

Interim Report To the eighty-ninth texas legislature

HOUSE COMMITTEE ON
ENVIRONMENTAL REGULATION
JANUARY 2025

HOUSE COMMITTEE ON ENVIRONMENTAL REGULATION TEXAS HOUSE OF REPRESENTATIVES INTERIM REPORT 2024

A REPORT TO THE HOUSE OF REPRESENTATIVES 89TH TEXAS LEGISLATURE

BROOKS LANDGRAF CHAIRMAN

COMMITTEE CLERK MARCO FUENTES



Committee On Environmental Regulation

January 10, 2025

Brooks Landgraf Chairman P.O. Box 2910 Austin, Texas 78768-2910

The Honorable Dade Phelan Speaker, Texas House of Representatives Members of the Texas House of Representatives Texas State Capitol, Rm. 2W.13 Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Environmental Regulation of the Eighty-eighth Legislature hereby submits its interim report including recommendations and drafted legislation for consideration by the Eighty-ninth Legislature.

Respectfully submitted,

Keith Bell

Bobby Guerra

Terry Meza

Brooks Landgraf Chair

John Kuempel

Penn Morales-Shaw

Jay Dean

Janie Lopez

Ron Reynolds

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INTRODUCTION

At the beginning of the 88th Legislative Session, the Honorable Dade Phelan, Speaker of the House of Representatives, appointed nine members of the 88th Legislature to serve on the House Committee on Environmental Regulation. The following members were named to the committee: Chairman Brooks Landgraf, Vice-Chairman Robert Guerra, Representative Keith Bell, Representative Jay Dean, Representative John Kuempel, Representative Janie Lopez, Representative Thresa Meza, Representative Penny Morales-Shaw, and Representative Ron Reynolds.

Pursuant to House Rule 3, Section 12, the House Committee on Environmental Regulation has 9 members, with jurisdiction over all matters pertaining to the following:

- (1) air, land, and water pollution, including the environmental regulation of industrial development;
- (2) the regulation of waste disposal;
- (3) environmental matters that are regulated by the Department of State Health Services or the Texas Commission on Environmental Quality;
- (4) oversight of the Texas Commission on Environmental Quality as it relates to environmental regulation; and
- (5) the following state agency: the Texas Low-Level Radioactive Waste Disposal Compact Commission.

After the 88th legislative session, Speaker Phelan charged all committees to study and make recommendations to numerous issues and priorities facing the State of Texas. The interim charges for the House Committee on Environmental Regulation are listed on the following page.

INTERIM STUDY CHARGES

CHARGE I: MONITOR

Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 88th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure the intended legislative outcome of all legislation, including the following:

- HB 3060, relating to the regulation of recycling and recycled products; and
- HB 4885, relating to programs established and funded under the Texas emissions reduction plan.

CHARGE II: IMPACT OF NEW EPA AIR QUALITY REGULATIONS

Evaluate and address the implications of recent EPA regulations proposed and promulgated rules to assess their collective impact on air quality in Texas. Examine the necessity for a new State Implementation Plan and explore potential legislative measures to ensure a balanced approach that promotes regulatory compliance while preserving economic vitality, especially in counties identified as at risk of violation.

CHARGE III: TEXAS HYDROGEN INDUSTRY

Evaluate the environmental impacts of the industrial development of emerging markets for hydrogen, including production, transportation, storage, power generation, and other competitive market opportunities. Make recommendations needed to build a competitive hydrogen industry in the state.

CHARGE I: MONITOR

Monitor the agencies and programs under the Committee's jurisdiction and oversee the implementation of relevant legislation passed by the 88th Legislature. Conduct active oversight of all associated rulemaking and other governmental actions taken to ensure the intended legislative outcome of all legislation, including the following: HB 3060 and HB 4885.

