

DSW Transmission Draft Ten-Year Plan

Desert Southwest Region | Phoenix, Arizona

August 19, 2026



Agenda

- Annual Meeting Cycle
- Project Life Cycle
- Supplemental Meeting Recap
- Capital Operations and Maintenance (O&M)
- Draft Ten-Year Plan (TYP)
- Prepayment MOU



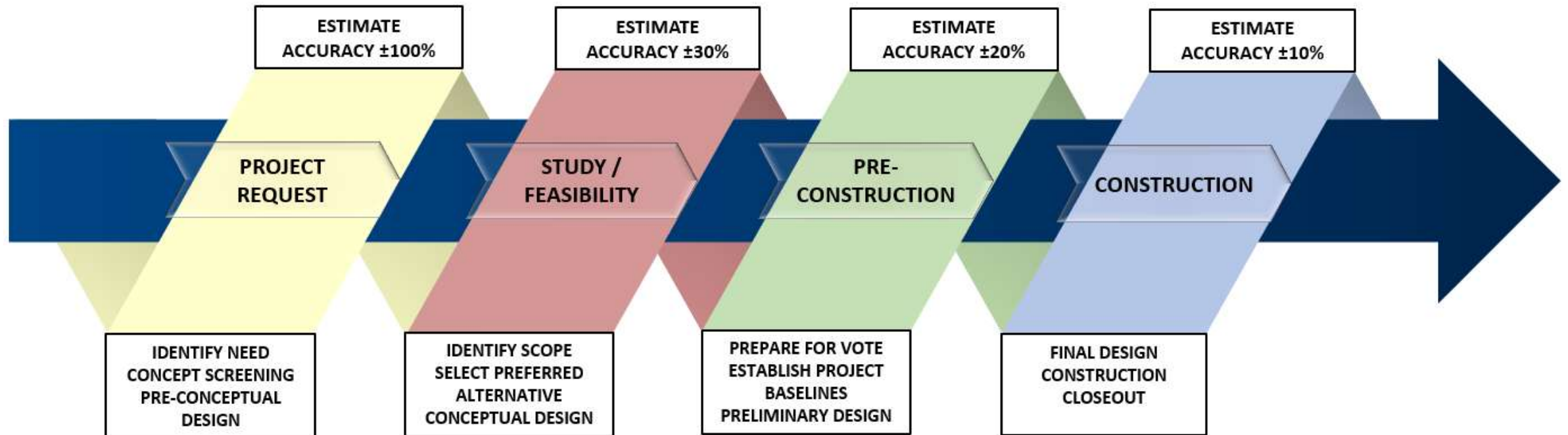
Annual Meeting Cycle



Annual Meeting Cycle



Project Life Cycle



2026 Project Life Cycle Updates

- No analysis of alternatives (AOA) studies performed this cycle
- WAPA will continue to develop pre-construction projects and execute active construction projects through ongoing prioritization efforts
- WAPA will evaluate new projects in the next TYP cycle



Supplemental Meeting Recap

- In mid-June, WAPA proposed budget increases for certain projects ahead of the Prepayment Vote Meeting in December
- These budget increases are included in the Draft TYP being presented today

PROJECT NAME	APPROVED	APPROVED BUDGET	PROPOSED	INCREASE (\$)	INCREASE (%)
Parker – Blythe 161kV #2 Rebuild Phases 1-3	2020	\$41,960,000	\$69,090,000	\$27,130,000	65%
Gila Substation 69kV Rebuild	2021	\$17,900,000	\$28,540,000	\$10,640,000	59%
Oracle – Tucson 115kV Rebuild	2023	\$11,130,000	\$13,980,000	\$2,850,000	26%



Capital O&M

David Dunn
Program Manager



Capital O&M Program: Active Projects

Section 8.2.5 of the Joint Planning Agreement (JPA) states “For any Capital O&M project that has an estimated cost in excess of \$1m, WAPA will provide more detailed information regarding scope and cost.”



