

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

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## **WATER COMMITTEE Tuesday, April 22, 2025, 9:30 AM**

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

Committee Members: Robert Arnett, Chair; Stephen Williams, Vice Chair; and Nicholas Brown,  
Mario Herrera, Kevin Johnson, Sandra Kennedy, and Krista O'Brien

Call to Order

Roll Call

1. **CONSENT AGENDA:** The following agenda item(s) will be considered as a group by the Committee and will be enacted with one motion. There will be no separate discussion of these item(s) unless a Committee Member requests, in which event the agenda item(s) will be removed from the Consent Agenda and considered as a separate item ..... CHAIR ROBERT ARNETT
  - Request for approval of the minutes for the meetings of March 13, 2025.
2. Solar Panels Over Canals .....ANDY JOHNSON and BOB PANE

Informational presentation regarding an update on the SRP study to evaluate the feasibility of mounting solar panels over project canals, including the development of conceptual designs for solar panel installation and the analysis, in collaboration with Arizona State University, to evaluate impacts of evaporation.
3. Executive Session, Pursuant to A.R.S. §38-431.03(A)(4), to Discuss the Status of SRP's Settlement Negotiations Concerning SRP's Appeal of the Final Administrative Decision of the Arizona Department of Environmental Quality Concerning the Record of Decision for the 7th Street and Missouri Avenue Water Quality Assurance Revolving Fund (WQARF) Site .....MARIBETH KLEIN
4. Report on Current Events by the General Manager and Chief Executive Officer and Designees.....JIM PRATT
5. Future Agenda Topics ..... CHAIR ROBERT ARNETT

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

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

Visitors: The public has the option to attend in-person or observe via Zoom and may receive teleconference information by contacting the Corporate Secretary's Office at (602) 236-4398. If attending in-person, all property in your possession, including purses, briefcases, packages, or containers, will be subject to inspection.



**THE NEXT WATER COMMITTEE MEETING  
IS SCHEDULED FOR TUESDAY, MAY 20, 2025**

04/18/2025



MINUTES  
WATER COMMITTEE  
SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND  
POWER DISTRICT

**DRAFT**

March 13, 2025

A meeting of the Water Committee of the Salt River Project Agricultural Improvement and Power District (the District) convened at 9:30 a.m. on Thursday, March 13, 2025, from the Hoopes Board Conference Room at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona. This meeting was conducted in-person and via teleconference in compliance with open meeting law guidelines. The District and Salt River Valley Water Users' Association (the Association) are collectively known as SRP.

Committee Members present at roll call were S.H. Williams, Vice Chair; and N.R. Brown, M.J. Herrera, and K.J. Johnson; and L.D. Rovey of the Association.

Committee Members absent at roll call were R.C. Arnett, Chair; and S.D. Kennedy and K.H. O'Brien.

Also present were President D. Rousseau; Vice President C.J. Dobson; Board Members M.V. Pace, J.M. White Jr., and L.C. Williams; Council Chair J.R. Shelton; Council Liaisons M.L. Farmer and M.C. Pedersen; Council Members B.E. Paceley, M.G. Rakow, and C. Resch-Geretti; L.R. Allen, I.R. Avalos, J.M. Baran, A.C. Davis, J.M. Felty, J.O. Garcia, L.F. Hobaica, J.W. Hubbard, K.J. Lee, C.M. McJunkin, L.A. Meyers, G.A. Mingura, S.S. Morris, M.J. O'Connor, B.A. Olsen, B.F. Pane, J.M. Pratt, C.M. Sifuentes-Kohlbeck, and P.B. Sigl of SRP; and Simone Williams of Arizona Municipal Water Users Association (AMWUA).

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 Water Committee meeting at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona, at 9:00 a.m. on Tuesday, March 11, 2025.

Vice Chair S.H. Williams called the meeting to order.

Consent Agenda

Vice Chair S.H. Williams requested a motion for Committee approval of the Consent Agenda, in its entirety.

On a motion duly made by Board Member M.J. Herrera and seconded by Board Member K.J. Johnson, the Committee unanimously approved and adopted the following item on the Consent Agenda:

- Minutes of the Water Committee meeting on February 13, 2025, as presented.

