



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



Purpose

- Encourages the adoption of hydrogen vehicles, equipment and infrastructure to reduce nitrogen oxide (NOx) emissions in Texas nonattainment areas and affected counties;
- Provides funds for replacing, repowering, or converting older heavy-duty on-road vehicles and non-road heavy duty equipment with hydrogen power; and
- Provides funds for hydrogen infrastructure and the purchase of new hydrogen vehicles and equipment.



Webinar Agenda

- Program Highlights
- Program Requirements
- Grant Amounts and Ineligible Costs
- Application Scoring and Selection
- Contracting, Reimbursement and Disposition
- Usage Commitment and Reporting
- Grantee Responsibilities
- Grant Application Submittal
- Questions



Program Highlights

- \$16 million in available funding;
- 90-day window to submit grant applications;
- Hydrogen-only grant funded infrastructure, vehicles, and equipment;
- Refueling Infrastructure and New Purchase are eligible categories;
- Grants will be awarded on a competitive basis; and
- At least 55% of operation must be in eligible areas.



Eligible Applicants

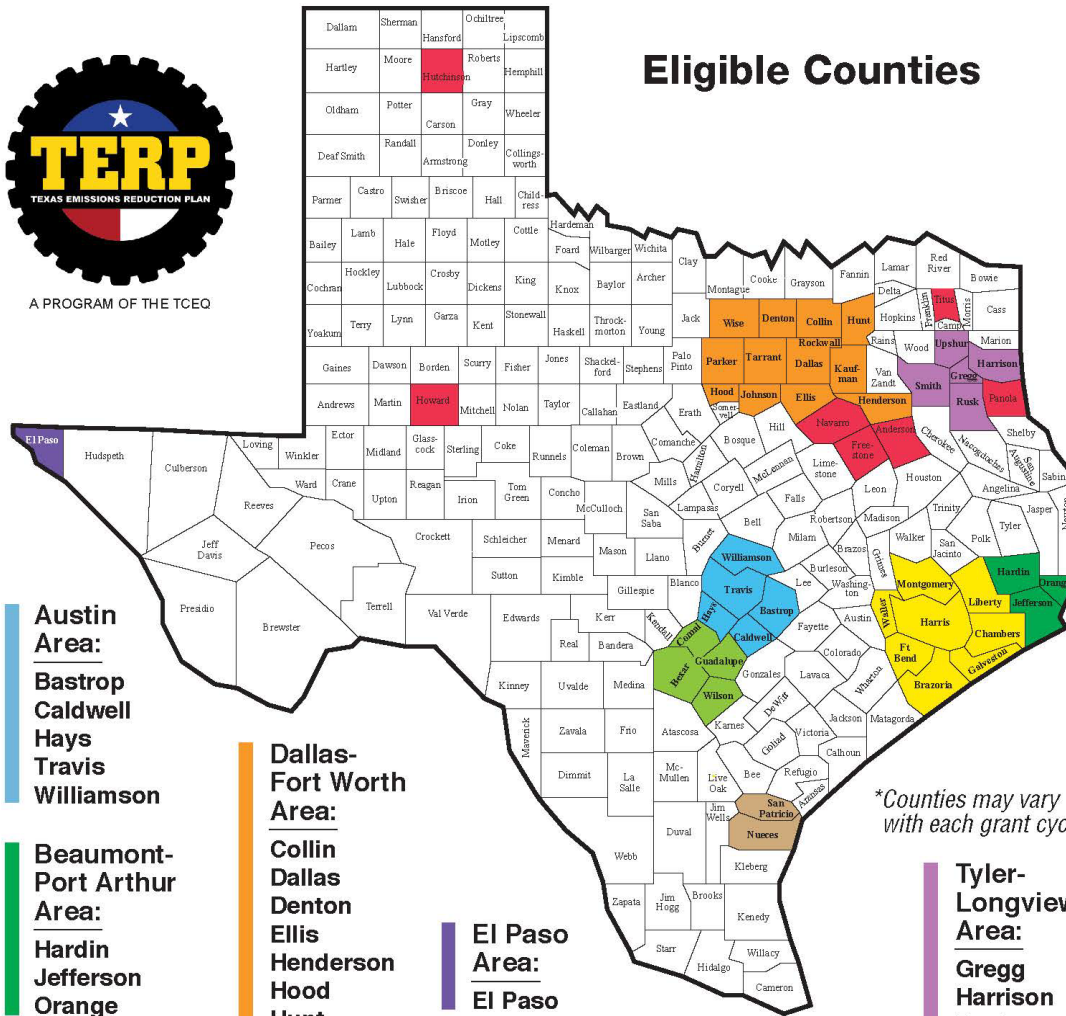
- Eligible applicants include individuals, state and local governments, corporations, or any other legal entity.
- All business entities, such as corporations or partnerships, must:
 - Have an active registration with the Texas Secretary of State by the program opening date; and
 - Maintain an active registration during the contract period.





