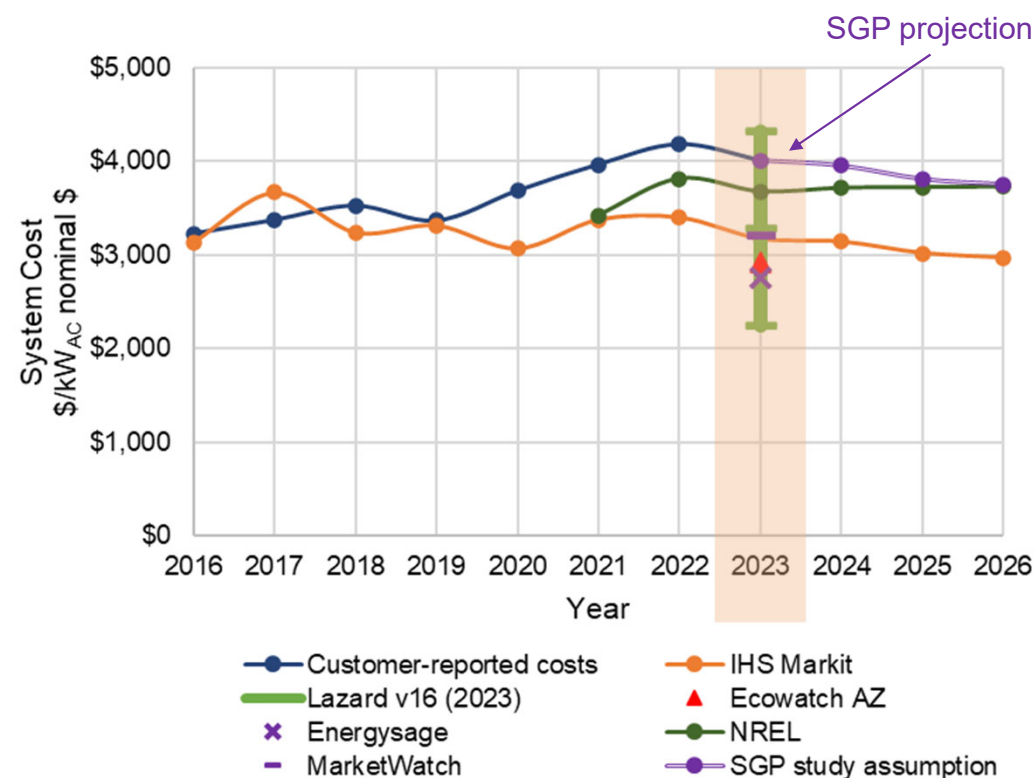
1	Residential solar is over three times more expensive to build and delivers only ~70% of the system benefits as bulk-scale solar
2	Solar host customers are subsidized by all other customers under current price plans
3	The cost to all SRP customers of compensation to residential solar host customers is higher than the all-in cost of bulk-scale solar
4	Adding storage to small-scale solar increases system benefits , but by less than the increase in costs
5	Large C&I solar + storage with single-axis tracking solar, actively cooled storage with four-hour duration, and utility control is cost-benefit positive for all parties

Asset cost projection

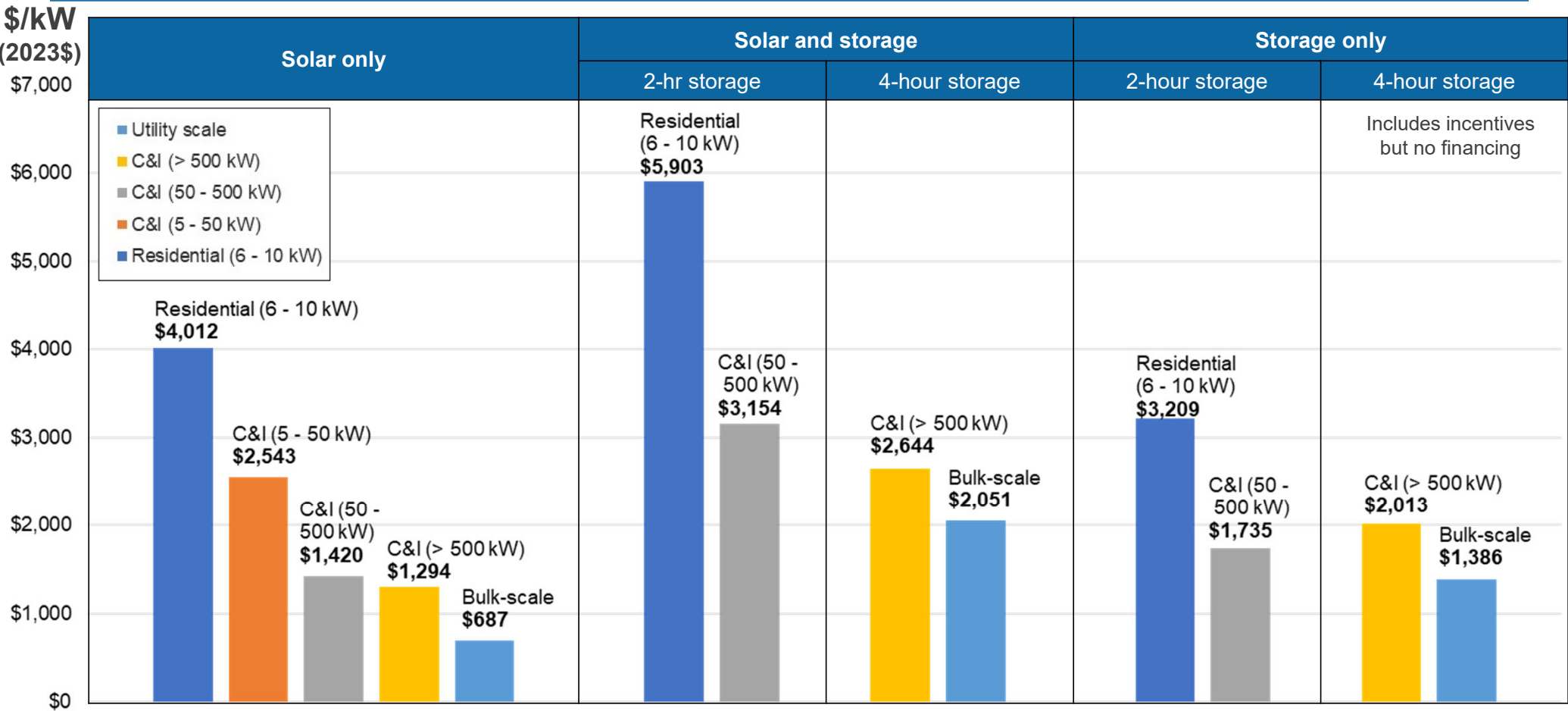


Type	Source
Customer data	<ul style="list-style-type: none"> Customer-reported project costs from > 60,000 SRP interconnection applications
Analyst forecasts	<ul style="list-style-type: none"> NREL Technology Baseline Lazard IHS Markit (Bloomberg)
Solar industry	<ul style="list-style-type: none"> Ecowatch Energysage MarketWatch

Residential Solar Cost/kW_{AC}
Values adjusted for equivalency



Residential solar is over 3 times more expensive than bulk-scale solar



Comparing options for adding solar to the SRP system



Residential solar is **over 3 times more expensive** and **delivers only ~70% of the system benefits** as bulk-scale solar

	Cost to solar host customer	Cost to all SRP customers	System benefits: capacity, energy, T&D		
Bulk-scale solar	-	\$72/kW-year (all-in cost)	\$94/kW-year		
Residential solar	\$240/kW-year (all-in cost)		\$66/kW-year		

Comparing options for adding solar to the SRP system



Solar host customers are subsidized by all other customers under current price plans

	Cost to solar host customer	Cost to all SRP customers	System benefits: capacity, energy, T&D		
Bulk-scale solar	-	\$72/kW-year (all-in cost)	\$94/kW-year		
Residential solar	\$240/kW-year (all-in cost)	\$107/kW-year (compensation to solar host customer)	\$66/kW-year		

Comparing options for adding solar to the SRP system



The **cost to all SRP customers** of compensation to **residential solar** host customers is **higher than the all-in cost of bulk-scale solar**

	Cost to solar host customer	Cost to all SRP customers	System benefits: capacity, energy, T&D		
Bulk-scale solar	-	\$72/kW-year (all-in cost)	\$94/kW-year		
Residential solar	\$240/kW-year (all-in cost)	\$107/kW-year (compensation to solar host customer)	\$66/kW-year		

Comparing options for adding solar to the SRP system



Each dollar of investment by all SRP customers goes over twice as far if invested in bulk-scale solar instead of residential solar



