

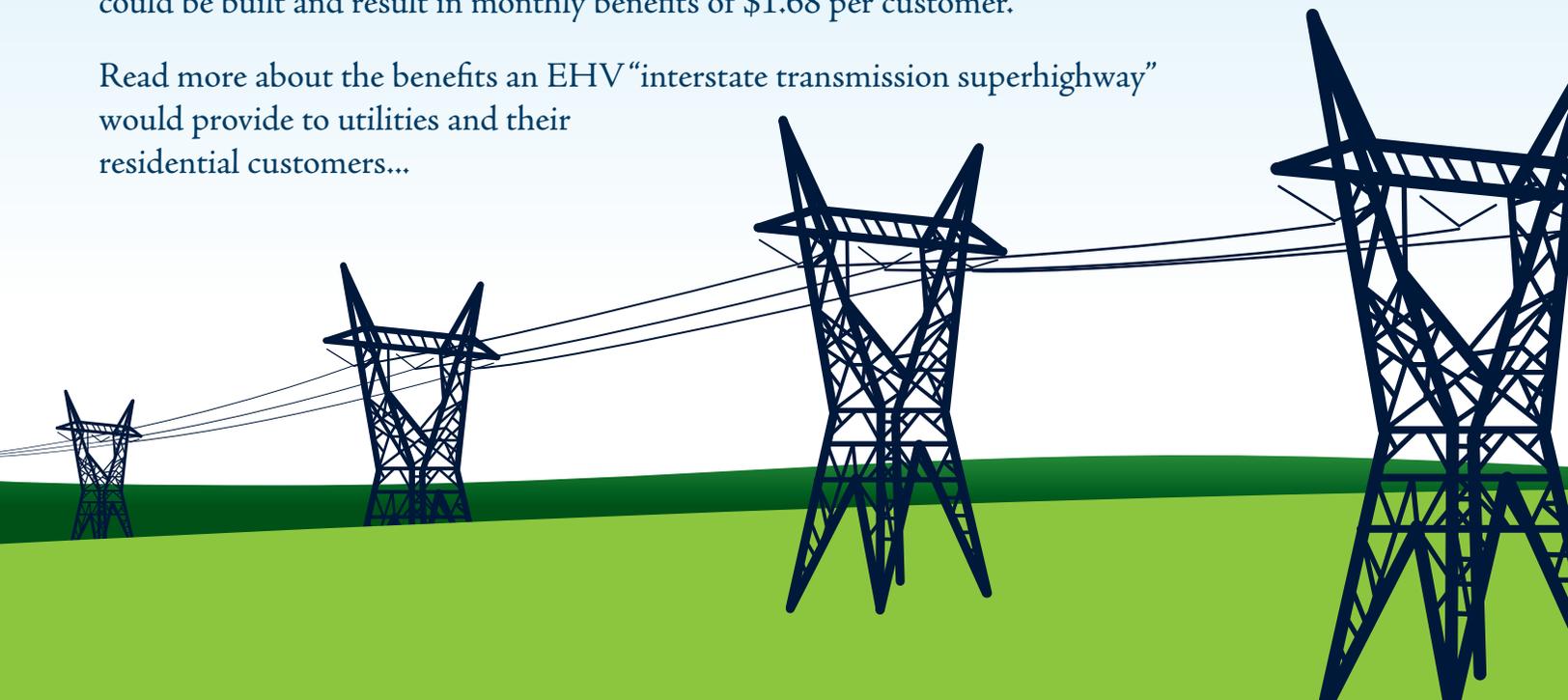
# The Benefits of a “Transmission Superhighway”

**W**hen the Eisenhower administration built the interstate highway system, their goal was to develop a network of public roads that would facilitate easy and efficient transportation over long distances. SPP and our members want to build the electric equivalent of that system – an “interstate transmission superhighway” - that would serve as the backbone of a strong transmission grid, increase access to low-cost generation, improve electric reliability, and help our nation meet future electricity needs.

We all depend on a reliable electric grid to power our homes and businesses. To keep the power flowing, there must be enough transmission to carry electricity from the generator to you. Traditionally, electricity transmission lines and infrastructure have been built in response to specific requests for service. For instance, to meet an increase in demand, a utility will select a generating resource and ask SPP for transmission service to bring this generation to its customers. If the transmission grid cannot support this request, a new facility may need to be built or existing facilities upgraded to accommodate this specific need. However, it could be more beneficial to build large, Extra High Voltage (EHV) lines rather than building in this “patchwork” manner.

Transmission represents a small percentage of residential customers’ utility bills (about 10%). The cost of new transmission is offset by the benefits. For instance, SPP’s analysis found that for only an additional 88¢ on a \$100 monthly utility bill, seven new transmission projects totaling \$700 million could be built and result in monthly benefits of \$1.68 per customer.

Read more about the benefits an EHV “interstate transmission superhighway” would provide to utilities and their residential customers...



