

ERCOT Trending Topics

TOPIC: SOUTH TEXAS EXPORT CONSTRAINT

Request for Proposal (RFP) for Capacity South Texas Export Generic Transmission Constraints (GTCs) Interconnection Reliability Operating Limits (IROLs)

In this ERCOT Trending Topic, we explain why a Request for Proposal (RFP) for Capacity will be issued to reduce reliability risks associated with exports of power from South Texas into the San Antonio region.



FACTS:

ERCOT has identified a need to procure Demand Response capacity to meet load and reserve requirements during the summer 2024 Peak Load Season. This need is informed by several factors, including significant load growth since summer 2023, and a reliability need to limit power transfers across specific transmission interfaces that deliver power from South Texas into the San Antonio region under certain conditions involving high system demand.

How much capacity is ERCOT seeking in the RFP?

ERCOT is seeking Demand Response capacity that would provide up to 500 MW of relief on the relevant constraints based on previously observed power flows over the relevant transmission facilities in the 2023 summer Peak Load Season. ERCOT identified the highest risk period to be during the 3–9 p.m. hours in the summer months from July through September. When procured, Demand Response is dispatched to help to lower the amount of power flowing over the relevant transmission facilities.

What is the procurement timeline?

At the Public Utility Commission of Texas (PUCT) Open Meeting on May 2, 2024, ERCOT provided an update around the South Texas Export Constraint mitigation solution indicating the intent to publish an RFP to obtain more Demand Response solutions. The RFP for Capacity will cover the period from July 1 through September 30, 2024. Proposals to provide Demand Response will be due on June 13, and any awards will be announced on June 25.

Under what conditions would the capacity be needed?

The conditions under which the capacity would be needed are times of high system-wide power demand, when demand in the portion of the ERCOT System north of the specific transmission constraints exceeds generation available north of the constraints, and there is an excess of generation to be exported from south of the constraints.

Certain transmission facilities that move power from South Texas into the San Antonio area have been identified as an Interconnection Reliability Operating Limit (IROL) as defined by the North American Electric Reliability Corporation (NERC), because under certain circumstances, overloading of such transmission facilities and the occurrence of an additional contingency could lead to cascading outages that adversely impact the reliability of the Bulk Electric System. ERCOT operators will take actions to prevent these lines from exceeding their thermal limits to safeguard the system from cascading conditions. These actions may include ERCOT directing load shedding before the limits of the IROLs are exceeded. The procurement of additional capacity would lessen the likelihood that ERCOT would need to direct load shedding.

Does this RFP indicate that ERCOT will enter emergency conditions if capacity is not procured?

No. The RFP for Capacity was issued to stakeholders to increase Demand Response, adding up to an additional 500 MW of capacity for the summer 2024 Peak Load Season as part of ERCOT's reliability-first approach to grid operations. ERCOT will continue to use all operational tools available, including bringing generating resources online early to mitigate sudden changes in generation or demand to maintain grid reliability.

What is Security Constrained Economic Dispatch (SCED)?

ERCOT's Security Constrained Economic Dispatch (SCED) software tool calculates the most optimal way to meet the demand on the ERCOT System for the upcoming five-minute time period by setting the output level of generators while respecting transmission system limitations. SCED is able to operate the system while respecting IROLs the majority of the time. However, if insufficient generation exists to meet demand north of the constraints without exceeding the IROLs, SCED may not be able to serve system-wide demand without overloading the IROLs. ERCOT is required under NERC Reliability Standards to take actions to keep the IROLs below their limits, which may include directing load shedding.

How many IROLs does ERCOT have?

ERCOT currently has nine IROLs across the ERCOT region. Three of these IROLs are in West Texas; one IROL is in the Houston region; one IROL is in the Lower Rio Grande Valley; and on March 1, 2024, ERCOT designated four new IROLs related to the South Texas Export Constraints.

What happens next?

Read the [Market Notice](#) for more information on the procurement timeline and schedule of activities for the RFP for Capacity.