

Western Area Power Administration



TRANSMISSION INFRASTRUCTURE PROGRAM

Projects and Update

To BTA Workshop

May 15, 2014

Kaicheng Chen

Transmission System Planner



Western Area Power Administration

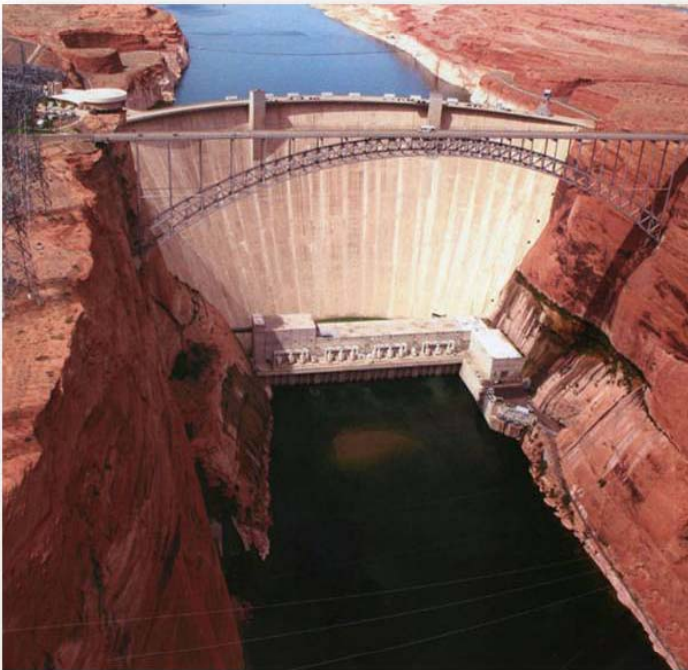


- ❖ *Wholesale electricity supplier, 56 hydropower plants, 10,489 MW capacity*
- ❖ 687 long-term/firm power preference customers
- ❖ One of four power marketing administrations under DOE





