SOUTHLINE
TRANSMISSION PROJECT

Welcome to the Southline Transmission Project

Public Informational Meeting

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SOUTHLINE TRANSMISSION PROJECT

Project Overview

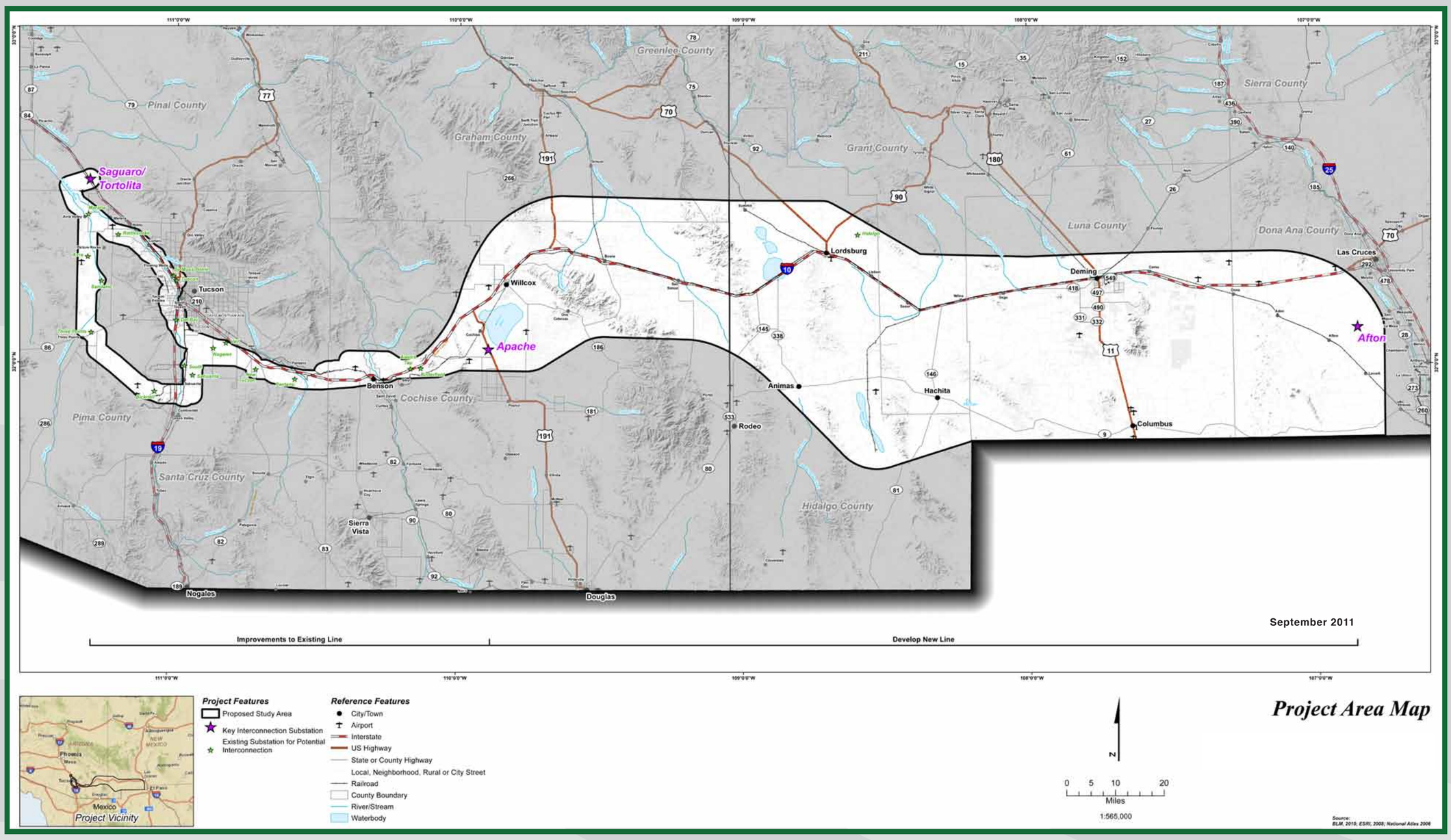
The Southline Transmission Project is a proposed transmission line designed to collect and transmit electricity across southern New Mexico and southern Arizona, bringing electric system benefits to the Desert Southwest, one of America's fastest-growing regions.

The Southline Transmission Project is being designed to minimize land and resource impacts by selecting a route along existing corridors such as abandoned rail lines, and by improving existing transmission lines where feasible – an innovative approach that respects the region's communities and natural and cultural resources.

