SPPR Group Proposal

Should Western pursue a TIP-financed project to enhance the Parker-Davis Project transmission system South of Phoenix?

October 6, 2010

Recap from June 23, 2010, Customer Meeting

- June 23rd Presentation and Comments can be found at:
  - http://www.wapa.gov/dsw/pwrmkt/Ed5

- Next Steps identified at June meeting:
  - Determine Renewable Nexus
  - Analysis of Alternatives
  - Initiate Transmission Planning Studies
  - Refine the Project Proposal
  - Follow up with customers on Revised Proposal

Today's Agenda

1. **Next Steps from June 23rd:**
   - Renewable Nexus …… Todd Rhoades
   - Analysis of Alternatives/Project Descriptions .. Todd Rhoades
   - Transmission System Planning Studies ..... Josh Johnston
2. **Business Needs Discussion** …… Todd Rhoades
3. **Revised ED5-Palo Verde Hub Project Proposal** ..... Todd Rhoades
   - Marketability …… John Steward
   - Cost and Financing …….... Jack Murray
   - Rate Treatment …… Jack Murray
   - Benefits of Proposed Project …… Todd Rhoades
   - Summary …… Todd Rhoades
4. **Proposed Timeline** ……..…..... Todd Rhoades
5. **Discussion / Comments**

Renewable Nexus Statements of Interest

1. Federal Register Notice requesting Statements of Interest (SOI) issued July 26, 2010, seeking interest in long-term firm transmission to deliver renewable energy from south of Phoenix to Palo Verde Hub
2. Western received 8 SOIs from 5 entities submitted by renewable resource developers
   - SOI's vary between 40 MW – 1,000 MW of transmission service
   - The 8 SOI's total approximately 2,000 MW
   - The renewable resources include Wind, Solar, Photovoltaic, Flash Geothermal

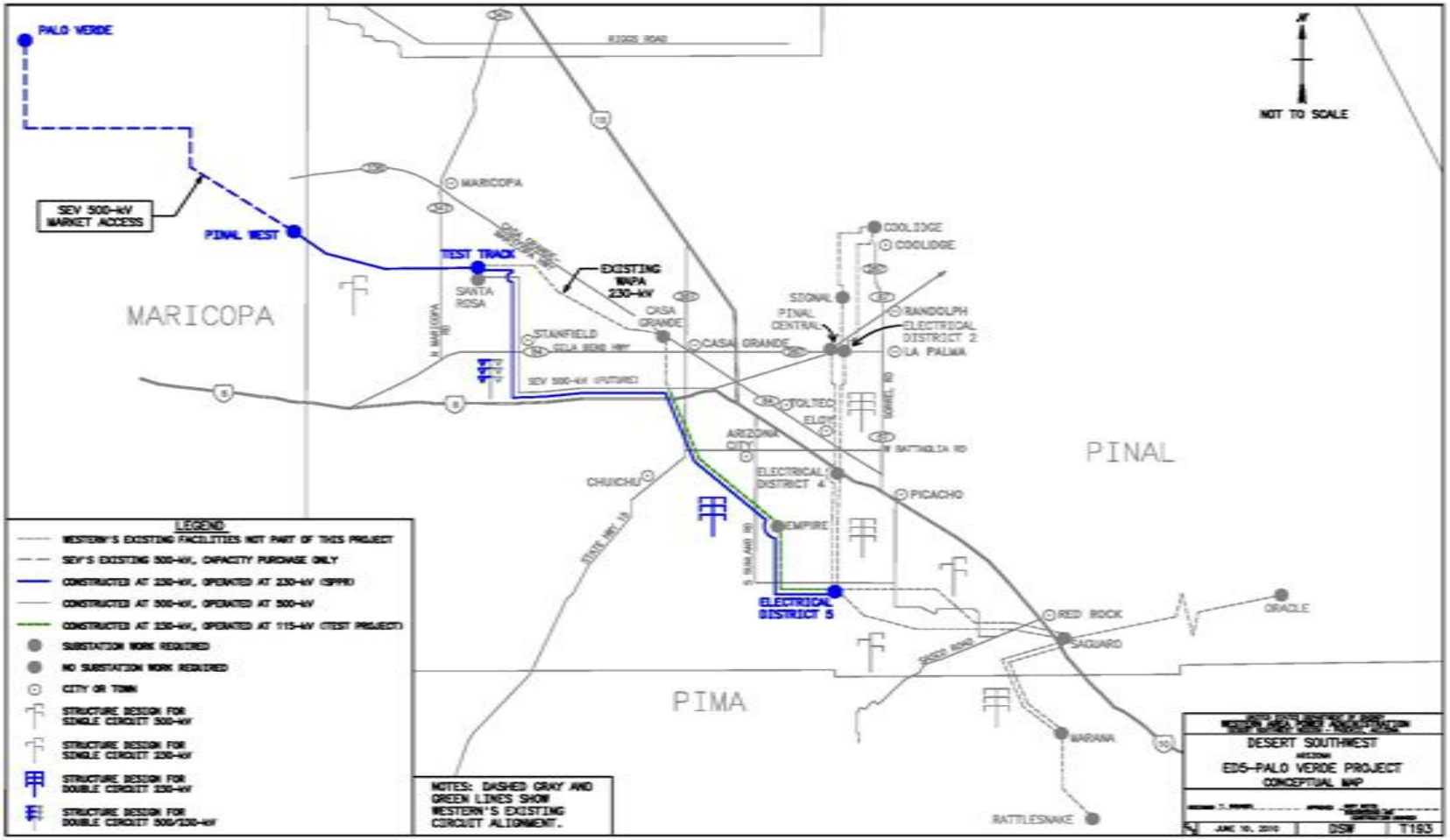
Renewable Nexus Transmission Service Request

