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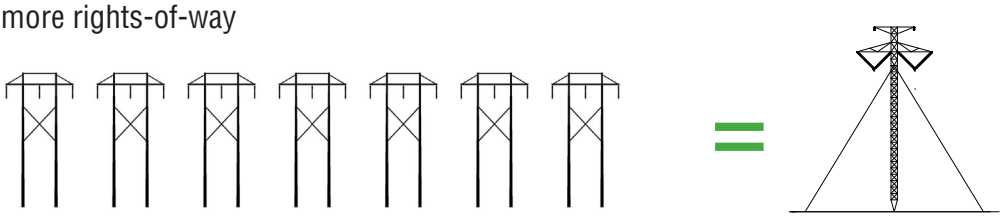
System reliability requires minimum separation distances

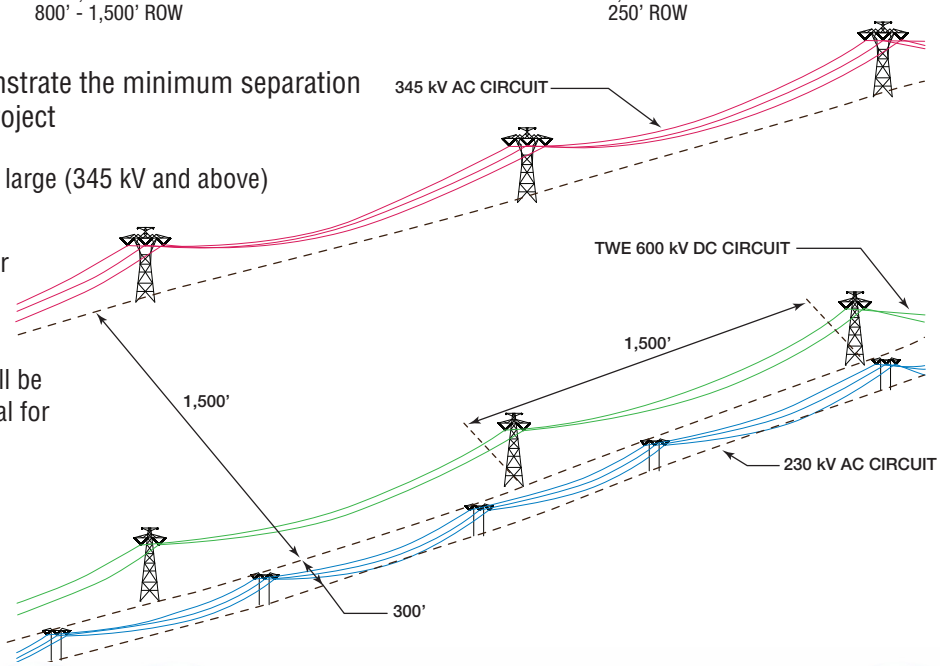
- ✔ The 600 kV TransWest Express Transmission Project is designed to the highest capacity allowed within the western United States: 3,000 MW
- ✔ High-capacity transmission lines must be spaced appropriately from each other
  - To meet national and regional electric industry reliability standards
  - To limit the possibility of multiple power line failures caused by an event
- ✔ Siting the single TWE Project helps eliminate the need for multiple smaller lines requiring more rights-of-way



Seven 230 kV AC Power Lines
3,000 MW
800' - 1,500' ROW

600 kV DC Power Line
3,000 MW
250' ROW

- ✔ System studies demonstrate the minimum separation criteria for the TWE Project
  - 1,500 feet from other large (345 kV and above) transmission lines
  - 300 feet from all other (below 345 kV) transmission lines
  - Greater separation will be sought where practical for greater reliability



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Three other key technology components for the TWE Project

Interconnection facilities

- Each end of the TWE Project will have a terminal in the form of an AC/DC Converter Station
- Stations will be interconnected through 230 kV or 500 kV AC transmission lines to nearby substations

Communication systems

- Two independent communication systems between the terminals for direct current system operation:
  - A fiber-optic network, to be installed on one of the two shield wires on the line structures. The network will require regeneration sites about every 50 miles within the right-of-way to house communications equipment, mobile radio equipment and emergency generators.
  - A microwave communication network, primarily using existing microwave systems used by utilities; a few microwave sites near each terminal may be required to connect into these existing networks.
- A mobile radio communication system to support emergency operations, line patrol and maintenance operations

Ground electrode facilities

- A ground electrode facility built near each terminal to maintain electrical current continuity immediately following an unexpected electrical interruption
  - 10-50 miles from northern terminal
  - 50-100 miles from southern terminal
  - Would only operate 10-60 minutes during emergency situations
- Facility design:
  - Typically a network of 40 to 80 ground electrodes arranged in 1-mile-diameter circle
  - Electrodes installed up to 1,000 feet below ground, depending on soils and geology
  - No impacts to local water supplies or other resources/infrastructure