# A Robust Transmission Grid Benefits Everyone

## Improves access to lower-cost generation by reducing “bottlenecks” on the grid

The transmission system carries electricity from generation sources to customers. If there is not enough transmission capacity, access to generation can be constrained, causing “bottlenecks”. New and expanded transmission facilities open up access to many types of resources, including low-cost sources. The cost of the new transmission is mitigated by this access to more generation.

There are times when a utility can save money by buying electricity from another generator instead of generating its own power. To do this, the transmission must be available.

## May reduce electricity reserves, allowing more generation into regional energy market

Electricity providers are required to have enough capacity to meet customers’ needs, plus a reserve margin (13.5% in SPP). These reserves are required in case of a problem on the grid, such as a line or generator outage. More effective transmission may allow reserve margins to be reduced, allowing more existing generation to be provided to SPP’s wholesale energy marketplace.

## Building “bigger” can be more cost-effective than building to meet minimum requirements

The North American Electric Reliability Corporation’s reliability standards and SPP Criteria mandate when new lines must be built to “keep the lights on”. Building more than the minimum requirement may provide significant economies of scale in terms of cost and land use.

## Helps add renewable wind and solar energy to the grid

Many of the SPP region’s best renewable resource zones are located in remote areas with little or no available transmission capacity. Adding transmission will allow clean, renewable energy from wind and solar resources to be generated in the Plains and transported to customers in the SPP region and possibly other regions of the U.S.

## Improved reliability reduces high-cost of brown and blackouts

It can cost millions or even billions of dollars when the power goes out due to storms or other events on the transmission grid. A strong and robust grid helps ensure that the power stays on, reducing the impact and high cost of outages.

## More efficient use of existing resources may reduce need for new generation

Added transmission facilitates optimal use of existing resources, lowering the total generation required to serve the region’s needs. More efficient use of current resources may reduce the need to build new generating facilities.

High voltage transmission “superhighways” would move more power more efficiently over long distances at lower costs.

Lower voltage transmission “byways” would still be required to move power to smaller distribution lines.

## Diverse fuel usage increases reliability and flexibility

A robust transmission system allows delivery of reliable and cost-effective electricity from a diverse set of resources, even when fuel prices or conditions change (such as natural gas price fluctuations or wind variability). Quick access to different types of generation is important for “keeping the lights on” across the region without interruption.

## New economic opportunities

Investment in infrastructure contributes to economic success beyond the electric industry. All businesses benefit from supplies of more reliable and lower-cost electric service.