	Cost to solar host customer	Cost to all SRP customers	System benefits: capacity, energy, T&D	Value of \$1.00 of investment by all SRP customers	Solar energy generated by \$1.00 of investment by all SRP customers
Bulk-scale solar	-	\$72/kW-year (all-in cost)	\$94/kW-year	\$1.31	40 kWh/year
Residential solar	\$240/kW-year (all-in cost)	\$107/kW-year (compensation to solar host customer)	\$66/kW-year	\$0.62	16 kWh/year

Most promising customer deployments



Adding storage to small-scale solar **increases system benefits**, but by **less** than the **increase in costs**

	All-in asset cost	System benefits: capacity, energy, T&D
Residential solar	\$240/kW-year	\$66/kW-year
Residential solar + storage	\$446/kW-year	\$117/kW-year

Most promising customer deployments



Large C&I solar + storage with single-axis tracking solar, actively cooled storage with four-hour duration, and utility control is **cost-benefit positive for all parties**

- Large C&I have **higher system benefits** with bulk-like technical characteristics, **lower costs** at large scale, and **significant resilience value**
- System benefits are further increased with **utility control**
- Total pool of potential customer-sited resources at this scale is small relative to SRP's needed resource additions

Key technical insights from analysis



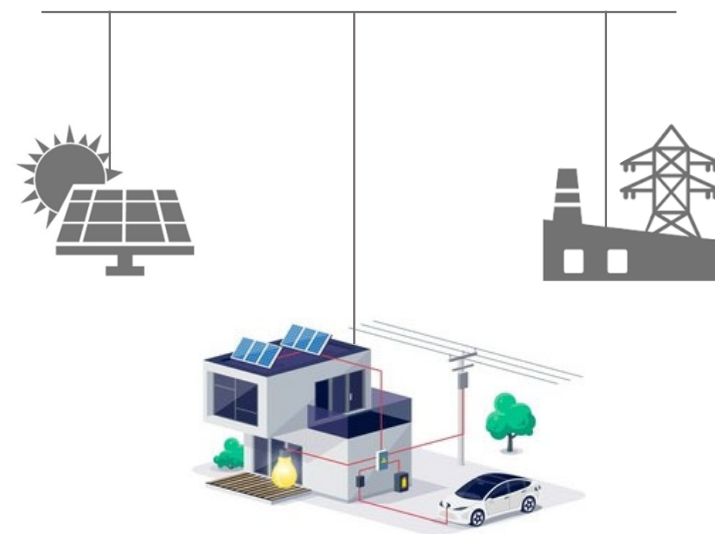
1	Residential solar is over three times more expensive to build and delivers only ~70% of the system benefits as bulk-scale solar
2	Solar host customers are subsidized by all other customers under current price plans
3	The cost to all SRP customers of compensation to residential solar host customers is higher than the all-in cost of bulk-scale solar
4	Adding storage to small-scale solar increases system benefits , but by less than the increase in costs
5	Large C&I solar + storage with single-axis tracking solar, actively cooled storage with four-hour duration, and utility control is cost-benefit positive for all parties

Virtual Power Plant (VPP) Overview



Virtual power plants are collections of small-scale energy resources that, when aggregated together and coordinated with grid operations, can provide grid services that benefit all customers.

Technologies	<ul style="list-style-type: none">• Solar• Electric vehicles• Batteries	<ul style="list-style-type: none">• Thermostats• Controllable loads• Others
Grid benefits	<ul style="list-style-type: none">• Capacity• Flexibility / demand response• Ancillary services	
Customer benefits	<ul style="list-style-type: none">• Incentives to offset asset costs• Resiliency• Compensation for participation in utility control program	



Residential battery VPP categories and examples



BTM BESS VPP Pilots

- Early-stage pilots
- Enable learning about technology costs, adoption, and program design
- Demonstrates promising grid applications



- Provides capacity and battery performance data



- Provides capacity and frequency support

BTM BESS VPPs

- Customers incentivized to install their own BTM BESS or pay lease payment for utility-provided BTM BESS
- Utility control of BESS generates grid value



- Provides capacity, transmission services, and resiliency

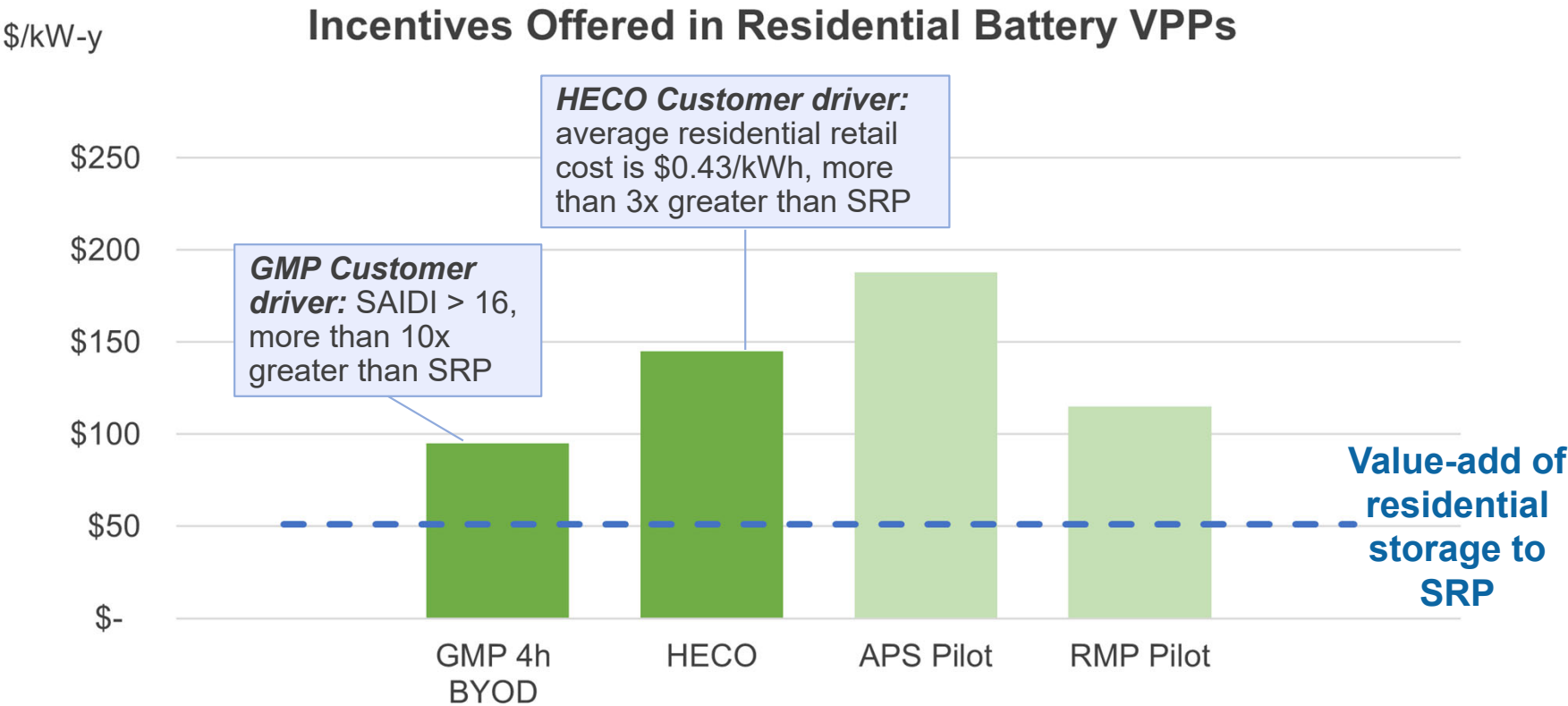


- Provides capacity and frequency response

Economics of residential battery VPPs for SRP



VPP program incentive levels at other utilities are **more expensive** than the value-add at SRP:



thank you!





