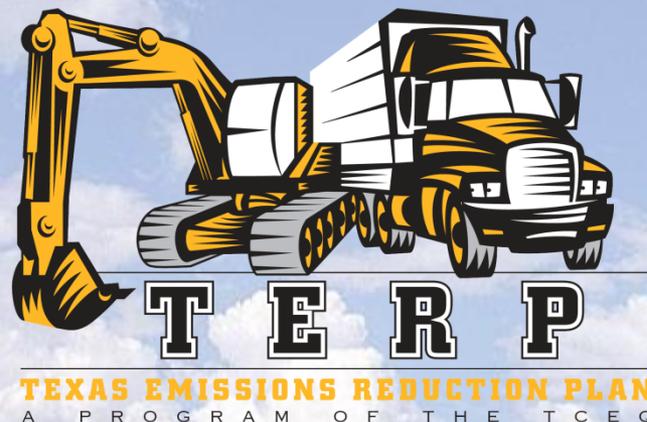


# Texas Emissions Reduction Plan (TERP)

## Emissions Reduction Incentive Grants (ERIG) Program

### Grant Application Workshop





# Workshop Agenda

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- TERP Overview
- Emissions Reduction Incentive Grants (ERIG)
- Application Forms
- How to Calculate Emissions Reductions
- Questions and Answers



# What does TERP do?

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The Texas Emissions Reduction Plan (TERP) Program provides financial incentives to upgrade or replace older heavy-duty vehicles, non-road equipment, and stationary equipment to reduce nitrogen oxides (NO<sub>x</sub>) emissions in eligible areas.

The TERP Program also supports programs to encourage the use of alternative fuels for transportation in Texas.





# **NO<sub>x</sub> Sources**

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NO<sub>x</sub> forms when fuels are burned at high temperatures, as in a combustion process.

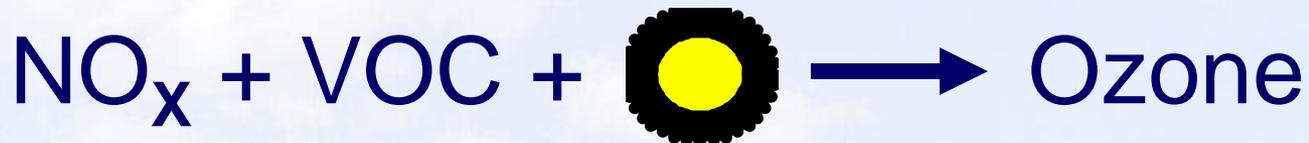
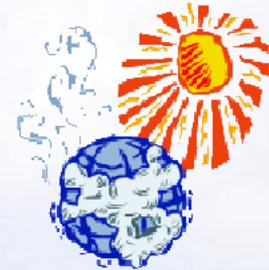
Sources of NO<sub>x</sub> include:

- cars, trucks, boats;
- industrial smokestacks; and
- electrical power generation.



# Ground-level Ozone Formation

$\text{NO}_x$  emissions combine with volatile organic compounds (VOC) in the presence of sunlight to form ground level ozone (smog).





# Potential Health Effects of Ozone

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- Acute respiratory problems at high levels
- Reduced lung capacity
- Aggravated asthma and other respiratory illnesses
- Immune system impairment, making people more susceptible to respiratory illnesses like bronchitis and pneumonia



# Mobile Sources of NO<sub>x</sub>





# **TERP Grant Programs**

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**Diesel Emissions Reduction Incentive (DERI) Program**

*Emissions Reduction Incentive Grants (ERIG) Program*

*Rebate Grants Programs*

*Third-Party Grants Program*

**Texas Clean Fleet Program (TCFP)**

**Texas Natural Gas Vehicle Grant Program (TNGVGP)**

**Drayage Truck Incentive Program (DTIP)**

**Clean Transportation Triangle (CTT) Program**

**Alternative Fueling Facilities Program (AFFP)**

**Texas Clean School Bus Program**

**New Technology Implementation Grants (NTIG) Program**



# **Diesel Emissions Reduction Incentive (DERI) Program**

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The DERI Program is a subset of the TERP grant programs and includes:

- the Emissions Reduction Incentive Grants (ERIG) Program
- the Rebate Grants Program; and
- the Third-Party Grants Program.



