

This week's extreme cold temperatures led to historic levels of energy demand on the U.S. power grid resulting in widespread rolling unplanned power outages throughout much of the central portion of the country. The rolling power outages in this region were linked to the Southwest Power Pool (SPP) service area.

SPP is a regional transmission organization that acts as a balancing authority for a 14-state region, meaning SPP balances electricity production and use for that entire area. This is why energy conservation in one place, for example South Dakota, can have a meaningful impact on electric reliability in another, like the panhandle of Texas.

Several wholesale power suppliers in our region are participants and transmission owners in SPP, which means that consumers from multiple utilities—including investor-owned utilities, municipals and electric cooperatives—across our region were affected by the event.

Stress on the SPP system began on the evening of Sunday, Feb. 14 when SPP initiated its tiered Energy Emergency Alert (EEA) system. The alert started at EEA Level 1 on the evening of Feb. 14, which meant that the region's consumers were asked to conserve energy to help reduce the demands on the power grid and prevent extensive and unplanned outages.

On the morning of Monday, Feb. 15, the extreme cold temperatures continued causing excessive demands for electricity throughout SPP's footprint. At that time, SPP cycled their alert system between EEA Level 2 and up to EEA Level 3, which meant that there wasn't enough generation available to meet the demand for electricity. The enhanced alerts on Feb. 15 did not result in outages in our region, but they did bring outages to other parts of SPP's footprint.

On the morning of Feb. 16, SPP again cycled to EEA Level 3 due to lack of generation to meet demand for electricity in their footprint. Through that Level 3 alert, this region's system operator, the Western Area Power Administration, was forced to shut off power to various parts of the grid. This resulted in rolling power outages in the service areas of multiple utilities across portions of South Dakota and Minnesota as well as through the entire SPP service area. SPP returned to EEA Level 1 around 1:30 p.m. on Feb. 16. However, they expect continued excessive electricity demand and generation shortfalls through Wednesday, Feb. 17, and caution that their system may need to return to Level 3 at any point.

South Dakota Public Utilities Commission Chairman Chris Nelson joined South Dakota power providers to urge conservancy. "Unfortunately, electricity demand on the grid has outstripped supply in some areas causing unplanned outages," said the PUC's Nelson. "These outages are necessary to keep from compromising the entire grid. I continue to encourage South Dakotans to limit their use of electricity wherever possible so that we can restore normal operations as quickly as possible."

Consumers can do their part by conserving the use of electricity. Tips to conserve energy include turning your thermostat down a few degrees, delaying the use of large appliances and turning off unnecessary lights. Please contact your local electric cooperative for additional ways to conserve energy.