

BILL ANALYSIS

C.S.H.B. 5200
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State Affairs
Committee Report (Substituted)

BACKGROUND AND PURPOSE

The bill author has informed the committee that Texas faces significant challenges in its electricity transmission infrastructure, as transmission congestion cost consumers over \$7 billion in electric bills between 2021 and 2024. The bill author has also informed the committee that while building new, long-haul transmission lines can be costly and controversial, failing to upgrade and optimize the existing system results in higher energy costs for consumers in the short term and even more expensive system expansions in the long run. The bill author has further informed the committee that Texas can improve transmission efficiency by leveraging advanced transmission technologies such as grid enhancing technologies (GETs) and high-performance conductors (HPCs), which increase capacity on existing power lines, provide a cost-effective alternative to building new transmission infrastructure, and can help to reduce grid congestion, enhance reliability, and mitigate wildfire risks. C.S.H.B. 5200 seeks to address this issue by requiring ERCOT to consider the potential use of GETs and HPCs to increase transmission capacity, reduce transmission system congestion, increase reliability of electric services, increase safety of transmission system crossings over water, and reduce the risk of wildfires caused by power lines.

CRIMINAL JUSTICE IMPACT

It is the committee's opinion that this bill does not expressly create a criminal offense, increase the punishment for an existing criminal offense or category of offenses, or change the eligibility of a person for community supervision, parole, or mandatory supervision.

RULEMAKING AUTHORITY

It is the committee's opinion that rulemaking authority is expressly granted to the Public Utility Commission of Texas in SECTION 2 of this bill.

ANALYSIS

C.S.H.B. 5200 amends the Utilities Code to require the Public Utility Commission of Texas (PUC) to ensure that ERCOT evaluates on a periodic basis, to be determined by the PUC, the potential use of grid enhancing technologies and high-performance conductors for the following purposes:

- increasing transmission capacity;
- reducing transmission system congestion;
- increasing reliability of electric services;
- increasing safety of transmission system crossings over water; and
- reducing the risk of wildfires.

The bill requires such an evaluation to include considerations of the availability, technical feasibility, repairability, durability, operational risks, long-term load support viability, and cost-effectiveness of grid enhancing technologies and high-performance conductors.

C.S.H.B. 5200 authorizes ERCOT to prepare a report of available grid enhancing technologies and high-performance conductors for electric utilities and electric cooperatives to consider in constructing and operating the utilities' or cooperatives' facilities. The bill authorizes ERCOT to decline to recommend the use of particular grid enhancing technologies or a high-performance conductor if the independent organization determines the technology or conductor is not readily available or implementation of the technology or conductor would not be feasible or cost-effective for the ERCOT power region. The bill authorizes an electric cooperative, electric utility, or municipally owned utility, if ERCOT determines that the use of a grid enhancing technology or high-performance conductor is technically feasible and cost-effective, to use the technology or conductor. The bill requires an electric utility to include with each application for a new or amended certificate of convenience and necessity for a transmission project under statutory provisions relating to those certificates an evaluation of the potential for integration into the project of technologies recommended in a report produced under the bill's provisions.

C.S.H.B. 5200 defines the following terms:

- "grid enhancing technology" as any hardware or software technology that enables or provides enhanced or more efficient performance from the electric transmission system; and
- "high-performance conductors" as modern conductor technologies that have improved performance characteristics, such as increased capacity, higher efficiency, and reduced or no thermal sag.

C.S.H.B. 5200 requires the PUC to adopt any rules necessary to implement the bill's provisions not later than January 1, 2026.

EFFECTIVE DATE

September 1, 2025.

COMPARISON OF INTRODUCED AND SUBSTITUTE

While C.S.H.B. 5200 may differ from the introduced in minor or nonsubstantive ways, the following summarizes the substantial differences between the introduced and committee substitute versions of the bill.

The substitute omits the following provisions present in the introduced:

- provisions defining the terms "advanced power flow controller," "dynamic line rating system," and "topology optimization system" for purposes of the bill's provisions; and
- a requirement for the PUC to ensure that ERCOT considers the technical feasibility and cost-effectiveness using of grid enhancing technologies and high-performance conductors in its evaluation of economic and reliability projects during annual regional transmission planning to increase transmission capacity, reduce transmission system congestion, increase electric reliability, and reduce the risk of wildfires.

Whereas the introduced defined "grid enhancing technology" as any hardware or software that enables enhanced or more efficient performance from the electric transmission system, including a dynamic line rating system, advanced power flow controller technology, dynamic contingency response, or a topology optimization system or another technology identified by ERCOT, the substitute defines the term as any hardware or software technology that enables or provides enhanced or more efficient performance from the electric transmission system.

Whereas the introduced defined "high-performance conductors" as modern conductor technologies, including carbon and composite core conductors and carbon and composite superconductors, with greater performance characteristics than aluminum-conductor steel-reinforced conductors, such as increased capacity, higher efficiency, and reduced or no thermal sag, the substitute defines the term as modern conductor technologies that have improved

performance characteristics, such as increased capacity, higher efficiency, and reduced or no thermal sag.

The substitute includes the following provisions absent from the introduced:

- a requirement for the PUC to ensure that ERCOT evaluates on a periodic basis, to be determined by the PUC, the potential use of grid enhancing technologies and high-performance conductors for the purpose of increasing transmission capacity, reducing transmission system congestion, increasing reliability of electric services, increasing safety of transmission system crossings over water, and reducing the risk of wildfires;
- a requirement for that evaluation to include considerations of the availability, technical feasibility, repairability, durability, operational risks, long-term load support viability, and cost-effectiveness of grid enhancing technologies and high-performance conductors;
- an authorization for ERCOT to prepare a report of available grid enhancing technologies and high-performance conductors for electric utilities and electric cooperatives to consider in constructing and operating the utilities' or cooperatives' facilities;
- an authorization for an electric cooperative, electric utility, or municipally owned utility, if ERCOT determines that the use of a grid enhancing technology or high-performance conductor is technically feasible and cost-effective, to use the technology or conductor; and
- a requirement for an electric utility to include with each application for a new or amended certificate of convenience and necessity for a transmission project under statutory provisions relating to those certificates an evaluation of the potential for integration into the project of technologies recommended in a report produced under the bill's provisions.

Whereas the introduced authorized ERCOT to decline to recommend the use of grid enhancing technologies in a particular instance it determines that it would not be prudent, the substitute authorizes ERCOT to decline to recommend the use of a particular grid enhancing technology or high-performance conductor if ERCOT determines the technology or conductor is not readily available or implementation of the technology or conductor would not be feasible or cost-effective for the ERCOT power region.

Whereas the introduced required the PUC to adopt any necessary rules required by the bill's provisions not later than January 1, 2026, the substitute requires the PUC to adopt any rules necessary to implement the bill's provisions not later than that date.