# Major Changes

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- Projects excluded under this RFGA: Locomotives, Marine Vessels, Demonstration Projects, On-Site Infrastructure for Idle Reduction, and Refueling Infrastructure.
- New Equipment/Vehicles must have an engine manufacture/model year 2012 or later.
- Agricultural tractors default usage rate has been lowered to 760 hours per year.
- Additional counties added as eligible areas:
  - El Paso County
  - Henderson and Hunt Counties



## **Major Changes (continued)**

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Trucks with apportioned tags will need to submit documentation showing that the truck has been operated in Texas for least 75% of its total use for the previous two years. The required documentation may include, but is not limited to, fuel tax records or copies of annual reports required by the International Registration Program (IRP).



# EMISSIONS REDUCTION INCENTIVE GRANTS (ERIG)

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**T E R P**

**TEXAS EMISSIONS REDUCTION PLAN**

A P R O G R A M O F T H E T C E Q



# ERIG Funding

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- Approximately \$20 million is available under this Request for Grant Applications.
- Grants are selected under a competitive process.
- The primary selection factor will be the cost per ton of NO<sub>x</sub> reduced.



# Eligible Applicants

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Eligible applicants include individuals, corporations, organizations, governments or governmental subdivisions or agencies, business trusts, partnerships, associations, or any other legal entity.



# Eligible Areas

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**For this round of funding, eligible areas include the:**

- Austin Area;
- Beaumont-Port Arthur Area;
- Corpus Christi Area;
- Dallas-Fort Worth Area;
- El Paso County;
- Houston-Galveston-Brazoria Area;
- San Antonio Area;
- Tyler-Longview Area; and
- Victoria Area.

(See the map on the next slide.)

# TERP Eligible Counties and Designated Highways and Roadways\*



## Austin Area:

Bastrop  
Caldwell  
Hays  
Travis  
Williamson

## Beaumont-Port Arthur:

Hardin  
Jefferson  
Orange

## Corpus Christi Area:

Nueces  
San Patricio

## Dallas-Fort Worth:

Collin  
Dallas  
Denton  
Ellis  
Henderson  
Hood  
Hunt  
Johnson  
Kaufman  
Parker  
Rockwall  
Tarrant  
Wise

## El Paso Area:

El Paso

## Houston-Galveston-Brazoria:

Brazoria  
Chambers  
Fort Bend  
Galveston  
Harris  
Liberty  
Montgomery  
Waller

