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Integrating Bitcoin Miners into ERCOT: Critical Issues Come into Focus for Large Flexible Load Task Force

On July 25, 2022, the Electric Reliability Council of Texas's (ERCOT) Large Flexible Load Task Force (LFLTF) held its monthly meeting, and building on its progress to date, it delved deeper into addressing the core issues that must be resolved to integrate Large Flexible Loads (LFL) like Bitcoin mining operations into the ERCOT system. Presently, ERCOT is still unclear how LFLs will actually behave when they are connected to ERCOT. And while these issues are complicated and challenging, once the LFLTF determines how to address them and makes its recommendations to ERCOT, the broad path for how Bitcoin mining operations will be enabled to access ERCOT will be established. The LFLTF focused its discussion and presentations on the following issues:

Defining Large Flexible Load: The LFLTF proposes for LFLs to be stand-alone loads greater than 75 MW or co-located loads greater than 20MW. Within those parameters, the LFLTF subgroups continue their discussions around the proposed definitions for LFLs and is considering bifurcating Large Flexible Loads into Security Constrained Economic Dispatch (SCED) Flexible Loads (highly flexible loads) and Interruptible Loads (not as dispatchable). SCED Flexible Loads would be dispatched through ERCOT's SCED system and would be capable of responding to ERCOT requests to ramp their electricity usage up or down. SCED Flexible Loads would be similar to Controllable Load Resources (loads capable of reducing or increasing consumption that are used to maintain grid system frequency) but would not provide Ancillary Services (a service that supports energy transmission to loads). Interruptible Loads would be co-located with generators, and the generators would provide continuously

telemetered generation data to ERCOT. Interruptible Loads would not be considered a Load Resource or provide Ancillary Services, would be capable of interrupting load as instructed by ERCOT, and could not return to normal load levels until instructed by ERCOT. The LFLTF is still working to determine whether LFLs will pay nodal or zonal prices for electricity.

Registration of LFLs with ERCOT: The LFLTF discussed developing a new optional ERCOT Market Participant registration process for LFLs which would be similar to the existing registration process for other Market Participants. The ERCOT Planning Guides would also need to be amended to address the contemplated changes to the ERCOT Nodal Protocols once the registration process is finalized. Task Force members also contemplate that ERCOT will charge a fee for LFL registration.

Expedited Interconnection to ERCOT: The LFLTF discussed whether accelerated interconnection with the ERCOT system would be afforded to LFLs that register with ERCOT as an LFL Market Participant. Presently, while it is expected that all LFLs would benefit from a faster interconnection process than other large loads, due to the various processes and studies that would need to be furnished to ERCOT as part of the Market Participant registration process, the faster interconnection timeline may not necessarily be achievable. However, many LFLTF members believe that LFLs will not register under any future Market Participant process unless they are able to interconnect more quickly than they would otherwise.

Resource Adequacy: Task Force members discussed the implications for Resource Adequacy and the Capacity, Demand, and Reserves (CDR) Report, which provides a 10-year forecast for Planning Reserve Margins (represents the percentage of resource capacity, in excess of firm electricity demand, available to cover uncertainty in future demand, generator availability and new resource supply) for ERCOT summer and winter peak load. The Task Force also discussed Seasonal Assessment of Resource Adequacy (SARA), which serves to indicate the risk that ERCOT may need to call an Energy Emergency Alert Level 1 due to insufficient operating reserves during seasonal peak electric demand periods. ERCOT will be releasing a white paper to help thoroughly assess the effect of LFLs on ERCOT's resource adequacy planning.

LFL Load Shedding Issues: High concentrations of LFLs can result in system overload in an area that is exacerbated when load is dropped in other areas. Presently, LFLs can be both online and in the ERCOT market and offline and out of the ERCOT market at different times on any given day. The LFLTF is considering requiring LFLs to share in the responsibility of shedding load when conditions so warrant, by having LFLs register as a Controllable Load Resource, Interruptible Load, or as a Resource providing Ancillary Services. This would enable ERCOT to instruct the LFL to reduce or shut in all load during a load shed event. Alternatively, ERCOT might implement a Voluntary Load Shed program where loads agree to be curtailed during or before an emergency condition and would not receive compensation.

What this means to you

Bill Blevins, Chairman of the LFLTF, updated the TAC on July 27, 2022 and informed the TAC that the LFLTF continues to make progress and expects to come to consensus on some of the issues raised at the July 25 LFLTF meeting at the August 22, 2022, LFLTF meeting. The LFLTF also set its monthly meetings for the remainder of 2022.

Contact us

If you have any questions related to ERCOT or the LFLTF Task Force, please contact our team of energy regulatory professionals or your Husch Blackwell lawyer.