

draft

Texas Emissions Reduction Plan Biennial Report to the Texas Legislature December 2004

Prepared by
OEPAA

07-30-2004 (draft)

draft

When your publication is complete,
Agency Communications will put the page
containing the agency logo, other agency
information, and the ADA statement here.

EXECUTIVE SUMMARY

Texas Emissions Reduction Plan
TERP Program Descriptions
New Technology Research and Development Program
Funding
Results to Date
Future Considerations for the TCEQ Programs

I. OVERVIEW

Purpose
Texas Emission Reduction Plan Advisory Board

II. FUNDING

Revenue Sources
Revenue Allocation
 TERP Funding Percentage Allocation
 Revenue Collected and Distributed

III. PROGRAM ACCOMPLISHMENTS

Emissions Reduction Incentive Grants Program
Small Business Grants Program
New Technology Research and Development Program
Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program
Light-Duty Motor Vehicle Purchase or Lease Incentive Program
Energy Efficiency Grant Program
Texas Building Energy Performance Standards
Energy Efficiency Programs in Certain Political Subdivisions

IV. FUTURE CONSIDERATIONS FOR THE TCEQ PROGRAMS

Tables

- Table 1. FY02/03 TERP Revenue Sources
- Table 2. FY04 TERP Revenue Sources
- Table 3. Projects Funded to Date (September 1, 2001 through June 30, 2004)
- Table 4. Projects Funded in FY 02/03
- Table 5. Projects Funded in FY 04 - 1st Round (as of June 30, 2004)
- Table 6. Selection Summary for FY04 - 2nd Round (as of July 26, 2004)
- Table 7. Small Business Funded Projects (as of June 30, 2004)
- Table 8. NTRD Projects for FY02/03 (former TCET Awards)
- Table 9. NTRD FY04 2nd Round Applications
- Table 10. PUC SB5 Grant Locations

draft **Appendixes**

- Appendix 1. TERP Eligible Counties
- Appendix 2. TERP Advisory Board Members
- Appendix 3. Emissions Reduction Incentive Grant Projects for FY 02/03 (as of June 30, 2004)
- Appendix 4. Emissions Reduction Incentive Grant Projects for FY 04 1st Round (as of June 30, 2004)
- Appendix 5. FY 04 2nd Round Applications Recommended for Selection (July 26, 2004)
- Appendix 6. New Technology Research and Development Program Applications Selected to Receive FY04 Funding

draft EXECUTIVE SUMMARY

Texas Emissions Reduction Plan

The Texas Commission on Environmental Quality (TCEQ) is pleased to provide the second biennial report in fulfillment of the requirements of Sections 386.057, 386.116(d), and 387.010 of the Texas Health and Safety Code. The first report was submitted in December 2002.

The Texas Emissions Reduction Plan (TERP) was established by the 77th Texas Legislature in 2001, through enactment of Senate Bill (SB) 5 to help improve and maintain good air quality in areas throughout the State. In 2003, House Bill (HB) 1365 was enacted and:

- established a new revenue source of vehicle title fee increases under Sections 501.138(a) and (b) of the Transportation Code to replace the \$225 out-of-state vehicle registration fee determined to be unconstitutional. In addition, under Section 151.0515 of the Tax Code the existing surcharge on the sale, lease, or rental of new or used off-road equipment increased from 1 to 2 percent and a 1 percent surcharge was added for the sale, lease, or use of model year 1997 and later heavy-duty diesel on-road vehicles under 152.0215(a) of the Tax Code;
- added a small business grants program; and,
- increased the number of eligible counties and the types of eligible projects for the Emissions Reduction Incentive and Small Business Grants Programs.

Also in 2003, House Bill (HB)37 (78th third special session) revised the appropriation levels for the various TERP programs. In addition, HB 37 and HB 43 (78th regular session), defined roles for TCEQ and the Texas Council on Environmental Technology (TCET). Specifically, HB 37 authorized TCEQ, in consultation with TCET, to establish and administer the New Technology Research and Development Program.

Program Descriptions

There are several government agencies responsible for developing and implementing the current TERP programs. In addition to TCEQ, these include the Comptroller's Office, State Energy Conservation Office, Public Utility Commission of Texas, and local governments. The Energy Systems Laboratory at Texas A & M University assists in energy efficiency and renewable energy research and emission reduction calculations. Descriptions of each program are below.

Emissions Reduction Incentive Grants Program. Authorized in Subchapter C, Chapter 386, of the Health and Safety Code, this program is managed by TCEQ and provides for grants to fund the incremental cost of projects in the State's 41 air quality nonattainment and near-nonattainment counties. Eligible projects include new purchases, replacements, repowers, retrofit technologies, infrastructures, and qualifying fuels.

draft

Small Business Grants Program. Per Section 386.116, this is a new program for businesses that own and operate not more than two vehicles or equipment, one of which must be diesel-powered and a pre-1994 model year. The program is managed by TCEQ.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program. This is a TCEQ rebate program (see Sections 386.112 - 386.115) for the purchase or lease of cleaner heavy-duty ($\geq 10,000$ lbs) vehicles.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program. This is a rebate program on the purchase or lease of cleaner light-duty vehicles ($< 10,000$ lbs). The program is to be administered jointly by the Comptroller's Office and TCEQ, per Subchapter D, Chapter 386.

Energy Efficiency Grant Program. The Public Utility Commission (PUC) has jurisdiction for the program, per Subchapter E of Section 386, TERP. PUC provides grants to electric companies in the 41 counties to reduce electricity consumption, resulting in less air pollution.

Texas Building Energy Performance Standards. Local governments have the responsibility to administer and enforce the standards found in the International Energy Conservation Code and the energy efficiency chapter of the International Residential Code. The Energy Systems Laboratory is available to assist the governments in evaluating their programs. The program is authorized per Section 388.003(e).