## San Antonio Area:

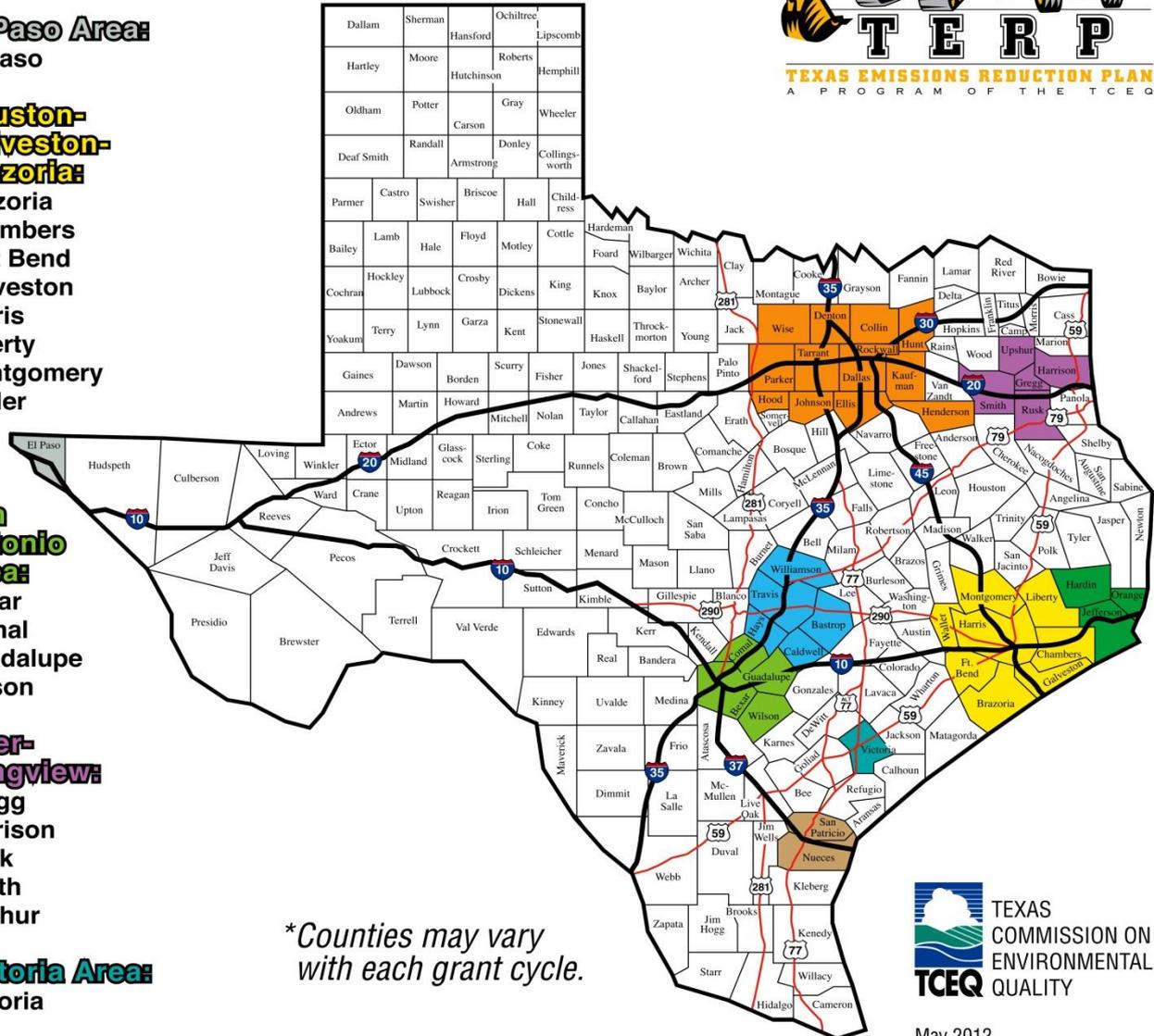
Bexar  
Comal  
Guadalupe  
Wilson

## Tyler-Longview:

Gregg  
Harrison  
Rusk  
Smith  
Upshur

## Victoria Area:

Victoria



\*Counties may vary with each grant cycle.



May 2012



# General Requirements

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## Horsepower (HP) and Gross Vehicle Weight Rating (GVWR):

- On-road heavy-duty vehicles must have a GVWR greater than 8,500 lbs.
- Non-road and stationary equipment engines must have HP rating greater than 25.



# Eligible Emission Sources

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- On-road heavy-duty vehicles
- Non-road heavy-duty equipment
- Stationary engines