Active Projects: Joint Participation

Perkins 500kV Switchyard

- Feature of the Mead-Phoenix Project (MPP)
- Replacement of aging breakers and disconnect switches
- Project cost estimate - \$8.1m; WAPA's FY27 share - \$2.6m

Marketplace Physical Security Project

- Mead-Adelanto Project (MAP) and MPP have cost responsibility
- Installation of CMU block wall and other physical security measures
- MAP cost responsibility - \$13.3m; WAPA's FY27 share - \$0.8m
- MPP cost responsibility - \$13.3m, WAPA's FY27 share - \$3.1m



Active Projects: Communications

Mitel to Cisco Voice over Internet Protocol (VoIP) Program

- This critical system serves all substations, taps, switchyards, communication sites and offices organization-wide
- Existing Mitel system is at the end of its service life with limited support
- WAPA's regions are replacing outdated analog communication equipment, such as hardwired phones
- Project budget: \$1.1m; estimated costs remaining: ~\$655k



Active Projects: Facilities and Security

Mead Control House Sewer Line Repair

- Building constructed over 50 years ago; restroom has backed up numerous times
- Two locations along the line have collapsed, pipe corrosion is severe, and water pooling is prevalent
- Clean, descale, flush the existing 85' four-inch cast iron drain and install a cured-in-place liner; remove and replace 400' four-inch cast iron line with PVC and replace all clean-outs
- Contract awarded in June and work began late July, completion expected by early 2027
- Project budget: \$1.4m; Estimated costs remaining: ~\$944k



Active Projects: Facilities and Security

Security Systems at Mead and Yuma Service Centers

- Installation of replacement system at Mead and new system at Yuma
- Contract includes design, acquisition, installation/replacement of camera systems, along with software and licensing agreements
- Project budget: \$3.1 m; estimated costs remaining: ~\$1.5m



Capital O&M Program

- At prior TYP meetings, shifting the Capital O&M Program to Prepayments was proposed and discussed
- The proposed FY27 Capital O&M budget is now included in the Draft TYP
- FY23 and FY24 actuals are reflective of normal program activity
- FY25 and FY26 actuals are outliers resulting from funding uncertainty, workforce reductions, and infrastructure bottlenecks

FY23	FY24	FY25	FY26	FY27
Actuals			Projected	Proposed
\$10.0m	\$12.8m	\$1.1m	\$9.3m	\$16.0m



Capital O&M Program Categories

Joint Participation Projects - \$6.5m

- Replacements/upgrades associated with multi-party transmission projects in which WAPA is a participant with cost responsibility

Meter and Relays - \$2.7m

- Replacements/upgrades for metering, protective relays, control panels, etc.

Communications - \$0.7m

- Replacements/upgrades for microwave, telecom, joint use radios, RTUs, etc.

Facilities and Security - \$4.2m

- Building/site repairs, perimeter fencing, access roads, security cameras, etc.

Other - \$1.9m

- Bucket trucks, trailers, telehandlers, and other heavy equipment; test and survey equipment and other miscellaneous items

Breaker Replacement Program - \$2.8m*

Total Capital O&M Program: \$16m



*Program will be a separate line item in the Draft TYP

Breaker Replacement Program

WAPA proposes to move breaker replacements from Capital O&M to the Construction Program

- Consistent with TYP given scope and cost
- Facilitates additional visibility, reporting, and customer input
- Provides a more sustainable source of funding for long-lead-time equipment

Breakers have been prioritized for replacement based on a health index score that considers age, maintenance history, design, availability of spare parts, and other factors



Breaker Replacement Program

Annual estimate includes the purchase, installation, and commissioning of five breakers using WAPA's standard specifications

- \$280k for a typical 161kV or 230kV breaker purchase; \$205k for a typical 115kV breaker
- \$270k basic installation per breaker