Board Report – Current Events

Board Meeting

November 4, 2024



Current Events

Jim Pratt





Power System Update – Current Events

John Coggins

Operational Updates – September & October 2024

- September peak demand: 7769 MW
 - Occurred on September 5th with 114-degree temperature
 - 332 MW higher than forecasted
- October peak demand: 7148 MW
 - Occurred on October 1st with 113-degree temperature
 - 1242 MW higher than forecasted
- Record heat continues
 - 70 days at 110 degrees or higher (4 days in October), new record
- Assets continued to perform extremely well
- Planned maintenance season underway

Available Transmission Capacity

New Calculation Methodology

- Seasonal studies have traditionally been used to calculate capacity available for commercial use
 - Very conservative due to the number of assumptions
- The new Flowgate methodology uses real time information to calculate available capacity
- Flowgate methodology generally results in increased capacity
 - Used for reservations up to 13 months
- Seasonal studies still utilized for long term reservations

Safety Recognition

**Santan Generating
Station**



Hydro Generation



Financial Update

Brian Koch

Financial Summary Through September 2024

Green text means better than budget/plan; red text means worse than budget/plan

Combined Net Revenue

Debt Service Coverage Ratio & Debt Ratio

September	Year-To-Date	Year-To-Date DSCR	Year-End* Debt Ratio
\$132M <i>\$47M</i>	\$831M <i>\$229M</i>	8.16 <i>1.51</i>	46.9% <i>0.5</i>

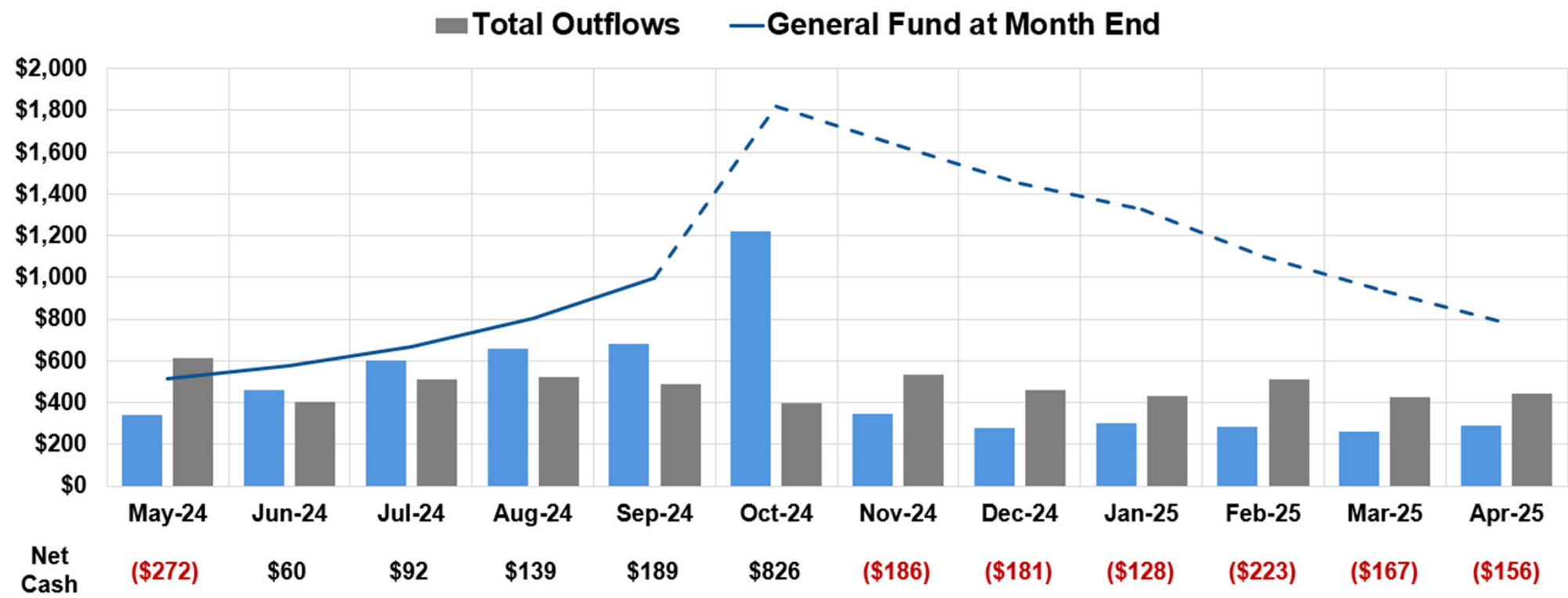
Liquidity (General Fund)

FPPAM Collection Balance

September	Year-End Forecast	September	Year-End Forecast
<i>68 Days Cash</i> \$994M <i>\$302M</i>	<i>53 Days Cash</i> \$778M <i>\$178M</i>	(\$230M) <i>\$93M</i>	(\$155M) <i>\$198M</i>

FY25 Cash Inflows and Outflows* (\$M)

Net cash is positive in summer due to higher revenues; bond proceeds hit in October and help in winter when net cash is negative due to lower revenues and increased capital expenditures





Water Stewardship

Leslie Meyers

2024 Canal Convergence

November 8 – 17, 2024



Canal Convergence Overview

Canal Convergence is an internationally recognized, free, ten-night public art event that takes over the Scottsdale Waterfront each November. This outdoor, immersive event features large-scale artworks, as well as educational workshops, family-friendly activities, live music, dance performances, and more!

2024 Canal Convergence

This year celebrates the 12th annual Canal Convergence, attracting over 175,000 visitors to the Waterfront over its 10-day duration. The theme for this year is "Reflections." SRP is one of the World Class Sponsors for 2024.

Event Dates: **November 8 – 17, 2024**

Event Location: **Scottsdale Waterfront**

Goldwater Blvd to Scottsdale Rd

Event Hours:

Fri., Nov. 8–Sat., Nov. 9, 6–10 p.m.

Sun., Nov. 10–Thurs., Nov. 14, 6–9 p.m.

Fri., Nov. 15–Sat., Nov. 16, 6–10 p.m.

Sun., Nov. 17 (closing night), 6–9 p.m.



thank you!



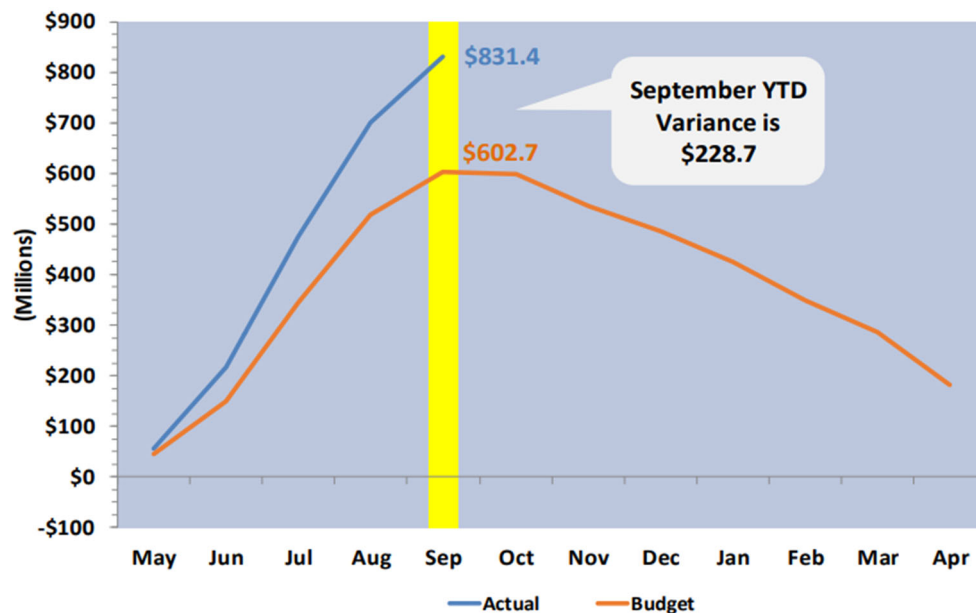
Operating Environment – September 2024

	Actual	Budget	Variance	% Budget
Elec Customer Accounts – September 2024	1,169,101	1,162,816	6,285	101%
Elec Customer Accounts – April 2024	1,158,913			
Elec Customer Accounts – September 2023	1,143,591			
System Sales GWH	3,412	3,177	235	107%
Wholesale Sales GWH	1,089	869	220	125%
Total A.F. Water Delivered	86,626	67,000	19,626	129%