The project will consist of two segments:

- A **new 225-mile, 345 kilovolt (kV) double-circuit transmission line** between the existing substations at Afton (NM) and Apache (AZ)

- A series of improvements **to approximately 130 miles of existing transmission lines** between the Apache (AZ) and Saguaro (AZ) substations



The Southline Transmission Project will interconnect with more than 10 existing substations along its route, enabling local utilities to meet energy demands. Based on the ultimately selected route, the project may include development of a new substation within the study area in Luna, Grant, or Hidalgo County in New Mexico.

SOUTHLINE TRANSMISSION PROJECT

About the Team

Black Forest Partners, L.P.

- Project manager for Southline Transmission Project
- Led by Southwest natives Bill Kipp and Doug Patterson
- Originally focused on investment opportunities in renewable energy generation projects in southern New Mexico and southern Arizona
- Soon discovered the regional transmission system was insufficient and in need of more capacity to relieve congestion and improve reliability
- Created concept for Southline Transmission Project in 2008 as a transmission solution to minimize land use challenges and strengthen the existing system, while enabling the development of renewable energy projects

Southline Transmission, L.L.C.

- Project sponsor since 2010
- Subsidiary of Hunt Power, L.P., based in Dallas, Texas
- Hunt Power develops and invests in entrepreneurial electric and gas utility opportunities
- Part of a larger privately-owned group of companies managed by the Ray L. Hunt family that engages in oil and gas exploration, refining, power, real estate, ranching, and private equity investments

Additional Consultants

- Black & Veatch and USE Consulting, engineering
- CH2M HILL, environmental team lead
- ENValue, siting
- Fontana Energy Associates, permitting
- Kearns & West, public engagement and outreach
- Tierra Right of Way Services, environmental resources and permitting
- WestLand Resources, cultural and environmental resources

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Project Need and Benefits

Improve Reliability

Recent wildfires and winter storm-related outages have highlighted the **vulnerability of the electric transmission system** in the Desert Southwest. There are limited transmission connections between the southern New Mexico and El Paso, Texas area and the rest of the western United States transmission grid, creating reliability risks in the event of wildfires, storms, or other events. Additionally, the local infrastructure is aging.

Cracked 115-kV wood pole South of Phoenix
Credit: Western Area Power Administration FY2011 Ten Year Capital Program Meeting PowerPoint

Transmission line storm damage
Credit: Western Area Power Administration FY2011 Ten Year Capital Program PowerPoint

The lines in Arizona that the Southline Transmission Project would improve are decades-old wood pole H-frame systems whose deterioration poses reliability and maintenance concerns. If there are any disruptions in the existing regional transmission system, local utilities may not be able to meet energy demands. The Southline project would strengthen the existing electrical system by replacing outdated structures.