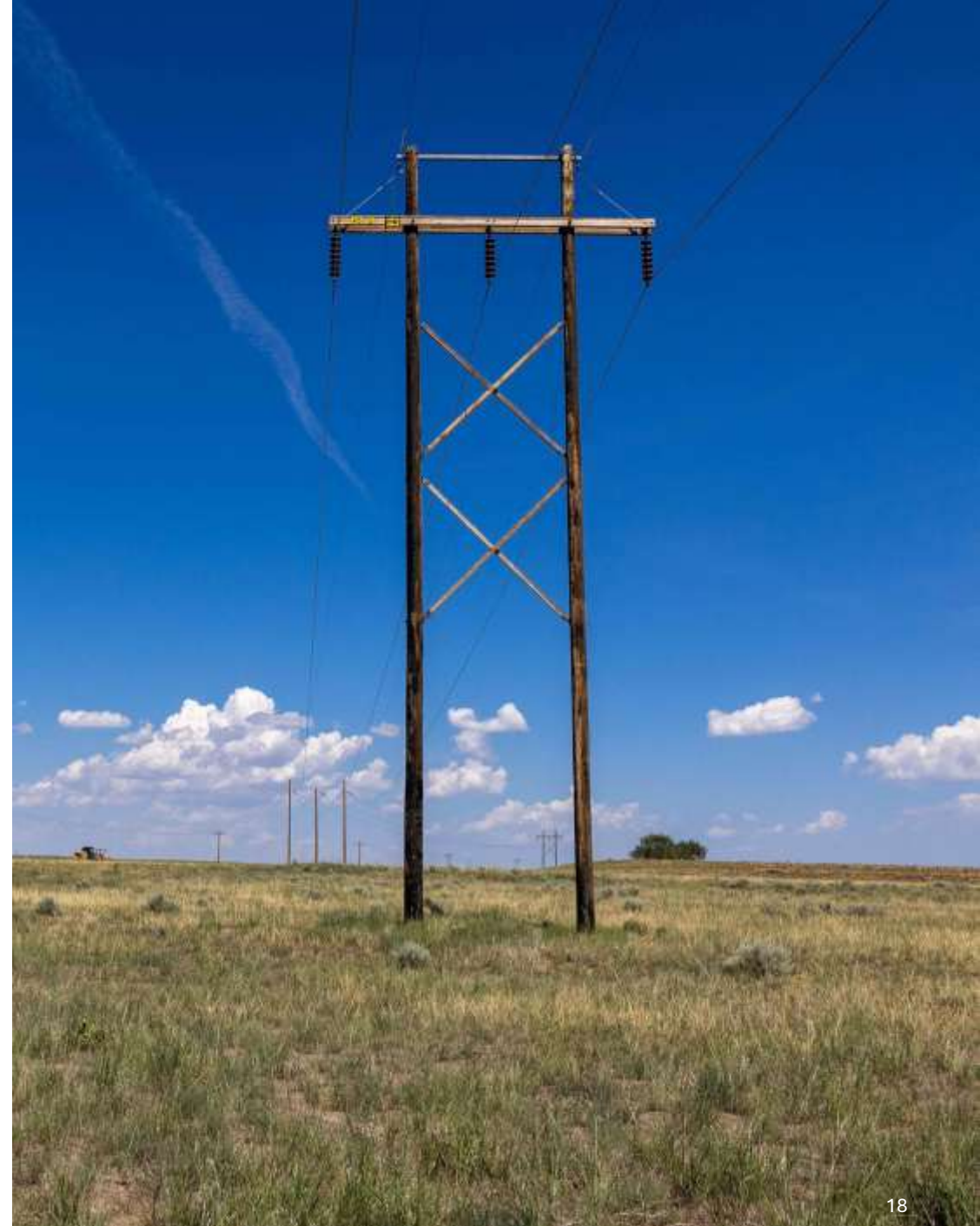
Estimate does not include any costs associated with adjacent disconnect switches, grading capacitors, pad removal, design and replacement; etc.

Proposed budget for FY27-FY29 is \$8.5m using a 3% cost index

FY27	FY28	FY29
\$2,750,000	\$2,833,000	\$2,918,000



Questions or Comments?



Draft TYP

Todd Statler
Transmission Asset Planning Manager (acting)