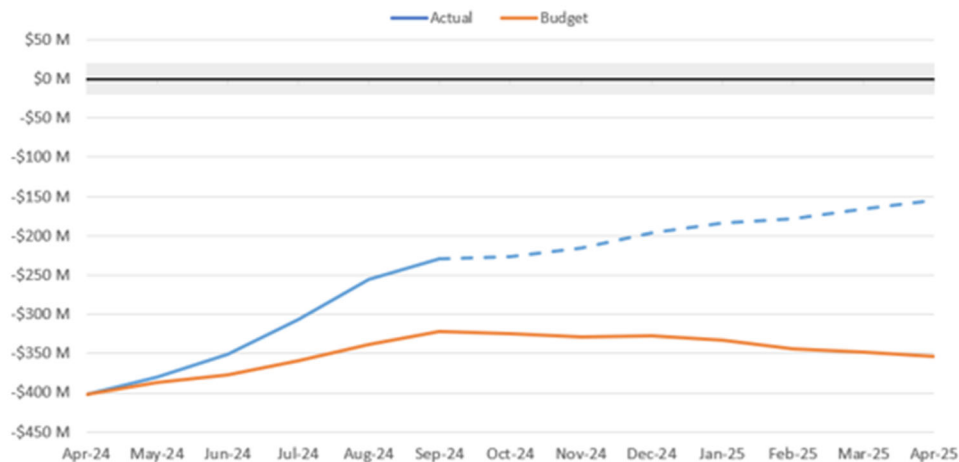
Financial Summary – September 2024

\$ Millions	Actual	Budget	Variance	% Budget
Combined Revenues	\$475.0	\$431.0	\$44.0	110%
Combined Expenses	\$343.5	\$346.3	(\$2.8)	99%
Combined Net Revenues (Loss)	\$131.5	\$84.7	\$46.8	155%
Funds Available	\$168.9	\$123.4	\$45.5	137%
Capital Expenditures	\$155.7	\$133.4	\$22.3	117%

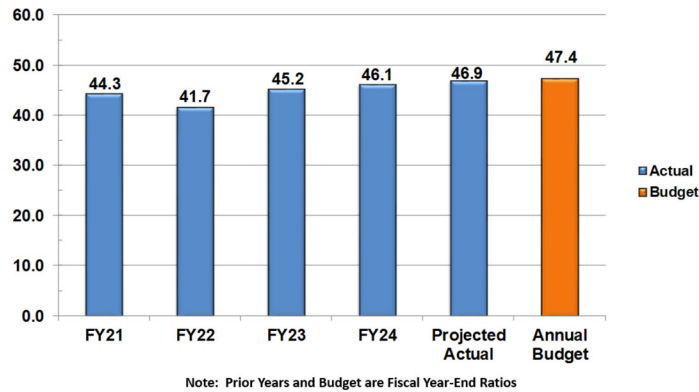
Combined Net Revenues



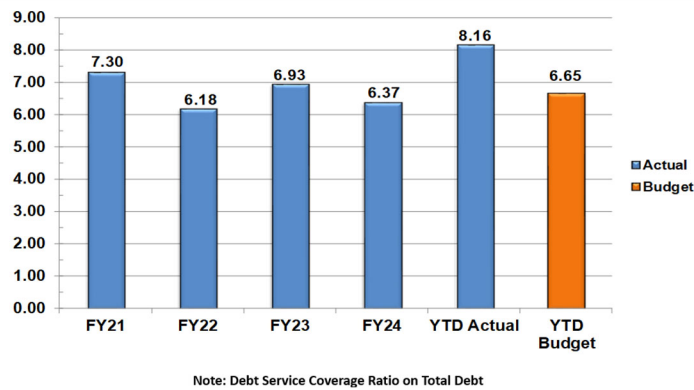
Fuel & Purchased Power Adjustment Mechanism (FPPAM) – September 2024



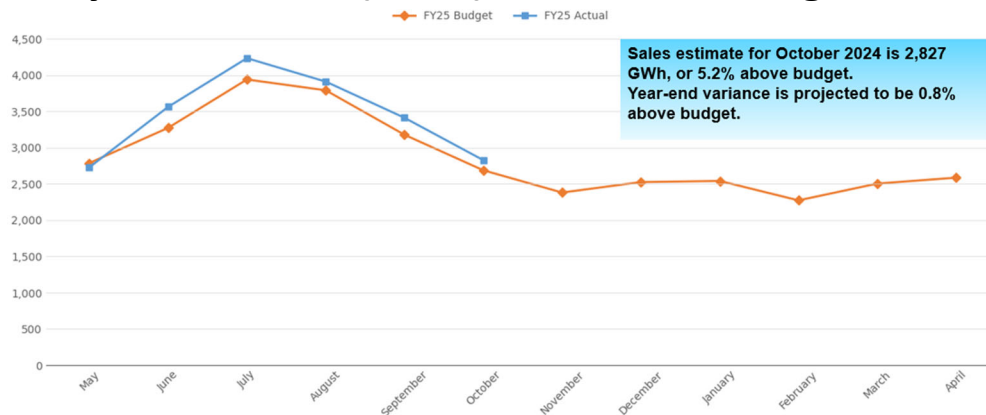
Debt Ratio – Year End Actuals and Projection



Debt Service Coverage Ratio – YTD Through September



Preliminary Retail Sales (GWh) Estimate Through October 2024



Financial Definitions for Dashboard

Combined Net Revenue	Debt Service Coverage Ratio & Debt Ratio
<ul style="list-style-type: none"> SRP's "bottom line" Comparable to Net Income "Combines" SRP's electric and water income statements 	<ul style="list-style-type: none"> DSCR = ratio of net cash inflows vs. annual interest & principal payments Debt Ratio = percentage of long-life assets paid for with debt
Liquidity (General Fund)	FPPAM Collection Balance
<ul style="list-style-type: none"> SRP's checking account Days Cash = number of days that SRP can continue to pay its cash expenses without any cash inflow 	<ul style="list-style-type: none"> Fuel & Purchased Power Adjustment Mechanism Recovers the appropriate fuel & purchased costs over time (no more, no less)