BACKGROUND

HB 3060, relating to the regulation of recycling and recycled products

The 86th Texas Legislature passed HB 1953 to clarify that chemical recycling facilities which convert post-use polymers and recoverable feedstocks into valuable products through pyrolysis and gasification are exempt from regulation as solid waste facilities. However, novel processes of conversion including solvolysis and depolymerization were not exempt from such regulation prior to the 88th Texas Legislative Session. HB 3060 extended this exemption to the aforementioned novel processes.

Importantly, HB 3060 established the definition of "advanced recycling facility" to mean a manufacturing facility that receives, stores, and converts post-use polymers and recoverable feedstocks using advanced recycling technologies and processes including pyrolysis, gasification, solvolysis, and depolymerization. The definition also clarified that an advanced recycling facility is not a solid waste facility, final disposal facility, waste-to-energy facility, or incinerator.

HB 4885, relating to programs established and funded under the Texas emissions reduction plan (TERP)

The 88th Texas Legislature passed HB 4885 to require the Texas Commission on Environmental Quality (TCEQ) to establish the Texas hydrogen infrastructure, vehicle, and equipment (THIVE) grant program as part of the Texas Emissions Reduction Plan (TERP). Under this program, TCEQ provides funding for eligible hydrogen projects in nonattainment areas that reduce emissions from high-emitting sources. This includes projects related to the purchase of hydrogen vehicles and equipment, the replacement of vehicles and heavy-duty equipment with hydrogen vehicles and equipment, the use of hydrogen fuel, and hydrogen infrastructure. HB 4885 also revised the authorized uses of the Texas Emission Reduction Plan Fund to allow 8 percent of the fund to be shared between the Texas hydrogen infrastructure, vehicle, and equipment program and the new technology implementation grant program.

In addition to this new grant program, HB 4885 made changes to other grant programs under TERP. It expanded the eligibility for projects open for grant consideration under the new technology implementation program to include projects that reduce emissions from downstream oil and gas production, including refining. It also amended the prioritization criteria under the Texas Natural Gas Vehicle Grant Program. Finally, it decreased the funding allocations for the Texas Natural Gas Vehicle Grant Program from 10% to 7.5% of TERP revenue and the light-duty

motor vehicle purchase or lease incentive program from 5% to 2.5% of TERP revenue.

SUMMARY OF COMMITTEE ACTION

The Committee heard testimony related to this charge during its September 5 public hearing in 2024. The individuals listed below provided testimony to the Committee on this charge.

HB 3060, relating to the regulation of recycling and recycled products

- 1. Fritz, Charly (TCEQ)
- 2. Harrell, Logan (Texas Chemistry Council)
- 3. Gammage, Sam (Dow Chemical)

HB 4885, relating to programs established and funded under the Texas emissions reduction plan

- 1. Shelley, Adrian (Public Citizen)
- 2. Harrell, Logan (Texas Chemistry Council)
- 3. Reed, Cyrus (Sierra Club)
- 4. Martin, Phillip (Environmental Defense Fund)
- 5. Gutherie, Amanda (TCEQ)

FINDINGS

HB 3060

Rule changes were statutorily required to implement HB 3060.

- During the summer of 2023, TCEQ received informal comments from public and private stakeholders regarding HB 3060. TCEQ received supportive feedback.
- On May 10, 2024, TCEQ proposed revisions in its waste and recycling rules (Texas Administration Code, Chapter 328, Chapter 330, and Chapter 335) at a commission agenda.
- TCEQ offered a public hearing on June 20, 2024, regarding the proposed rule changes. *No comments were received.*
- Final rules were adopted at a TCEQ commission agenda on October 25, 2024.
- The new rules became effective on November 14, 2024.

HB 4885

Texas Hydrogen, Infrastructure, Vehicle, and Equipment (THIVE) Grant Program

- TCEQ solicited applications for grants under the first round of the THIVE program from November 29, 2023 through March 30, 2024.
- TCEQ received 16 eligible applications including projects to replace, repower, or convert heavy-duty vehicles and equipment, purchase or lease hydrogen powered heavy-duty vehicles and equipment, and install hydrogen refueling infrastructure. These eligible

- applications for projects totaled \$38 million, more than the \$16 million allocated to the THIVE program.
- TCEQ awarded all of the available funding for 46 new hydrogen powered heavy-duty vehicles that will be deployed in the Houston-Galveston-Brazoria, Dallas-Fort Worth, and San Antonio areas.