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

YES:	Board Members S.H. Williams, Vice Chair; and N.R. Brown, M.J. Herrera, and K.J. Johnson	(4)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Members R.C. Arnett, Chair; and S.D. Kennedy and K.H. O'Brien	(3)

#### Annual Canal Dry-Up Recap and New Dredge Replacement Update

Using a PowerPoint presentation, Christa M. McJunkin, SRP Senior Director of Water Supply and System, stated that the purpose of the presentation was to provide information regarding the recap of the 2024/2025 annual canal dry-up and an update regarding the dredge replacement project at Granite Reef Dam.

C.M. McJunkin provided an overview of the dry-up process as follows: 1) herd fish and move them upstream; 2) remove silt and debris from the canals; 3) inspect canals for damage; and 4) complete necessary repairs. They provided images of the fish herding and silt/debris removal.

#### Southside Dry-up

C.M. McJunkin provided an image of the work performed at the South Canal, work location: Gilbert Road and McDowell Road to Horne and Brown Road. They summarized the work performed at the South Canal as follows: 1) removed 109 dump truck loads of mud and 244 dump truck loads of concrete; 2) installed 2,616.5 yards of shotcrete lining and 50 safety ladders; and 3) added a new canal ramp with 30 yards of concrete.

C.M. McJunkin presented an image of the Tempe Canal and Drain, work location: Mesa Drive and Brown Road to Country Club Drive. They said that the following work was performed at this work location: 1) removed 12 dump truck loads of debris; and 2) installed 73.5 yards of shotcrete lining and 30 safety ladders.

C.M. McJunkin reviewed the work performed at work location: Alma School Road and Bass Pro Drive as follows: 1) installed 168 yards of shotcrete lining, 260 yards of new concrete floor, and 3 safety ladders; and 2) added a new canal ramp with 25 yards of concrete.

### Northside Dry-up

C.M. McJunkin provided an image of the Arizona Canal, work location: 59th Avenue to 75th Avenue location. They reviewed the work performed at this location as follows:

- 1) removed 180 dump truck loads of mud and 35 dump truck loads of concrete; and
- 2) installed 457 yards of shotcrete lining and 43 safety ladders.

C.M. McJunkin presented images of the Grand Canal, work location: 24th Street to 27th Avenue, and summarized the work performed at this location: 1) removed 58 dump truck loads of mud, 65 dump truck loads of concrete, and 87 dump truck loads of debris; and 2) installed 736 yards of shotcrete lining and 40 safety ladders. They presented an image of 99th Avenue to the Tail-end of the Grand Canal and said that 195 dump trucks of mud were removed at this location.

### New Dredge Replacement

In conclusion, C.M. McJunkin provided an image of the new dredge – Ellicot 460 SLT and highlighted that the new dredge removes ten times the amount of silt than the old dredge, removes 7,000 tons of materials a week, will remove approximately 320,000 tons of materials a year, and will decrease the amount of silt/materials in the transmission canal systems.

C.M. McJunkin responded to questions from the Committee.

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

Board Member K.H. O'Brien; and J.D. Coggins, P.A. Likens, and R.R. Taylor of SRP entered the meeting during the presentation.

### Arizona Department of Transportation (ADOT) Interstate 10 and Loop 101 System Interchange Project and ADOT State Route 30 Freeway Project Updates

Using a PowerPoint presentation Jorge O. Garcia, SRP Senior Principal Engineer, stated that the purpose of the presentation was to provide an update on ADOT's Interstate 10 (I-10) and Loop 101 System Interchange Project and State Route 30 (SR 30) Freeway, identifying impacts to SRP's water facilities.

J.O. Garcia summarized ADOT's objectives regarding the I-10 and Loop 101 System Interchange Project as follows: 1) reduce traffic congestion, 2) improve safe driving, and 3) add additional vehicular lanes. They presented aerial views of the Interstate 10, highlighting southbound ramp improvements and the existing water facilities impacted by the I-10 and Loop 101 System Interchange Project.

Next, J.O. Garcia provided the following details of ADOT's new SR 30 Freeway: 1) will provide an alternate route to the Interstate 10; 2) will span approximately 13 miles from the South Mountain 202 to Goodyear; 3) will impact numerous SRP water and power facilities; 4) water engineering has started design activities; and 5) ADOT estimates \$2 billion for the project cost. They provided aerial views of water facilities impacted by the new SR 20 Freeway and future interchange at SR 30 and South Mountain 202.

J.O. Garcia concluded with a discussion of the overall water engineering and water construction scope for SR 30. They responded to questions from the Committee.

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

L.R. Allen and J.O. Garcia of SRP left the meeting after the presentation. Board Members S.D. Kennedy and R.J. Miller; Council Member E.L. Gorsegrner; and Richard Turkson of Obayashi-USA entered the meeting during the presentation.