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Eligible Counties



- Austin Area:**
- Bastrop
- Caldwell
- Hays
- Travis
- Williamson

- Beaumont-Port Arthur Area:**
- Hardin
- Jefferson
- Orange

- Corpus Christi Area:**
- Nueces
- San Patricio

- Dallas-Fort Worth Area:**
- Collin
- Dallas
- Denton
- Ellis
- Henderson
- Hood
- Hunt
- Johnson
- Kaufman
- Parker
- Rockwall
- Tarrant
- Wise

- El Paso Area:**
- El Paso

- Houston-Galveston-Brazoria Area:**
- Brazoria
- Chambers
- Fort Bend
- Galveston
- Harris
- Liberty
- Montgomery
- Waller

- San Antonio Area:**
- Bexar
- Comal
- Guadalupe
- Wilson

- Tyler-Longview Area:**
- Gregg
- Harrison
- Rusk
- Smith
- Upshur

- Other:**
- Anderson
- Freestone
- Howard
- Hutchinson
- Navarro
- Panola
- Titus

**Counties may vary with each grant cycle.*



This map was generated by the TCEQ's Air Grants Division solely for informational purposes and does not represent property boundaries. If you have questions concerning this map, contact the division at 800-919-TERP.

September 2022



Eligible Project Categories

- Replacement of On-Road or Non-Road Heavy-Duty Vehicles or Equipment;
- Repower or Conversion of On-Road or Non-Road Heavy-Duty Vehicles or Equipment;
- New Purchase Projects; and
- Refueling Infrastructure Projects.



On-Road Vehicle Replacement, Repower, or Conversion Requirements

- Must be a heavy-duty on-road vehicle with a GVWR of 8,501 lbs. or greater that is certified to the EPA heavy-duty engine emissions standards;
- Must have been continuously owned, leased, or otherwise commercially financed and registered and operated by the applicant in Texas for at least the two years immediately preceding the application signature date;
- Must have been used in its primary function in the routine operations of the applicant in Texas for at least the two years immediately preceding the application signature date; and
- Must currently be in good operating condition.



Non-Road Equipment Replacement, Repower, or Conversion Requirements

- Must be a heavy-duty non-road piece of equipment powered by an engine rated at 25 hp or greater that is certified to the EPA non-road emissions standards;
- Must have been continuously owned and operated by the applicant in Texas for at least the two years immediately preceding the application signature date;
- Must have been used in its primary function in the routine operations of the applicant in Texas for at least the two years immediately preceding the application signature date; and
- Must currently be in good operating condition.



Qualifying (Replacement) On-Road Vehicle Requirements

- Must be powered by hydrogen, or have a powertrain that runs on or is powered by hydrogen;
- Must be certified to emit at least 25% less NO_x than the old vehicle;
- Must have a vehicle model year no more than three years older than the calendar year in which it was purchased;
- Must be of the same type, weight category, and body and axle configuration as the vehicle being replaced unless otherwise agreed to by TCEQ;
- Must be intended for use in the same application or vocation as the vehicle being replaced; and
- Must be registered for operation in Texas unless the vocational type of the new vehicle is exempt from registration requirements;



Qualifying (Replacement) Non-Road Equipment Requirements

- Must be powered by hydrogen, or have a powertrain that runs on or is powered by hydrogen;
- Must be certified to emit at least 25% less NO_x than the old equipment;
- Must have an engine model year no more than three years older than the calendar year in which it was purchased; and
- Must be of the same type and intended for the same use in the same application or vocation as the equipment being replaced;



Repower or Conversion Requirements

- Must be powered by hydrogen, or have a powertrain that runs on or is powered by hydrogen;
- Must be certified or verified to emit 25% less NO_x than the engine being repowered or converted. TCEQ requires certification or verification by either EPA, the California Air Resources Board (CARB), or another entity that has been deemed acceptable by TCEQ;
- Must be certified or verified to meet the same category of emission standards as the original engine; and
- Must use only components procured from the original engine manufacturer or an authorized reseller unless otherwise approved by TCEQ on a case-by-case basis;



New Purchase Requirements

- Must be powered by hydrogen, or have a powertrain that runs on or is powered by hydrogen;
- Must be heavy-duty, meaning:
 - On-road vehicles must have a GVWR of 8,501 lbs. or greater.
 - Non-road equipment must be powered by an engine rated at 25 hp or greater.
- Must be a new vehicle or piece of equipment that has not been subject to first retail sale; and
- Be certified by EPA or CARB to be less than or equal to 0.15 g/bhp-hr.



