



Interim Charge Written Testimony

Evaluate the allocation of TERP funds for effective air pollution reduction programs.

Submitted to the House Committee on Environmental Regulation

May 25th, 2022

Key Takeaways:

- Texans support an energy expansion that includes hydrogen.
- Texas' workforce and infrastructure assets support hydrogen development.
- Hydrogen fuel cell vehicles can expand the state's zero emission fleet.
- TERP's alternative fueling facilities program grant limits should be evaluated if they adequately offset hydrogen fueling infrastructure costs.

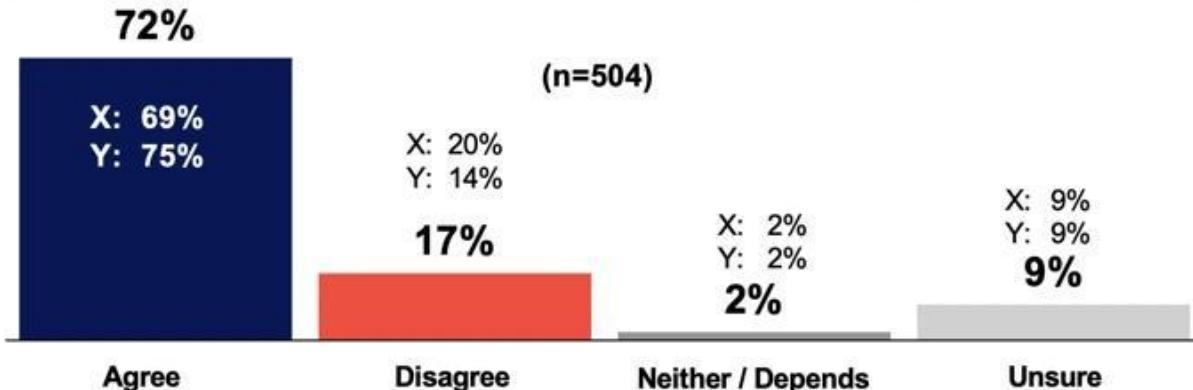
Background and Data

Texas Voter Poll Results

Texas 2036 views hydrogen development and deployment as a critical pillar to Texas' energy expansion. Here, oil and gas remain significant contributors to the state's energy portfolio as additional sectors, including hydrogen, carbon capture, geothermal, and other sources of clean energy are added to the mix. According to our recent Texas Voter Poll, 72% of voters support Texas leading the nation in an energy expansion that includes new technologies, including hydrogen, that allow for cleaner forms of energy that can grow the economy, create jobs, and improve air quality.

Texas voters want our state to remain an energy leader, and to prepare for the future by expanding energy options to include low-carbon sources and innovative technologies.

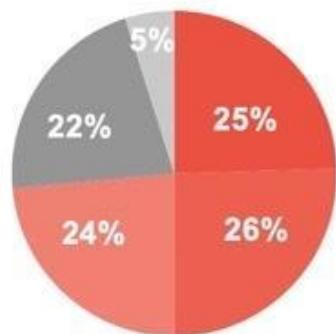
For a century, Texas has been the nation's energy leader. New technologies allow for cleaner forms of energy that can grow the Texas economy, create jobs, and improve air quality. Do you agree or disagree that Texas should lead the nation in this (**Ver X: energy transition / Ver Y: energy expansion**)?



TEXAS 20³⁰

Just as Texans are supportive of our state leading the nation in an energy expansion, they are concerned that Texas may lose this competitive edge to other states. Towards that end, the Texas Voter Poll found that 75% of voters are concerned that Texas may not apply for new federal funding opportunities for hydrogen, carbon capture, and energy storage, placing Texas behind efforts made by other states.

If Texas fails to apply for federal infrastructure funds, a majority of Texas voters would be concerned that Texas will lose our competitive edge in energy to other states.



The State of Texas may not apply for billions in federal infrastructure funds, which would result in Texas falling behind other states in advanced energy technologies such as hydrogen, energy storage, and the capturing of carbon dioxide emissions.

Combined, these polling data point towards Texas voters' strong interest in our state's continued energy leadership and willingness for new and innovative technologies that both expand our energy portfolio while reducing emissions.

Texas Emissions Reduction Program & Hydrogen

Hydrogen is fast becoming a promising, less emissions-intensive energy source. Hydrogen energy is proven as a stored energy carrier, fuel for transportation, and as a feedstock to produce ammonia. Currently, more than 60% of U.S. hydrogen pipelines and 30% of the world's hydrogen pipelines are in Texas. Like liquefied natural gas (LNG), hydrogen can be stored for export. And Texas' robust port infrastructure positions the state as a leading hydrogen exporter. In addition, innovations in hydrogen-powered long-haul trucking and the use of liquefied hydrogen in aerospace rocket fuel create opportunities for future industry growth.¹

The Texas Emissions Reduction Program (TERP) provides subsidies to eligible individuals, businesses, or local governments to reduce emissions from polluting vehicles and

¹https://3hr27o3s9nj8m84dw4489i31-wpengine.netdna-ssl.com/wp-content/uploads/2022/04/21st_Century_Energy_One_Pager.pdf



equipment. To achieve these stated goals and improve air quality in areas of non-attainment a diversified zero emission vehicle fleet is key, and hydrogen should be part of that conversation.

Currently, the TERP Alternative Fueling Facilities Program caps the amount of assistance provided to eligible projects, including hydrogen fueling stations, at the lesser of 50% of the total of the project or \$600,000. If Texas wishes to advance the deployment of hydrogen energy, then the current cap on TERP allotments for hydrogen fueling stations should be evaluated. Although hydrogen fueling stations offer an avenue towards emissions reduction, they are capital intensive to build. According to a 2020 study by the Department of Energy, light duty fueling stations cost on average \$1.9 million dollars.² Estimates from the California Air Resources Board put the cost for heavy duty fueling infrastructure closer to \$5 million dollars.³ Given current estimated price points, the TERP Alternative Fueling Facilities Program cap may not provide a meaningful incentive for the development of hydrogen fueling facilities in Texas.

Policy Recommendations

The state should evaluate the grant caps within the Texas Emissions Reduction Program's alternative fueling facilities program and if they hinder the deployment of zero emission fueling infrastructure.

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² <https://www.hydrogen.energy.gov/pdfs/21002-hydrogen-fueling-station-cost.pdf>

³ <https://h2stationmaps.com/costs-and-financing>