Texas Emissions Reduction Plan (TERP)

Fiscal Year 2024-2025 Biennium Funding Projections for TERP Programs

- Texas Natural Gas Vehicle grant program: \$25.2 million
- Light-duty motor vehicle purchase or lease incentive program: \$8.4 million
- Texas hydrogen infrastructure, vehicle, and equipment grant program: \$16 million
- New Technology Implementation grant program: \$10.9 million

RECOMMENDATIONS

Several recommendations were given to increase the efficiency and effectiveness of the Texas Emissions Reduction Plan (TERP). Currently, TERP includes ten vehicle-related programs, each with its own requirements and procedures, making it at times challenging for companies to navigate when seeking to upgrade or replace vehicles. Consolidating some of these programs into a single vehicle grant program could encourage more companies to apply and streamline the TCEQ's processes.

Additionally, to qualify for most TERP vehicle grants, fleets are required to replace older vehicles. However, companies often face challenges aligning their vehicle turnover schedules with TERP's grant application windows. For example, a vehicle up for replacement must meet specific operational requirements, such as being used in daily operations. If a company idles an older vehicle to wait for a grant cycle, that vehicle may no longer meet the aforementioned TERP operational standard when they apply. This creates an unintended incentive for companies to keep older, more polluting vehicles in service longer, ultimately undermining TERP's goal of reducing air pollution across the state. To address this issue, recommendations were made to formalize regular grant schedules for all TERP vehicle programs and to create a point-of sale voucher offering that does not require scrappage.

CHARGE II: IMPACT OF NEW EPA AIR QUALITY REGULATIONS

Evaluate and address the implications of recent EPA regulations proposed and promulgated rules to assess their collective impact on air quality in Texas. Examine the necessity for a new State Implementation Plan and explore potential legislative measures to ensure a balanced approach that promotes regulatory compliance while preserving economic vitality, especially in counties identified as at risk of violation.

BACKGROUND

The U.S. Environmental Protection Agency (EPA) has proposed several rule changes that could impact economic development, manufacturing, and industrial activities in Texas. While the EPA sets standards to meet Clean Air Act requirements, the Texas Commission on Environmental Quality (TCEQ) Office of Air develops state plans to ensure those requirements are met. Below are recently proposed and promulgated rules with the potential to have a significant impact on industrial activities in the state.

PM2.5 Standard

In February 2024, the EPA revised the annual PM2.5 standard, lowering the allowable limit from 12 micrograms per cubic meter to 9 micrograms per cubic meter. ¹ As a result, the Texas Commission on Environmental Quality (TCEQ) must assess which areas are not meeting the new standard. Areas that consistently exceed the revised limit will be designated as nonattainment for PM2.5. Such a designation could significantly impact industrial activities in the affected regions.

Methane Rule

In May 2024, the EPA issued a final rule aimed at reducing methane emissions from the oil and gas sector. ² This rule introduces new performance standards for new, modified, and reconstructed methane emission sources, along with more frequent and comprehensive methane leak monitoring. It also limits routine flaring, mandates the replacement of certain venting equipment, and, for the first time, requires a state plan to limit methane emissions from existing sources. These new requirements could have a major impact on Texas oil and natural gas production.

Greenhouse Gas Standards for Fossil Fuel-Fired Power Plants

In April 2024, the EPA finalized new rules and guidelines aimed at reducing emissions from existing coal-fired power plants operating beyond 2039 and new gas-fired power plants. ³ Specifically, coal-fired plants with long-term operation plans and new gas-fired plants that generate at least 40% of their maximum annual capacity will be required to capture 90% of their carbon emissions. These plants must comply with the new requirement by January 2032. Given Texas' growing reliance on natural gas-fired power plants, compliance with this rule may affect the state's overall power generation capacity.