WESTERN'S MISSION

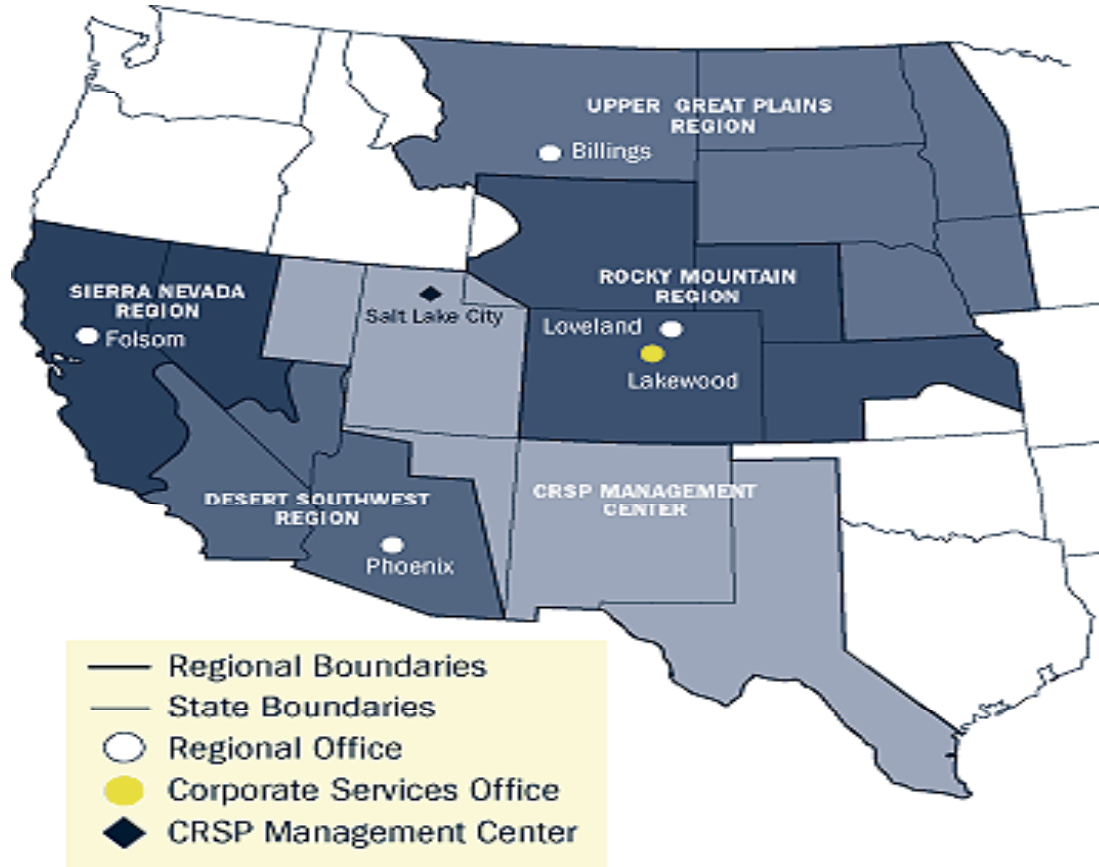


- ❖ Market clean hydropower at cost-based rates
- ❖ Transmit it to customers, 17,000+ miles transmission
- ❖ Control parts of the energy grid
- ❖ Manage interties
- ❖ Provide open access to transmission lines



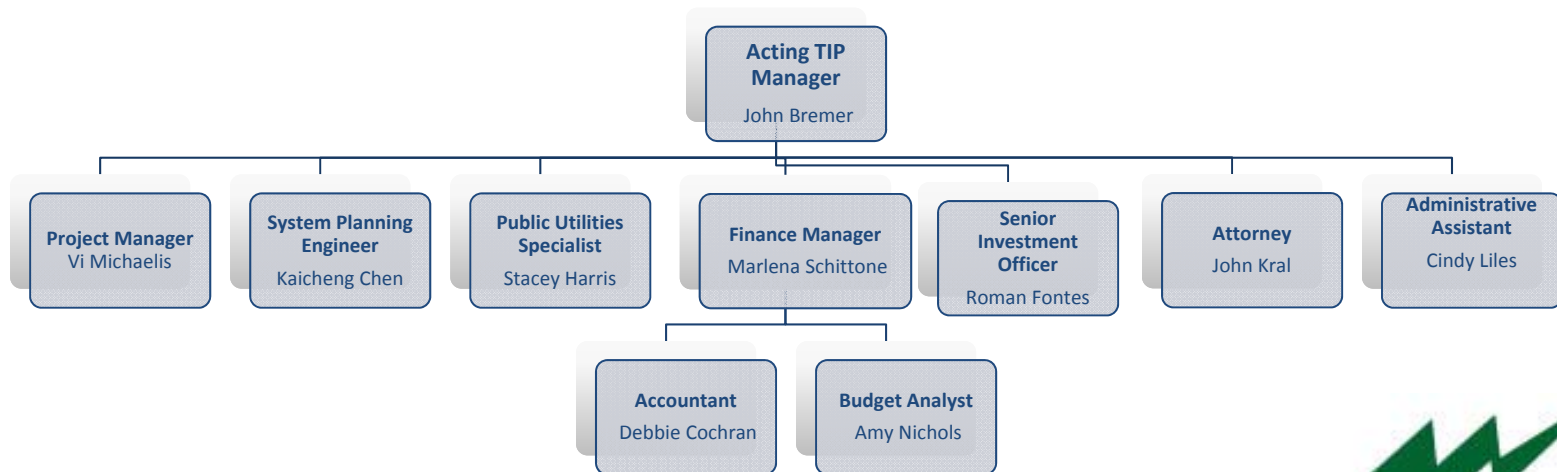


Western's Service Territory





TIP Team





TIP Mission

Western established the Transmission Infrastructure Program (TIP) in February 2009 to implement Title III, Section 301 of the Hoover Power Plant Act of 1984, as amended by the American Recovery and Reinvestment Act of 2009

- Provides Western with up to \$3.25 billion in borrowing authority for the purpose of:
 - *constructing, financing, facilitating, planning, operating, maintaining or studying construction of new or upgraded electric power transmission lines and related facilities with at least one terminus within the area served by Western; and*
 - *delivering or facilitating the delivery of power generated by renewable energy resources constructed or reasonably expected to be constructed after the date of enactment*





