Texas Public Utility Commission Close to Finalizing Plans to add Lubbock to ERCOT

Lubbock Power & Light (LP&L) is applying to join ERCOT after its wholesale contract in the Southwest Power Pool ends in 2021. LP&L already announced it has agreed to pay ERCOT $110 million for infrastructure needed to connect Lubbock to the state’s grid. LP&L officials said they agreed in principal to pay $22 million per year for five years to help mitigate some of ERCOT’s concerns over the cost their customers would incur from the estimated $360 million for transmission lines to connect Lubbock. Upon integration, LP&L officials also announced that they’ve agreed to make a one-time payment of $24 million to SPS, the current supplier of most of Lubbock’s electricity. These stipulations were approved by the Lubbock City Council will now be presented to the PUC.

Utility experts have said the inclusion of Lubbock in ERCOT would lead to increased efficiency for the grid overall, partly because it would result in a big pocket of demand close to the burgeoning West Texas wind farms that currently transmit power over long distances. Additionally, it could also provide another “bullish” signal to power providers evaluating whether to build new generation plants to serve ERCOT’s deregulated market. Lubbock’s municipally owned utility is aiming to transfer about three-quarters of its electricity demand to ERCOT, totaling about 470 megawatts. The amount constitutes less than 1 percent of ERCOT’s estimated peak demand of about 73,000 megawatts for 2018.

FERC approval of new energy storage rule

The Federal Energy Regulatory Commission has passed a rule that will open U.S. wholesale energy markets to energy storage on an equal footing with generators and other grid resources. Within the next nine months, each of these regional transmission organizations (RTOs) and independent system operators (ISOs) will be required to come back with a plan for revising its tariffs to establish a participation mode for energy storage, consisting of market rules that, recognizing the physical and operational characteristics of electric storage resources, facilitates their participation” across the range of markets that make up a regional transmission grid. Opening wholesale markets to energy storage could encourage a variety of utility-scale storage projects, which could in turn spur further price declines as development accelerates.
To deal with these differences, the final rule sets up the following criteria for the participation models it’s asking the ISOs and RTOs to design:

- Energy storage should be valued on its technical merits.
- Storage can go both up and down, not just one way or the other.
- Market rules must take batteries’ limited duration and operating parameters, such as maximum discharge levels, into account.
- Sale of electric energy from the RTO or ISO market to an electric storage resource that the resource then resells back to those markets must be at the wholesale locational marginal price.
- Minimum size set at 1000 kilowatts for unspecified duration.

As with any undertaking of this size many issues must be handled prior to actual implementation. Some of those issue are below:

- Aggregating energy storage, or any other kind of distributed energy resource, on a home-by-home basis, will need to be addressed, however the original proposed rule on energy storage included a section on how to address aggregated distributed energy resources (DERs), and a technical conference has been set up for April 10-11 to discuss concerns raised by stakeholders.
- ISOs and RTOs don’t have oversight or visibility into the distribution grid, where the vast majority of DERs are connected. That’s the responsibility of the distribution utility, which leads the following questions:
  - What happens if a grid operator and a utility call for the same DERs at the same time?
  - What if an ISO dispatch causes DERs to act in ways that disrupt local utility circuits?
  - What if local circuits are having an outage, and can’t deliver the DERs effects to the transmission system?
  - Defining who pays whom for what, encompassing service definition, accounting metering, and billing. since storage and other distributed resources are technically capable of providing many different services at both the wholesale and retail
  - Figuring out how the transmission and distribution control centers will coordinate so that there is appropriate visibility of the deployment of distributed resources to ensure reliability and safety at all levels.

**Renewables increases as source of energy generation**

While U.S. clean energy installations lagged, a record amount of capacity brought online in 2016 drove generation from renewables in 2017 to its highest level ever, at 18 percent of the overall energy mix. Natural gas and coal still remain the top producers of U.S. electricity, but both sources experienced a slight dip in 2017. Natural-gas generation dropped 2 percent, while coal fell 3 percent. Renewables are making a lot of headway in pushing forward the decarbonization of the power sector, even as the natural gas share decreases, but natural gas still remains the largest single contributor to the electricity mix.
U.S. energy overview: Renewable energy capacity build by technology

U.S. energy overview: Electric generating capacity build by fuel type

Source: Bloomberg New Energy Finance