# Eligible Project Categories

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- **New Purchases or Lease:** The expansion of an existing fleet
- **Replacement:** The replacement of an eligible vehicle or piece of equipment with a newer vehicle or piece equipment
- **Repower:** The replacement (repower) of an existing engine in an eligible vehicle or piece of equipment with a new, rebuilt, or remanufactured engine
- **Retrofit or Add-On of Emission Reduction Technology:** The retrofit or add-on of emission-reduction technology to an existing engine in an eligible vehicle or piece of equipment
- **Retrofits with Dual-Fuel Conversion Systems:** Retrofit activities to convert a heavy-duty on-road or non-road engine to operate under a dual-fuel configuration that uses natural gas and diesel fuel
- **On-Vehicle Electrification and Idle Reduction Infrastructure:** The purchase and installation of equipment that enables a vehicle or equipment to use electric power to operate
- **Rail Relocation and Improvement:** The relocation of rail lines to reduce the number of grade crossings, improvements at rail intersections, and other improvements that will directly result in the reduction of locomotive and/or vehicle engine idling at rail intersections



# New Purchase or Lease

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- This category involves the purchase or lease of a brand new vehicle or piece of equipment (fleet expansion).
- The new engine must be certified to emit at least 25% less NO<sub>x</sub> than the federal emission standard applicable to that engine.
- The grant may pay up to the difference in cost between the cleaner vehicle/equipment and a comparable model/make that meets the current standard.
- The availability of vehicles and equipment meeting this eligibility standard is very limited.



# Replacements

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- This category involves the purchase or lease of a new or newer vehicle or piece of equipment to replace an existing vehicle or piece of equipment.
- The new engine must be certified to emit at least 25% less NO<sub>x</sub> than the engine being replaced.
- The new equipment must have an engine with a manufacture year of 2012 or later.
- The new vehicle must have engine model year 2012 or later.
- The old vehicle/equipment must have been owned or leased (vehicles only) and operated in Texas for the previous two years and must be in operating condition.



# Replacements (continued)

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- The grant may pay up to 80% of the incremental cost of the replacement vehicle/equipment.
- The old vehicle or equipment, including the engine, must be scrapped.
- Non-repairable titles are required for disposition of vehicles.



# Repowers

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- This category involves the replacement of an existing engine on a vehicle or piece of equipment.
- The new engine must be certified to emit at least 25% less NO<sub>x</sub> than the engine being replaced.
- The grant may pay up to 80% of the incremental cost of the repower.
- The old engine must be scrapped or sent to an Original Engine Manufacturer (OEM) remanufacture facility.



# Retrofit or Add-on

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- This category involves the installation of a retrofit or add-on device on an existing vehicle or piece of equipment.
- The device must be verified to result in at least a 25% reduction in NO<sub>x</sub> emissions from that engine (with the exception of retrofits projects involving dual-fuel conversions).
- The grant may pay up to 100% of the incremental cost of the retrofit or add-on device.



# Retrofits with Dual-Fuel Conversion Systems

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- Applicants may apply for a retrofit activity for the conversion of an on-road or non-road heavy-duty diesel engine to operate under a dual-fuel configuration that uses natural gas and diesel fuel.
- Dual-fuel conversion systems must be approved by the Environmental Protection Agency (EPA) or the California Air Resource Board (CARB) and accepted by the TCEQ, including a determination that the system will result in a reduction in NO<sub>x</sub> emissions of at least 10%.
- The review and acceptance of a dual-fuel conversion system is outside the application process and must be completed before the TCEQ will consider an application for a retrofit activity involving one of these systems.
- Procedures to Request a Determination of Emission Reduction Factors for Dual-Fuel Conversions are listed on our website at [www.terpgrants.org](http://www.terpgrants.org).



# Retrofits with Dual-Fuel Conversion Systems (continued)

- System manufacturers of dual-fuel conversion systems must submit information to the TCEQ to request that a dual-fuel conversion system be considered.
- System manufacturers must submit information to the TCEQ according to the procedures available on the TERP website at [www.terpgrants.org](http://www.terpgrants.org).
- The TCEQ will consider the request from the manufacturer and provide an acceptance or denial letter.
- Acceptance letters will be posted on the TERP website and will include the TCEQ's determination of a percentage emissions reduction factor to be used in determining NO<sub>x</sub> emissions reductions attributable to the installation of the system on a particular engine. The acceptance letter will only apply to those engine models and model years covered by the EPA and/or CARB approvals.