Energy Efficiency Programs in Certain Political Subdivisions. Found in Section 388.005 and 388.006, this program requires counties and political subdivisions in the affected areas to establish energy consumption reduction goals of five percent per year through 2006. The organizations report their progress each year to the State Energy Conservation Office.

New Technology Research and Development Program

In addition to the above TERP programs, TCEQ is responsible for this TCEQ program, which is codified in Chapter 387. Its purpose is to assist in developing solutions to air, water, and waste problems by identifying, supporting, and evaluating new environmental technologies. Highlights of the NTRD program are included in this report in compliance with Chapter 387.010.

Funding

TERP revenues for FY2002 were allocated as:

Texas Commission on Environmental Quality.....	\$14.0 million
Public Utility Commission.....	\$1.6 million
Comptroller of Public Accounts.....	\$3.2 million
Energy Systems Laboratory.....	\$182,000
Texas Council on Environmental Technology.....	\$1.5 million

draft

FY2003 revenues were allocated as:

- Texas Commission on Environmental Quality.....\$24.4 million
- Public Utility Commission \$2.7 million
- Comptroller of Public Accounts \$5.4 million
- Energy Systems Laboratory \$285,000
- Texas Council on Environmental Technology . . . \$2.6 million

FY2004 revenues were allocated as:

- Texas Commission on Environmental Quality . . \$120 million
- TCEQ administration costs \$856,845
- Public Utility Commission \$0
- Comptroller of Public Accounts \$0
- Energy Systems Laboratory administration costs . . . \$950,421

Results to Date

Emissions Reduction Incentive Grants Program. From the onset of the Program, there have been over 100 projects funded, for a total of \$41,819,695 (FY02 through June 30, 2004). These projects will result in NOx emission reductions of 7,179.8347 tons, or 4.6558 tons per day (tpd) in 2007. The projected average cost per ton is \$5,736. Prior to the start of the FY04 2nd funding round in January 2004, TCEQ revised the Guidelines and applications, and technical support documents to reflect the legislative changes in HB 1365. In addition, TCEQ and the Railroad Commission of Texas (RRC) developed an inter-governmental cooperative agreement to allow the RRC to implement a forklift initiative program using TERP funds.

Small Business Grants Program. The first Request for Applications (RFA) was completed in March 2004. Five applications were received, requesting \$818,070. As of June 30, 2004, two contracts, totaling \$143,031 were awarded.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program. Due to reduced revenue from SB 5 sources, no funds were used for this Program. However, legislative changes in 2003 (HB 1365) allowed for eligible on-road heavy-duty vehicles ($\geq 10,000$ lbs) operated in the 41 counties to be funded under the Emissions Reduction Incentive Grants Program.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program. The Program was suspended in 2002, due to an inadequate fund balance from SB 5 revenue sources. However, because the Emissions Reduction Incentive Grant Program applies to on-road vehicles greater than 8,500 lbs, some vehicles ($> 85,00$ lbs $< 10,000$ lbs) may be eligible for funding under the Emissions Reduction Incentive Grants Program.

Energy Efficiency Grant Programs. Using FY03 revenues, the PUC funded projects for six utilities, three in nonattainment areas and three in

draft

near-nonattainment areas. The total projected energy savings over ten years is 183,910 megawatt-hours (MWh), a value of \$5 million saved in electric billing. The 78th Legislature retained the grant program in HB1365, but appropriated no additional funds for FY04 or FY05.

Per Section 386.205, PUC must also report to TCEQ on the results achieved by investor-owned utilities that are required under SB 7 (76th regular session, 1999) to deregulate and implement energy efficiency programs funded via the transmission and distribution rates (see Section 39.905, Utilities Code). In 2003, nine companies reported to PUC, estimating a ten year projection of energy savings of 2,774,490 Mwh, a value of \$80 million saved in electric billing.

Texas Building Energy Performance Standards. In its December 2003 report, the Energy Systems Laboratory (Texas A & M University System) reported annual energy savings of 252,238 MWh of electricity in 2003 from energy-code compliant new residential construction in the original 38 affected counties. For the same period and areas, there were natural gas savings of 887,564 million Btus.

Energy Efficiency Programs in Certain Political Subdivisions. The number of Texas jurisdictions adopting the 5 percent goal increased from 176 in 2002 to 219 in 2003. The overall results of the Program, using 2001 as the base year, is a 5% average energy consumption reduction by the reporting jurisdictions. Seventy requests for preliminary energy assessments were received by SECO through 2003; 54 were completed by year's end.

New Technology Research and Development Program. TCEQ's 1st Request for Grant Applications period (RFGA) ended March 31, 2004. Seventy-four applications were received, requesting \$69 million. Seventeen were selected for funding with the available \$8,301,448. The 2nd RFGA period ended July 7, 2004, for FY 05 funds. Fifty-six applications were received, requesting approximately \$37 million.

Future Considerations for the TCEQ Programs

Emissions Reduction Incentive Grants Program. The accelerated growth and competitive nature of the Program in the second half of FY04 highlighted several policy issues. Based on direction from the TCEQ Commissioners *and the Advisory Board*, these issues will be addressed through the following changes for FY05.

- *Allocation placeholder*
- The project cost effectiveness eligibility criteria will be capped at \$7,000/ton
- Grants awarded for infrastructure will be capped at 50% of the eligible incremental costs
- TCEQ will continue to work with public entities who are interested in pursuing third party grants. No private organization third party grant projects will be considered for FY05.

Small Business Grants Program. The project cost effectiveness eligibility criteria will be capped at \$8,500/ton.

draft

New Technology Research and Development. The continued focus for funding projects will be those that lead to eligible Emissions Reduction Incentive Grants Program projects. In addition, applications from competing applicants will continue to be reviewed and scored, each on their own merits. The criteria includes the potential for NOx reductions, amount of applicant's capital dedicated to the project, and potential EPA or CARB verification/certification status.