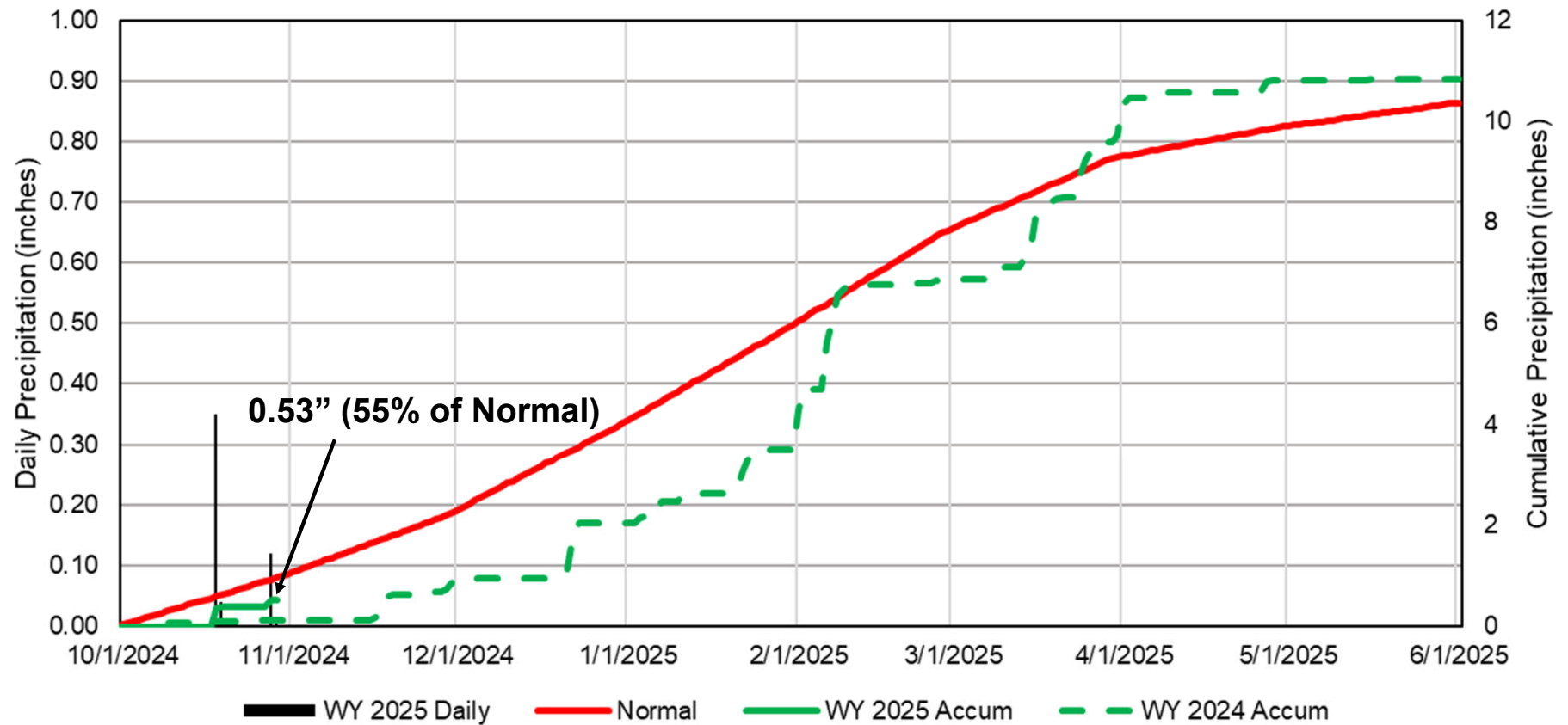
Water Supply and Weather Report

November Board Meeting

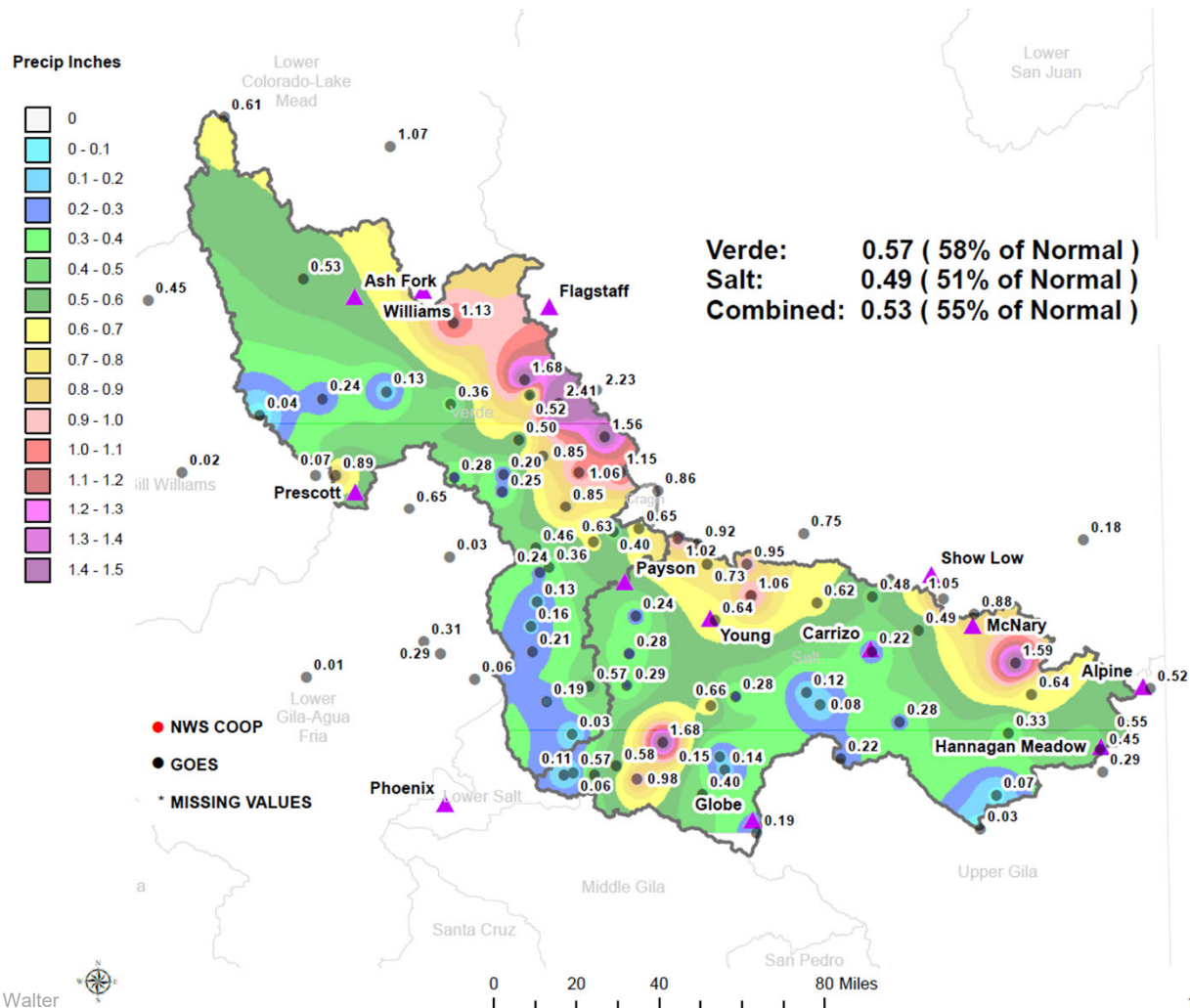
November 4, 2024

James Walter

Cumulative Watershed Precipitation: Fall-Winter-Spring (WY 2025)