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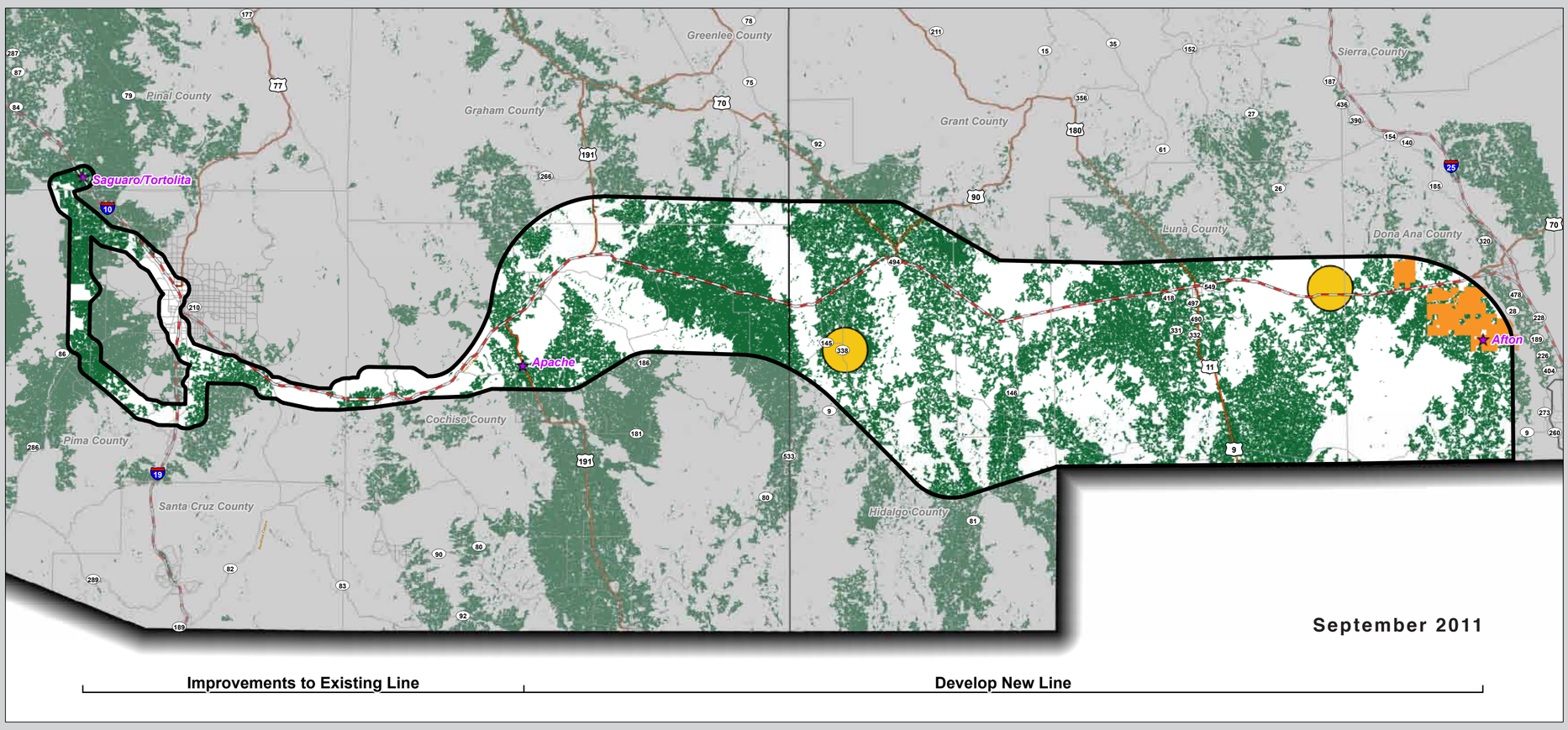
Project Need and Benefits