- Additionally, Western has received a transmission service request for 300 MW from ED-5 to Palo Verde Hub.
- This request is associated with a renewable generation project.

Analysis of Project and Alternatives

1. ED5- Palo Verde Hub (SPPR Proposal)
2. ED5-Casa Grande – Palo Verde Hub
3. Test Track – Palo Verde Hub (OATT Alternative)

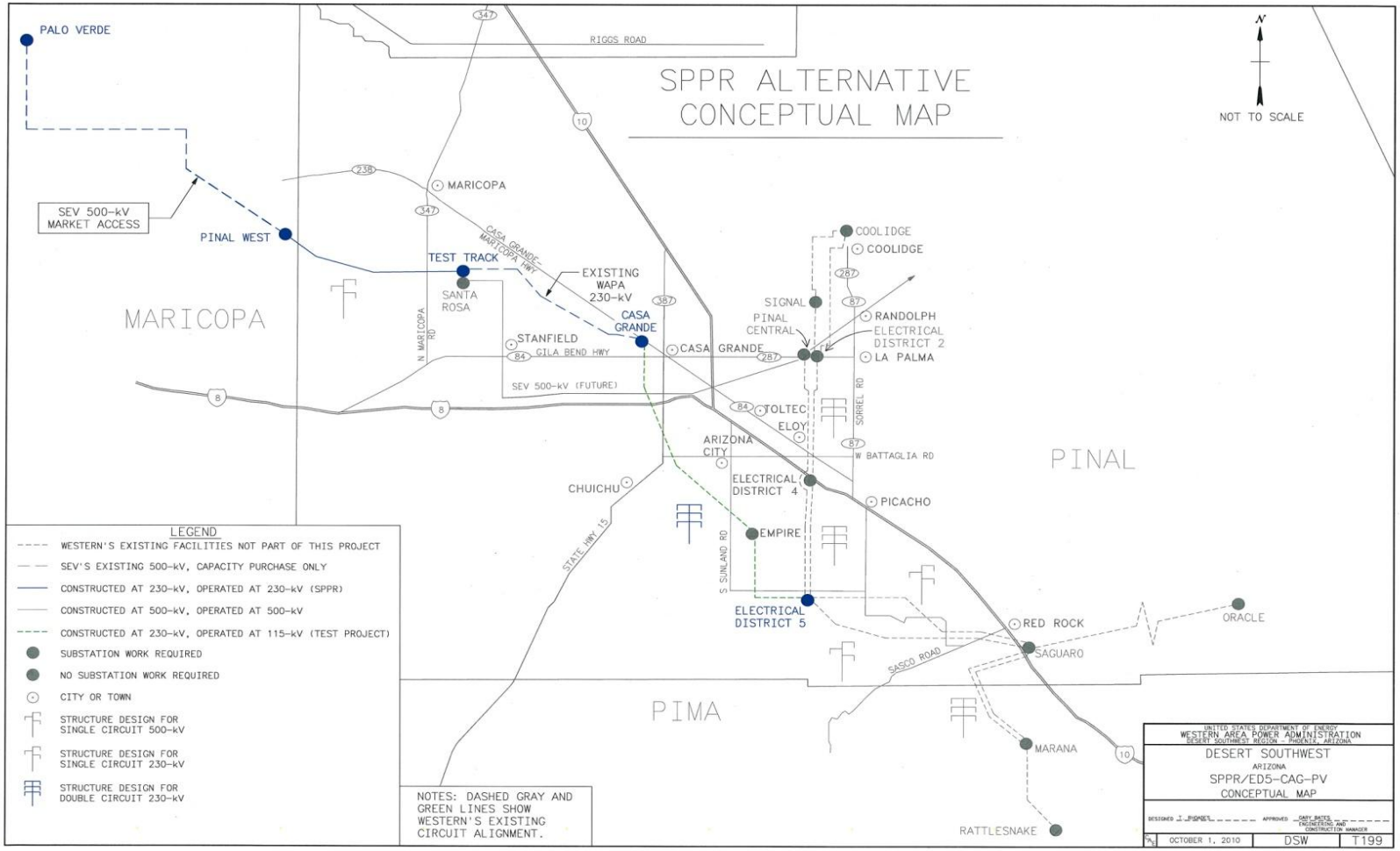
ED5-Palo Verde Hub Project



ED5-Palo Verde Hub Project Description

1. The major elements of the project are:
   - Participation in 500-kV Southeast Valley Project from Hassayampa to Santa Rosa/Test Track
   - Conversion of 230-kV switchyard at Test Track Substation from Ring Bus to Breaker-and-One-Half configuration and addition of new bays
   - Construction of a new 230-kV ED5-Test Track Line; this line is under built on the SEV 500-kV Pinal Central-Santa Rosa Line, and double circuited with Western's CAG-EMP-ED5 115-kV Line
   - Conversion of the ED5 115-kV Tap to a Breaker-and-One-Half switchyard (built to 230-kV standards) and interconnection of a new 230/115 transformer
2. Estimated Construction Cost: $75.4M; does not include financing and overhead costs

