The recommended transmission projects will facilitate delivery of lower-cost generation throughout the region. Market-price disparity will be reduced, levelizing wholesale energy prices by 21% on average. SPP and its stakeholders worked together for more than two years to produce the 2019 Integrated Transmission Plan (ITP). This highly collaborative effort was designed to produce a high degree of confidence in the results.

The 2019 Integrated Transmission Plan determined 44 new transmission projects are needed to ensure a reliable and cost-effective grid capable of enabling a rapidly changing generation mix and new technologies. The proposed projects are expected to provide a 40-year benefit-to-cost ratio ranging from 3.5 to 5.8. This investment is projected to generate net savings of 4¢ to 23¢ on the average residential bill in the SPP region.

To read the full report, visit SPP.org > Engineering > Transmission Planning and scroll to the 2019 ITP section.
Different scenarios were considered to account for variations over the next 10 years, including projections about wind and solar growth, generation retirements, and the impact of electric vehicles on load growth.

The 22,096 MW of wind currently on the SPP system has surpassed the 2015 and 2017 plans’ 10-year forecasts. Under-forecasting wind growth leads to delayed transmission investment, contributing to persistent congestion and increased reliability risks. The 2019 ITP included more in-depth analysis to better forecast renewables development, which will allow the region to proactively build infrastructure to alleviate congestion and provide reliable access to less expensive energy.
Congestion on the transmission grid causes price separation in the SPP market. Rapid renewable expansion has contributed to increasing price disparity between the western and eastern portions of the SPP system. These disparities have created higher average costs for eastern load centers. The recommended transmission projects will reduce locational-marginal-price variance across the region. They will create more reliable transfer capability, allowing the system to realize benefits of low-cost generation.

The 2019 & 2017 ITP project portfolios address eight of 10 historical constraints in SPP.
Adding value for SPP

SPP and its stakeholders collaborated extensively to complete the 2019 ITP, a first-time product under SPP’s newly improved integrated transmission planning process. The proposed project portfolio is expected to provide significant value to customers in the region, with many realizing almost immediate net benefits.

Tested sensitivities yield a high degree of confidence that projects will provide net benefits.

The portfolio will pay for itself in less than 20 years and begin providing net savings to ratepayers in less than two years.

F1 (Future 1 Reference Case), F2 (Future 2 Emerging Technologies)

Consider APC savings only. Additional financial benefits comprising 20%-33% of portfolio value not included.
Costs and benefits are 40-year net present values. Cost ranges assume +/- 30% variation.