

## 2021 Energy Emergency Alert Overview

When electric supply and demand can't be balanced with normal procedures, we begin emergency operations using three levels of Energy Emergency Alerts (EEAs). Each level provides access to resources only available during tight conditions to protect the reliability of the electric system and prevent an uncontrolled system-wide outage. ERCOT currently has about 2,300 MW of additional capacity available when it enters emergency conditions.

### EEA levels and actions



#### LEVEL ONE

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

**Bring all available generation online and release any unused reserves**

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

*Imports from neighboring electric grids, if available: up to 1,220 MW*

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*Switchable generation that can serve multiple electric grids, if available: up to 434 MW*

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*Emergency Response Service (some commercial/small industrial customers who are paid to reduce their power within 30 minutes during emergencies): 820 MW*



#### LEVEL TWO

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

**Request energy conservation from public (if not already in effect): MW vary**

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

*Deploy operating reserves carried by Load Resources (some large industrial customers who are paid to reduce their power): 898 MW*

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*Load management programs from transmission companies: 270 MW*

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*Voltage reduction by transmission companies: 100-200 MW*

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*Deploy remaining Emergency Response Service (other commercial/small industrial customers who are paid to reduce their power within 10 minutes during emergencies): 820 MW*



#### LEVEL THREE

*If operating reserves drop below 1,375 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, instruct transmission companies to reduce demand on the electric system; typically in the form of controlled outages**

\* One megawatt (MW) of power generation is enough to power about 200 Texas homes during peak demand.

Note: Some steps may occur simultaneously and do not include additional voluntary demand response programs, where electric service from other ERCOT business and residential customers is interrupted during emergencies.

## Controlled outages

Controlled outages are electric service interruptions, ordered by ERCOT but implemented by utilities, to 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 maintain system frequency. Each utility is responsible for deciding how to decrease demand in their area and 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 that may result in tight grid conditions during summer months

Sustained above-normal or extremely high temperatures across major metropolitan areas and cities 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:

	Dallas	Austin/San Antonio	Houston
 <b>Normal Temperatures</b>	102°	102°	96°
 <b>Above-normal Temperatures</b>	104°	104°	98°
 <b>Extreme Temperatures</b>	106°	105°	100°