1.1 OVERVIEW

The 2004 Texas Emissions Reduction Plan (TERP) Legislative Report is submitted by the Texas Commission on Environmental Quality (TCEQ) in fulfillment of the requirements of Sections 386.057 and 386.116(d). The Report is also submitted for the New Technology Research and Development Program to comply with 387.010 of the Texas Health and Safety Code. Prior to submittal, TCEQ consulted with the TERP Advisory Board (*insert meeting date(s)*) and made the draft report available for public comment. A public meeting to take oral comments was held on (*insert date*)

Purpose

TERP was established by the 77th Texas Legislature in 2001, through enactment of Senate Bill (SB) 5. The goals of the TERP, as set forth in SB 5, are to:

- ensure that the air in this state is safe to breathe and meets minimum federal standards established under the federal Clean Air Act (Section 7407, Title 42, United States Code);
- develop multi-pollutant approaches to solving the state's environmental problems; and
- adequately fund research and development that will make the state a leader in new technologies that can solve the state's environmental problems while creating new business and industry in the state.

The past and present focus of the TERP is to reduce emissions of nitrogen oxides (NO_x) through voluntary economic incentive programs. The programs are intended to replace reductions that would have been achieved through two mandatory measures (time restrictions on use of construction and industrial equipment and the requirement to replace older off-road equipment with new equipment) that SB 5 directed the TCEQ to remove from the State Implementation Plan (SIP) for the Dallas-Fort Worth (DFW) and Houston-Galveston (HGA) 1-hour ozone nonattainment areas. The SIP commitments total 55.2 tons per day (tpd) to be achieved in 2007. The Austin, San Antonio, and Longview-Tyler near-nonattainment areas each are also committed to achieve 2 tpd NO_x reductions in 2007 from TERP in their 2004 Clean Air Action Plans for the 8-hour ozone standard. Other areas of the state (Beaumont-Port Arthur, Corpus-Christi, El Paso, and Victoria) that are in nonattainment or near-nonattainment status for ozone are encouraging participation in the TERP program to help reduce NO_x emissions. *Appendix 1* lists the counties affected by the TERP programs.

In April 2004, EPA announced the 8 hour ozone nonattainment area designations. The Beaumont-Port Arthur nonattainment area includes Hardin, Jefferson, and Orange Counties. The Dallas-Fort Worth nonattainment area consists of Collin, Dallas, Denton, Tarrant, Ellis, Johnson, Kaufman, Parker, and Rockwall Counties. The Houston-Galveston nonattainment area is Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties. The Counties of Bexar, Comal, and Guadalupe make up the San Antonio

draft

nonattainment area. Projects in all of these counties are eligible for TERP funding.

As efforts move from addressing the 1-hour ozone standard to the new 8-hour standard, existing air quality plan commitments, such as TERP, will be accounted for in new plans.

Texas Emissions Reduction Plan Advisory Board

The TERP Advisory Board is a 15-member body created under SB 5. Five members each are appointed by the Governor, Lieutenant Governor, and Speaker of the House of Representatives. The Board also includes seven ex-officio members. A list of members is included in *Appendix 2*.

Several of the recommendations contained in the TERP December 2002 Legislative Report were successfully enacted with the Board's efforts. These included restoring program funding, adding a small business grants program, increasing the number of eligible counties, and increasing the type of eligible projects under the Emissions Reduction Incentive Program.

II. FUNDING

FY02/03

The FY02 revenue sources were those established in SB 5. FY03 revenue sources were the same, up until July 2003, when HB 1365 changes were effective.

Table 1. FY02/03 TERP Revenue Sources

REVENUE SOURCE	CITATION	EXPIRES	FY02 \$\$	FY03 \$\$
1% surcharge on sale price or lease/rental amount of off road diesel equipment sold, rented or lease (effective July 2003, the surcharge was increased to 2% and a storage, use, and consumption surcharge added)	Tax Code § 151.0515(b)	9/30/08	\$7.6 million	\$9.7 million

2.5% surcharge of the total consideration on sale or lease of model year pre-1997 vehicles over 14,000 lbs (effective July 2003, HB 1365 added the surcharge for the use of such vehicles and a surcharge for 1997 or later model year vehicles of 1 %)	Tax Code § 151.0215(a)	9/30/08	\$3.3 million	\$6.6 million
10% surcharge of total fees due for registration of truck tractors and commercial motor vehicle	Transportation Code § 502.1675	8/31/08	\$6.7 million	\$8.6 million
\$225 fees for inspection of out of state vehicles brought into Texas	Transportation Code § 548.256©)	8/31/08 - this provision was subsequently ruled unconstitutional (<i>H.M. Dodd Motor Co. Inc. v. Tex. Dep't of Public Safety, No. GN102585, 200th Dist. Ct., Travis County, Tex., Apr. 12, 2002</i>).	\$0	\$0
As of July, 2003, portion of certificate of the vehicle title fee - \$20 out of \$33 fee for applicants in nonattainment counties and \$15 out of \$28 fee for applicants in other counties	Transportation Code § 501.138(a)	after 9/1/08 is deposited into Texas Mobility Fund	\$0	\$6.0 million
\$10 fee on commercial motor vehicles required to be inspected	Transportation Code § 548.5055	8/31/08	\$2.8 million	\$4.1 million

Interest on fund balance			\$183,000	\$532,000
--------------------------	--	--	-----------	-----------

Funding allocations were the same in FY03 as in FY02:

- 72 % to TCEQ to administer the Emissions Reduction Incentive Grant and Heavy-Duty Motor Vehicle Programs. Not more than 15% is to be used for the Heavy-Duty Vehicle Program. In addition, not more than 3% may be used for funding infrastructure projects under the Incentive Grant Program.
- 10 % to the Comptroller to administer the Light-Duty Motor Vehicle Purchase or Lease Incentive Program.
- 7.5% to the PUC to administer the Energy Efficiency Grant Program.
- 7.5% to Texas Council on Environmental Technology, of which \$250,000 was allocated for administration expenses, up to \$200,000 was allocated for a health effects study, and \$500,000 to be deposited in the state clean air account to supplement funding for air quality planning activities in affected counties.
- 3% for administrative costs incurred by TCEQ, the Comptroller, PUC, and the Energy Systems Laboratory.

