



**L-1
Clean Power Plan**

**L-2
Renewable Portfolio
Standards, Wind
Generated Electricity
in Kansas, and
Production Tax Credit**

**L-3
Southwest Power Pool
Marketplace**

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Utilities and Energy

L-3 Southwest Power Pool Marketplace

Kansas belongs to the Southwest Power Pool (SPP) regional transmission organization. The SPP covers a geographic area of 575,000 square miles, and manages transmission in all or parts of 14 states: Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. The SPP also has been designated as a regional entity by the North American Electric Reliability Company (NERC), and, as such, is charged with ensuring that the bulk electric system in a designated area is reliable, adequate, and secure.

Historically, SPP also has operated a Real-Time Energy Imbalance market. Under this structure, the SPP member utilities had three ways to serve their customers: these member utilities could generate their own power; buy power from another provider; or buy from the SPP market.

Participants could compare real-time prices from many sources, and in some instances, it might be cheaper for a utility to buy power from others than to generate its own electricity.

Several large regional transmission organizations serving other parts of the United States have operated more extensive energy markets than the SPP for a number of years. The SPP began work on the Integrated Marketplace in 2007. A 2009 outside analysis estimated the Marketplace would generate an additional \$100 million in net benefits annually for the SPP. In March 2014, the SPP's Integrated Marketplace went live.

Components of the Integrated Marketplace

The Integrated Marketplace retains a Real-Time market and adds a Day-Ahead market and an Operating Reserves market.

Prior to the Integrated Marketplace, each of the SPP participants with generation resources evaluated its own demand for electricity (load) and determined which of its generation sources to use to meet its load. Participants could purchase additional energy in the Real-Time market if needed, or sell excess energy in the market.

In the Integrated Marketplace, the SPP determines which generating units in its region should run the next day for maximum cost-effectiveness.

For the Day-Ahead market, each utility must submit its loads and bids for generation by 11:00 a.m. the previous day, and will learn by 4:00 p.m. which of its generators have been selected to run the next day. SPP evaluates the generation bid-in and the estimated loads and selects the most cost-effective and reliable mix of generation for the region. Because it centralizes available generation over the region, the market may be able to provide access to a more diverse (and presumably less costly) fuel mix than an individual utility could otherwise access.

The Operating Reserves market provides participants greater access to reserve electricity, improves regional balancing of supply and demand, and facilitates integration of renewable resources.

As part of the Marketplace implementation, the SPP has become the single Balancing Authority for the entire region. Previously, load and supply were balanced by 16 different entities within the SPP footprint, each with its own defined area of responsibility. Aggregating the load and supply for the entire region for balancing purposes has reduced excess capacity and led to more efficient dispatch of energy.

State Oversight

Because all of the costs of the Integrated Marketplace flow through to ratepayers, regulators in Kansas and other member states want to ensure that the Marketplace is working as planned and generating the projected savings.

The Kansas Corporation Commission (KCC) staff invested significant effort in preparing for the Marketplace, and the workload of the KCC audit staff has increased because of the complexity of transactions in the Marketplace. The auditors have developed processes to monitor utilities' performance in the Marketplace on a monthly basis and continue to conduct comprehensive reviews on a yearly basis that assess such things as the utilities' internal controls, internal risk management activities, hedging/profitability analysis, and use of shadow settlement software to verify SPP settlement statements.

2015-2016 Outcomes

The 2016 SPP Annual Report detailed 2015 achievements and improvements. The SPP became the first Regional Transmission Organization (RTO) to count among its members a federal agency, which is the Western Area Power Administration's (WAPA) Upper Great Plains Region. The efforts to integrate WAPA, along with a power cooperative and power district, were completed on schedule and on budget. This process was called the Integrated System (IS). The SPP also reported 12 other entities joined the SPP in 2015. In total, the SPP's footprint has expanded to more than 700 generating plants, nearly 5,000 substations, and about 60,000 miles of high-voltage transmission lines.

In 2015, the Integrated Marketplace had 703 generating resources; 166 market participants; \$14.638 billion in market settlement dollars; a peak load on July 24, 2015, of 45,873 MW; and 12,397 MW of wind energy in service.

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