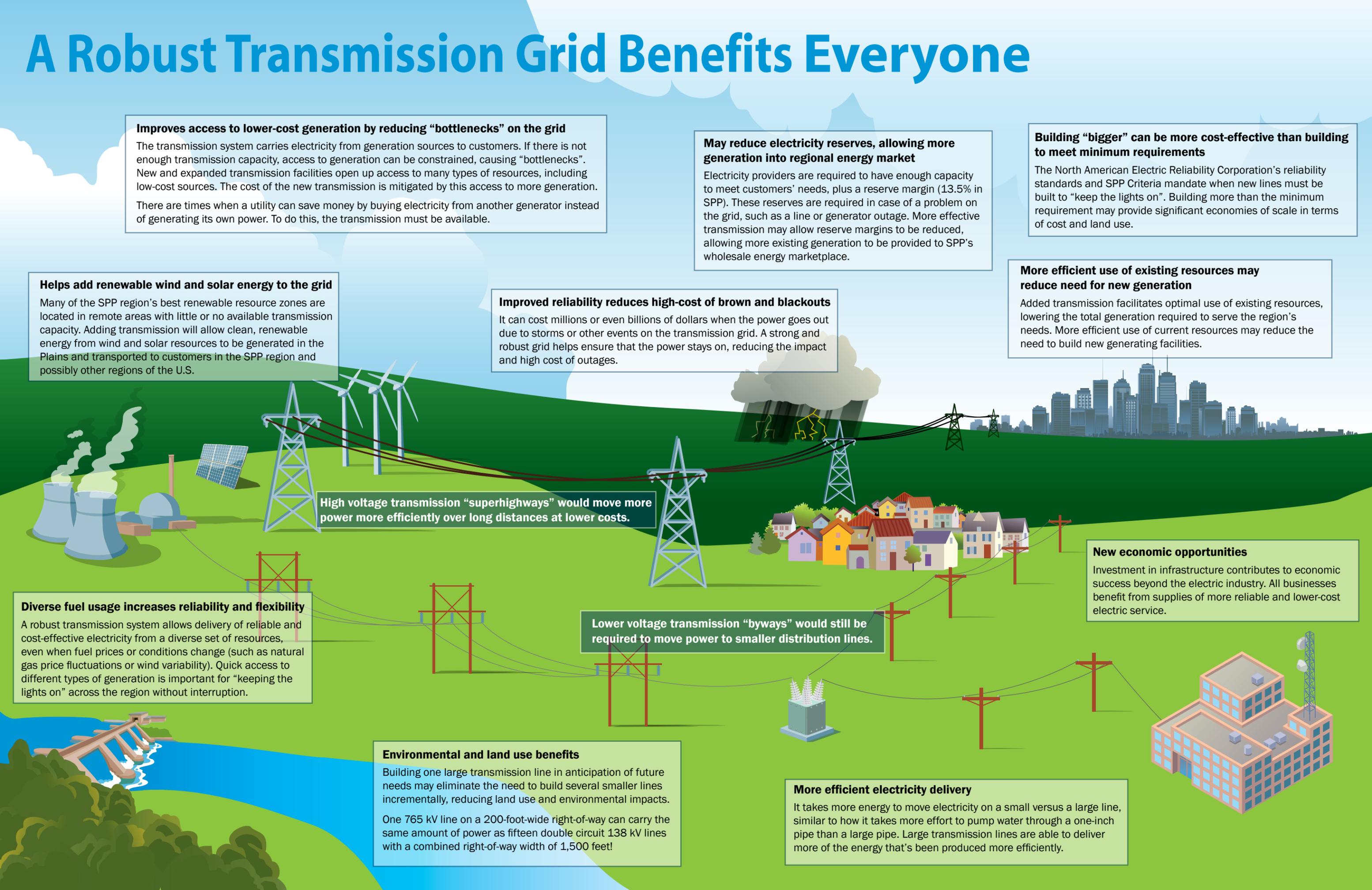
## Environmental and land use benefits

Building one large transmission line in anticipation of future needs may eliminate the need to build several smaller lines incrementally, reducing land use and environmental impacts.

One 765 kV line on a 200-foot-wide right-of-way can carry the same amount of power as fifteen double circuit 138 kV lines with a combined right-of-way width of 1,500 feet!

## More efficient electricity delivery

It takes more energy to move electricity on a small versus a large line, similar to how it takes more effort to pump water through a one-inch pipe than a large pipe. Large transmission lines are able to deliver more of the energy that’s been produced more efficiently.





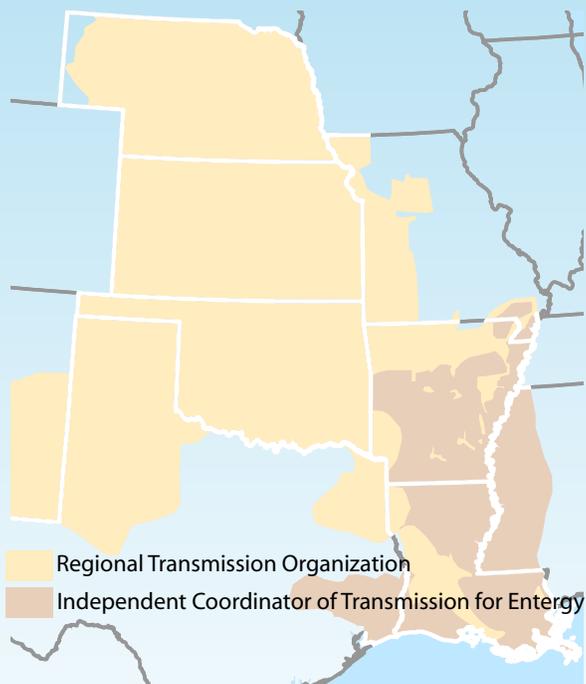
## Our Mission

Helping our members work together to keep the lights on... today and in the future.

As a Regional Transmission Organization (RTO), SPP is mandated by the Federal Energy Regulatory Commission to ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale prices of electricity. SPP also serves as a Regional Entity of the North American Electric Reliability Corporation.

RTOs are like “air traffic controllers” of the electric power grid. We do not own the power grid, but independently administer transmission service and operate the grid minute-by-minute to ensure that power gets to customers and to eliminate power shortages.

SPP is a non-profit organization based in Little Rock, Arkansas. Our members serve over five million customers and consist of investor-owned utilities, municipal systems, generation and transmission cooperatives, state authorities, independent power producers, power marketers, and independent transmission companies.



## Services Provided to Members and Customers

**Reliability Coordination:** SPP monitors power flow throughout our footprint and coordinates regional response in emergency situations or blackouts.

**Tariff Administration:** SPP provides “one stop shopping” for use of the region’s transmission lines, and independently administers an Open Access Transmission Tariff with consistent rates, terms, and conditions.

**Regional Scheduling:** SPP ensures the amount of power sent is coordinated and matched with power received.

**Transmission Expansion:** SPP’s planning processes identify system limitations, develop transmission upgrade plans, and track project progress.

**Market Operations:** SPP’s wholesale energy market monitors resource/load balance and ensures less expensive power is used before expensive power, as long as system reliability is met.

**Compliance:** The SPP Regional Entity enforces compliance with federal and regional reliability standards for users, owners, and operators of the region’s bulk power grid.

**Training:** SPP offers continuing education for operations personnel at SPP and throughout the region.

## Geographic Area

370,000 square miles

47,000 miles of transmission lines

Members in nine states: Arkansas, Kansas, Louisiana, Mississippi, Missouri, Nebraska, New Mexico, Oklahoma, and Texas.

Visit [SPP.org](http://SPP.org) > [About SPP](#) > [Fast Facts](#) for more statistics.