# On-Vehicle Electrification and Idle-Reduction Infrastructure

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- This category involves the purchase and installation of a system on a vehicle or piece of equipment to replace the power normally supplied by the propulsion engine.
- This category includes auxiliary power units (APU) and similar systems.
- Emission reductions are based on the hours of use of the infrastructure in lieu of the propulsion engine.
- TCEQ may pay up to 100% of the incremental cost.
- On-vehicle idle reduction projects involving sleeper berth APUs will not be eligible for funding.



# Rail Relocation and Improvements

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- This category includes improvements at a rail intersection in the eligible counties.
- Emissions reductions may be based on both the reduction in locomotive engine idling and reductions in vehicle engine idling as a result of the improvements.
- The applicant must provide studies and information to support the emissions reduction projections.



# Cost Limits

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The grant amount requested by the applicant may not exceed cost per ton limits or the incremental cost of the activity.

- The cost per ton limit for on-road, non-road, and stationary projects is \$15,000.
- Grant awards for Replacement and Repower projects may not exceed 80% of the incremental cost.



# Percent of Use Commitment

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## On-Road Vehicles:

- The applicant must commit to operating the new vehicle for at least 25% of its annual mileage or fuel use in the eligible areas.
- The applicant must also commit to operating the vehicle at least 75% of the annual miles or fuel use in a combination of the eligible counties and designated highways and roadways.

## Non-road equipment:

The applicant must commit to operate the equipment for at least 75% of the annual hours of operation in the eligible counties.



# Usage Commitment

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Applicants may choose one of two usage commitment options for determining usage rates for the emissions reduction calculations.

- **Option 1 – Standard Default Usage Rate**
  - Usage rates are based on certain vehicle classes and equipment types.
  - The applicant will not be required to use the vehicle or equipment for a specific amount of usage each year.
- **Option 2 – Activity-Specific Usage Rate**
  - The applicant will propose an annual usage rate and provide documentation to support that usage rate.
  - The applicant may be required to use the vehicle or equipment for a specific amount of usage each year and install GPS.



# Activity Life Commitment

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## Activity Life:

- Grant-funded equipment must be used in the eligible counties for a minimum of five years.
- On-road vehicle projects may end earlier if they meet certain usage criteria.
- The maximum Activity Life varies among project categories.



# **Activity Life Commitment**

## **(continued)**

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### **Reporting Requirements:**

- All grant recipients must track and report on the use and location of all grant-funded equipment for the Activity Life.
- Reports will be due annually over the Activity Life.



# Monitoring and Enforcement

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- The grant recipient must submit usage reports once per year for the duration of the activity life (Global Positioning System reporting may be used in lieu of the paper reports).
- In addition to reviewing usage reports, TCEQ will conduct on-site visits to view the equipment and ensure usage records are being maintained.
- Failure to report or failure to meet the usage commitments may result in the recipient having to return a share or all of the grant funds.



# Global Positioning System

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## Global Positioning Systems (GPS):

- Only the costs to purchase and install a GPS unit to track and log the location and use of the equipment may be included in the incremental cost calculation (these costs will count towards the applicable cost limits).
- The applicant will be responsible for ongoing operational and maintenance charges.
- If the applicant uses the TCEQ-authorized service provider, the TCEQ may allow the vendor to provide the required usage reports.



# Use of Consultants

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**Consultants may be available to assist with the application process.**

- The TCEQ has no business relationship with these consultants.
- It is the applicant's choice to work with a consultant.
- Consultant fees for the preparation of a grant application, either directly or as an addition to the cost basis of the grant funded vehicle, equipment, or engine are not eligible costs.



# Price Analysis

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- Price comparison information must be provided for replacement activities.
- The options for providing price comparisons will be discussed during the overview of the application forms.