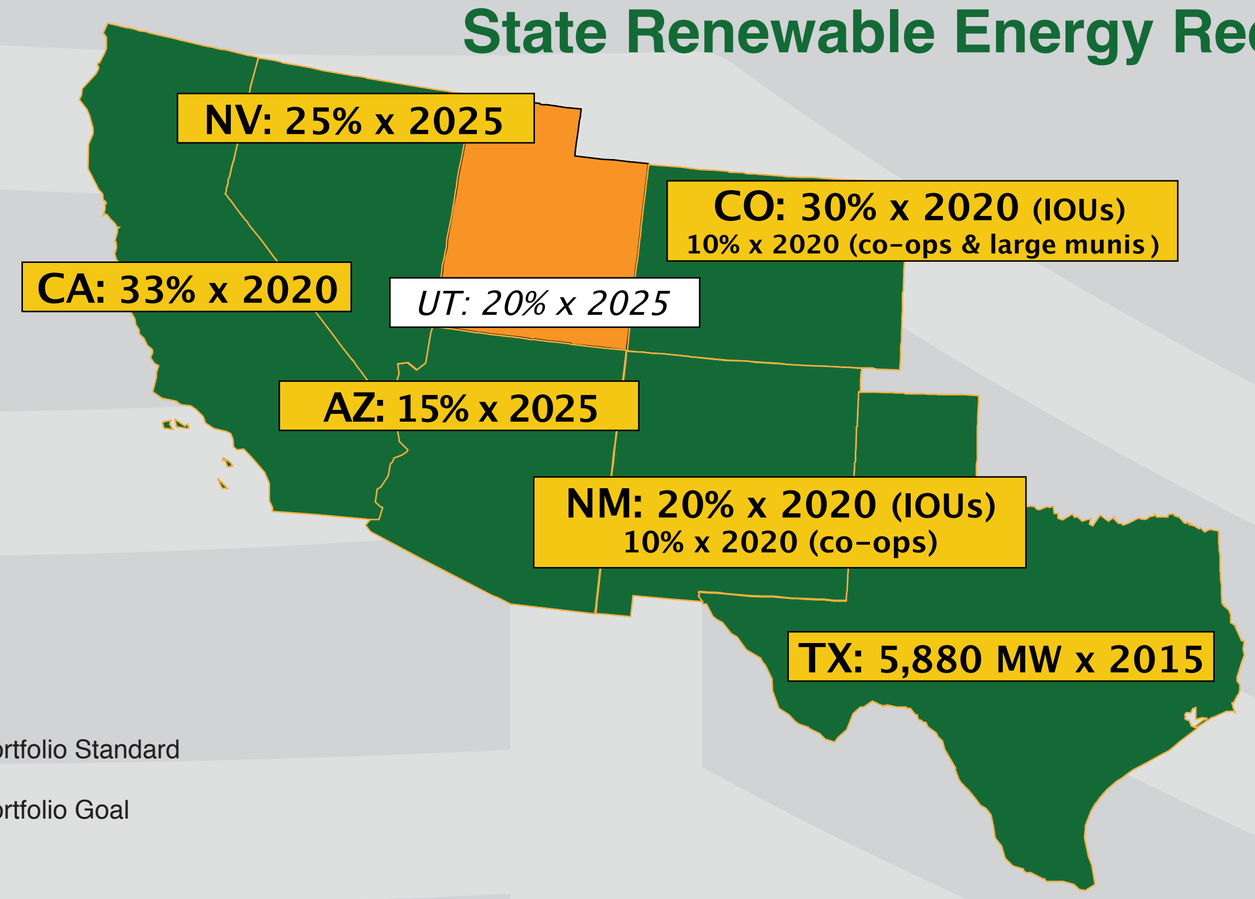
Enable Renewable Energy

The U.S. Department of Energy's National Renewable Energy Laboratory and the Western Governors' Association Western Renewable Energy Zones process have identified **great potential for solar and other renewable energy development** in the Southwest. The proposed Southline Transmission Project lies within some of the region's most promising renewable resource areas.



Renewable energy development has been hindered in the area largely because of a lack of transmission capacity. The Southline Transmission Project will enable renewable energy projects to connect to the electric system, helping states in the Desert Southwest **meet renewable energy requirements**.

State Renewable Energy Requirements



State RPS Policies as Identified by the Database of State Incentives for Renewables & Efficiency, September 2011

While the Southline Transmission Project is not linked to the development of any particular energy generation projects, the study area includes multiple high-quality renewable resource areas where generation project development is likely.

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Project Need and Benefits

Relieve Congestion

Due to **a lack of sufficient transmission capacity** in the Desert Southwest, local electric utilities are constrained in their ability to consistently access the most cost-efficient energy resources. The Southline Transmission Project team has worked closely with local utilities and other regional transmission providers since 2009 to ensure the Southline Transmission Project can meet local needs and improve the region's electric system. By enabling bidirectional use of power, the Southline Transmission Project will **relieve congestion**.

Sustain and Support Growth

The Desert Southwest is expected to experience **substantial long-term growth**. Local utilities have identified a need for additional transmission access to support the expected **increased demand for energy**.

Tucson, Arizona at night

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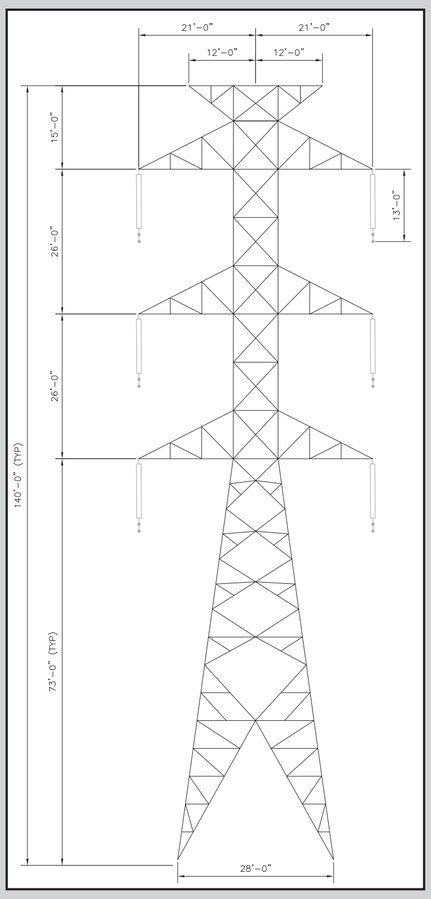
Southline Transmission Project Design