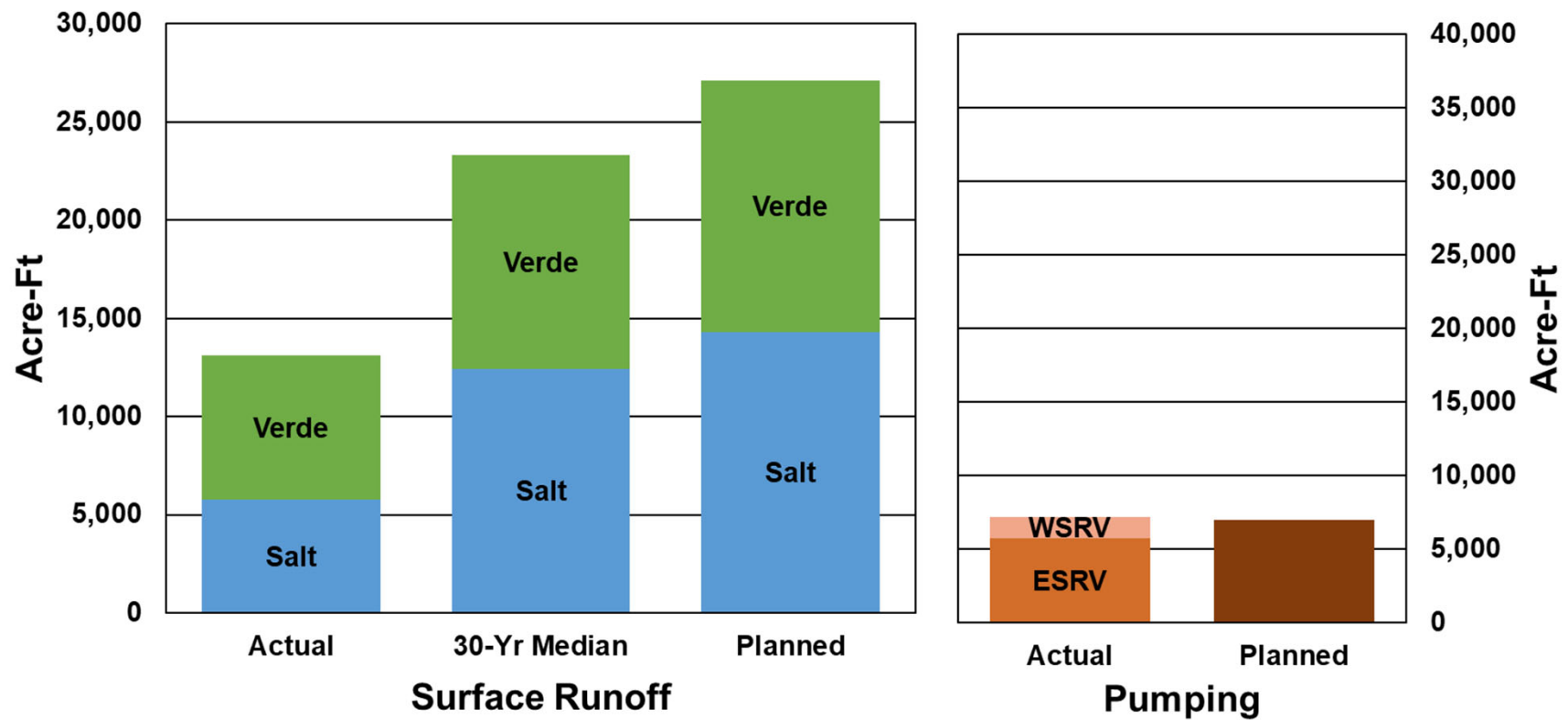
Watershed Precipitation: October 2024



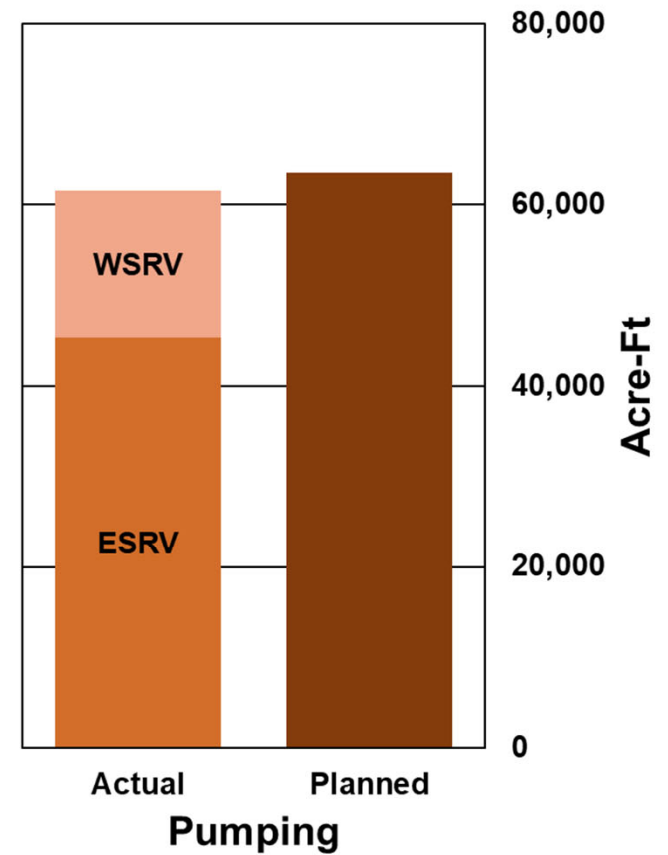
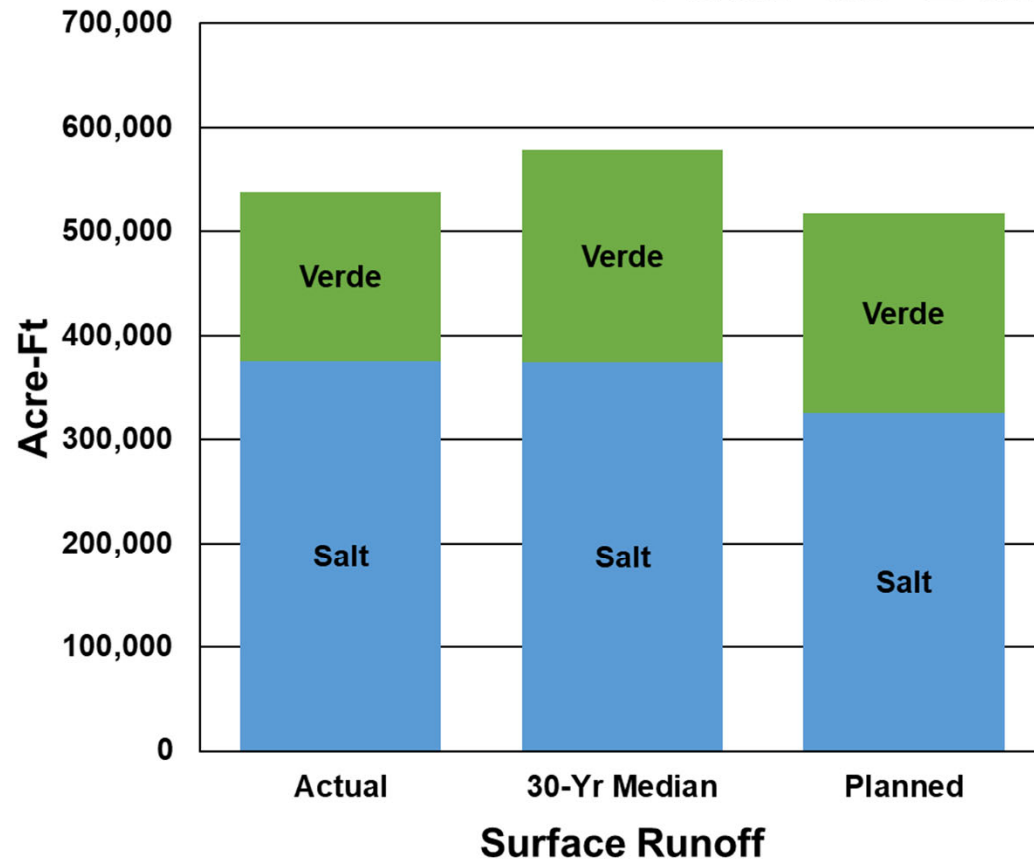
Watershed Precipitation: October 2024