# Price Quote Guidelines

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- Detailed guidance on how the price quotes for on-road and non-road replacements should be prepared is provided in the application and Request for Grant Applications (RGFA).
- Applicants should provide the dealer with the guideline page from the RFGA.
- These guidelines will be discussed as part of the overview of the application forms.



# Application Assistance

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- Application assistance sessions will be scheduled in several of the eligible areas.
- TCEQ staff are available to answer questions by phone or you may come to the TERP offices in Austin.
- Visit the TERP website at [www.terpgrants.org](http://www.terpgrants.org) for more information on assistance with the application process.



# Contracts

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- A contract will be sent to an applicant selected for award to sign and return.
- A Notice to Proceed will be sent to the applicant with the executed contract.



# Reimbursement

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- Grant funds are paid to reimburse expenses incurred by the grant recipient.
- Reimbursements are made after the purchase.
- Grant recipients may assign the grant payment to a dealer or financing entity.
- Reimbursement forms are provided with the contract.



# Disposition of Old Vehicles and Equipment

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- Old vehicles and equipment must be destroyed.
- Disposition verification must occur no later than 90 days after payment from the TCEQ.
- A non-repairable title will be required for on-road vehicle disposition.



# DERI Projects Awarded October 2001 - August 2015

AREA	NUMBER OF PROJECTS	NUMBER OF ACTIVITIES	TOTAL NO <sub>x</sub> REDUCED (TONS)	GRANT AMOUNT	COST PER TON OF NO <sub>x</sub> REDUCED
Dallas/Fort Worth (DFW)	4,055	6,583	58,062	\$327,180,375	\$5,635
Houston/Galveston/Brazoria (HGB)	3,737	6,364	75,234	\$411,997,395	\$5,476
San Antonio (SAT)	916	1,328	9,562	\$68,061,268	\$7,118
Austin (AUS)	898	1,259	8,675	\$67,707,651	\$7,805
Tyler/Longview (TYL)	208	470	5,377	\$33,184,436	\$6,171
Beaumont/Port Arthur (BPA)	203	299	8,721	\$45,069,315	\$5,168
El Paso (ELP)	135	170	706	\$3,174,307	\$4,497
Corpus Christi (CC)	47	198	1,434	\$7,831,832	\$5,462
Victoria (VIC)	38	60	518	\$4,065,018	\$7,847
<b>TOTAL</b>	<b>10,237</b>	<b>16,731</b>	<b>168,289</b>	<b>\$968,271,596</b>	<b>\$5,754</b>



# Contacts

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- **Website: [www.terpgrants.org](http://www.terpgrants.org)**
- **E-mail: [terp@tceq.texas.gov](mailto:terp@tceq.texas.gov)**
- **Toll Free: 800-919-TERP (8377)**





# Required Application Forms

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- Project Application Form 10430
- Supplemental Activity Forms
  - New Purchase 10430a
  - Replacement 10430b
  - Repower 10430c
  - Retrofit 10430d
  - On-Vehicle/Equipment Electrification & Idle Reduction 10430e
- Supplemental Form 1 Stationary Equipment
- Supplemental Form 2 Natural Gas Recovery



# Required Documentation

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- An original signed price quote and two price comparison quotes
- A signed W-9 (request for taxpayer identification number and certification form)
- A photocopy of a state or federal issued identification card (if the applicant is an individual or sole ownership)
- Waiver Request (if applicable)
- Replacement Projects: Vehicle title or lease agreement, proof of registration, and color photographs of the old vehicle/equipment and engine.



# Engine Information

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## Old and New Engine Information

- Grants are based on the *Engine Model Year* and not the model year of the vehicle/equipment.
- *Engine Emissions* may be verified through determining the Engine Family Code (EFC).

The EFC is a 12-digit code affixed to the engine that depicts the year the engine is certified to meet emissions.

– **Example:**     **8CPXH0928EBK**



# Applications & Calculators

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*Staff will now give an overview of the application forms and calculators:*

- How to complete the ERIG application
- How to use the ERIG calculator

Refer to handouts