

Fixin' the Grid

When the 87th Texas Legislative Session began in January, it was predicted the session would look dramatically different than any in Texas History. Due to the Capitol pandemic response, there were many opinions about how the pandemic-restricted session would unfold. Some even stated the Legislature might convene briefly to fulfill their one Constitutional requirement – passing of a balanced budget – and then adjourn.

Texas experienced extremely cold temperatures at the beginning of the new year, that raised concerns about potential electrical outages. Then, an unparalleled winter weather event descended on Texas and affected all 254 counties. Inadequate communications from electrical providers to local elected officials began, warning our communities to prepare for the fast-approaching cold weather. As a state, most people seemed to accept the concept of rolling blackouts and why we needed to rotate homes to benefit the grid system. However, many in House District 60 did not experience rolling blackouts as promised, but complete outages for up to 72 hours.

Many questioned how Texas could get to this point. The answer is complicated. The flow of Texas' power supply is managed by the grid operator, the Electrical Reliability Council of Texas (ERCOT), and ERCOT is overseen by the Public Utility Commission of Texas. When electricity is generated, it is then placed into the grid where electrical providers, such as cooperatives, have to pull it out to be used. Think of the grid as a bucket where all of our generators pour in water, then the transmission and distribution utilities - wires and poles - take what they need from the bucket and distribute to customers. Supply must outpace demand for the grid to function properly. Unfortunately, during conditions where significant sources of power are being utilized, technology has not advanced enough to have efficient storage capability for electricity.

In February, with the high electricity demand, "load-shedding" was necessary to maintain the critical balance between demand and supply and prevent complete grid failure. When the grid "bucket" is running low, power is conserved by reducing the number of "cups" requiring water. During the storm, power generating plants went offline – due to mechanical failure or other reasons. This led ERCOT to request the electric providers to shed more loads. This is where Texans who anticipated experiencing rolling outages, were left cold and powerless.

After the lights were turned back on, there was a transition of focus and priorities in the Texas Legislature. An enormous amount of time and energy was spent to address the identified deficiencies in ERCOT and the grid. My office filed legislation in response to Winter Storm Uri, including bills that would prevent hospitals, and water and broadcasting facilities from rolling blackouts, as well as creating a statewide requirement for our generating capacity to be at least 50% from natural gas. The Governor signed multiple bills into law that will help our state move forward in creating grid stability and reliability.

Texas has enjoyed lower utility prices due to deregulation enacted in 1999. A market-based system of private generators, transmission companies and energy retailers was created. While this deregulated system has served Texas well, relatively few safeguards and a lack of enforced rules put our grid in danger. The market system left little room for financial incentives for weather protection and maintenance.

As late as June 14th, ERCOT asked customers to conserve electricity after a “significant number of forced generation outages” reduced the amount of energy available to meet demand. Lingering questions persist on why conservation measures were unexpectedly necessary during this period. This was due to unexpected equipment failure for thermal generation and underperformance of wind.

The work of the 87th Legislature thus far, though productive and helpful, is not finished and more work is needed to “fix the grid.” An urgent need exists for a “reliability incentive” to reward more dependable energy sources, such as natural gas. Incentivizing non-reliable sources of energy while creating disincentives for thermal sources (natural gas, coal and nuclear) seems a recipe for increased rolling outages. We must widen the “reserve margin” to protect Texans from catastrophic loss of power in severe weather events. It gets HOT in Texas, and this can also be crippling, if we don’t take steps to ensure our grid is stable and our generators can produce. Stakeholders will make continued arguments on achieving a balance between market and capacity components for true solutions in maintaining a reliable grid structure in Texas.

The Texas Legislature will need to take an active role in monitoring the positive changes made in the 87th session and be prepared to take quick action towards any unknown issues that may arise in the future.