October 2024



Year to Date 2024

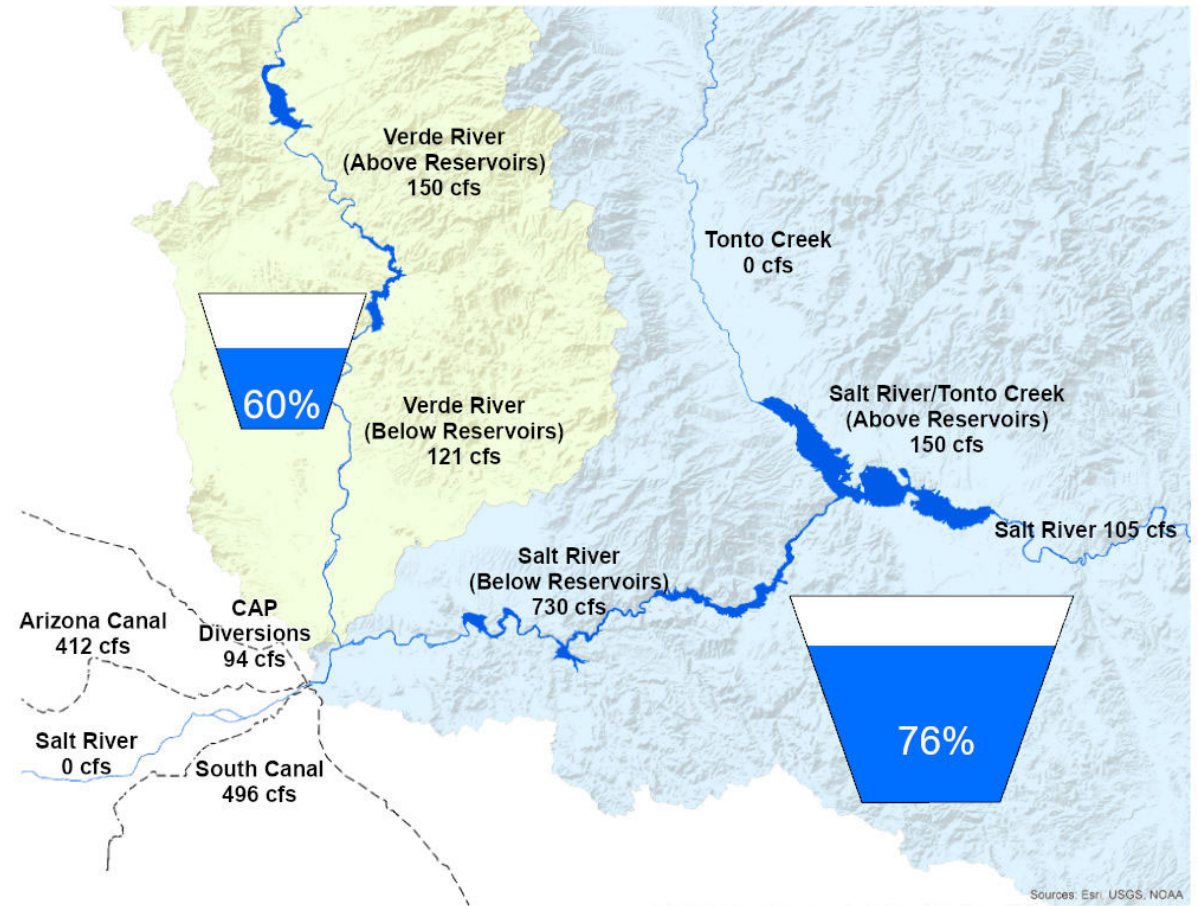


SRP Reservoir System Status

November 1, 2024

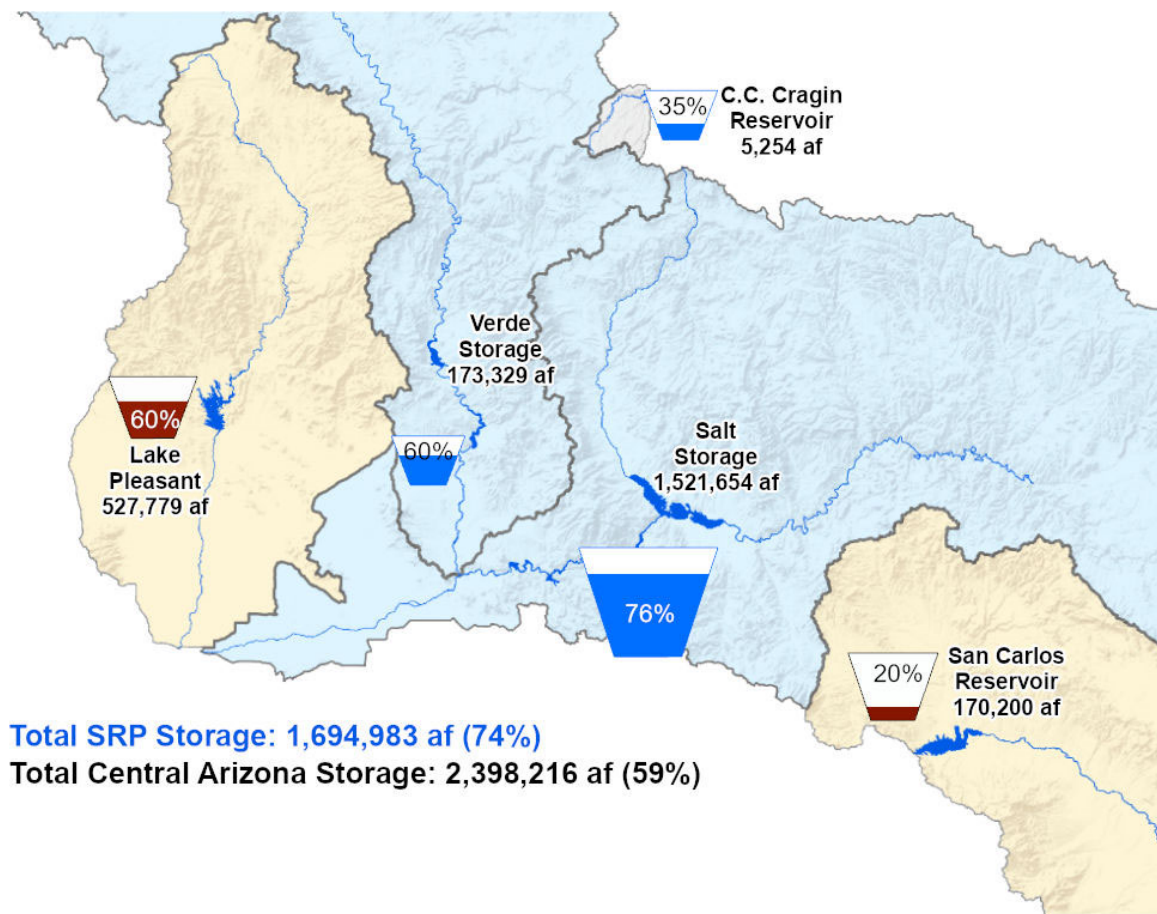
Current Storage:

Salt	1,520,330 AF
Verde	173,391 AF
<hr/>	
Total	1,693,721 AF



Central Arizona Reservoir Status

November 1, 2024



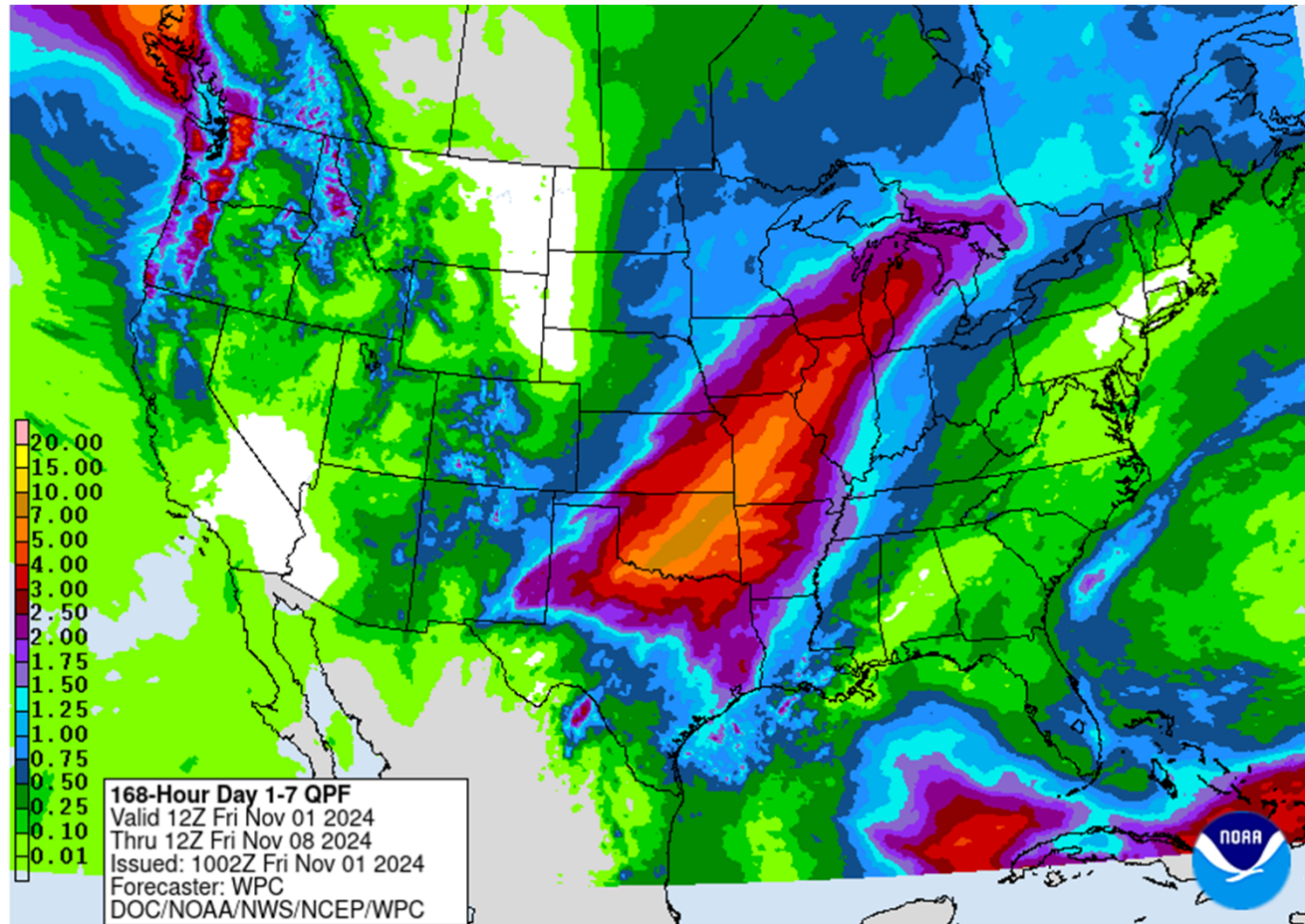
Total System Contents 42% or 24.783 MAF
(Total system contents last year 43% or 25.008 MAF)
November 1, 2024

(Total system contents last year 43% or 25.008 MAF)