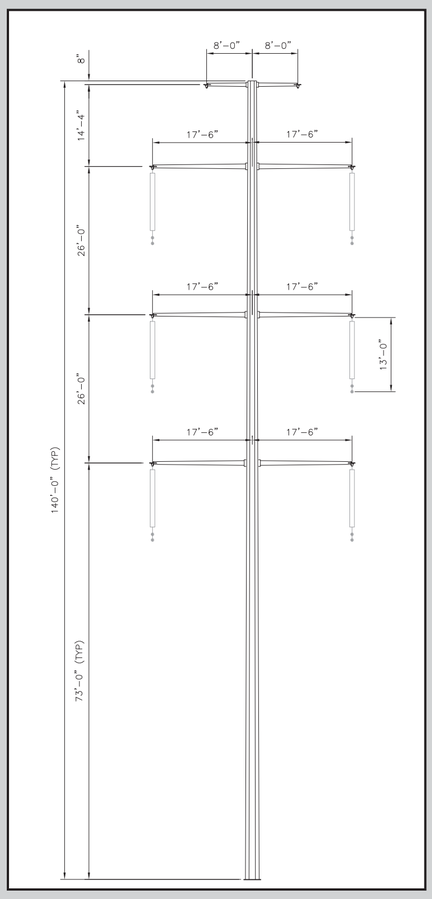
The Southline Transmission Project consists of two proposed segments:

Afton-Apache Segment (New Transmission Line)

The Afton-Apache segment will be a new transmission line, connecting existing substations at Afton (located south of Las Cruces, New Mexico) and Apache (located south of Willcox, Arizona).



Potential Afton-Apache transmission structure

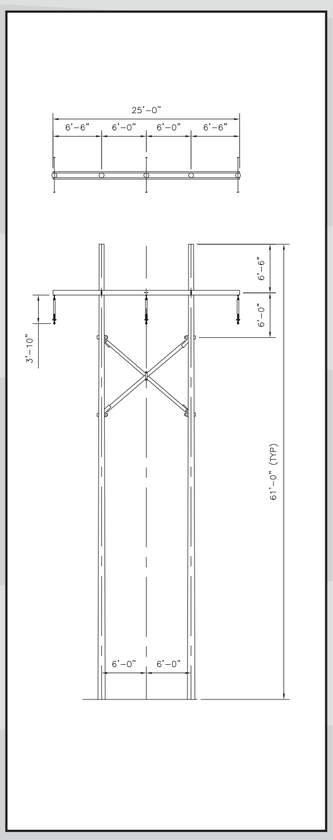


Potential Afton-Apache transmission structure

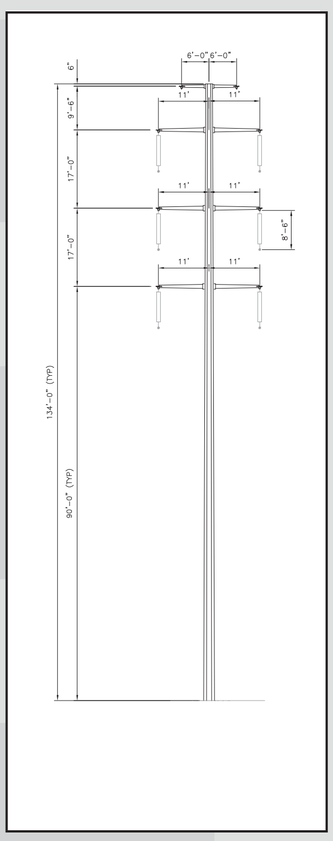
Afton-Apache Segment: Double-circuit 345kV	
Anticipated Line Length	225 miles
Type of Structure	Self-supporting lattice towers or tubular steel poles
Approximate Structure Height	110-170 feet
Approximate Structure Spacing	1000-1400 feet
Anticipated Number of Structures Per Mile	4-8 (depending on structure type, terrain, and other factors)
Anticipated Right-of-Way Width	200 feet (larger ROW may be required in some site-specific locations to accommodate rough terrain or long spans)

Apache-Saguaro Segment (Improvements to Existing Transmission Lines)

The Apache-Saguaro segment will be an upgrade and rebuild of existing transmission lines connecting existing substations at Apache and Saguaro (located northwest of Tucson, Arizona).