Regional Haze

Since 1999, the EPA has required states to issue State Implementation Plans to reduce haze that lowers visibility in national parks and certain wilderness areas. In 2021, TCEQ issued a new regional haze rule which the EPA found to be inadequate. As a result, in 2023, the EPA proposed a Federal Implementation Plan (FIP) for Texas.⁴

Ozone

In 2022, the EPA reclassified the non-attainment status of the Houston-Galveston-Brazoria and Dallas-Fort Worth regions from "serious" to "severe" due to continued exceedance of the 75 ppb ozone standard set in 2008. This reclassification imposes stricter emission limits, mandates the adoption of advanced emission control technologies, introduces penalty fees for major sources, and increases permitting requirements. Additionally, the Austin, El Paso, and Waco regions have experienced rising ozone emissions, surpassing the 2015 standard of 70 ppb. If these levels are not reduced, these areas could soon be classified as non-attainment. As a result, there have been recommendations for updates to the State Implementation Plan in these regions to address and reduce ozone levels.

SUMMARY OF COMMITTEE ACTION

The Committee heard testimony related to this charge during its September 5 public hearing in 2024. The individuals listed below provided testimony to the Committee on this charge.

- 1. Cohan, Daniel (Rice University)
- 2. Williamson, Walker (TCEQ)
- 3. Short, Samuel (TCEQ)
- 4. Lozano, Micheal (Permian Basin Petroleum Association)
- 5. Matt, Coday (Oil & Gas Workers Association)
- 6. Reed, Cyrus (Sierra Club)
- 7. Shaw, Bryan (Texas Oil & Gas Association)
- 8. Shelley, Adrian (Public Citizen)
- 9. Harrell, Logan (Texas Chemistry Council)

FINDINGS

PM2.5 Standard

Current monitoring data shows that 12 counties in Texas will exceed the new PM2.5 standard. These counties are: Harris, Cameron, Bowie, Montgomery, Dallas, Kleberg, Hidalgo, Webb, Tarrant, Travis, Harrison, and Ellis. By February 2025, TCEQ will submit non-attainment recommendations for counties exceeding the new standard to the Governor. The EPA will review those recommendations and provide the state with a final determination of non-attainment areas by March 2026.

By February 2027, Texas will be required to submit revisions to its State Implementation Plan, demonstrating to the EPA that it has the means and authority to implement the new standard in the designated non-attainment areas. In addition, by September 2027, TCEQ must submit attainment demonstrations that outline how these areas will achieve compliance with the new standard by 2032.

Developing these attainment demonstrations is a significant task for TCEQ. First, a comprehensive inventory of emissions in non-attainment areas must be compiled to determine a baseline. Additionally, projections of future estimated emissions will need to be made. This data is incorporated into models that will predict whether an area is expected to meet the new PM2.5 standard by 2032. If the model shows that an area is not expected to meet the standard, TCEQ must create and implement control strategies in that area through formal rulemaking to reduce emissions and ensure compliance.

To develop cost-effective control strategies and perform accurate attainment demonstrations, there is a need for additional PM monitoring stations. Testimony specifically highlighted the need for more speciation monitors, of which there are currently very few in the state. Particulate matter (PM) can be composed of different substances depending on the source, and only speciation monitors can determine its exact composition. This is especially important in border counties, where pollution sources may originate in Mexico. Identifying the source of emissions in these areas will enable TCEQ to distinguish between locally generated pollution and cross-border pollution, allowing for more precise attainment demonstrations and preventing potentially unnecessary emission controls on local industry.

If an area is designated as non-attainment, the burden on industry is large. If an area is designated as non-attainment, the burden on industry is significant. More stringent permitting standards would apply, along with requirements for emission offsets and the installation of lowest-achievable emission rate (LAER) technologies on new or modified facilities. Notably, existing permitted facilities do not have to demonstrate compliance with new permitting standards created under this rule.

