

Message to NineStar Electric Members regarding summer energy usage

Last month, the Midcontinent Independent System Operator (“MISO”), an independent, non-profit organization responsible for operating the electrical grid in the middle part of the United States from Canada to the Gulf of Mexico, issued a warning informing all electric companies of the possibility of rolling blackouts in the region this summer caused by a shortage of energy capacity during peak usage. We want to take this opportunity to explain what is occurring to trigger such a warning.

As an electric consumer, your primary focus is on reliability. You flip a switch, and you expect the lights to come on. You don't spend a lot of time thinking about where the energy comes to light that bulb or power the myriad of electrical appliances and devices that are in modern homes and businesses. However, the power that comes to your home and business is delivered through a complex interconnected network that transports the power from power plants and solar and wind farms often hundreds or more miles away. MISO, headquartered in Carmel, Indiana, is the organization that is responsible for making sure that the amount of power that is generated meets the need for energy in any given minute 24/7/365 throughout a vast footprint of middle America stretching from the Canadian border all the way down to the Gulf of Mexico. Part of MISO's responsibilities is to forecast energy needs and generation capacities to insure that as needs increase, generation capacities are sufficient to meet those needs. As MISO began forecasting energy needs during the summer of 2022 and looking at generation capacities, it concluded that sections of the Midwest may not have sufficient capacity to meet demand – particularly on hot summer days.

Many will ask: Why is this happening?

Several factors are coming into play that is causing this potential energy capacity issue. As the energy generation industry moves toward green energy, we are seeing numerous base load coal-fired power plants being retired at accelerated rates. Many power companies that own coal plants have made the economic decision that the cost of upgrades and maintenance of these plants are too much with the likely useful life left given past and current energy regulations and trends. Instead, they have been investing to greener energy generation like solar and wind. Both solar and wind do not have the baseload energy capacity as a traditional coal or gas fired power plant because they produce less energy on cloudy or windless days.

For remaining coal fired power plants, many are finding that they are not able to run at historical levels due to availability of the coal. As the need for coal is reduced due to the retirement of coal fired power plants, there are fewer mines operated and fewer miners available to mine coal which has resulted in much lower supplies of coal at the remaining coal plants in the Midwest. As the coal stockpile dwindles, they reduce their baseload output to match the coal shipments that the plants can receive. For example, if a plant is receiving only 75% of the coal it needs, it will reduce its energy outputs by 25% which reduces the amount of overall energy capacity within the region.

Another factor that is contributing to the concern over energy capacity this summer is the lack of available transmission lines to move energy from newly constructed or planned constructed solar and wind farms to the grid. Just like power plants, high-voltage transmission lines are long-life assets that often take many years to construct and once in service, will be depreciated over many years. These transmission lines connect power plants to local distribution systems like is owned and maintained by NineStar Connect. NineStar receives electricity from an amalgam of different power generation sources through its generation and transmission provider, Wabash Valley Power Alliance. Without transmission

lines, power generated in southern Indiana coal plants, Illinois natural gas plants, or northern Indiana solar and wind farms would not reach our members in Hancock, Hamilton, Madison and Rush Counties.

If capacity doesn't meet demand, what will happen?

If capacity falls short of demand on any given day, MISO is concerned that a rolling blackout event might occur where certain areas of the grid lose power and large swaths of electric consumers experience a power outage that could last a few moments. If the power grid experiences a large increase in demand for energy that greatly exceeds the capacity to generate, the grid could experience a cascading blackout that could last for several hours or even days – much like we all witnessed in Texas eighteen months ago during an intense winter storm.

What can I do to help?

The most important thing household and small business energy users can do to help is to be mindful this summer about the energy they consume during peak demand – typically 2:00 pm to 8:00 pm, Monday through Friday. Such things as setting your air conditioner thermostats up a couple of degrees and putting off running dishwashers, clothes dryers, pool pumps and other non-essential electric devices during this period will help greatly.

The electrical grid is especially vulnerable to being short on energy capacity during this time period on especially hot and humid days. MISO will issue alerts and potential warnings to power companies like NineStar on days that it is forecasting energy demands to be getting close to reaching generation and transmission capacities. If it becomes very critical, MISO will issue orders for large energy loads to be shed from the system to avoid rolling blackouts and many power companies will ask factories and other large energy consumers to voluntarily shut down operations to avoid large scale outages.

We urge all our energy members to stay informed about developments by monitoring NineStar Facebook and Twitter accounts and watch for announcements from MISO on particularly hot days this summer.

Please note that this is not a reason to panic but instead to be prepared. NineStar is sharing this information with its members because as a cooperative utility, we remain dedicated to transparency and education of our members. Although energy capacity is far beyond NineStar Connect's local control, we remain optimistic that generation and transmission providers will be able to meet summer demand for energy within our region and that our members will not experience any outages due to lack of capacity.

If any of our members have any questions or concerns, we urge you to contact us.