Executive Session: 7th Street and Missouri Avenue  
Water Quality Assurance Revolving Fund (WQARF) Site

Vice Chair S.H. Williams requested a motion to enter into executive session, pursuant to A.R.S. §38-431.03(A)(4), to discuss the status of SRP's settlement negotiations concerning SRP's appeal of the final administrative decision of the Arizona Department of Environmental Quality concerning the Record of Decision for the 7th Street and Missouri Avenue WQARF site.

On a motion duly made by Board Member M.J. Herrera, seconded by Board Member K.J. Johnson and carried, the Water Committee convened into executive session at 9:54 a.m.

Corporate Secretary J.M. Felty polled the Committee Members on Board Member M.J. Herrera's motion to enter into executive session. The vote was recorded as follows:

YES:	Board Members S.H. Williams, Vice Chair; and N.R. Brown, M.J. Herrera, K.J. Johnson, S.D. Kennedy, and K.H. O'Brien	(6)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	Board Member R.C. Arnett, Chair	(1)

Richard Turkson of Obayashi-USA; and Simone Williams of AMWUA left the meeting.

The Committee reconvened into open session at 10:23 a.m., with the following members and others present were President D. Rousseau; Vice President C.J. Dobson; Board Members N.R. Brown, M.J. Herrera, K.J. Johnson, S.D. Kennedy, R.J. Miller, K.H. O'Brien, M.V. Pace, J.M. White Jr., L.C. Williams, and S.H. Williams; Board

Member L.D. Rovey of the Association; Council Chair J.R. Shelton; Council Liaisons M.L. Farmer and M.C. Pedersen; Council Members E.L. Gorseger, B.E. Paceley, M.G. Rakow, and C. Resch-Geretti; and I.R. Avalos, J.M. Baran, A.P. Chabrier, J.D. Coggins, A.C. Davis, J.M. Felty, L.F. Hobaica, J.W. Hubbard, K.J. Lee, P.A. Likens, C.M. McJunkin, L.A. Meyers, G.A. Mingura, S.S. Morris, M.J. O'Connor, B.A. Olsen, B.F. Pane, J.M. Pratt, C.M. Sifuentes-Kohlbeck, P.B. Sigl, and R.R. Taylor of SRP.

Richard Turkson of Obayashi-USA; and Simone Williams of AMWUA entered the meeting.

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

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

Future Agenda Topics

Vice Chair S.H. Williams asked the Committee if there were any future agenda topics. None were requested.

There being no further business to come before the Water Committee, the meeting adjourned at 10:24 a.m .

John M. Felty  
Corporate Secretary





# **Solar Mounted Over Canal Study (SMOC)**

**Water Committee Presentation**

**April 22, 2025**

**Andy Johnson, Water Engineering Support**

# Agenda

- Review of Considered Designs
- Capital Cost Comparison
- Production Cost Comparison
- Evaporation Study Status
- Recommendation