Methane Rule

TCEQ must submit its state plan to reduce emissions from existing methane sources by March 9, 2026. As part of the plan's development, TCEQ will hold several stakeholder meetings to ensure meaningful public engagement. However, concerns were raised about the significant regulatory costs associated with the new rule, particularly its impact on small operators. These costs could lead to increased mergers and acquisitions, which may diminish the presence of small, independent operators—long considered prime innovators in the industry. A reduction in their numbers could have negative consequences for the state's energy sector.

In response to these concerns, continued legislative support for programs like the New Technology Implementation Grant (NTIG) was noted as critical. From 2009 to 2024, the oil and gas industry in the Permian Basin reduced methane intensity by nearly 1%, even as production increased from 250,000 barrels per day to 6.5 million barrels per day. This reduction was largely achieved through the electrification of oilfield equipment, a key focus of NTIG funding.

Additionally, it was also suggested that the legislature should increase TCEQ administrative funding. The new rule will require tens of thousands of inspections of oil and gas operations, necessitating a substantial increase in personnel to ensure effective enforcement and compliance. Legislative action on this front will be crucial to meeting the demands of the rule without undermining the industry's progress.

Greenhouse Gas Standards for Fossil Fuel-Fired Power Plants

No model rule was provided by the EPA, so TCEQ will be on its own in developing a rule to ensure compliance with this new standard. If TCEQ does not submit this rule by June 9, 2026 or the EPA does not approve it, a federal plan may be implemented. TCEQ will hold several stakeholder meetings to secure meaningful public engagement while developing the plan.

Regional Haze

By May 30, 2025, the EPA will decide whether to implement the proposed Federal Implementation Plan (FIP). If it does, it would require PM and SO₂ controls on 12 Electrical Generating Units at six coal-fired power plants in the state.

Ozone

To help reduce ozone levels in both non-attainment and near non-attainment areas, it has been suggested that the Texas Commission on Environmental Quality (TCEQ) administer diligent State Implementation Plans (SIPs). This effort includes providing funding for TCEQ's Legislative Appropriations Request, specifically Exceptional Item No. 1, which aims to enhance the efficiency and effectiveness of permitting, monitoring, and SIP improvements. Additionally, continued legislative support for the Texas Emissions Reduction Plan (TERP) will further reduce nitrogen oxides (NOx) and volatile organic compounds (VOC) emissions from vehicles, contributing to improved air quality and compliance with EPA requirements.

CHARGE III: TEXAS HYDROGEN INDUSTRY

Evaluate the environmental impacts of the industrial development of emerging markets for hydrogen, including production, transportation, storage, power generation, and other competitive market opportunities. Make recommendations needed to build a competitive hydrogen industry in the state

BACKGROUND

Emerging hydrogen energy technologies have recently garnered attention for their potential to reduce pollution and greenhouse gas emissions. Hydrogen's versatility allows it to be used as fuel for commercial trucks, cars, ships, and in various high-energy industrial processes. In 2023, the 88th Texas Legislature passed two bills aimed at supporting the hydrogen industry: HB 2847 and HB 4885.

HB 2847 granted the Railroad Commission of Texas (RRC) jurisdiction over hydrogen pipeline transportation and underground storage. It also established the Texas Hydrogen Production Policy Council within the RRC to study and recommend policies for hydrogen energy development. HB 4885 required the Texas Commission on Environmental Quality (TCEQ) to operate the Texas Hydrogen Infrastructure, Vehicle, and Equipment (THIVE) grant program to encourage the adoption of clean hydrogen technologies.

Federal incentives to increase the production and use of hydrogen were also introduced with the Inflation Reduction Act of 2022, Public Law No. 117-169 (IRA). This includes a Clean Hydrogen Production Tax Credit of up to \$3/kilogram of clean hydrogen produced. The finalized rules for this credit are expected to be enacted by the end of 2024.