TIP PROGRAM MANAGEMENT

- ❖ Exercise sound business principles and good utility practices
- ❖ DOE and Western orders, policies and guidelines
- ❖ TIP Asset Management Policies and Standard Operating Procedures
- ❖ TIP Project Management Guidelines





TIP PROJECTS

| PROJECT | PROJECT PHASE | PLANNED COMPLETION |
|--|---------------|--------------------|
| Electrical District 5- Polo Verde Hub | Execution | 3/31/15 |
| Southline | Development | 2016 |
| TransWest Express | Development | 2017 |
| Centennial West | Development | 2020 |

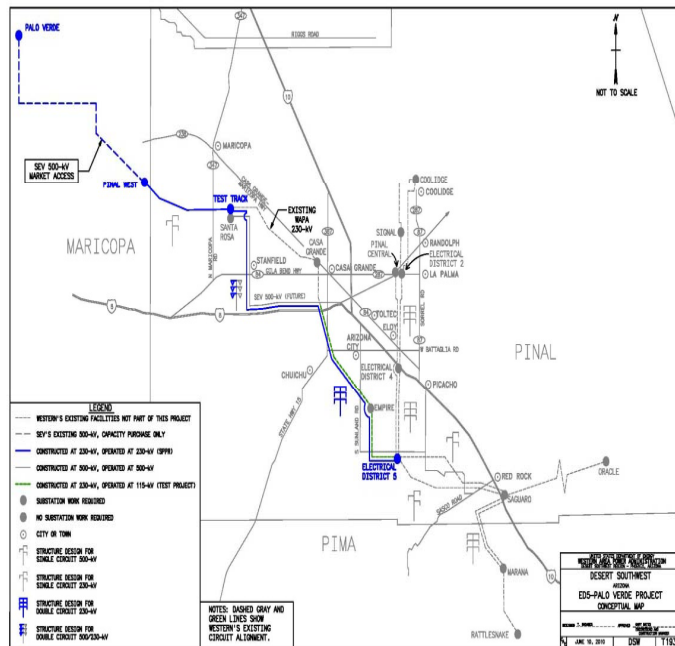




ELECTRICAL DISTRICT 5 - PALO VERDE HUB

The ED5-PVH Project is a 109-mile transmission line in Arizona, starting at the Palo Verde market hub near Wintersburg, Maricopa County, and running southeast to the Electrical District 5 substation south of Casa Grande in Pinal County.

TIP is financing the entire \$91M project.





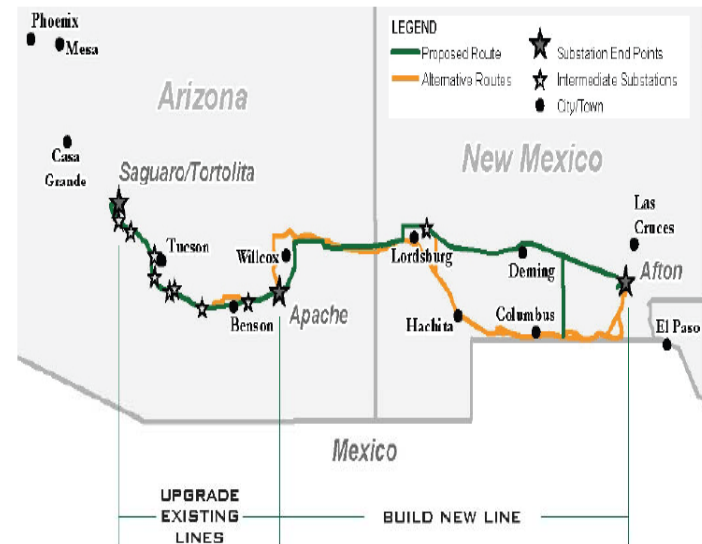
SOUTHLINE

The Southline Project consists of two segments:

- One segment would be a new double circuit 345-kV transmission line linking existing substations at Afton, south of Las Cruces, NM, and Apache, south of Wilcox, AZ.
- The other segment would be an upgrade and rebuild of \pm 130 miles of existing Western transmission lines to provide increased capacity to transmit electricity between Apache and Saguaro substations.