## Potential Benefits

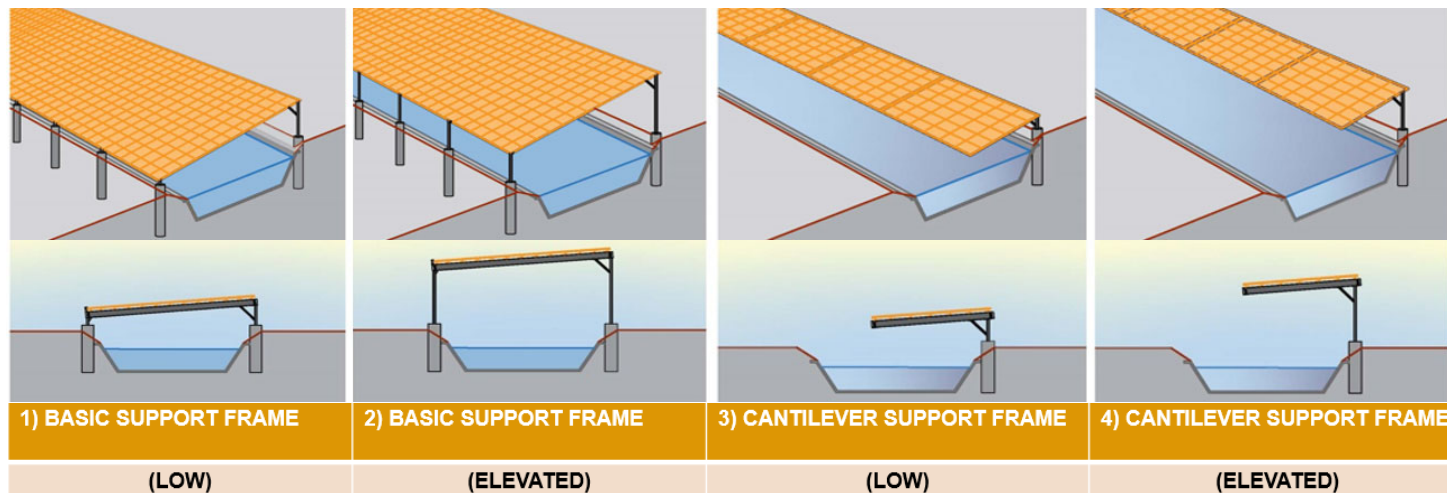
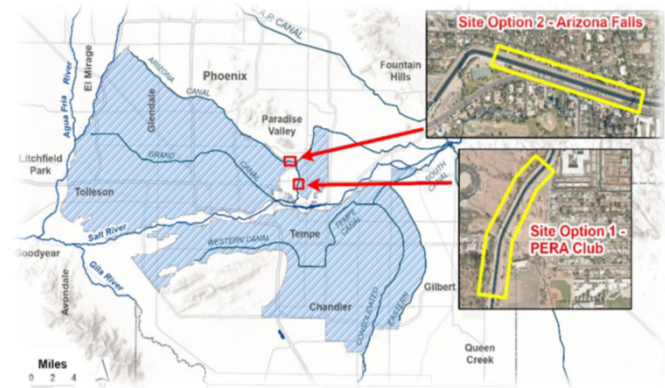
- Multi-use of existing canal land
- Change in Evaporation
- Impacts to aquatic vegetation growth
- Renewable generation source
- Increased Solar Panel Efficiency

## Project Concerns

- Public safety and recreation impacts
- Clearance for equipment
- Reduce maintenance efficiencies and increase costs
- Lacks solar tracking
- Cost compared to Utility Scale Projects
- May require specialized equipment
- Increased shade may promote quagga mussel infestation

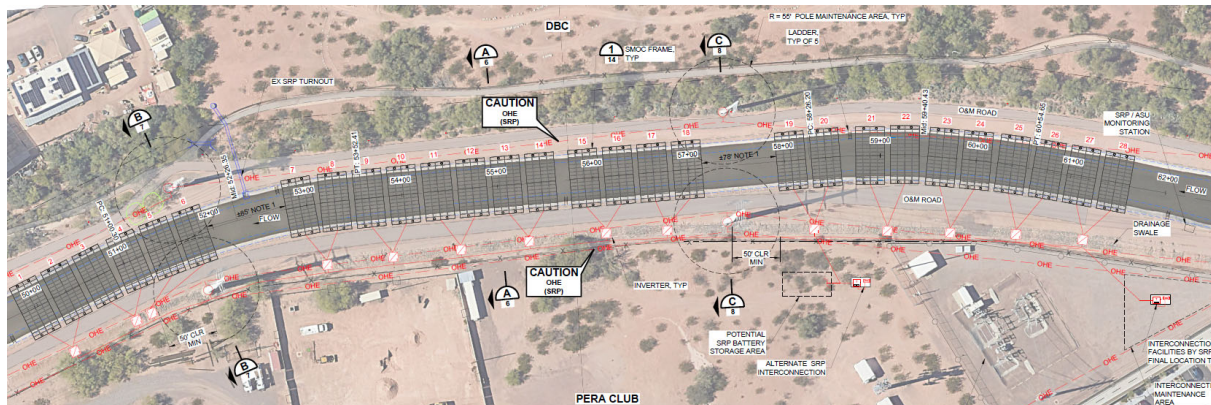
# Phase 1 Scope Recap – Pilot Project

- Onboarding Consultant - GCE
- Site Selection – Grand Canal near PERA
- 15% Design – 3 out of 4 Alternatives