FY02 Revenue Allocation

Texas Commission on Environmental Quality	\$14.0 million
Public Utility Commission	\$1.6 million
Comptroller of Public Accounts	\$3.2 million
Energy Systems Laboratory	\$182,000
Texas Council on Environmental Technology	\$1.5 million

FY03 Revenue Allocation

Texas Commission Environmental Quality	\$24.4 million
Public Utility Commission	\$2.7 million
Comptroller of Public Accounts	\$5.4 million
Energy Systems Laboratory	\$285,000
Texas Council on Environmental Technology	\$2.6 million

FY04

Table 2 shows the revenue sources, some of which were changed in HB 1365 (78th legislature, regular session).

Table 2. FY04 TERP Revenue Sources

REVENUE SOURCE	CITATION	EXPIRES	FY04 \$\$ (thru June 2004)

the surcharge on the retail sale, lease, or rental of new or used off-road heavy-duty diesel equipment was increased from 1 percent to 2 percent. A surcharge of 2 percent for the storage, use, and consumption in Texas of new and used equipment was authorized.	Tax Code § 151.0515(b) and 151.0515(b)(1)	9/30/08	\$17.4 million
the 2.5 percent surcharge on sale or lease on pre-1997 model year vehicles over 14,000 lbs was expanded to include the <u>use</u> of such vehicles. A surcharge for 1997 or later model year vehicles of 1 % was added.	Tax Code § 151.0215(a)	9/30/08	\$6.2 million
10% surcharge of total fees due for registration of truck tractors and commercial motor vehicle	Transportation Code § 502.1675	8/31/08	\$7.2 million
portion of certificate of vehicle title fee - \$20 out of \$33 fee for applicants in nonattainment counties and \$15 out of \$28 fee for applicants in other counties	Transportation Code § 501.138(a)	after 9/1/08 is deposited into Texas Mobility Fund	\$81.7 million
\$10 fee on commercial motor vehicles required to be inspected	Transportation Code § 548.5055	8/31/08	\$3.2 million
Interest on fund balance			\$1.1 million

In the 78th Legislative 3rd special session, HB 37 was enacted, effective October 20, 2003. This bill allocated the TERP account as follows:

- 87.5 percent to be used for the Diesel Emissions Reduction Incentive Program.
- 9.5 percent to be used for the New Technology Research and Development Program, of which \$500,000 is to be deposited to the Clean Air Account to supplement funding for air quality activities in the 41 counties, a maximum of \$250,000 to be used for administrative costs, and a minimum 20 percent to support air quality research in the Houston-Galveston-Brazoria and Dallas-Fort Worth nonattainment areas.
- 1.5 percent to cover administrative costs associated with the Diesel Emissions Reduction Incentive Program, with a maximum of \$606,845 to be spent in FY04.
- 1.5 percent to the Texas Engineering Experiment Station to be used for administrative costs associated with the Texas Building Energy Performance Standards Program, with a maximum of \$950,421 in FY04.

draft

FY04 Revenue Allocation

Texas Commission Environmental Quality	\$120 million
TCEQ administration costs	\$856,845
Public Utility Commission	\$0
Comptroller of Public Accounts	\$0
Energy Systems Laboratory administration costs	\$950,421

III. PROGRAM ACCOMPLISHMENTS

Emissions Reduction Incentive Grants Program

This program is managed by TCEQ and provides for grants to fund the incremental cost of projects in the State's 41 ozone nonattainment and near-nonattainment counties. Eligible projects include new purchases, replacements, repowers, retrofit technologies, infrastructures, and qualifying fuels. Since the beginning of the program, there have been two requests for application periods in each fiscal year. In FY02, the first round ended on November 21, 2001; the second deadline was March 29, 2002. The two requests for applications in FY2003 were from September 1, 2002, to October 18, 2002 and February 23, 2003, to April 9, 2003. Likewise, in FY 04, there were two rounds - the first from August 4, 2003, to September 17, 2003; the second from January 5, 2004 to March 12, 2004.

Table 3 summarizes projects funded since the beginning of the Program through June 30, 2004, by geographical area. Tables 4 and 5 are subsets of Table 3.

Table 3. Projects Funded to Date (Sept. 1, 2001 thru June 30, 2004)

Area	\$ awarded	projected NOx reductions (tons)	projected NOx reductions (tons/day)	average cost per ton/NOx
AUS	\$514,423	41.1708	0.0107	\$12,495
BPA	\$400,000	120.2500	0.0962	\$3,326
CC	\$15,432	3.3029	0.0026	\$4,672
DFW	\$10,753,864	2,638.0720	1.5886	\$3,186
ELP	\$1,475,000	327.3413	0.1637	\$5,632
HGA	\$23,544,589	3,141.3749	2.3257	\$7,261
SAT	\$5,116,387	908.3228	0.4682	\$5,632
Total	\$41,819,695.00	7179.8347	4.6558	\$5,736

*draft***Table 4. Projects Funded in FY02/03**

Area	\$ awarded	projected NOx reductions (tons)	projected NOx reductions (tons/day)	average cost per ton/NOx
DFW	\$ 9,972,527.00	2,131.0000	1.2001	\$ 4,680.00
HGA	\$ 16,097,839.00	1,964.0000	1.5512	\$ 8,198.00
Total	\$ 26,070,366.00	4,095.0000	2.7513	\$ 6,367.00