ED5-CAG-Palo Verde Hub Project Alternative

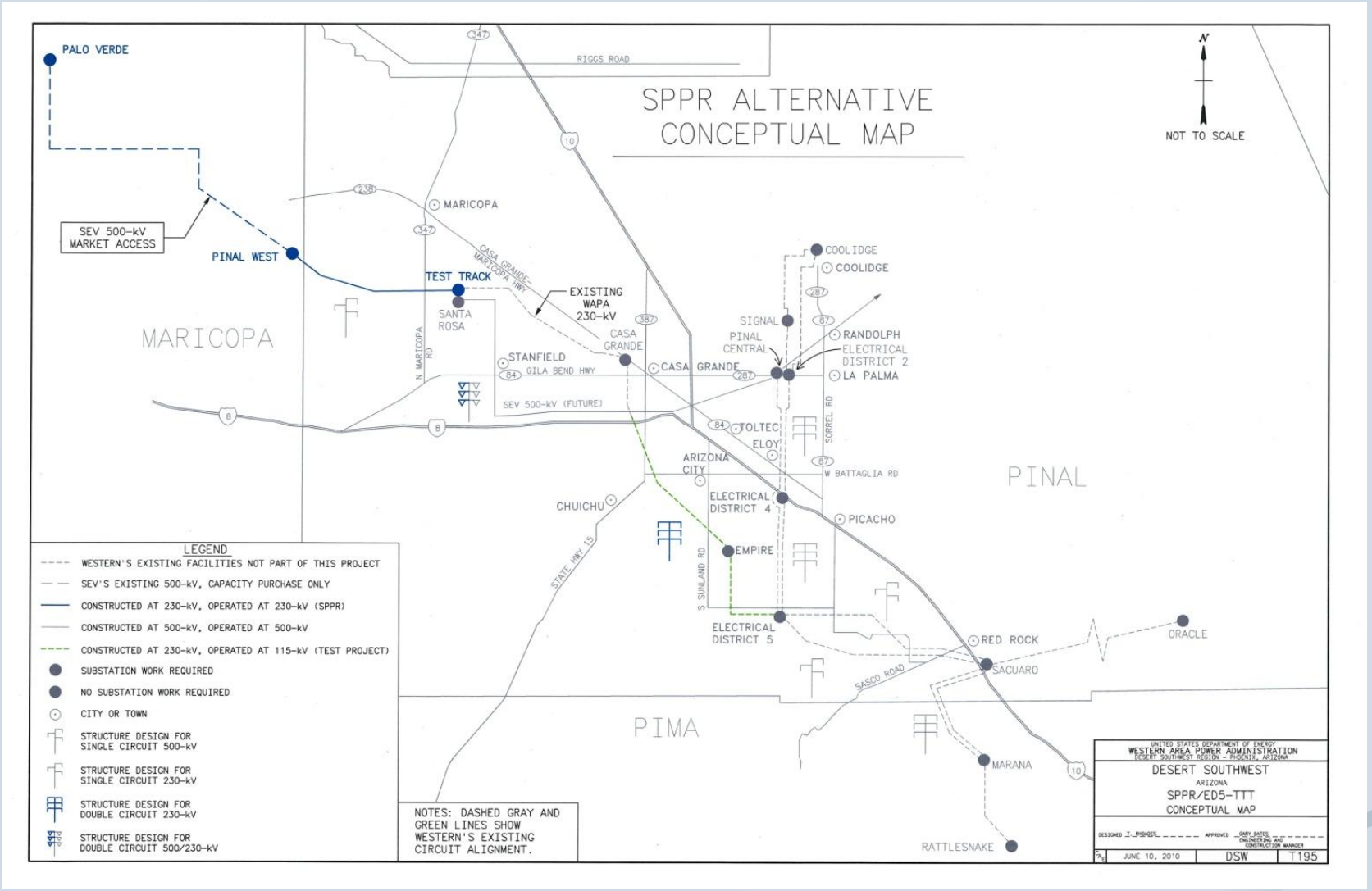


ED5-CAG-Palo Verde Hub Alternative Description

1. The major elements of this alternative are:
   - Participation in 500-kV SE Valley Project from Hassayampa to Santa Rosa/Test Track
   - Conversion of 230-kV switchyard at Test Track Substation from Ring Bus to Breaker-and-One-Half configuration and addition of a new bay
   - Construction of a new 230-kV CAG Switchyard (ring bus); removal of the existing 230/115 transformer and replacement of 115/12.5 transformers with 230/12.5
   - Conversion of the ED5 115-kV Tap to a Breaker-and-One-Half switchyard (built to 230-kV standards) and interconnecting a new 230/115 transformer
2. Estimated Construction Cost: $65.9M; does not include financing and overhead costs

NOTE: Requires participation by ED-4 for upgrades at Empire Substation

TTT-Palo Verde Hub Project Alternative



TTT-Palo Verde Hub Alternative Description

1. The major elements of this alternative are:
   - Participation in 500-kV SE Valley Project from Hassayampa to Santa Rosa/Test Track
   - Conversion of 230-kV switchyard at Test Track Substation from Ring Bus to Breaker-and one-Half configuration and addition of a new bay

2. Estimated Construction Cost: $29.9M; does not include financing and overhead costs

TTT-Palo Verde Hub Alternative Description (continued)

If TIP financing is not pursued, this alternative's configuration may proceed under Western's OATT.

