

BILL ANALYSIS

Senate Research Center
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S.B. 1278
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AUTHOR'S / SPONSOR'S STATEMENT OF INTENT

Electricity is unique in that, with limited exception, it must be instantaneously produced and consumed in equal quantities in real time. Ancillary services are necessary to maintain the reliability of the electric grid. Ancillary services are reserve generation and load resource capacity that can be used to address the variability in grid demand changes, such as large swings in both electricity demand and reductions in supply from falling generation performance.

Intermittent generation, mainly wind and solar resources, cannot be "dispatched" by the Electric Reliability Council of Texas (ERCOT). This can make it look like we have a lot of installed generation capacity, but much of it cannot be relied upon because it is only there if the sun shines or the wind blows. ERCOT cannot tell these intermittent generators to provide power at any specific level, including during peak demand periods (Texas sets a new peak demand nearly every year because of population and economic growth).

Unlike thermal resources (gas, nuclear, coal), intermittent generators cannot be dispatched to a specific output level by ERCOT. They are not required to give individual projections of their output for any time period. ERCOT does this for them in the aggregate (i.e., an overall "wind forecast" or "solar forecast" for the whole grid). These generators are not penalized in the real-time market if they are operating at a higher or lower level than expected, unlike thermal generators which must perform according to the quantity of electricity they offer into the market. This means ERCOT must dispatch other resources (thermal generation or flexible loads) to accommodate: (a) changes in customer demand, and (b) changes in intermittent generation output. ERCOT manages this in part by buying ancillary services that it can call upon when there are significant changes in either category (load or intermittent generation output). In fact, intermittent generation is not treated as generation, but "negative load" in ERCOT's forecasts.

Right now, only loads (e.g., consumers) pay to buy ancillary services. The variability of renewable generation is a large factor in how many ancillary services ERCOT buys, but renewable generation does not pay for any of these costs. Intermittent generation performs as it can according to the weather, other resources back it up, and consumers pay for it. This requires ERCOT to figure out how to maintain reliability around that inconsistent performance, at no cost to the intermittent generators of limited capability.

Under the current scenario, intermittent generation is destroying price incentives for thermal generation and curtailing investment in dispatchable resources, but at the same time the grid cannot rely upon it during peak demand periods.

S.B. 1278 addresses the limitations of intermittent resources by directing the Public Utility Commission of Texas (PUC) to direct ERCOT to assign the cost of ancillary services attributable to intermittent resources and procure additional ones that would "firm up" the deliverability of these intermittent resources during peak demand periods. This would be done by requiring the intermittent generation to directly purchase this new "firming" ancillary service from dispatchable generators.

Assigning ancillary service costs to generators would more fairly attribute the burden of managing their reliability impacts in an economic way.

As proposed, S.B. 1278 amends current law relating to the responsibility for ancillary services costs incurred for the operation of intermittent wind and solar resources.

RULEMAKING AUTHORITY

Rulemaking authority is expressly granted to the Public Utility Commission of Texas in SECTION 2 of this bill.

SECTION BY SECTION ANALYSIS

SECTION 1. Amends Section 35.004(e), Utilities Code, to require that ancillary services costs incurred by the Electrical Reliability Council of Texas (ERCOT) independent system operator to address reliability issues arising from the operation of intermittent wind and solar resources be directly assigned by the ERCOT independent system operator to those resources.

SECTION 2. Requires the Public Utility Commission of Texas to adopt any rules required to implement Section 35.004(e), Utilities Code, as amended by this Act, not later than January 1, 2022.

SECTION 3. Effective date: September 1, 2021.