Table 5. Projects Funded in FY04 - 1st Round (as of June 30, 2004)

Area	\$ awarded	projected NOx reductions (tons)	projected NOx reductions (tons/day)	average cost per ton/NOx
AUS	\$ 514,423.00	41.1708	0.0107	\$ 12,495.00
BPA	\$ 400,000.00	120.2500	0.0962	\$ 3,326.00
CC	\$ 15,432.00	3.3029	0.0026	\$ 4,672.00
DFW	\$ 781,337.00	507.0720	0.3886	\$ 1,691.00
ELP	\$ 1,475,000.00	327.3413	0.1637	\$ 4,506.00
HGA	\$ 7,446,750.00	1,177.3749	0.7745	\$ 6,324.00
SAT	\$ 5,116,387.00	908.3228	0.4682	\$ 5,632.00
Total	\$15,749,329.00	3,084.8347	1.9045	\$ 5,105.00

Table 6 is a summary of the projects selected for funding in the FY04 2nd round and highlights the growth in the Program and progress towards achieving the committed NOx reductions.

Table 6. Project Selection Summary FY04 - 2st Round (as of July 26, 2004)

Area ¹	No. of Projects	Grant Amount	Projected NOx Reductions (tons)	Projected NOx (Tons/day)	Average Cost per ton/NOx
Total	203	\$80,894,367	13,573.87	9.55	\$5,960
HGA	43	\$36,408,518	5690.89	3.72	\$6,398

DFW	93	\$29,693,983	5564.12	3.78	\$5,337
BPA	7	\$2,181,910	426.48	0.29	\$5,116
SAT	5	\$2,547,923	388.59	0.26	\$6,557
ELP	2	\$457,018	113.90	0.09	\$4,012
TYL	2	\$799,450	122.74	0.10	\$6,513
AUS	43	\$6,069,179	871.91	0.59	\$6,961
CC	4	\$1,907,996	275.35	0.22	\$6,929
VIC	4	\$828,390	119.89	0.51	\$6,910

¹Some projects may operate in more than one area. Project information is listed by a primary area.

Information regarding individual projects, including project descriptions, grant amounts, projected reductions in NOx emissions, and cost effectiveness, may be found in *Appendices 3 - 5*. Specific information about infrastructure projects, as required by Section 386.057(b)(2), is included in the tables.

The Program Guidelines were revised following a public comment period from August 26, 2003, through October 10, 2003. A public meeting was held on September 17, 2003, to provide the public the opportunity to present oral comments on the draft. The revised document was then made available on TCEQ's website, along with the application forms and technical supplements, for the FY04 2nd round Request for Applications.

TCEQ also held public workshops throughout the State in January and February 2004 to explain the Emissions Reduction Incentive Grant Program to interested parties. The application process was explained and staff were available to answer questions related to completing the application forms and calculating the project cost-effectiveness. Ten workshops were held, with 300+ people attending. Another round of workshops is planned for August 2004, prior to the release of the FY05 request for applications.

To further improve the ability of the Emissions Reduction Incentive Grants program to achieve its goals, HB 1365 provided that persons other than owners may apply for and receive grants (section 386.103(a)). In the 2004 revised Guidelines, general procedures were spelled out for "Third-Party Grants." In August 2004, TCEQ and the Railroad Commission of Texas (RRC) entered into an inter-governmental cooperative agreement to allow the RRC to use TERP funds for a forklift initiative program. The Program will focus on encouraging the purchase of lower-emitting forklifts and replacing, repowering, or retrofitting higher polluting forklifts.

To minimize the risk of fraud, a three-tiered Quality Assurance and Fraud Prevention and Detection Program was developed. The three levels consist of:

- 1) Application phase - maintain a uniform process when doing application reviews, review and verify technologies, confirm emission

reduction and cost effectiveness calculations, maintain an electronic database, and perform duplicate reviews.

- 2) Contract phase - for consistency, use template documents and obtain approval from TCEQ legal and central contracting offices on each contract, follow written grant management procedures, reviews for reimbursement requests are done by fiscal and program staff and program management, maintain an electronic database for contract and fiscal information, and perform on-site monitoring visits. An external auditor is contracted to physically verify grantees' expenditures by performing on-site reviews of records and confirm the location and use of equipment.
- 3) Tracking and Reporting phase - require grantees to track usage and report to TCEQ every six months, utilize internal and external auditors to perform desk and on-site reviews of activities, maintain contract provisions for return of funds if the usage does not meet contract commitments or is not tracked and reported.

During the last year, TCEQ hired additional staff to fill the nine full-time-equivalent approved positions to implement the Program. In addition to reviewing applications and processing contracts, staff is responsible for the necessary follow-up monitoring and auditing activities. As the number of applications received and grants awarded increases, staffing needs are expected to increase.

Small Business Grants Program

In accordance with Section 386.116, Texas Health and Safety Code, in FY04, the TCEQ established a grant program targeted at small businesses and other entities that own and operate not more than two vehicles or equipment, one of which must be diesel-powered and a pre-1994 model year. The program is a stream-lined way for small businesses in the 41 counties to apply for financial assistance to replace or repower vehicles or equipment, via a simplified application process. The program is funded through the Emissions Reduction Incentive Program and is administered under the same quality assurance and fraud prevention and detection program measures.

The first Small Business Request for Applications (RFA) had a deadline of March 12, 2004. Five applications were received and three projects were approved for funding. The type of activities funded included replacement vehicles for businesses transporting materials and a mobile heavy-duty equipment repair operation. Table 7 summarizes the two projects under contract. The third approved project, for \$91,624, is in the final contract stage.

Table 7. Small Business Funded Projects as of June 30, 2004**

App #	Grant Amount	Area	Projected NOx reductions (tons)	Projected NOx reductions in 2007 (tons/day)	Project Cost Effectiveness
047	\$ 38,500.00	SAT	3.2792	0.6558	\$12,820.00
415	\$ 104,531.00	DFW	9.2464	1.8493	\$12,345.00

** The data is also included in Table 3.

TCEQ is developing an outreach program that will be targeted for small businesses in the affected counties.

