Powering the Future

The 2025 Integrated Transmission Plan

Each year, Southwest Power Pool (SPP) conducts an Integrated Transmission Planning (ITP) study — a detailed, forward-looking plan to strengthen the regional electric grid. The goal is to ensure homes and businesses have reliable and affordable power. This critical process is completed in accordance with federally required and enforceable reliability standards and is shaped by input from many stakeholders.

The ITP pinpoints where new transmission lines are needed to support growing demand, strengthen reliability and enhance resilience to extreme weather — all while maintaining cost discipline and enabling a more flexible, balanced mix of energy resources.

SPP and its members developed a comprehensive $18 billion portfolio of transmission projects identified through study. From that, $8.6 billion in projects were approved to move forward in this year's plan and will be authorized for construction. The 2025 ITP is grounded in collaboration and transparency, evaluating how well the grid can withstand and recover from a wide range of stresses — from extreme weather to rapid load growth and shifting energy patterns. It reflects SPP's commitment to building a dependable, resilient and affordable power system.

Why It Matters

ENABLING GROWTH

SPP's current system peak is 56 gigawatts (GW). Electrification, manufacturing onshoring and economic development are projected to nearly double demand to 109 GW in the next 10 years.

INVESTING IN RELIABILITY

Growth of demand means we need to invest in our grid to keep pace. Members approved $8.6 billion in critical new transmission infrastructure investment to address current and future needs identified in the 2025 ITP.

ENSURING RESILIENCE

The investments approved in the 2025 ITP strengthen grid resilience to rising demand and emerging threats, helping prevent more than 100 days a year of potential reliability risks and system strain by 2035.

MAINTAINING AFFORDABILITY

The projects approved for construction in the 2025 ITP are expected to return between 12 and 18 dollars in regional benefits for every dollar invested — making it SPP's most valuable transmission plan to date.

Approved Portfolio Highlights

- **$8.6** *billion portfolio**
- **50** *new transmission projects**
- **949** *miles of new 765 kV*
- **62** *miles of new 345 kV*

*excludes Zonal Planning Criteria projects submitted by members for study

The Benefits of Building

IMPROVE GRID **RELIABILITY**

AVOID HIGHER **ENERGY COSTS**

FUEL ECONOMIC **GROWTH WITH ENERGY READINESS**

Strategic investments made now will strengthen the grid for decades to come, providing up to **18 dollars in value for every dollar invested.**

BENEFIT cost

Transmission Delivers Lasting Value

Transmission is one of the most powerful tools for keeping energy reliable, affordable and accessible. Strategic transmission investments reduce congestion and allow low-cost electricity to reach more customers, maintaining affordability of wholesale power across the region. Beyond affordability, transmission strengthens reliability and resilience during extreme weather, ensuring dependable power when it's needed most.

A Stronger, More Efficient Grid

The robust 345 kV transmission network built in SPP during the past 20 years has successfully integrated low-cost energy and supported regional growth. Now, as the grid faces growth previously unseen, the next generation of investment is expanding to 765 kV transmission — a higher-voltage "expressway" for electricity.

MORE power, LESS impact

765 kV lines can deliver the same power as four to six 345 kV lines with less total land and infrastructure required.

HIGHER efficiency

Moves electricity more effectively and at lower cost

BETTER resiliency

Strengthens the grid against severe summer and winter weather

A Grid Built for Growth

Think of the electric grid like a highway system. With electricity demand expected to surge by 33% to 100% in the next 10 years, new "expressways" are essential to prevent congestion, reduce risks and keep energy flowing reliably to homes and businesses.

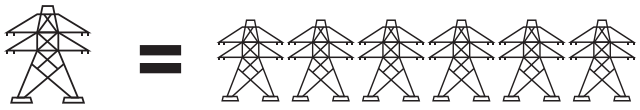
115 kV lines (Local roads)

230-345 kV lines (Highways)

500-765 kV lines (Expressways)

About 765 kV Transmission

SPP's 765 kV transmission lines are the next generation of the regional power "highway system." These high-capacity lines can move large amounts of electricity efficiently. **A single 765 kV line can carry as much power as six 345 kV lines** — using far less land and infrastructure. Without 765 kV projects, meeting demand could require up to six times more infrastructure and up to nearly five times the land.



One 765 kV line = **Four to six 345 kV lines**

Powering What's Next

Transmission is the backbone of the electric grid, delivering reliable electricity where it's needed most. By investing in the system today, SPP helps keep its wholesale energy costs among the lowest in the U.S. while supporting economic growth.

SPP's 2025 ITP marks the next step in building a modern, resilient and efficient transmission system that keeps energy affordable, reliable and ready to power economic growth across the region for generations to come.