A typical ground electrode surface facility

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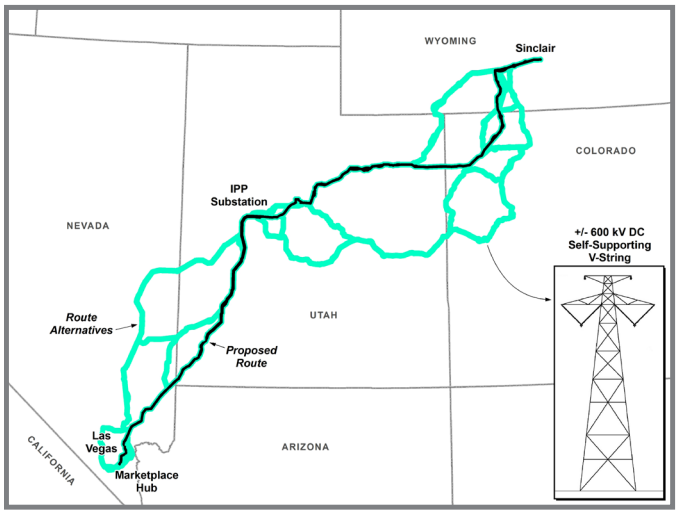
System Alternatives to be evaluated in the EIS

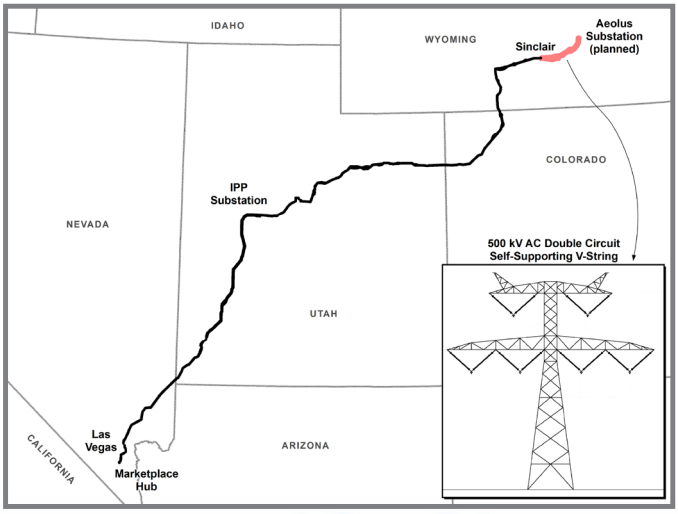
The TransWest Express Transmission Project will deliver renewable energy generated in Wyoming to markets in the Desert Southwest. The Proposed Project along with three System Alternatives will be evaluated in the EIS. These three System Alternatives provide further flexibility to address future market conditions and potential evolutions in the west's transmission system. They are independent of the corridor alternatives that will be evaluated in the EIS.

Proposed TWE Project

600 kV DC system with terminals in south-central WY and Boulder City, NV

- Flexibility to interconnect with the IPP System substation near Delta, Utah
- Interconnection with IPP System dependent upon future market conditions





System Alternative 1

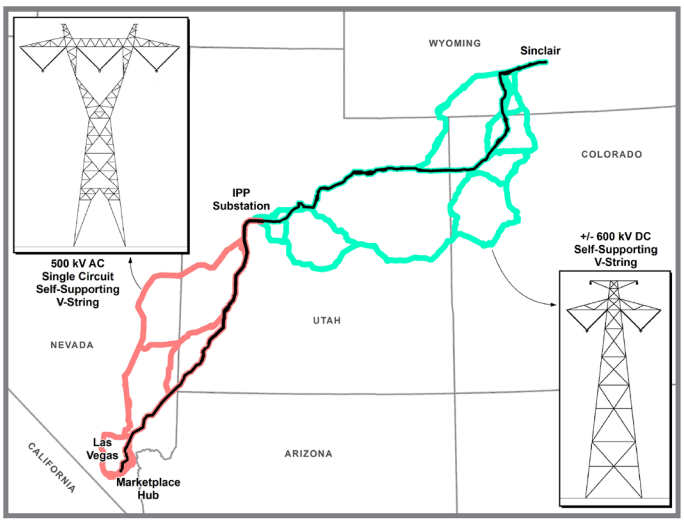
Adds an AC connection to planned Aeolus Substation near Medicine Bow, WY