New Technology Research and Development Program

This program is managed by TCEQ. The current focus is on grants to be used to support development of emissions-reducing technologies that may be used for two types of projects: those eligible for incentive grants under the Emissions Reduction Incentive Grants Program and other new technologies that show promise for commercialization, focusing on NOx emissions. Eligible projects include:

1. technologies developed and demonstrated by a vendor but not yet verified or certified for emission reduction credits;
2. technologies that have been developed and warrant a demonstration of applicability;
3. technologies that still require further development or development for other applications;
4. research for emerging technologies; and,
5. Studies to improve air quality assessment and modeling.

During FY02/03, the Program was managed by the Texas Council on Environmental Technologies (TCET). House Bill 37, 78th Legislative Session, Third Special Session, (effective October 20, 2003), transferred the functions of the former TCET to the TCEQ as the New Technology Research and Development Program (NTRD).

Table 8 summarizes the FY02/03 projects accepted by TCET. Further details regarding specific details for individual projects, including descriptions of the technical objectives and accomplishments, progress towards commercialization, and the costs and realized benefits, may be found at

<http://www.tnrcc.state.tx.us/oprd/sips/research.html#presentations..>

**Table 8. NTRD Projects for FY02/03
(former TCET Awards)**

CONTRACT NUMBER	GRANTEE NAME	AWARD AMOUNT
02-R01-11G	General Vortex Energy	\$155,000.00
02-R01-18G	Cummins West (dba Cleaire Advanced)	\$150,000.00
02-R01-21G	Eastern Research	\$120,914.00
02-R01-23G	Houston Advanced Research	\$164,419.00

02-R01-31G	El Paso Electric	\$141,458.00
02-R01-01G	Bridges to Sustainability	\$50,000.00
02-R03-01G	Environ	\$50,000.00
02-R04-01G	Environ	\$499,421.00
02R01-06G	Universal Cams, LLC	\$120,396.00
02-R01-27G	Emissions Tech. Of TX	\$81,700.00
03-R05-01G	EcoTrans Tech.	\$120,000.00
03-R05-04G	Biofriendly Corp.	\$150,000.00
03-R05-07G	Gas Tech. Institute	\$284,718.00
03-R05-08G	Power Research Inc.	\$132,009.00
03-R05-12G	URS Corp.	\$189,713.00
TOTAL AWARDS		\$2,409,748.00

In early 2004, TCEQ issued a request for grant applications, which closed March 31, 2004. *Appendix 6* summarizes those projects recommended for FY04 funding as of July 29, 2004. The 17 projects include verification and deployment for several technologies, development testing for a retrofit device, and air quality studies specific to Texas areas.

A second request for grant applications was held from May 26, 2004, to July 7, 2004. Table 9 is a summary of the application categories received.

Table 9. NTRD 2nd Request for Grant Applications

NTRD GRANT TYPE	# APPLICATIONS RECEIVED
Retrofit/Add-on Technology	17
Advanced Technology-Engines	11
Air Quality Studies/Modeling	15
Advanced Technology-Buildings	0
Advanced Technology-Other	7
Qualifying Fuel	5
Other	1
Total	56

TCEQ uses the same three-tiered Quality Assurance and Fraud Prevention and Detection Program as for the Emissions Reduction Incentive Grant Program.

During the last year, TCEQ hired additional staff to fill the three approved positions to help with implementation of the Program. An additional position is approved for hiring in fiscal year 2005. In addition to reviewing applications and processing contracts, staff is responsible for the necessary management of the grant activities. As the number of contracts increases, the monitoring activities are expected to also increase.

Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program

This is a statewide TCEQ rebate program to cover the incremental cost difference of purchasing or leasing cleaner heavy-duty vehicles (10,000 lb or greater). Rules and guidelines were adopted in 2001, but due to reduced revenues, no funds have been allocated to the Program. HB 1365 (Section 10) added heavy-duty vehicles (gross vehicle rating > 8,500 lbs) this category of vehicles to be eligible for funding in the 41 counties under the Emissions Reduction Incentive Grants Program.

Light-Duty Motor Vehicle Purchase or Lease Incentive Program

This is a program similar to the Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program and applies to vehicles less than 10,000 lbs. The program is to be administered jointly by the Comptroller's Office and TCEQ. Rules and guidelines were adopted in 2001, but the Program was suspended in 2002, due to an inadequate fund balance. However, with the passage of HB 1365, some vehicles in this category (> 8,500 and < 10,000 lbs.) are eligible for funding under the Emissions Reduction Incentive Grants Program as of FY04.

Energy Efficient/Energy Conservation Programs and the Texas SIP

The following three programs, administered by the Public Utility Commission, State Energy Conversation Office, and Energy Systems Lab may potentially provide creditable emission reductions for the State Implementation Plan. TCEQ, EPA, and the Lab are currently working together to determine how energy efficient programs such as those summarized in this Report may be modeled with some level of certainty for creditable emission reductions for SIP purposes. The Lab, with TCEQ and EPA funding is completing a first release of an on-line emissions reduction calculator (eCalc). Initial functionality includes capability to model annual and peak day NO_x reductions from several building types (new single family housing, new multi-family construction, and new commercial office buildings), renewable energy applications, and from energy conservation retrofits to buildings and public facilities.

The calculator is being used as a pilot project with the Alamo Area Council of Governments. The project includes analyzing utility bills before and after implementation of several measures. The measures consist of heating, ventilating, and air conditioning improvements, lighting improvements, solar energy and photovoltaic projects, and traffic light improvements. The annual estimated electricity savings in all projects is 15,394,431 kWh/year. The total annual gas savings in all projects is 2,130 MMBtu/year. The estimated annual NO_x emission reductions being verified with the eCalc is 22.53 tons (22.27 tons from electricity savings and 0.26 tons from natural gas savings).