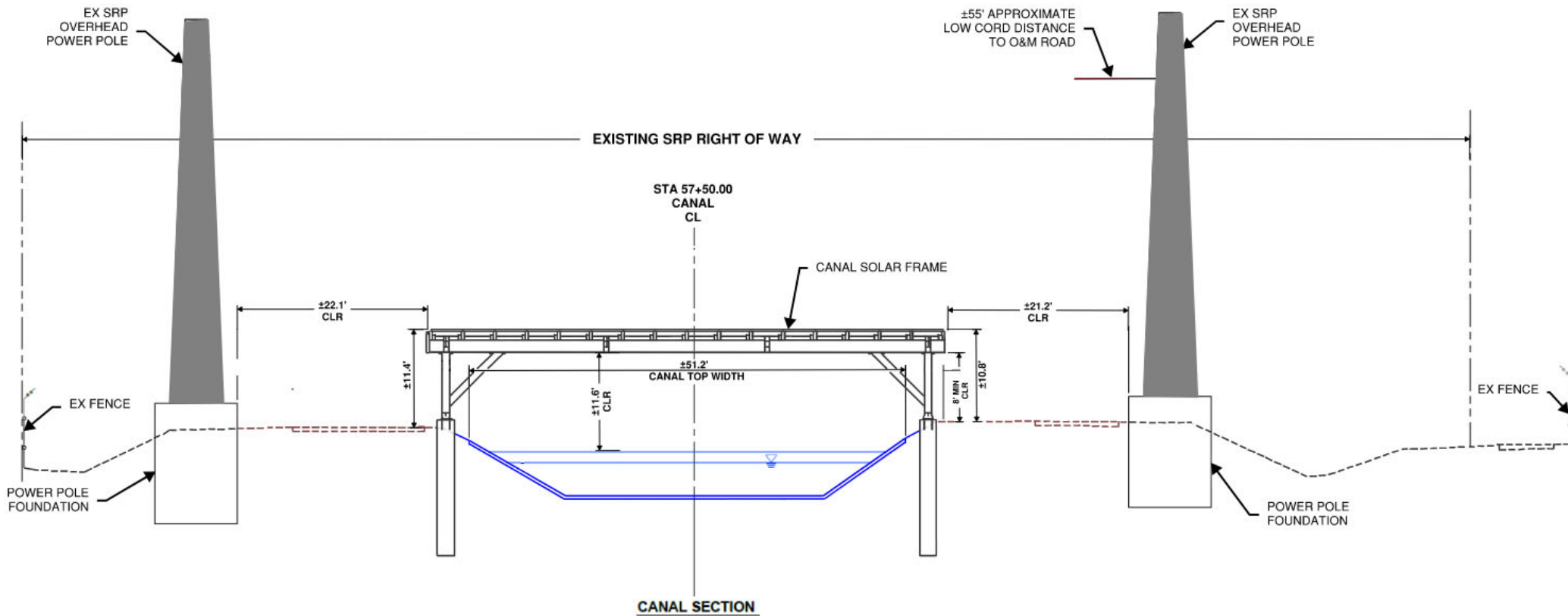
# SMOC 15% Design Overview – Pilot Project

- Grand Canal – Near PERA
- 3 Design Alternatives – ~1000 LF
  - Full Span Basic Support (Elevated) → 1MW
  - Full Span Basic Support (Low) → 1MW
  - Cantilever (Elevated) → 400KW



# 15% Design – Basic Support Frame (Elevated)

## Proposed Cross Section





# SMOC Pilot Project – Construction Estimates

Alternative	Capacity	Estimated Cost	Cost/Watt
Full Span Basic Support (Elevated)	1MW	\$5.7 Million	\$5.7 per watt
Full Span Basic Support (Low)	1MW	\$5.0 Million	\$5.0 per watt
Cantilever (Elevated)	400kW	\$3.4 Million	\$8.1 per watt
Cantilever (Elevated)	1MW	\$6.7 Million	\$6.6 per watt