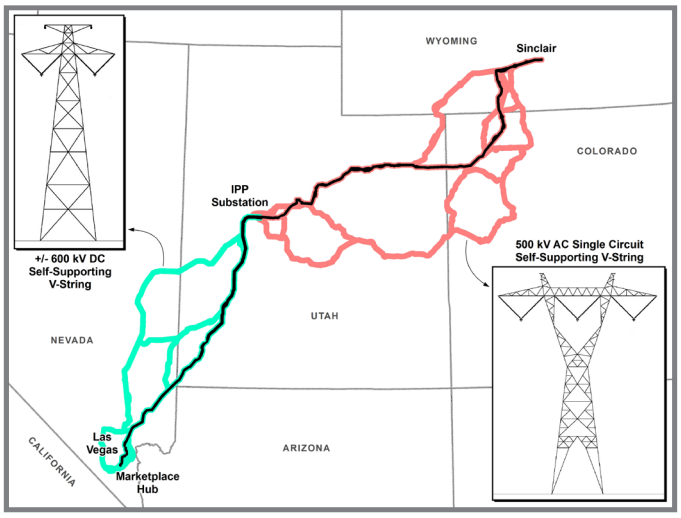
- Double-circuit 500 kV AC connection
- Contingent upon TWE Project not connecting with Gateway Project at northern terminal

System Alternative 2

Builds a 600 kV DC system from northern terminal to IPP substation, and builds a 500 kV AC system from IPP substation to southern terminal

- Complements existing IPP transmission line from IPP substation to California
- Contingent upon IPP System capacity becoming available prior to 2015





System Alternative 3

Phase 1: Builds a 500 kV AC system from northern terminal to IPP substation

- Complements existing IPP transmission line from IPP substation to California

Phase 2: Converts this 500 kV AC system into 600 kV DC system and continues the DC system to the southern terminal

- Contingent upon IPP System capacity becoming available prior to 2015 and electricity demand in 2015 lower than currently projected