Energy Efficiency Grant Program

draft

The Public Utility Commission (PUC) has jurisdiction for the program, which provides grants to electric companies in the TERP-eligible counties to reduce electricity consumption (for FY 03, this was the original 38 counties). The PUC approved templates for a variety of energy efficiency technologies to be implemented that contribute to a reduction in electric consumption. Lower energy consumption results in a reduction in electric production and an avoidance of NOx producing emissions. The FY03 TERP funds appropriated to the PUC under SB 5 totaled \$2.7 million with 100% of the funds awarded in grants to an electric cooperative, two municipal utilities, a river authority and two investor owned utilities. Due to customer demand, several grantees applied for and received multiple grants, based on the success of the initial grants. The six grantees provide electric service to three nonattainment areas and three near-nonattainment areas. The electric companies and counties where TERP funded projects were implemented are contained in Table 10.

Table 10. PUC SB 5 Grant Locations

Electric Company	TERP Funded Project Areas
Austin Energy	Travis and Williamson
CoServ Electric Cooperative	Collin and Denton
City Public Service	Bexar
El Paso Electric	El Paso
Entergy	Jefferson
Lower Colorado Rive Authority	Bastrop, Bexar, Caldwell, Hays, and Waller

The total projected energy savings over ten years is 183,910 megawatt-hours (MWh), a value of \$5 million saved in electric billing. The 78th Legislature retained the grant program in 2003 (HB1365), but appropriated no additional funds. Thus, the PUC has issued no requests for proposals since August 2003, but continues to work with the six utilities to ensure success in implementing their grant funded projects.

Per Section 386.205, the PUC must also report to TCEQ on the results achieved by investor-owned utilities required under SB 7 to deregulate and implement energy efficiency programs funded via the transmission and distribution rates (see Section 39.905, Utilities Code). In 2003, nine companies reported their activities to the PUC. The total estimated ten year projection of energy savings is 2,774,490 MWh, a value of \$80 million saved in electric billing.

Additional information regarding the PUC programs may be found at <http://www.puc.state.tx.us/electric/projects/25309/25309.cfm>.

Texas Building Energy Performance Standards

Chapter 388 of the Texas Health and Safety Code was created in SB5 to establish new state minimum construction standards for efficiency in buildings and encourage higher levels of efficiency relative to this new

draft

baseline by recognizing locally enhanced codes, above code building performance, and exemplary efforts in publicly owned facilities. TCEQ is developing guidance which may permit the energy savings and emissions reduction results of these types of programs to be included among SIP control strategies.

Local governments have the responsibility, per Section 388.003, to administer and enforce the standards found in the International Energy Conservation Code and the energy efficiency chapter of the International Residential Code. The Energy Systems Laboratory (Laboratory or Lab) within the Texas A & M University System is tasked to assist local governments in evaluating their energy code programs and responsible for identifying any municipality or county whose codes vary from the state standards and reporting its findings to TCEQ for inclusion in the TERP Report. During the 2003/2004 time period, two local entities worked with the Lab on energy code changes. The Lab determined the North Central Texas Council of Governments' (NCTCOGs) proposed regional recommendations for the Dallas-Fort Worth region on window glazing shading were substantially equal to the International Energy Conservation Code and International Residential Code. Recently, the Laboratory supported the Building & Energy Code Advisory Board of NCTCOG in developing additional energy code proposals with potential to significantly increase stringency and emissions reduction impacts, if adopted locally. The Lab also successfully reviewed several iterations of proposed energy code changes by the City of Houston dealing with local construction practices and with moisture control.

In its December 2003 report to TCEQ, the Laboratory reported annual energy savings of 252,238 MWh of electricity in 2003 from energy-code compliant new residential construction in the original 38 affected counties. For the same period and areas, there were natural gas savings of 887,564 million Btus.

TCEQ estimates the 2007 NO_x emissions reduction by electric power plants and natural gas demand reductions in the ERCOT area as a result of the Texas State Residential Building Codes adopted in 2001 to be 0.47 tons/ozone season day.

For more information regarding the Lab's latest report to TCEQ and activities in development of energy efficiency programs, go to <http://eslsb5.tamu.edu>.

Energy Efficiency Programs in Certain Political Subdivisions

Under Section 388.05, affected counties and political subdivisions, other than school districts, in nonattainment areas or affected counties were required to establish an energy consumption reduction goal of 5 percent per year, beginning January 2002. The State Energy Conservation Office's (SECO's) role is to evaluate the effectiveness of the local entities' efforts and report its findings to TCEQ. Following passage of SB5 in 2001, SECO worked with the U.S. Department of Energy and EPA to form the Texas Energy Partnership. The Partnership provides leadership for affected jurisdictions in setting goals and determining strategies. Examples of strategies include locally-mandated or voluntary "green" building energy codes that go beyond the state minimum, street

draft

lighting and traffic signal lighting improvements, and energy conservation retrofits for buildings, including lighting, windows, appliances, and cool roofs. SECO's 2004 highlights some specific programs being implemented by the cities of Austin, Dallas, Allen, and Longview, Harris County, Lower Colorado River Authority, New Braunfels Utilities, and others (see <http://www.seco.cpa.state.tx.us/sb5report2004.pdf>).

Although HB 1365 increased the number of local jurisdictions affected by the Program, some political subdivisions were exempted from the goal-setting and reporting requirements as of 2003 (HB 1541, 78th regular session). Still, the number of Texas jurisdictions adopting the 5 percent goal increased from 176 in 2002 to 219 in 2003. The overall results of the Program, using 2001 as the base year, is a 5% average energy consumption reduction by the reporting jurisdictions.