Refueling Infrastructure Requirements

- Applicants are required to own the site where the refueling infrastructure equipment will be installed;
- If the applicant does not own the property, they must be able to demonstrate the ability to install, operate, and maintain the refueling infrastructure at the proposed site for the duration of the contract and complete the Refueling Infrastructure Project Certifications under Section 5 of the application.
- Only one refueling infrastructure project at a single location may be submitted per application;
- Must be capable of dispensing hydrogen for vehicles or equipment at the project site; and
- Must be purchased by the applicant and not leased.



Grant Amounts

- **Replacement-** an applicant may request up to 100% of the eligible cost to purchase the equipment minus the scrap value of the vehicle or equipment being replaced.
- **Repower or Conversion-** an applicant may request up to 100% of the eligible cost to purchase and install the replacement engine or conversion system and associated equipment, minus the scrap value of the old engine (repowers only).
- **New Purchase** – an applicant may request up to 100% of the difference in the baseline cost of the diesel equipment and the qualifying hydrogen-fueled on-road vehicle or non-road equipment.
- **Infrastructure** – an applicant may request a maximum of 50% of the eligible cost to purchase and install the refueling infrastructure and associated equipment.



Ineligible Costs



- Insurance premiums;
- Finance fees and charges;
- Salaries and travel expenses for employees of the grantee;
- Expenses of any lobbyist registered in Texas;
- Costs associated with the preparation and submission of the grant application;
- Administrative costs of the grantee, including overhead and indirect costs (e.g., office supplies, rent, marketing, and advertising);



More Ineligible Costs



- Facility improvements and equipment not directly related to the installation of the hydrogen refueling or fuel cell charging equipment;
- Structure, land, or an interest in land;
- Permitting costs for TCEQ-issued permits;
- Costs that do not involve an arms-length transaction, such as the use of existing inventory without a proof of purchase;
- Any costs paid prior to September 1, 2023; and
- Food and drink.



Priority Categories

- 1) Projects to replace on-road heavy-duty vehicles with newer on-road hydrogen vehicles.
- 2) Projects to purchase, lease, repower, or convert on-road heavy-duty vehicles with a powertrain that runs on or is powered by hydrogen.
- 3) Projects to implement hydrogen refueling infrastructure that is open and accessible to the public.
- 4) Projects to replace non-road heavy-duty equipment with newer non-road hydrogen equipment.
- 5) Projects to purchase, lease, repower, or convert non-road heavy-duty equipment with a powertrain powered by hydrogen.



Preference Scoring

Applications will be evaluated, scored, and ranked within each priority category according to:

- 1) Total NO_x Reductions:** projects with the highest projected NO_x reductions (tons of NO_x), as compared to all other projects in the same priority category, will receive the most points in that scoring category; and
- 2) Cost Effectiveness:** projects with the lowest cost per ton of NO_x reduced, as compared to all other projects within the same priority category, will receive the most points in that scoring category.



Additional Considerations

TCEQ is not obligated to fund projects from applicants:

- With an outstanding invoice from TCEQ or who are in non-compliance with existing or prior TERP grants;
- Where the proposed projects are required by any state or federal law, rule or regulation, memorandum of agreement, or other legally binding contract;
- Under federal, state, or local enforcement action for violation of environmental laws or permit conditions; and
- With an overall compliance history classification of Unsatisfactory on TCEQ's Compliance History Database for applicants that are subject to the rating.



Contracting

- Applicants selected to receive grant funding will be required to sign a contract with TCEQ;
- The approved activities outlined in the application will be represented in the contract's Scope of Work; and
- Grant recipients commit to taking all actions necessary to ensure the successful completion and subsequent operation of the new vehicle, equipment, or refueling infrastructure within the contract's time frames and funding limitations.



Reimbursement of Expenses

- Eligible expenses must have been incurred on or after September 1, 2023 to be considered for funding;
- Payments will be made on a reimbursement basis for eligible costs paid in full by the grantee minus the scrappage value and any incentives;
- Grantees will be required to provide documentation in accordance with the contract to show that grant-funded equipment has been received and costs have been paid in full before reimbursement will be provided;



More Requirements for Reimbursement

- All costs must be paid in full by the grantee, grant-funded equipment received, and final requests for reimbursement must be submitted to TCEQ by the request for reimbursement deadline;
- If the grantee finances the grant-funded equipment, the reimbursement will be assigned to the company that provided the financing; and
- If the grant equipment is leased, the lease must have a term sufficient to extend to the end of the activity life or a binding commitment to purchase at the end of the term.