- **The Transmission Service Request of 156 MW serving load from PVH to various delivery points on P-DP will require Western to evaluate the Test Track-PVH project segment under the tariff.**
- **Some or all of the project segments could qualify as network upgrades for which the customer may be eligible for transmission service credits.**

Transmission System Planning Studies

Western performed high-level power flow studies for the three alternatives, with these results:

1. **ED5-PV Hub Project**
   - **Capable of supporting over 400 MW of renewable generation**
   - **Could support up to 700 MW of renewable generation when ED5-Saguaro 115-kV Line upgraded (in TYP)**

2. **ED5-CAG-PV Hub Project**
   - **Capable of supporting up to 350 MW of renewable generation**

3. **TTT-PV Hub Project**
   - **Capable of supporting up to 250 MW of renewable generation**

Transmission System Planning Summary

- All three alternatives capable of serving the 156MW request for load serving
- The Test Track – PVH option not capable of supporting an additional 300MW of generation
- The ED5 – PVH option provides the greatest load-serving capability for future customer load growth
- The amount of renewable generation able to be supported and the path ratings are dependent on:
  - Where generation is sited
  - Where generation output is delivered
- Western currently working on technical studies to establishing path rating(s)

Business Needs Met by the Proposed ED5-PV Hub Project

- Responsive to customer request to accommodate future load growth
- Provides necessary upgrade to transmission system South of Phoenix
- Enhances reliability and improves safety
- Supports renewable generation development
- Enhances opportunity for additional transmission sales
- Creates additional market access

ED5-PV Hub Project Proposal

- Proposal resulted from SPPR Group's Statement of Interest on May 14, 2010
- Proposed project would support members' load growth and development of renewable generation in the area south of Phoenix
- Proposal includes use of borrowing authority under Western's Transmission Infrastructure Program

ED5-Palo Verde Hub Project Proposal
(continued)

Federal Assets Resulting from the Project:

- New Transmission Rights on PVH-Test Track
  - PV to Test Track – 156 MW of capacity
  - Test Track to PV – 300 MW of capacity
- New 230-kV ED5-Test Track Transmission Line
- Additions and upgrades at Western's 230-kV Test Track Switchyard
- Additions and upgrades at Western's 230/115-kV ED5 Substation

ED5-Palo Verde Hub Project-Marketability

New transmission services between Palo Verde Hub-Test Track-ED5:

- 156 MW have been requested for load serving
- 300 MW have been requested for renewable generation
- SOIs received for ~2,000 MW of transmission supporting delivery of renewable energy

ED5-Palo Verde Hub Project-Marketability (continued)

- New transmission capacity may attract generation/transmission Interconnection requests and the purchase of additional capacity
- Western would be able to market unscheduled firm capacity as non-firm, resulting in downward pressure on P-DP transmission rate
- Provides accessibility to Palo Verde Hub for all P-DP customers
- Customers will be able to continue using P-DP to meet their transmission needs instead of exploring alternatives