Continued interest by counties and political subdivisions in identifying energy saving processes and working with the Texas Energy Partnership is highlighted by the fact 70 requests for preliminary energy assessments were made through 2003; 54 were completed by the end of 2003. During 2003, the Texas Energy Partnership sponsored and presented in 17 energy efficiency workshops for local governments on building technologies, energy financing, building automation, distributed generation and energy management.

IV. FUTURE CONSIDERATIONS FOR THE TCEQ PROGRAMS

In general, TCEQ will continue to work with interested parties as the programs evolve to address legislative needs and ensure the state's air quality goals are met in an economically feasible way. In the near term, the following adjustments will be made.

Emissions Reduction Incentive Grants Program. The accelerated growth and competitive nature of the Program in the second half of FY04 highlighted several policy issues. Based on direction from the TCEQ Commissioners *and the Advisory Board*, listed below are the criteria changes for FY05.

- *Allocation placeholder*
- The project cost effectiveness eligibility criteria will be capped at \$7,000/ton
- Grants awarded for infrastructure will be capped at 50% of the eligible incremental costs
- TCEQ will continue to work with public entities who are interested in pursuing third party grants. No private organization third party grant projects will be considered for FY05.

Small Business Grants Program. The project cost effectiveness eligibility criteria will be capped \$8,500/ton.

New Technology Research and Development. The continued focus for funding projects will be those that lead to eligible Emissions Reduction

draft

Incentive Grants Program projects. In addition, applications from competing applicant will continue to be reviewed and scored, each on their own merits. The criteria includes the potential for NOx reductions, amount of applicant's capital dedicated to the project, and potential EPA or CARB verification/certification status.

APPENDIX 1.

TERP ELIGIBLE COUNTIES

As of 2001, per SB 5

Bastrop	Bexar	Brazoria	Caldwell	Chambers
Collin	Comal	Dallas	Denton	Ellis
El Paso	Fort Bend	Galveston	Gregg	Guadalupe
Hardin	Harris	Harrison	Hays	Jefferson
Johnson	Kaufman	Liberty	Montgomery	Nueces
Orange	Parker	Rockwall	Rusk	San Patricio
Smith	Tarrant	Travis	Victoria	Waller
Williamson	Wilson	Upshur		

Counties added by HB 1365 in 2003, include:
Henderson, Hood, and Hunt

draft

APPENDIX 2

TERP ADVISORY BOARD MEMBERS

TERP Advisory Board Members As of July 2004

Appointed by the Governor

Dr. Purnendu Kumar Dasgupta

Paul Whitfield Horn Professor of Chemistry and Biochemistry at Texas Tech University
Representing the Texas Council on Environmental Technology
term expires 2/1/05

John Goodman

Chairman, Board of Directors, Goodman Global Holdings, Inc.
Representing the Air Conditioning Manufacturing Industry
term expires 2/1/05

L. Elizabeth Gunter

Senior Counsel, American Electric Power
Representing the Electric Power Industry
term expired 2/1/04
(appointment remains until new appointment is made)

Dr. Naomi Lede[?]

Senior Research Scientist, Texas Transportation Institute
Representing Regional Transportation
term expires 2/1/05

Mark Rhea

Vice President, Lisa Motor Lines
Representing the Trucking Industry
term expires 2/1/05

Appointed by the Speaker, Texas House of Representatives

Art Daniel

Boring & Tunneling Company of America
Representing the Construction Industry
term expires 2/1/06

Carmen P. Castillo

Americans for Prosperity
Representing Consumer Groups
term expires 2/1/06

Ralph Arrell

WTG Fuels, Inc.
Representing the Fuel Industry
term expires 2/1/06

Jerry Harris

Representing the Agriculture Industry
term expires 2/1/06

Steve Late

President, BMW of Austin

Representing the Automobile Industry
term expires 2/1/05

Appointed by the Lieutenant Governor

Michael Flores
Branch Manager, Johnson Controls, Inc.
Representing the Energy-Efficient Construction Industry
term expires 2/1/04
(appointment remains until new appointment is made)

Appointment pending
Representing the Fuel Cell Industry
term expires 2/1/03

Thomas “Smitty” Smith
Director, Public Citizen
Representing the Environmental Community
term expires 2/1/04
(appointment remains until new appointment is made)

Jim Crites
Executive Vice President - Operations, Dallas/Fort Worth International Airport Board
Representing the Air Transportation Industry
term expires 2/1/03
(appointment remains until new appointment is made)

John Mikolaitis
Vice President - Marketing and Customer Support, Cummins Southern Plains, Inc.
Representing the Engine Manufacturing Industry
term expires 2/1/03
(appointment remains until new appointment is made)

Ex officio Members

Hon. Kenneth Armbrister
Chair, Senate Natural Resources Committee

Hon. Dennis Bonnen
Chair, House Environmental Regulation Committee

Lynne Haase
Manager, Implementation Grants Section, Texas Commission on Environmental Quality

Soll Sussman
Alternative Fuels Coordinator, Energy Resources, Texas General Land Office

Dan Kelly
Director, Alternative Fuels Research and Education Division, Railroad Commission of Texas

Dub Taylor
Director, State Energy Conservation Office, Texas Comptroller of Public Accounts

Sandra Rennie
Mobile Source Team Leader, EPA Region 6

APPENDIX 3

EMISSIONS REDUCTION INCENTIVE GRANT PROJECTS FOR FY 02/03 (AS OF JUNE 30, 2004)

**APPENDIX 4
EMISSIONS REDUCTION INCENTIVE GRANT PROJECTS FOR FY 04 1ST ROUND (AS OF JUNE 30, 2004)**

**APPENDIX 5
FY 04 2ND ROUND APPLICATIONS RECOMMENDED FOR SELECTION (JULY 26, 2004)**

**APPENDIX 6
NEW TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM APPLICATIONS SELECTED TO RECEIVE FY04 FUNDING**