Existing Apache-Saguaro transmission structure



Potential Apache-Saguaro transmission structure

Apache-Saguaro Segment: Double-circuit 230kV	
Anticipated Line Length	130 miles
Type of Structure	Tubular steel poles
Approximate Structure Height	90-130 feet
Approximate Structure Spacing	700-1100 feet
Anticipated Number of Structures Per Mile	5-8 (depending on structure type, terrain, and other factors)
Anticipated Right-of-Way Width	150 feet

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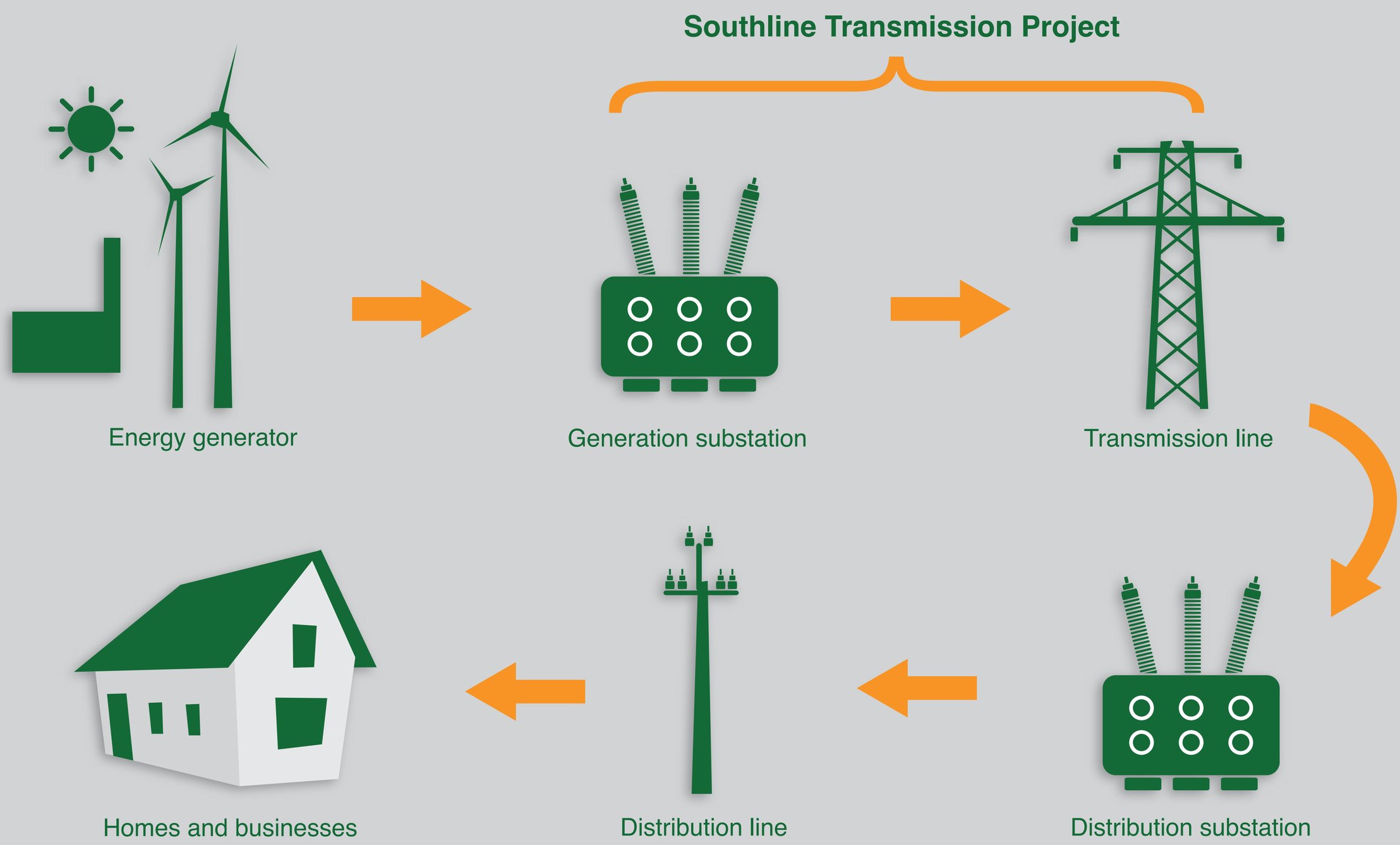
The Electrical Grid

How Electricity is Transmitted:



- Energy is generated from both renewable and conventional energy sources.
- A substation at the site of electricity generation increases the voltage for transfer to transmission lines, enabling electricity to travel longer distances.
- Transmission lines carry the electricity from the generation substation to a distribution substation, located closer to electricity users.
- A distribution station then lowers the voltage and transfers the electricity to local distribution lines.
- Local distribution lines carry electricity to business and household consumers.