November 1, 2024



7-Day Precipitation Forecast

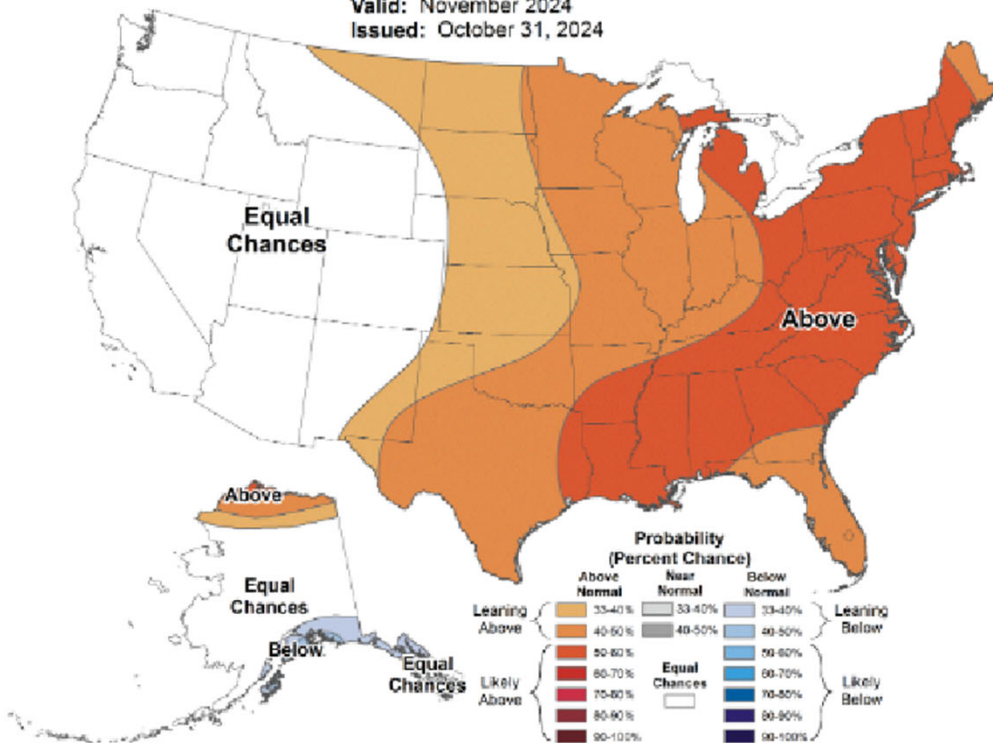


November Weather Outlook



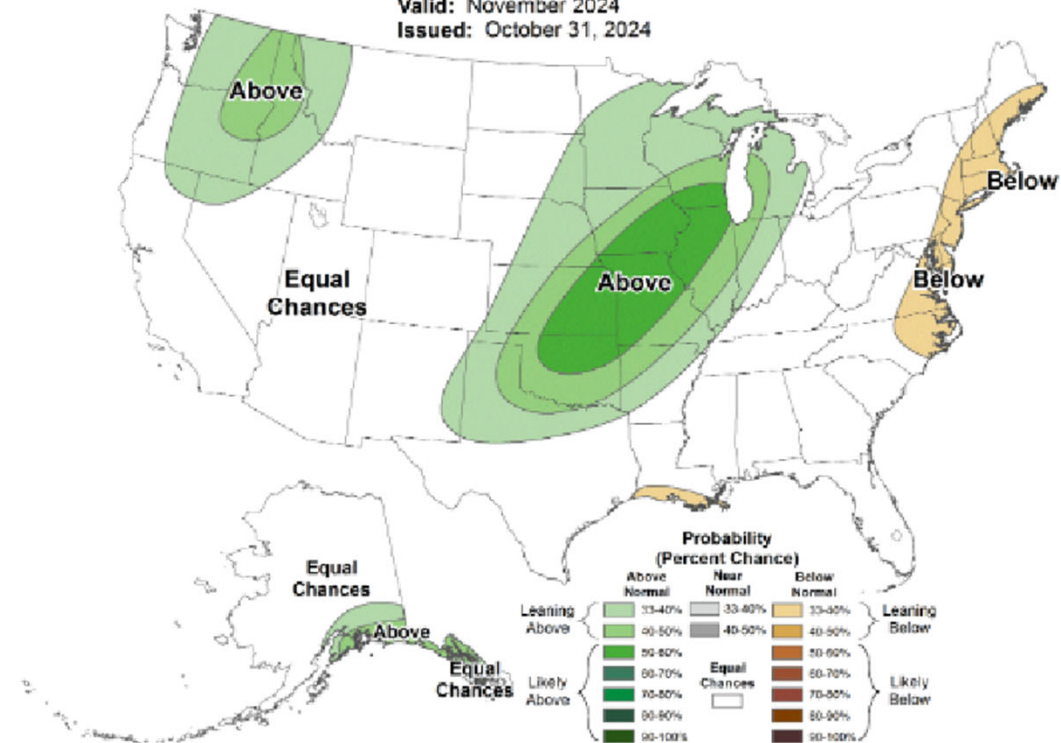
Monthly Temperature Outlook

Valid: November 2024
Issued: October 31, 2024



Monthly Precipitation Outlook

Valid: November 2024
Issued: October 31, 2024



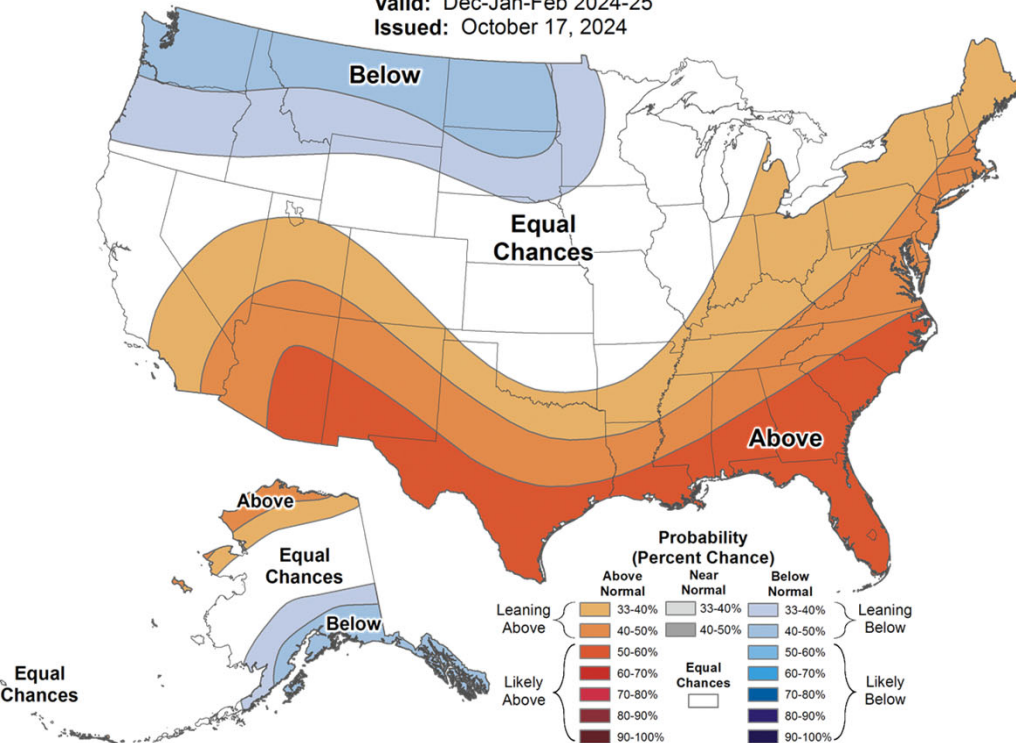
Winter Seasonal Outlook



Seasonal Temperature Outlook



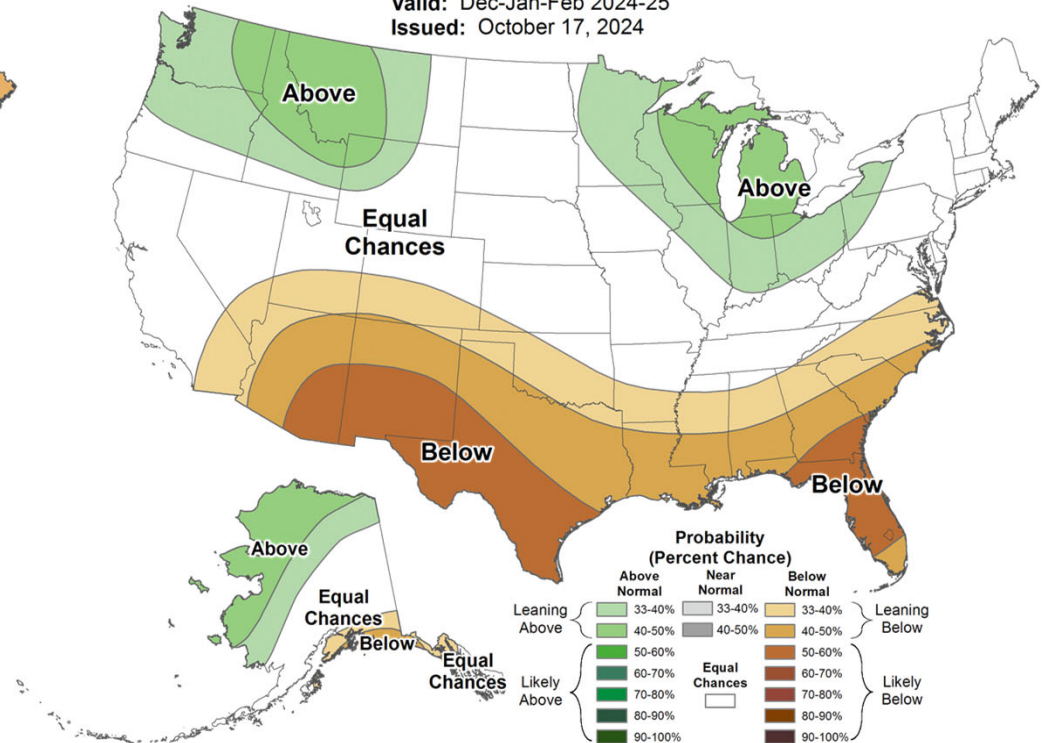
Valid: Dec-Jan-Feb 2024-25
Issued: October 17, 2024



Seasonal Precipitation Outlook



Valid: Dec-Jan-Feb 2024-25
Issued: October 17, 2024



Weak La Niña conditions have emerged and are forecast to persist through Winter

thank you!

