

CITIZEN'S ADVISORY COUNCIL TO LA PORTE INDUSTRY

Texas Electrical Grid

In this second meeting regarding the Texas Electrical Grid, Ed Hirs from the University of Houston presented "Keeping the Lights On: Understanding the Grid Challenges". In his presentation, Hirs delivered a critique of the Texas electricity market, focusing on deep-rooted structural flaws, repeated historical failures, and persistent gaps in regulatory governance that continues to threaten the reliability of the power grid. His central message emphasized that the state's deregulated electricity market, managed by ERCOT (Electric Reliability Council of Texas), provides no incentive for electricity generators to maintain sufficient capacity during times of extreme weather. Despite being aware of this vulnerability for years, Texas lawmakers have failed to implement meaningful reforms.

Hirs highlighted that ERCOT's "Electricity Only" market model compensates generators solely for electricity produced, not for maintaining surplus capacity, leaving the system vulnerable to blackouts during periods of high demand. The energy supply chain (simplified) consists of power plants, transmission lines, distribution lines and end users. In ERCOT's extreme model, only the plants that generate electricity earn revenue. In Texas's electrical grid the middlemen, Retail Electric Providers (REPs) such as Reliant and TXU Energy, manage billing, customer service, and energy plans for consumers but have no responsibilities in ensuring electricity delivery. The market is characterized by restricted entry, limited transparency, price manipulation, and misaligned wholesale and retail structures. Furthermore, the locational marginal pricing (LMP) system fails to support long-term investment, even as the Texas economy has grown significantly. As a result, consumers have borne enormous financial burdens, including more than \$28 billion in excess costs compared to traditional regulated markets prior to 2021, with documented overcharges in 2021 and 2023.

Hirs traced a troubling history of failures, citing Hurricane Alicia (1983), winter storms in 1989, 2011, and 2021, and Hurricane Beryl (2024). He noted that despite clear warnings in 2011, Texas took little action to prepare, placing lives and property at risk. He contrasted ERCOT's deregulated model with vertically integrated, cost-of-service regulated model where a single utility typically manages the entire electricity supply chain. He also discusses more coordinated models in the U.S. such as the California Independent System Operator (CAISO), PJM Interconnection (PJM), ISO New England (ISONE), and the Midcontinent Independent System Operator (MISO), all of which better ensure long-term capacity and grid reliability.

Hirs also reviewed various proposed solutions such as cryptocurrency mining, demand response programs, microgrids, and connection to other grids which would be largely ineffective or impractical under current conditions. Hirs pointed to broader failures in governance, criticizing the Public Utility Commission of Texas (PUCT), local governments, and the legislature for their inability to manage grid resilience or protect consumers. He argued that no meaningful accountability exists within Texas's executive, legislative, or judicial branches on this issue.

Finally, Hirs underscored the need for over \$2 trillion in investment to stabilize the grid and support a long-term energy transition. "Facts are apolitical," Hirs emphasized. Quoting President John F. Kennedy, Hirs warned against clinging to comforting myths over confronting uncomfortable truths and urged a fundamental redesign of Texas's electricity market to prioritizes accountability, infrastructure, and long-term reliability.

The CAC is a forum for candid and constructive dialogue between those who live or work in La Porte, Morgan's Point, and Shoreacres and the managers of 41 chemical plants in La Porte. The CAC welcomes visitors. It meets again on Tuesday, August 5th at 6:00 p.m. to hear about the Gulf Coast Authority and How They Improve Water Quality in Galveston Bay. Contact info@laportecac.org if you wish to attend. The CAC shares information about its meetings and presentations at www.laportecac.org.