ED5-PV Hub Project Cost & Financing

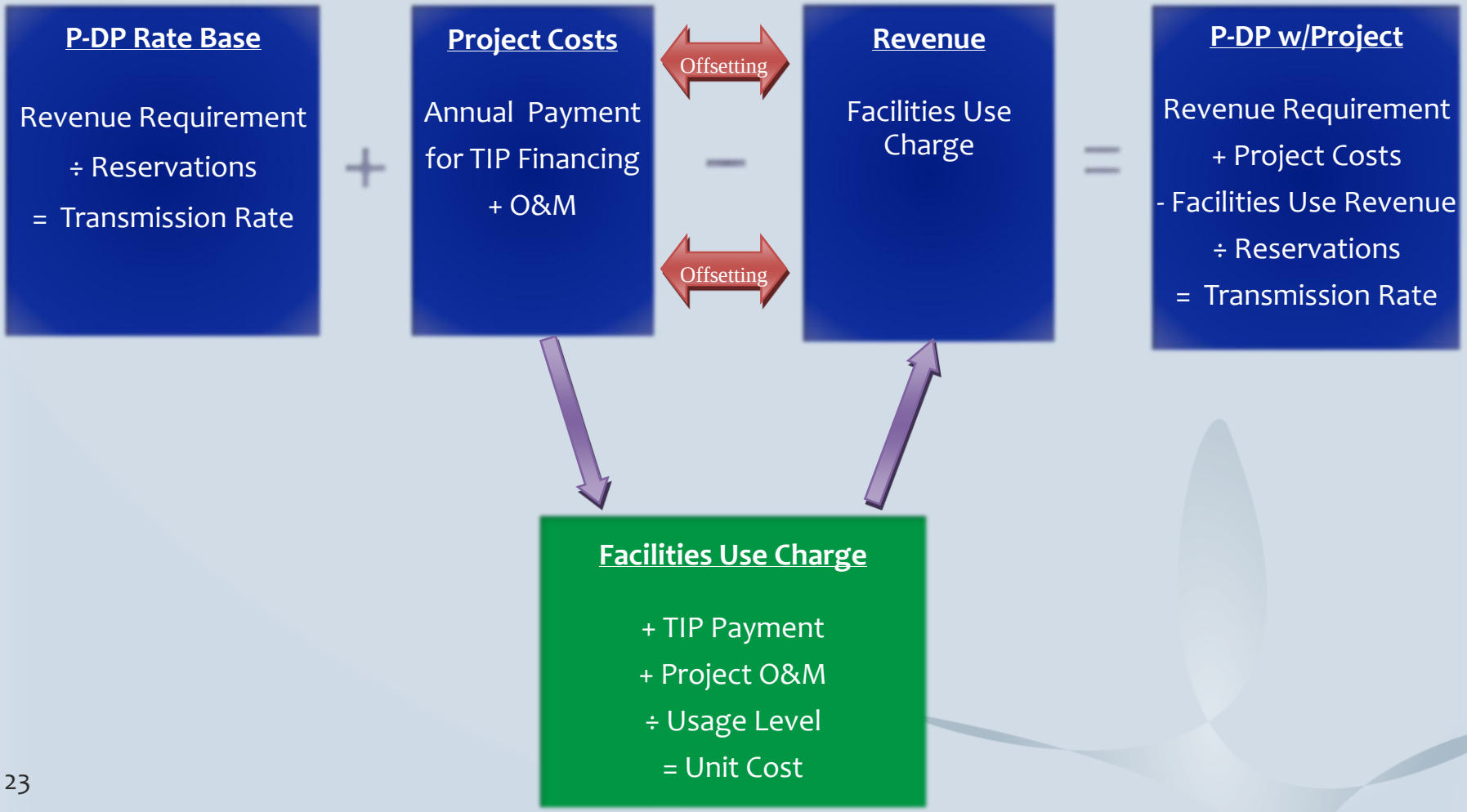
Estimated Construction Costs (in millions)	
New Transmission Rights (SEV Project)	$26.4
New 230-kV Transmission Line (ED5-Test Track)	27.6
Additions/Upgrades at Substations (ED5 & Test Track)	21.4
Total	$75.4
Level Annual Payment for TIP Financing	$4.1

- **TIP financing structured using a series of loans with multiple maturity dates**
- **Level annual payment based on interest rates as of Sept. 2, 2010**
- **Effective financing rate of 3.89% (PMA rate is 4.00%)**

