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**Summer 2022 Energy Emergency Alert Overview**

When electric demand is greater than the supply of electricity, ERCOT begins emergency operations.

We use three levels of Energy Emergency Alerts (EEAs). Each level provides access to resources that can only be deployed when an energy emergency is declared. These tools are in place to protect the reliability of the electric system and prevent an uncontrolled system-wide outage. ERCOT currently has about 2,900 MW of additional capacity available to address tight grid conditions.

Separate from EEA procedures, ERCOT can also issue a conservation request. This request to the public can help reduce demand at any time. One megawatt (MW) is enough to power about 200 Texas homes during peak demand.

As part of ERCOT’s system improvements to enhance grid reliability, the Public Utility Commission approved policy changes that allow ERCOT to deploy some of the 2,900 MW of resources prior to declaring an energy emergency. The decision to deploy these resources sooner is based on real time grid conditions.

**Resource Deployments Prior to an Energy Emergency**

If operating reserves drop below 3,000 MW and are not expected to recover within 30 minutes, ERCOT can:

* Bring all available generation online and release any unused reserves
* Deploy Emergency Response Service: This includes commercial/small industrial customers who are contractually paid to reduce their power within either 10 or 30 minutes: up to 895 MW
* Reduce voltage: Transmission companies can reduce voltage to save 100-200 MW if controlled outages are NOT expected
* Evaluate potential for conservation request: ERCOT also has the option to request conservation

**EEA Levels and Actions**

**Level 1**

***If operating reserves drop below 2,300 MW and are not expected to recover within 30 minutes:***

**Increase other generation supplies and use demand response to lower electric demand, including:**

* Import from neighboring electric grids, if available: up to 1,220 MW
* Switchable generation that can serve multiple points on the grid, if available: up to 542 MW
* Remaining Emergency Response Service if applicable This includes commercial/small industrial customers who are paid to reduce their power during emergencies: up to 895 MW

**Level 2**

***If operating reserves drop below 1,750 MW and are not expected to recover within 30 minutes:***

**Send an energy conservation alert to all Market Participants**

**Reduce power by deploying remaining demand response programs, including:**

* Deploy operating reserves carried by Load Resources, including large industrial customers who are paid to reduce their power: 1,591 MW
* Load management programs from transmission companies: 307 MW for summer season
* Voltage reduction by transmission companies if not already deployed: 100-200 MW

**Level 3**

***If operating reserves drop below 1,430 MW, ERCOT moves into level 3. If operating reserves drop below 1,000 MW and are not expected to recover within 30 minutes and/or the grid’s frequency level cannot be maintained at 60 Hz:***

**As a last resort, ERCOT will instruct transmission companies to reduce demand on the electric system. These are controlled outages.**

*Note: Some steps may occur simultaneously and do not include additional voluntary demand response programs from residential and business customers.*

**Controlled Outages**

Controlled outages are electric service interruptions, ordered by ERCOT. Implemented by local utilities, these controlled outages quickly reduce electric demand and prevent an uncontrolled system-wide outage. They are used as a last resort to bring operating reserves back to a safe level and protect the integrity of the grid by maintaining system frequency. Each utility is responsible for deciding how to decrease demand in their area. They are required to reduce demand based on their percentage of historic peak demand.

ERCOT has initiated controlled outages four times since the grid operator was established:

December 22, 1989: 500 MW April 17, 2006: 1,000 MW

February 2, 2011: 4,000 MW February 15-18, 2021: 20,000 MW

**Seasonal Factors Affecting Tight Grid Conditions**

Sustained above-normal or extremely high temperatures across major metropolitan areas combined with generation outages and low wind or solar generation may result in tight operating conditions.

Summer peak demand weather conditions in the ERCOT region, based on historical data:

102°

104°

105°

96°

98°

100°

102°

104°

106°

**Austin/San Antonio**

**Houston**

**Dallas**

**Normal Temperatures**

**Below-normal Temperatures**

**Extreme Temperatures**