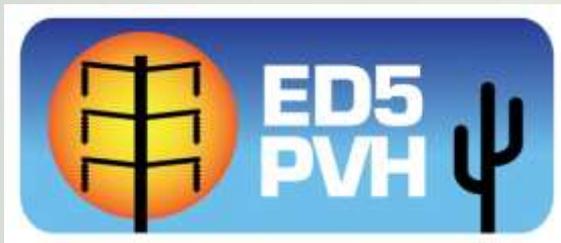


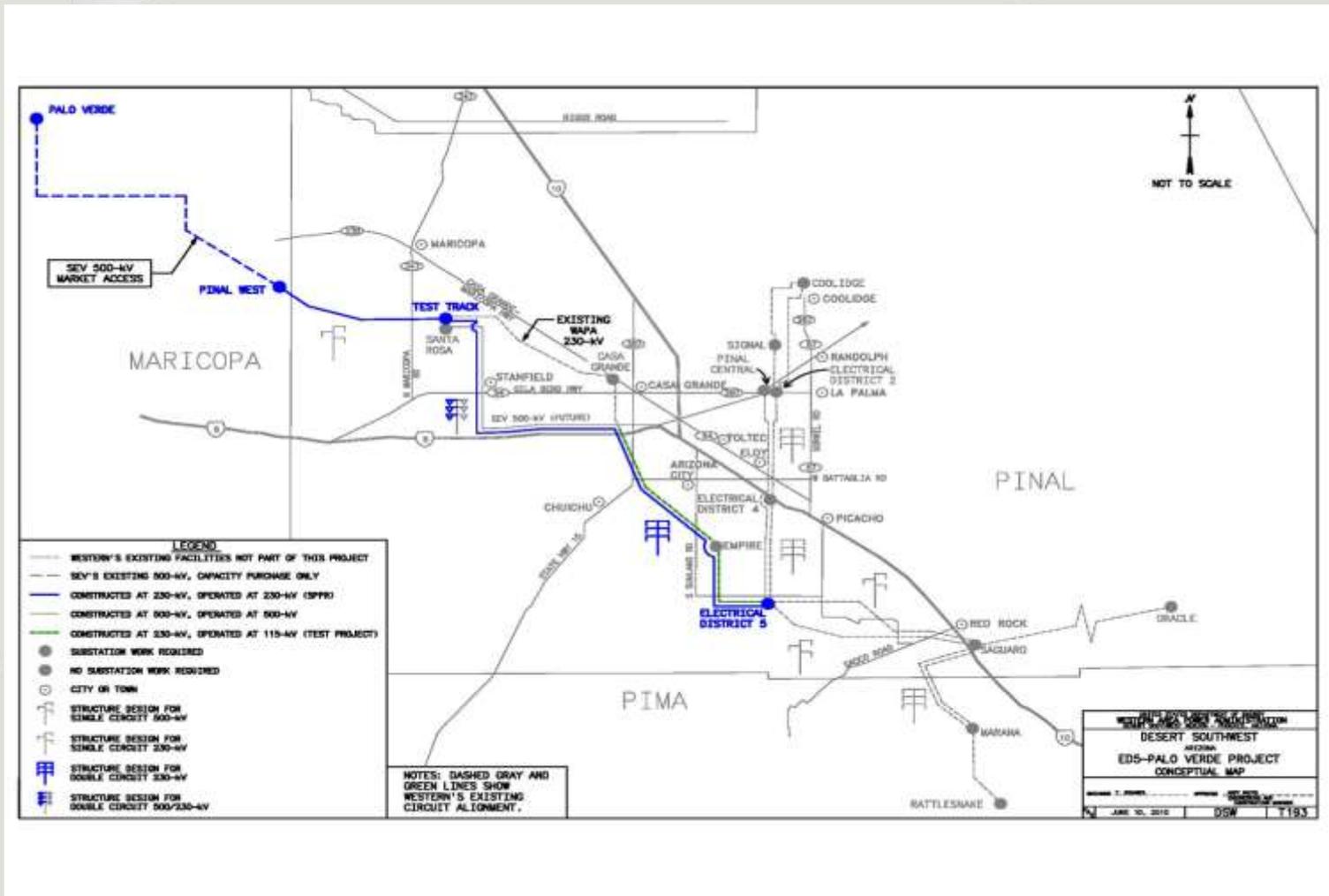
ED5-PVH Project Update

Western's TIP-financed project to enhance the Parker-Davis Project transmission system and support renewable energy development South of Phoenix



September 2013

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.
- Construct 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 acquired** **October 2011**
 - **SEV Project Rights Assignment Agreements**
 - **Transmission Line Attachment Agreement**

- **Funds drawn from Treasury** **First Nov 11/Qrtly**

- **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**
 - **Instrument Transformers – TTT* Sub** **January 2013**
 - **Control Panels/Relays** **Dec. 2012-March 2013**

*TTT=Test Track



Project Accomplishments

- **Construction Contract Awards**
 - ED5-Thornton Road Line September 2012
 - ED-5 Substation Upgrade November 2012
 - Test Track Substation Expansion May 2013

- **Construction completed:**
 - 230-kV ED5-Thornton Road Line April 2013

- **Construction under way:**
 - Test Track expansion started July 2013
 - ED-5 upgrade 60% complete September 2013



Project Timeline

- **Estimated Construction Completion:**
 - 230-kV Thornton Road-Test Track Line **March 2014**
 - ED-5 Substation Upgrade **March 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
Construction Project Base Cost	\$ 78.3
Management Reserve	\$ 3.2
Financing and Indirect Costs	\$ 3.6
Total Estimated Project Costs	\$85.1



Project Marketing

Starting in January 2015, Western customers can anticipate in:

- **Available surplus transmission capacity**
 - **Available transmission capacity will be posted on OASIS**

- **Long-term Firm Transmission Service**

Points of Contact

Project Management	Todd Rhoades	602-605-2313
Environmental	Linda Marianito	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://go.usa.gov/Dpkd>**