According to the U.S. Department of Energy, Texas is currently one of the leading states for hydrogen production due to its substantial natural gas reserves. However, hydrogen proponents suggest that more state support is necessary to make the industry competitive with other fuel sources and fully capitalize on the state's production potential.

SUMMARY ON COMMITTEE ACTION

The Committee heard testimony related to this charge during its September 5 public hearing in 2024. The individuals listed below provided testimony to the Committee on this charge.

- 1. Medlock, Kenneth (Rice University)
- 2. Reed, Cyrus (Sierra Club)
- 3. Shifflet, Susan (Texas Hydrogen Alliance)
- 4. McCormack, Lawrence (Cummins Inc.)
- 5. Porter, Sam (NeuVentus)

FINDINGS

By 2050, favorable projections for the hydrogen industry suggest Texas could produce 21 million tons of clean hydrogen, create 180,000 new jobs, and increase the state's GDP by \$100

billion as the industry expands. To achieve these projections, several policy changes may be necessary, particularly in supporting infrastructure development.

One critical infrastructure need is a hydrogen fueling network for heavy-duty trucks. Although hydrogen refueling infrastructure is eligible for grants under the Texas Hydrogen Infrastructure, Vehicle, and Equipment (THIVE) program, replacing old heavy-duty vehicles takes statutory priority when the Texas Commission on Environmental Quality (TCEQ) awards these grants. As a result, in the FY 2024 funding round, the entire \$16 million allocated to the THIVE program was awarded for vehicle replacements, leaving a gap in refueling infrastructure. With many hydrogen-powered trucks now on the road but with limited refueling options, raising the \$16 million cap on the THIVE program could enable grant funding to support both vehicle replacement and infrastructure development.

Additionally, under the New Technology Implementation Grant Program (NTIG), only existing sources of emission are eligible for grants. Expanding eligibility to include technologies and infrastructure that enable avoided emissions, such as hydrogen fuel cells and hydrogen combustion applications, could help achieve further emissions reductions and growth in the hydrogen industry.

The transportation of hydrogen will also be a key issue going forward. Currently, hydrogen is typically produced, stored, and consumed in the same location. However, as certain regions emerge as hydrogen hubs due to comparative market advantages, and as the demand for hydrogen grows, the need to transport hydrogen from these hubs to end users will be increasingly relevant. Suggestions were made that implementing a regulatory framework that emphasizes transparency and competition in pipeline operation, similar to that of natural gas transportation, is necessary to cultivate hydrogen market growth.

ENDNOTES

- ¹ U.S. Environmental Protection Agency, *Final Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (PM)*, accessed December 2024, https://www.epa.gov/pm-pollution/final-reconsideration-national-ambient-air-quality-standards-particulate-matter-pm.
- ² U.S. Environmental Protection Agency, *Methane Emissions Reduction Program and GHGRP Subpart W (Petroleum and Natural Gas Systems)*, accessed December 2024, https://www.epa.gov/inflation-reduction-act/methane-emissions-reduction-program-and-ghgrp-subpart-w-petroleum-and.
- ³ U.S. Environmental Protection Agency, *EPA's Final Power Plant GHG Emissions Rule*, accessed December 2024, https://www.epa.gov/inflation-reduction-act/methane-emissions-reduction-program-and-ghgrp-subpart-w-petroleum-and.
- ⁴ U.S. Environmental Protection Agency. *Regional Haze Program: Proposed Federal Implementation Plan for Texas*. Accessed December 2024. https://www.epa.gov/visibility/proposed-regional-haze-federal-implementation-plan-texas.
- ⁵ "EPA Reclassifies Houston-Galveston-Brazoria and Dallas-Fort Worth Areas to Severe Non-Attainment for 2008 Ozone Standard, Effective November 7, 2022. See *Federal Register* Vol. 87, No. 60926 (Oct. 7, 2022). Available at EPA Final Rule."