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The Routing Process

Routing Activities

Public Involvement Activities

Pre-NEPA

Gather Information from Land Use Planning Efforts

Map Known Resources

Gather and Map Data Provided by Agencies, Governments, and Stakeholders

Identify Potential Route Alternatives

Review and Refine Route Alternatives

Review Alternatives with Stakeholders

We are here

Select Routes for the NEPA Scoping Process

NEPA

BLM and Western Conduct NEPA Environmental Review

Agencies, Governments, and Stakeholders Participate in Environmental Review Process

Pre-NEPA

NEPA

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Siting Philosophy & Planning

The selection of the Southline Transmission Project's route is guided by an approach to minimize impacts by following existing corridors wherever possible.

This approach includes:

- Working within or next to existing corridors (such as abondoned rail lines, transmission lines, and roads)
- Avoiding sensitive environmental/cultural areas (e.g., wilderness areas, sensitive riparian zones, and other areas of environmental or cultural concern) during site selection
- Incorporating information from existing federal and state energy and land use planning efforts
- Working closely with interested stakeholders and land managers to understand and, where possible, avoid or minimize impacts to sensitive areas
- Considering sensitive resources during engineering design, construction, and future operations and maintenance

Photo credit: ***Ken Lund***

Photo credit: ***Wesley Fryer***

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Project Siting

Siting Opportunities and Constraints

The Southline Transmission Project team is committed to minimizing conflicts with existing environmental, cultural, and land resources. As part of this commitment, the team is identifying siting constraints and opportunities early on to develop responsible routes and route alternatives.

Examples of Siting Opportunities

Abandoned railroad
Photo credit: Fabien Fivaz

Transmission line adjacent to road

Transmission line

Siting opportunities include existing linear facilities (such as transmission lines, highways, and rail corridors). Siting a project parallel to these features helps to minimize associated impacts to the land and is generally consistent with land use planning direction of federal, state, and local land management agencies and siting authorities.

Examples of Siting Constraints

Air Force airplane
Photo credit: Jerry Gunner

Sensitive historic resources

Saguaro National Park
Photo credit: Ken Lund

For new transmission lines, siting constraints include areas where siting the transmission line would not be possible or would be extremely difficult, such as National Parks, airports, and wilderness areas.

Above are some examples of siting constraints and opportunities that will guide the development of route alternatives for the Southline Transmission Project. We welcome your feedback on additional siting constraints or opportunities within the project area.

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Anticipated Project Timeline

2011

Early engagement/outreach (summer-fall)

- Public engagement to inform route development
- Early public meetings to share information and receive input on potential route alternatives

We are here

Initiation of NEPA(1) process (fall-winter)

- BLM(2) and Western(3) initiate the NEPA process
- Public scoping meetings for NEPA
- Ongoing public outreach and involvement
- Ongoing permitting with federal/state/local governments/agencies, as appropriate

2012

Preparation of Draft Environmental Impact Statement (through early 2013)

- Conduct biological, cultural, and other resource studies
- Ongoing public outreach and involvement
- BLM and Western release Draft Environmental Impact Statement (DEIS)
- 45-day public comment period begins upon release of DEIS

2013

Final permitting decisions and documents (2013)

- BLM and Western release Final Environmental Impact Statement (FEIS) and Record of Decision (ROD)
- State and local governments and agencies issue permits, as required

2014

Right-of-way acquisition and construction (2014-2015)

- Right-of-way acquisition and engineering
- Construction begins

2015

Project completion (2015)

- Construction is completed
- Project in-service date

(1) NEPA: National Environmental Policy Act
(2) BLM: Bureau of Land Management
(3) Western: Western Area Power Administration

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Project Permitting

The Southline Transmission Project will undergo multiple comprehensive permitting and approval processes.

Federal Level

The Bureau of Land Management (BLM) and the Western Area Power Administration (Western) are the lead federal agencies charged with ensuring that the project complies with National Environmental Policy Act (NEPA) requirements.

BLM and Western will coordinate with these and potentially other federal agencies:

- Federal Aviation Administration
- National Park Service
- U.S. Army Corps of Engineers
- U.S. Bureau of Indian Affairs
- U.S. Department of Defense
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Border Patrol

Photo credit: ***Ken Lund***

State Level

The Southline Transmission Project team anticipates coordinating with many, if not all, of the following state-level permitting and regulatory agencies:

- Arizona Corporation Commission
- Arizona Department of Environmental Quality
- Arizona Department of Transportation
- Arizona Game and Fish Department
- Arizona State Land Department
- New Mexico Department of Transportation
- New Mexico Game and Fish Department
- New Mexico Public Regulation Commission
- New Mexico State Land Department