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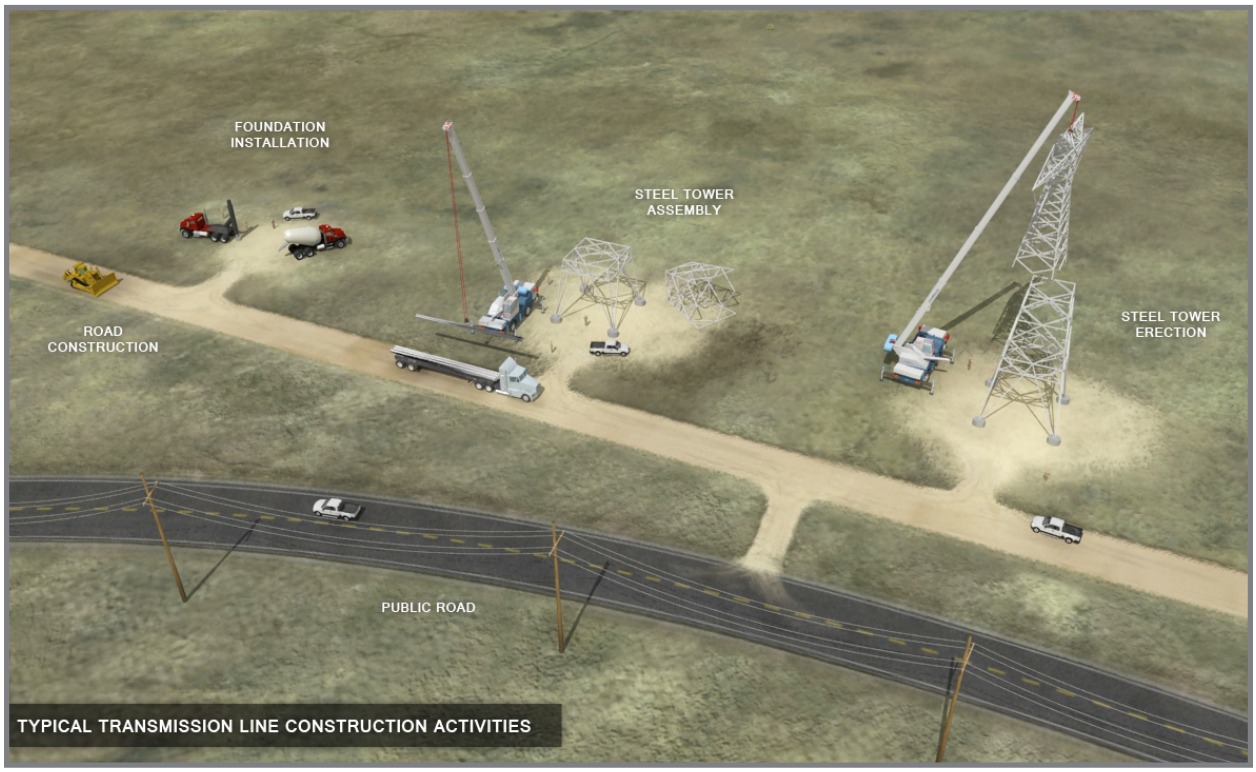
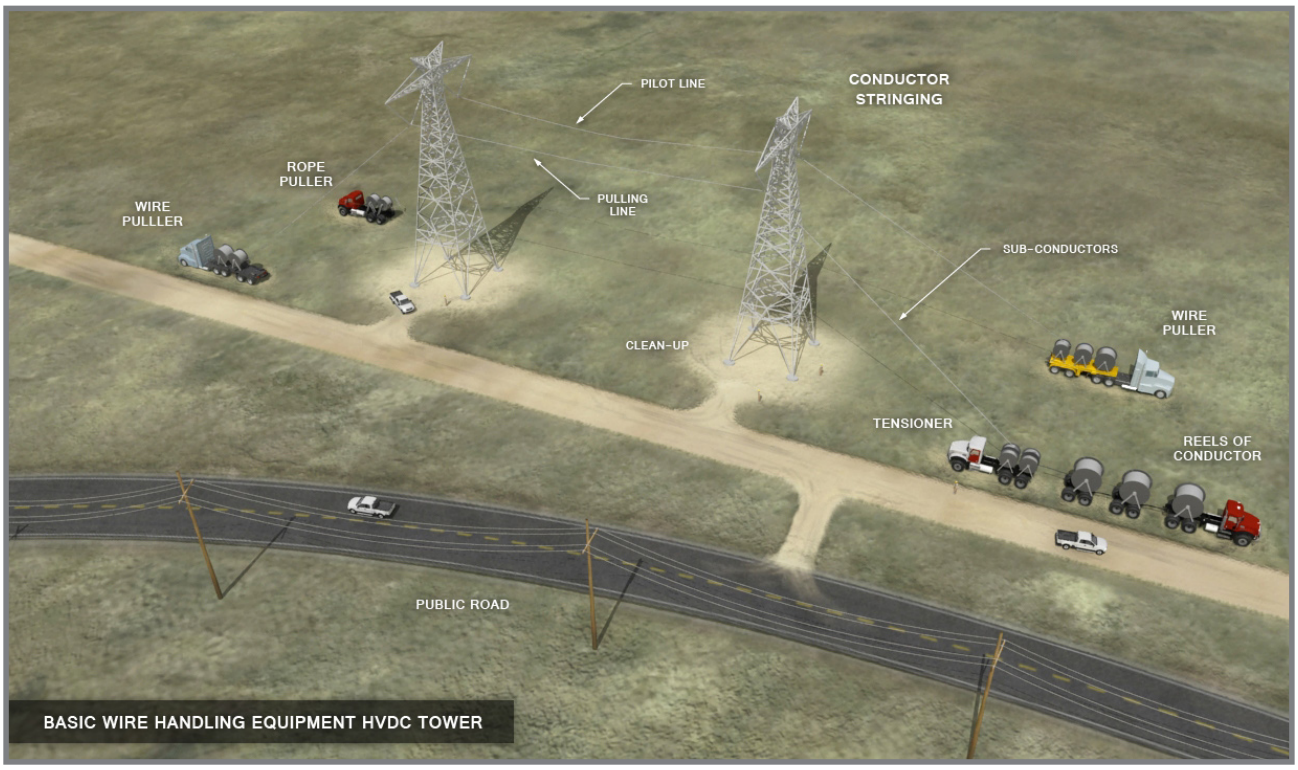
Typical construction activities related to the TWE Project

Constructing a transmission line requires many steps – from surveying and staking the route at the project beginning to restoring land and vegetation at the project conclusion. These illustrations help highlight two of the main construction activities: installing transmission structures on the ground and installing transmission lines in the air.



To install transmission towers, workers typically build or improve a road to create access to the sites. Then workers prepare and pour concrete foundations, connect partially assembled towers and use cranes to complete the towers, which will be 900 feet to 1,500 feet apart. Towers are typically built in 10- to 20-mile sections at a time. Access roads for the TWE Project typically will be 14 feet to 20 feet wide to allow for ongoing line operations and maintenance. Tower spacing and other dimensions are not drawn to scale.



Once all transmission towers have been built in a section, workers then install the wires, also called conductors, along with the necessary insulators and related electrical equipment. Helicopters initially are deployed to string wires from tower to tower. Then, special wire pulling and tensioning equipment is used to finish stringing and tightening the wires to the proper length between towers. Wire pulling and tensioning sites are typically located in places where the route changes direction. When construction is complete, revegetation and reclamation activities begin. Tower spacing and other dimensions are not drawn to scale.