Active & Pre-Construction Projects

PROJECT NAME	PROJECTED TOTAL BUDGET	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
Capital O&M	\$15,969	\$15,969									
Breaker Replacement Program FY27-FY29	\$8,501	\$2,750	\$2,833	\$2,918							
Bouse-Kofa 161kV Rebuild	\$26,520	\$400									
Liberty Station Service Replacements	\$1,390	\$675	\$32								
Crossman Peak Microwave Facility	\$4,525	\$900	\$100								
Oracle-Tucson 115kV Rebuild	\$13,980	\$7,850	\$3,500	\$86							
Coolidge Station Service Replacements	\$3,673		\$500	\$1,510	\$1,633						
Wood Pole Replacement Program FY26-FY28	\$15,000	\$6,300	\$3,431								
Gila-Knob 161kV Remaining Rebuild	\$32,322	\$26,210	\$1,762	\$1,684							
Bouse Upgrade Project	\$79,436	\$61,402	\$5,386	\$4,471	\$570						
Gila Substation 69kV Rebuild	\$28,538	\$2,721	\$18,221	\$1,865	\$1,268						
Parker-Blythe 161kV #2 Rebuild Phase 1	\$23,678	\$16,352	\$2,297	\$2,241	\$177						
Parker-Blythe 161kV #2 Rebuild Phase 2	\$21,353	\$251	\$16,381	\$2,194	\$1,801	\$244					
Parker-Blythe 161kV #2 Rebuild Phase 3	\$24,052	\$318	\$545	\$1,368	\$19,300	\$2,346	\$175				
Gila Substation 34.5kV Rebuild	\$16,477	\$29	\$1,423	\$381	\$11,808	\$1,296	\$1,087				

***NOTE:** All values in thousands of dollars



Proposed Out-Year Projects

PROJECT NAME	PROJECTED TOTAL BUDGET	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
Capital O&M Program	\$108,000		\$12,000	\$12,360	\$12,731	\$13,113	\$13,506	\$13,911	\$14,329	\$14,578	\$15,201
Mead Redundant Bus Diff Relays 230kV	\$4,300		\$2,936	\$1,112	\$252						
Mead Redundant Bus Diff Relays 500kV	\$1,801		\$1,694	\$73	\$34						
Blythe-Headgate Rock #1 161kV Rebuild	\$23,900		\$1,195	\$100	\$100	\$9,560	\$11,711	\$1,234			
Wellton New Control Building	\$3,800		\$500	\$100	\$100	\$2,600	\$500				
Parker Substation 161kV Replacements	\$16,850		\$800	\$100	\$100	\$13,550	\$1,800	\$500			
Parker Substation 230kV Replacements	\$12,100			\$800	\$100	\$100	\$9,800	\$1,300			
Bouse-Headgate Rock 161kV Rebuild	\$8,995				\$800	\$100	\$100	\$7,495	\$500		
Wood Pole Replacement Program FY29-FY31	\$15,000			\$5,000	\$5,000	\$5,000					
Breaker Replacement Program FY30-FY32	\$9,000				\$3,000	\$3,000	\$3,000				
Wood Pole Replacement Program FY32-FY34	\$15,000						\$5,000	\$5,000	\$5,000		
Breaker Replacement Program FY33-FY35	\$9,000							\$3,000	\$3,000	\$3,000	
Wood Pole Replacement Program FY35-FY37	\$15,000									\$5,000	\$5,000
Breaker Replacement Program FY36-FY38	\$3,000										\$3,000
Fiscal Year Totals - All Projects		\$133,303	\$66,166	\$40,747	\$59,366	\$26,311	\$48,172	\$44,911	\$31,529	\$21,500	\$21,000

***NOTE:** All values in thousands of dollars



Rate Impacts

Tina Ramsey
Rates Manager



Rate Impacts: Active and Pre-construction Projects

PROJECT NAME	IN SERVICE DATE	INTEREST RATE	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
Prior Year Projects (Pending Closeout)	2026 +	various	\$ 0.26	\$ 0.52	\$ 0.67	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82	\$ 0.82
Capital O&M	2027	various		\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16
Breaker Replacement Program FY27-FY29	2029	various				\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11
Bouse-Kofa 161kV Rebuild	2027	3.000%		\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21
Liberty Station Service Replacements	2028	3.000%			\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01	\$ 0.01
Crossman Peak Microwave Facility	2028	3.000%			\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04
Oracle-Tucson 115kV Rebuild	2029	3.000%				\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11	\$ 0.11
Wood Pole Replacement Program FY26-FY28	2028	4.750%			\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16
Coolidge Station Service Replacements	2030	4.750%					\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05
Gila-Knob 161kV Remaining Rebuild	2029	3.000%				\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Bouse Upgrade Project	2030	3.000%					\$ 0.64	\$ 0.64	\$ 0.64	\$ 0.64	\$ 0.64	\$ 0.64
Gila Substation 69kV Rebuild	2030	3.000%					\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.28
Parker-Blythe 161kV #2 Rebuild Phase-1	2030	3.000%					\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20	\$ 0.20
Parker-Blythe 161kV #2 Rebuild Phase-2	2031	3.000%						\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18	\$ 0.18
Parker-Blythe 161kV #2 Rebuild Phase-3	2032	4.875%							\$ 0.26	\$ 0.26	\$ 0.26	\$ 0.26
Gila Substation 34.5kV Rebuild	2032	4.000%							\$ 0.16	\$ 0.16	\$ 0.16	\$ 0.16