ED5-PV Hub Project
Proposed Rate Treatment

- All costs associated with the ED5-PV Hub Project will be included in the P-DP rate formulation, but kept separate through a *Facilities Use Charge*
- Revenue from the ED5-PV Hub Project capacity upgrades will also be included in the P-DP rate formulation, but kept separate through a *Facilities Use Charge* to offset costs
- The Beneficiaries and Participants of the ED5-PV Hub Project share the costs and benefits via a Facilities *Use Charge*
- This approach uses an existing cost recovery mechanism and shields current customers from adverse rate impacts, in the event transmission reservations using the new capacity decrease from current forecasts

ED5-PV Hub Project
Facilities Use Charge Concept



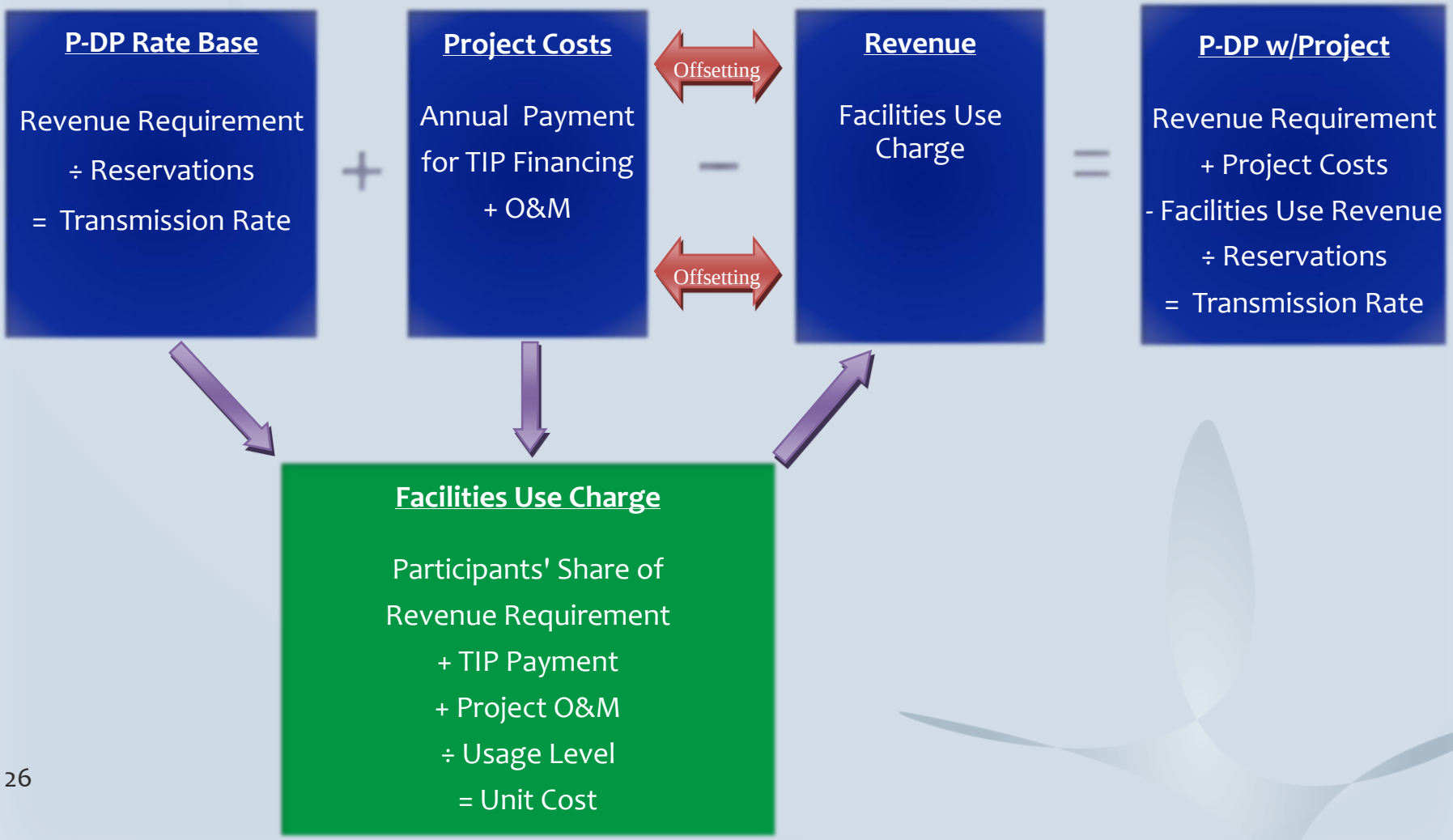
ED5-PV Hub Project
Facilities Use Charge Concept (continued)

