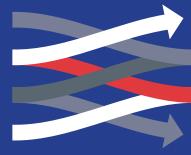


GENERATIONAL CHALLENGE



Working together to mitigate unprecedented power grid risks

• SPP must continuously balance electricity supply and demand across 14 states.

- BALANCE Together we must balance grid reliability, environmental policies, and affordable electric service.
 - This balancing act is increasingly challenged by growing risks of inadequate electricity supply to meet growing demand.



Excess generating capacity in SPP is shrinking to dangerously low levels.

As coal and gas generators are being retired, SPP increasingly depends on renewable energy, which is cleaner and lower cost but challenging due to its variability.



Emerging technologies can be helpful but need more investment and development to address today's challenges.

All generation types struggle to perform during extreme weather when demand is highest and human health and safety are at greatest risk.





We need significant amounts of new transmission and generation, which is costly and takes years to complete.





Our world is increasingly becoming electrified, and demand is rapidly rising across the U.S.

Demand in SPP could be 25% higher by 2030.



New sources of demand — data centers, crypto mining, oil and gas production, electric cars — consume tremendous energy.

Extreme weather events are more frequent and cause greater consumption during times of urgent





Winter and summer peak demands are growing at alarmingly high rates.

SUPPLY



Our risks will increase exponentially if we don't take steps to address our generational challenge.



MEETING THE CHALLENGE

A concerted, collective effort will ensure a reliable energy future



To meet the supply and demand challenge, more transmission and generation must be built.



We can better manage demand with programs that allow consumers to make choices about electricity use.



We need a diverse generation portfolio to ensure a balance between reliability, affordability, and environmental policy.



Building out the grid will require continued investment from utilities and their customers.

OUR GOAL IS TO REDUCE THE AMOUNT OF TIME SPP IS UNDER GRID ALERTS

Normal Operations Weather Advisory Resource Advisory Conservative Operations Advisory Energy Emergency Alert Level 1 Energy Emergency Alert Level 2 Energy Emergency Alert Level 3 Restoration Event Between 2019 and 2023, the SPP region experienced 3,234 hours of grid advisories and alerts due to tight operating conditions.

Advisories raise awareness and do not require general audiences to take action. SPP member utilities should follow applicable procedures.

Energy Emergency Alerts indicate all available generators has been committed to meet region-wide demand. As conditions worsen, voluntary conservation or service interruptions may be necessary to prevent uncontrolled outages.

SOLUTION

SPP has a responsibility to work with its members and regulators to assure adequate generation and transmission is being planned for the future. But we can't do it alone Here's how you can help:

- **STATE UTILITY COMMISSIONERS** are extremely important in developing responsible cost allocation and resource adequacy policies and in supporting prudent investments in infrastructure expansion.
- **FEDERAL REGULATORS & POLICYMAKERS** can approve regulations that facilitate reliability improvements and enact laws that promote reliability while balancing affordability and environmental goals. They can also support collaboration across multi-state regions.
- **UTILITIES & DEVELOPERS** can upgrade aging infrastructure and bring new generation and transmission to the grid.
- **REGIONAL TRANSMISSION ORGANIZATIONS** can work together to provide visionary leadership within our regions while working across our boundaries to exchange energy and collaborate on interregional projects.
- **CONSUMERS** can stay informed about and support utilities' efforts to build infrastructure needed to provide reliable and affordable electric service. They can participate in demand response and energy efficiency programs and voluntarily reduce consumption during emergencies.

STAY INFORMED

To stay informed about SPP's grid conditions, subscribe to email alerts, follow us on social media, or download the SPP Go mobile app. These alerts notify the public when we need them to reduce consumption to keep the lights on for everyone.

SPP.org/OurChallenge