Disposition



Within 90 days after the reimbursement payment is issued, the grantee is responsible for completing the disposition of the old on-road vehicle or non-road equipment and engines being replaced.

Old equipment and engines must be destroyed and rendered permanently inoperable by:

- Completely crushing the equipment and engine;
- Cutting a 3-inch or larger hole in the engine block and permanently destroying the frame of the vehicle; or
- For repower projects only, making a 3-inch or larger hole on both sides of the engine block.
- An alternative method of rendering the equipment or engines permanently inoperable in lieu of the standard method of destruction, must be approved by TCEQ.



Annual Usage Commitment & Reporting

- Not less than 55% of the grant-funded vehicle or equipment operation must occur in one or more of the nonattainment areas or affected counties for the duration of the activity life;
- The activity life of a project will start on the date TCEQ approves disposition or the date of reimbursement if disposition is not applicable; and
- The activity life will end on:
 - The five-year anniversary of the start date; or
 - For on-road vehicle replacement projects, 400,000 miles of vehicle operation after the start of the activity life.



Grantee Responsibilities for Duration of the Activity Life

- Own or lease the grant-funded equipment (refueling infrastructure must be purchased and not leased);
- Operate grant-funded equipment in Texas with at least 55% of the equipment's total annual operation occurring in eligible areas;
- Maintain usage and location records for the grant-funded equipment; and
- Maintain the grant-funded equipment in proper operating condition.



More Grantee Responsibilities for Duration of the Activity Life

- Obtain sufficient commercial insurance for all grant-funded equipment to protect against loss, damage, or liability;
- Request approval in advance for any changes;
- Provide written notice to TCEQ within 30 calendar days of the accidental destruction or repossession of grant-funded equipment; and
- Submit annual usage reports provided by TCEQ, using the correct unit of measurement for the project, to demonstrate compliance with the annual usage requirements.



A Complete Application Includes

- All pages of the application;
- All required attachments;
- Applicant's contact information;
- All required signatures; and
- All information necessary for TCEQ to score and rank the project according to the scoring criteria listed in the RFGA.



Attachments For All Applications

- **W-9:**
 - Download, fill out entirely, and sign.

- **Copy of State or Federal Identification Card:**
 - If Individual or Sole Proprietor.

- **Color Photographs of Equipment and Engine being Replaced (if applicable):**
 - The front, rear, right side, left side; and
 - Engine and engine data plate.

- **For Refueling Infrastructure:**
 - Site plan; and
 - Site property rights or ownership documentation.



Optional Attachment (Replacement Projects Only)

Waiver Request Form

TCEQ may consider a request to waive one or more of the ownership, registration, or use requirements on a finding of good cause, which may include short lapses in registration or operation due to economic conditions, seasonal work, or other circumstances.



Application Submission Requirements

- Applications must be received by no later than 5:00 p.m. Central Time on February 27, 2024.
- Only one application per email (max file size: 25MB). If larger than 25MB, please submit by **uploading** the file to TCEQ's FTPS server **and sharing** with THIVE-Apply@tceq.texas.gov.
- For applications submitted electronically, each attachment must be grouped by activity and clearly labeled with the activity number at the top of each page. It is preferable that the application and attachments be submitted as a single PDF.



How to Submit an Application

- **Email:** THIVE-Apply@tceq.texas.gov
- **File Transfer Protocol Secure (FTPS) Server (Secure Method)**
- [FTPS: A Step-by-Step Video Guide](#)
- **Regular mail:**
TCEQ
Air Grants Division
THIVE, MC-204
P.O. Box 13087
Austin, TX 78711-3087
- **Express mail:**
TCEQ
Air Grants Division, MC-204
12100 Park 35 Circle, Bldg. F,
1ST Floor, Suite 1301
Austin, TX 78753



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A promotional banner for the TERP Hot Topics email list. It features a man with a mustache wearing a white cowboy hat and a grey t-shirt, standing with his arms crossed against a blue background. The text on the left reads: "Didn't find what you need? Join the TERP Hot Topics email list to get updates. If the grant that suits your need isn't currently accepting applications, we'll let you know when it is. Don't miss out on receiving your funding for the road ahead—join the TERP Hot Topics email list today." Below the text is a yellow "Subscribe" button with a right-pointing arrow. A small "Image from iStock" watermark is visible in the bottom right corner of the banner.

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