- The Facilities Use Charge will be the usage level, multiplied by the unit cost
- Depending on usage levels, the unit cost may be more or less than the transmission rate
- Preliminary analysis indicates that a usage level of ~ 228 MW is required for the unit cost to equal the projected FY 2015 transmission rate
- A usage level above ~ 228 MW results in a unit cost lower than the projected FY 2015 transmission rate

ED5-PV Hub Project
Facilities Use Charge Concept (continued)

- Existing customers can elect to become a Beneficiary and participate in the ED5-PV Hub Project Facility Use Charge
- Customers that do participate must continue participation through the term of their transmission service agreement
- The Participants' share of the transmission revenue requirement will be included in the Facilities Use Charge

ED5-PV Hub Project
Facilities Use Charge Concept (continued)



ED5-PV Hub Project
Facilities Use Charge Concept (continued)

- Transmission customers of the newly created capacity must elect to be Beneficiaries of the Project
- Other P-DP customers may elect to be Beneficiaries of the Project by voluntarily opting in, and are referred to as "Participants"
- Beneficiaries must have both a transmission service and a facility use agreement
- Participants will continue to use existing transmission service agreements, and will need Facilities Use Charge agreements

ED5-PV Hub Project
Facilities Use Charge Concept
(continued)

- Beneficiaries and Participants will be charged for transmission service and facilities use
- However, since their share of the costs will be recovered in the Facilities Use Charge, the transmission charge will be fully credited
- As a result, all Beneficiaries will only pay the facilities use charge plus applicable ancillary services
- This allows the use of Project facilities without pancaked transmission rates

Benefits of the Proposed Project

- Facilitate the delivery of renewable generation through transmission service requests and FRN responses
- Respond to customer Request to work with them to serve load South of Phoenix
- Reduce transmission rate pancaking for numerous P-DP customers
- Reduce potential downside risk of current Parker-Davis reservation levels if customers are not able to utilize Parker-Davis system effectively

Benefits of the Proposed Project (continued)

- Provide access to the Palo Verde Hub for P-DP customers
- Insulate existing P-DP customers from project-related rate increases and give them an opportunity to participate
- Provide funding for the Ten Year Plan ED5 Switchyard upgrade scheduled for construction beginning in FY 2014 and in-service in FY 2018.

Summary of ED5-PV Hub Project Proposal

- The ED5-PV Hub Project is currently proposed as a P-DP financed by Western's TIP
- Project Cost: $75.4 million plus financing costs
- Transmission service will be marketed through Western's Tariff
- Current requests in Western's Queue total 456 MW

Proposed Timeline

- P-DP Customer meeting to present proposed plan — Oct. 6, 2010
- Receive comments on Project Proposal — Oct. 22, 2010
- Notify customers of decision on proposal — Nov. 19, 2010
- If sufficient support from customers is received:
  - Begin NEPA Documentation for project — Dec. 1, 2010
  - Submit TIP funding application material to CSO/TIP office — Dec 1, 2010
  - Project update including additional information on Facilities Use Charge — Spring 2011
  - Signed TSR contracts — June 2011
- Signed construction and participation agreements — July 2011
- Receive first TIP funding — October 2011

Discussion / Comments

- Please submit your comments by October 22, 2010
- E-mail address: DSWPWRMKT@wapa.gov

- POC Information:
  - Project Management: Todd Rhoades
  - Construction: Gary Bates
  - Planning & Technical Studies: Josh Johnston
  - Transmission Marketability: John Steward
  - Finance and Rates: Todd Statler