***NOTE:** All values in dollars per kW-Year



Rate Impacts: Proposed out-year Projects

PROJECT NAME	IN SERVICE DATE	INTEREST RATE	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36
Capital O&M Program	Yearly	various			\$ 0.13	\$ 0.13	\$ 0.14	\$ 0.14	\$ 0.15	\$ 0.15	\$ 0.16	\$ 0.16
Mead Redundant Bus Diff Relays 230kV	2031	5.125%						\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05
Mead Redundant Bus Diff Relays 500kV	2031	5.125%						\$ 0.02	\$ 0.02	\$ 0.02	\$ 0.02	\$ 0.02
Blythe-Headgate Rock #1 161kV Rebuild	2034	5.125%									\$ 0.25	\$ 0.25
Wellton New Control Building	2033	5.125%								\$ 0.04	\$ 0.04	\$ 0.04
Parker Substation 161kV Replacements	2034	5.125%									\$ 0.18	\$ 0.18
Parker Substation 230kV Replacements	2034	5.250%									\$ 0.13	\$ 0.13
Bouse-Headgate Rock 161kV Rebuild	2035	5.250%										\$ 0.11
Wood Pole Replacement Program FY29-FY31	2031	5.125%						\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17	\$ 0.17
Breaker Replacement Program FY30-FY32	2032	5.250%							\$ 0.13	\$ 0.13	\$ 0.13	\$ 0.13
Wood Pole Replacement Program FY32-FY34	2034	5.250%									\$ 0.16	\$ 0.16
Breaker Replacement Program FY33-FY35	2035	5.250%										\$ 0.13
Wood Pole Replacement Program FY35-FY37	2037	5.250%										
Breaker Replacement Program FY36-FY38	2038	5.250%										
Total /kW-Year			\$ 0.26	\$ 0.89	\$ 1.38	\$ 2.01	\$ 3.19	\$ 3.62	\$ 4.17	\$ 4.22	\$ 4.96	\$ 5.19
Total /kW-Month			\$ 0.02	\$ 0.07	\$ 0.11	\$ 0.17	\$ 0.27	\$ 0.30	\$ 0.35	\$ 0.35	\$ 0.41	\$ 0.43

***NOTE:** All values in dollars per kW-Year



Draft FY27 TYP

Any questions or comments?

- Please submit any feedback by September 16th to the following email: DSW_TenYearPlan@wapa.gov



Prepayment MOU

John Paulsen
Operations Manager (acting)



Moving Capital O&M to Sustainable Funding

- WAPA proposes to utilize prepayments under the JPA to fund DSW's Capital Program
- A modified Prepayment MOU will facilitate voting on DSW's Capital O&M
- DSW's Capital O&M will be sustainable and transparent



MOU Modification Summary

- Aligns MOU with JPA and current TYP process
- Updates pricing mechanism and incorporates all DSW long-term firm transmission service under OTR
- Introduces the term DSW Capital Program
 - Combines Construction and RRADs (Capital O&M) definitions from the JPA
- Voting for yearly Capital O&M plan using prepayments



MOU Forum

Materials available on DSW's [Capital Program website](#):

- Existing MOU
- Modified MOU
- Redline MOU

We invite your feedback and questions



Next Steps

Q3 TYP Meeting (Final Plan)

- Tentatively scheduled for September 24th
- DSW's Final TYP for FY27 will be presented
- Vote on Prepayment MOU modification

Q4 TYP Meeting (Prepayment Funding)

- Will be scheduled for the week of December 7th
- Vote on the use of Prepayments for DSW's Capital Program



Contact WAPA

Ten-Year Plan

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Prepayment MOU

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