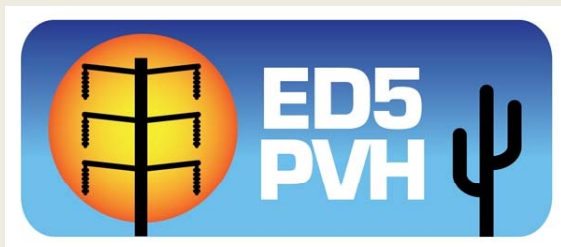


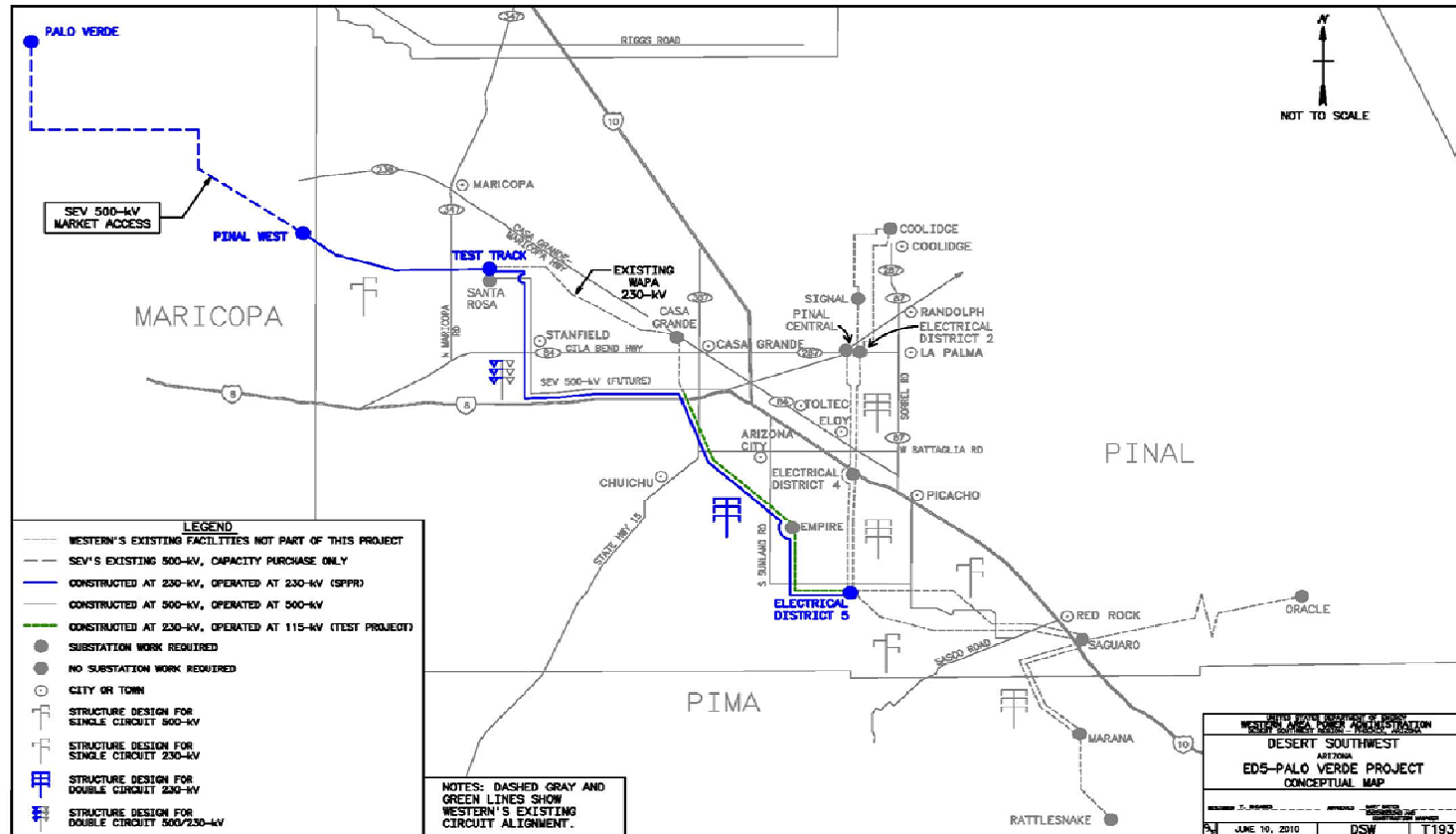
ED5-PVH Project Update

Western's TIP-financed project to enhance the Parker-Davis Project transmission system South of Phoenix



December 2012

ED5-Palo Verde Hub Project



Project Description

The major elements include:

- Acquire transmission rights on Southeast Valley Project's 500-kilovolt Hassayampa-to-Duke/Test Track line.
- Convert 230-kV switchyard at Test Track Substation from a "ring bus" configuration to a "breaker-and-one-half bus" configuration with new bays.
- Construction of a new 230-kV ED5-Test Track Line; this line is under built on the SEV 500-kV Pinal Central-Duke Line, and double circuited with Western's CAG-EMP-ED5 115-kV Line.
- Upgrade the ED5 115-kV Tap Switchyard to 230-kV standards and install a new 230/115 kV transformer.



Project Accomplishments

- Project Approved and Funded September 14, 2011
- Project Documents and Agreements October 2011
 - SEV Project Rights Assignment Agreements
 - Transmission Line Attachment Agreement
- Funds drawn from Treasury Nov 11/Apr 12/Jul 12
- Materials and Equipment Awards
 - 230/115 kV Transformer – ED5 Sub July 2012
 - 230-kV Breakers - ED5 and TTT Subs August 2012
 - Instrument Transformers – ED5 Sub September 2012
- Construction Contract Awards
 - ED5-Thornton Road Line September 2012
 - ED-5 Substation Upgrade November 2012



Project Timeline

- Construction begins Fall 2012

- Materials and Equipment Awards :
 - Control Panels/Relays Dec. 2012-Feb. 2013
 - Instrument Transformers – TTT Sub January 2013

- Construction Contract Awards:
 - Test Track Substation Expansion April 2013

- Estimated Construction Completion:
 - 230-kV ED5-Thornton Road Line June 2013
 - 230-kV Thornton Road-Test Track Line January 2014
 - ED-5 Substation Upgrade April 2014
 - SEV Project – PV-Duke Line and Yards May 2014
 - Test Track Substation Expansion July 2014
 - System Testing October 2014

- System In-Service January 1, 2015



Project Cost Estimate

Project Construction Item	Estimated costs (in millions)
New Transmission Rights (SEV Project)	\$ 23.5
New 230-kV Transmission Line (ED5-Test Track)	\$ 25.1
Upgrades at substations (ED5 & Test Track)	\$ 28.0
Project Management and Construction Overhead	\$ 1.7
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Construction Project Base Cost	\$ 78.3
Management Reserve	\$ 3.2
Financing and Indirect Costs	\$ 3.6
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Total Estimated Project Costs	\$85.1

Project Marketing

Starting in January 2015, Western customers can anticipate:

- **Surplus transmission capacity available**
 - **Available transmission capacity will be posted on OASIS**

- **Long-term Firm Transmission Service to begin**

Points of Contact

Project Management	Todd Rhoades	602-605-2313
Environmental	Linda Hughes	602-605-2524
Planning & Technical Studies	Josh Johnston	602-605-2634
Transmission Marketability	John Steward	602-605-2774

Additional information is available online at:
<http://ww2.wapa.gov/sites/western/recovery/project/Pages/ED5PVH.aspx>