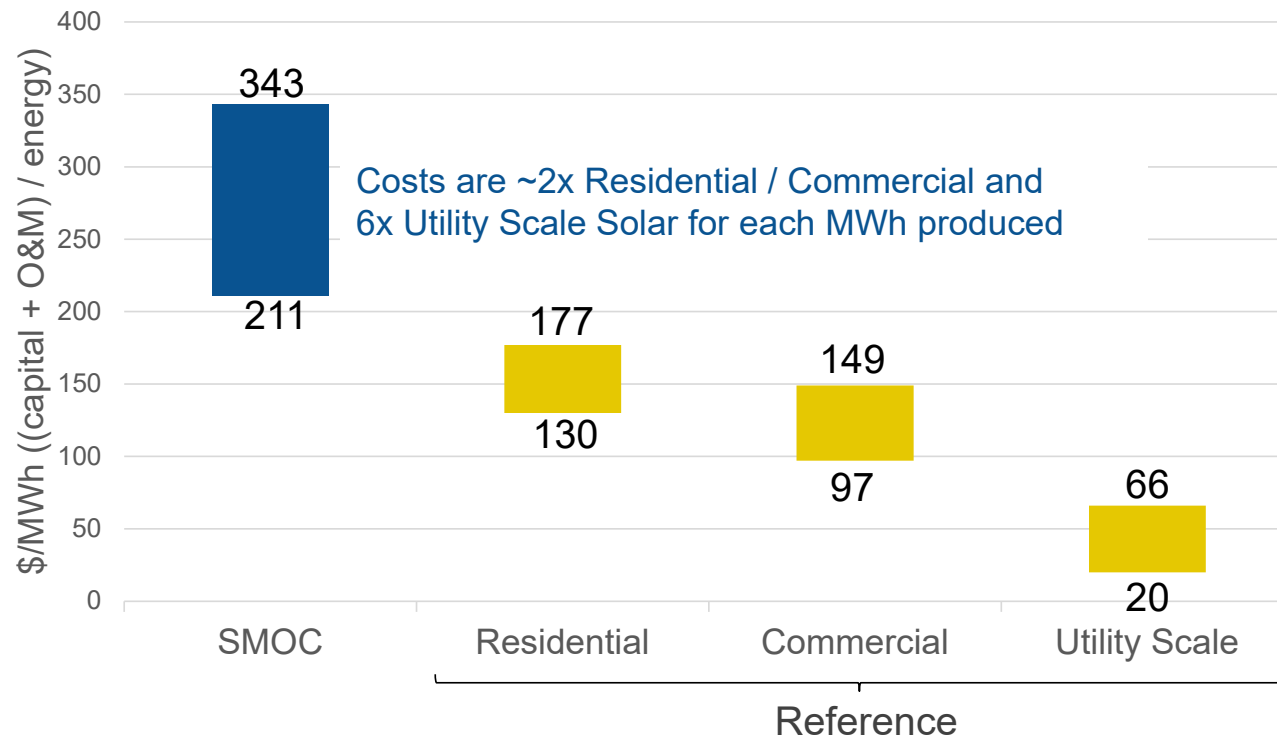
# Capital Cost Comparison

Type of Solar Project	Capital Cost
SMOC 1MW	\$3,900/kW – \$6,600/kW (Based on Full Span Elevated and 1MW Cantilever options)
Residential Solar	\$2,500/kW - \$3,500/kW (2024 Distribution Connected Solar and Storage RFI)
Large C & I	\$2,000/kW - \$2,600/kW (2024 Distribution Connected Solar and Storage RFI)
Utility-scale	\$1,250/kW - \$1,800/kW (SRP Resource Development's \$2024 Solar Cost Est.)

Residential and Commercial & Industrial cost ranges include IRA tax credits. SMOC and Utility Scale assume IRA tax credits in lower end of range due to uncertainty around eligibility for SRP owned assets.

# Levelized Cost Comparison

Fixed-tilt Solar Mounted Over Canal (SMOC) is considerably more expensive than fixed-tilt rooftop and utility scale single-axis-tracking on \$/MWh basis



\*Chart adapted from Power Committee Presentation, Solar and Storage RFI on 10/24/2024. Utility scale pricing based on all proposals received from the 2024 All-Source RFP and do not reflect selected project pricing. Residential and commercial costs are from the Distribution Connected Solar and Storage RFI conducted in summer of 2024.

# SRP/ASU Evaporation Study

- Evaporation Estimation Methodologies

- Pan Evaporation
- Penman-Brutsaert Equation
- Water Isotope Enrichment
- ECOSTRESS



# Impacts of Solar Panels Findings

- ASU Outdoor Lab:
  - Similar Class A Pans set up
    - Open Pan
    - Pans covered by solar panels set at 1 meter
    - Pans covered by solar panels set at 2 meter
  - Monitored: Water Temperature, Water Loss, & Solar Panels
  - Discontinuous vs Continuous Shading



Evaporation Pan on ASU Poly Campus

## Next Steps

- Based on Cost Estimates and Project Concerns – Do not proceed with further design efforts/expense or a potential pilot
- Planning to complete the SRP/ASU Evaporation Work
  - Continue collecting data for Penman-Brutsaert Evaluation (Fall 2025)
  - Continue Isotope sampling (Fall 2025)
  - Continue Evaluation of ECOSTRESS Data (Fall 2025)
  - Develop Conversion For Outdoor Lab Experiment (Fall 2025)

**thank you!**