Local Level

The Southline Transmission Project team will comply with all applicable local permitting requirements, including coordination with the appropriate entities in the following counties:

- Cochise County, Arizona
- Graham County, Arizona
- Greenlee County, Arizona
- Pima County, Arizona
- Pinal County, Arizona
- Doña Ana County, New Mexico
- Luna County, New Mexico
- Grant County, New Mexico
- Hidalgo County, New Mexico

Photo credit: ***Flickr member Dyanna***

Photo credit: ***Jeff Strearns***

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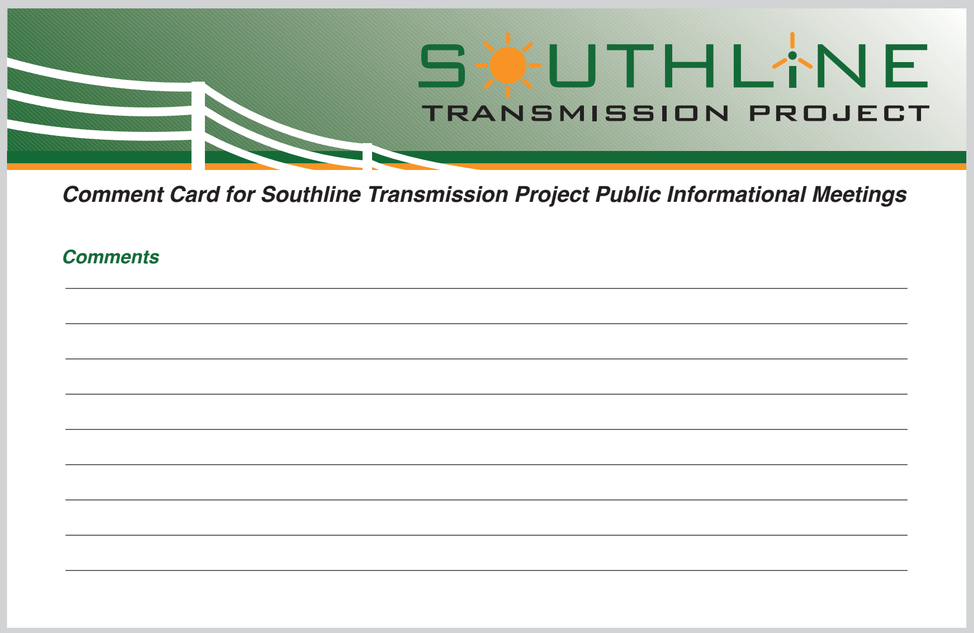
Your Participation

Today:

- Speak with a project team member
- Provide direct input on project maps or at the GIS mapping stations
- Fill out a comment card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Comment Card for Southline Transmission Project Public Informational Meetings

Comments

Anytime:

- Email us: connect@southlinetransmissionproject.com
- Call us: (888)752-2822

For More Information:

- Visit us at www.southlinetransmissionproject.com
- Sign up for email updates
- Access the sign-up form on our website
- Fill out a comment card with a request to sign up


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Help Guide the Process.
Attend a public meeting in September
Click here for more details

The Southline Transmission Project is being designed to minimize land and resource impacts by selecting a route along existing corridors such as abandoned rail lines, and by improving existing transmission lines where feasible – an innovative approach that respects the region's communities and natural and cultural resources.

Welcome

Welcome to the home of the Southline Transmission Project, where you can learn about this new project and how to participate in its development.

The Southline Transmission Project is a proposed transmission line designed to connect and transmit electricity across southern Arizona and southern New Mexico. It is intended to ease existing system congestion, strengthen local electric system reliability, and improve transmission access for local renewable and other energy sources.

About the Southline Transmission Project

By interconnecting with more than 10 substations along its route, the Southline Transmission Project will enable local utilities to meet energy demands and facilitate bringing renewable energy from multiple sites in New Mexico and Arizona to where it is needed.

Fact Sheet
Download for more information

Study Area Map
A closer look at the study area

Contact Us
Send us a message with questions

The formal NEPA public scoping period will occur later this fall. Meeting information will be posted by the Bureau of Land Management and Western Area Power Administration. We hope you will attend these meetings and provide comments as part of the formal environmental review process.

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Comment Station

Please submit written comments here.
Thank you for providing feedback today.

The Bureau of Land Management and the Western Area Power Administration will host scoping meetings as part of the National Environmental Policy Act (NEPA) environmental review process later this fall.

Information about these meetings will be posted to our project website as it becomes available.