Summary Map



Connects to Multiple Existing
Arizona Substations





TRANSWEST EXPRESS

- The TWE Project is a 725-mile, 3,000 MW, ± 600 kV, two terminal, direct-current (DC) transmission system.
- The northern substation/converter station will be located in south-central Wyoming near the Platte substation.
- The southern substation/converter station will be located in southern Nevada near the Marketplace substation complex.
- Western and TWE are each funding up to \$25M during the development phase.

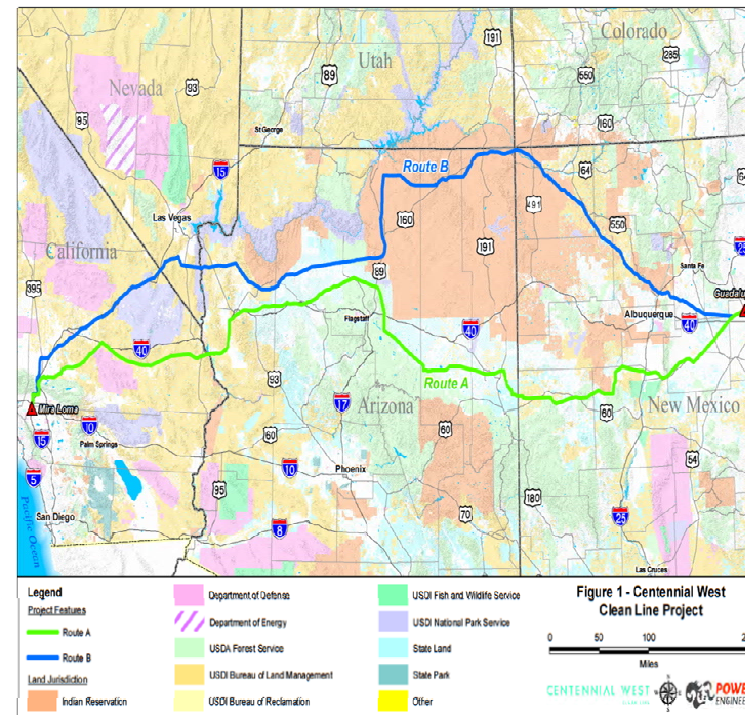




CENTENNIAL WEST

The Centennial West Project consists of a 900-mile overhead HVDC transmission line (with an intermediate converter station in Mohave County, AZ), to access abundant solar resources in AZ and NM.

Western and Centennial West Clean Line LLC have entered into an advance funding agreement during the project development phase.





PROGRAM REVISIONS

- ❖ Federal Register notice (FRN) published on Apr. 7, 2014 (78 FR 19065) implements program revisions
- ❖ Distinct project development and project finance phases
- ❖ Role of the Department of Energy (DOE) Loan Programs Office (LPO)
- ❖ Revises project evaluation criteria
- ❖ Developers pay TIP costs to evaluate project proposals





PROGRAM REVISIONS

Transmission Infrastructure Program Application Work Flow





APPLICATION PROCESS

- Project Proposal (PP)
- Business Plan Proposal (BPP)
- \$50,000 to process a PP and \$250,000 to process a PP and BPP received together
- Pass/Fail score for PP
- MOU will be signed if PP Pass the evaluation





PP Evaluation Criteria

- Facilitate the delivery of renewable energy
- One terminus within Western service territory
- Reasonable expectation the project will generate revenue to repay
- Will not adversely impact system reliability
- In the public interest





BPP PROCESS

- BPP may submit with PP or within 1 year after signing of MOU
- BPP is a comprehensive project plan
- BPP will result in a numerical score
- Technical information, Business plan, Financial plan
- AFA will be signed if BPP received “satisfactory” and higher ratings





QUESTIONS?



Acting Manager
John Bremer
Bremer@wapa.gov
(720) 962-7010

System Planner
Kaicheng Chen
chen@wapa.gov
(720) 962-7713

