



**New Technology Research and Development  
Program**

**Project Application Form:  
Part B – TERP Eligible Projects  
TCEQ - 20560a**

**Solicitation No. 582-11-10758**

Texas Commission on Environmental Quality  
Air Quality Division, MC-204  
Implementation Grants Section  
P.O. Box 13087  
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512/239-4950

# New Technology Research and Development Grant Program

## Project Application Form- Part B

(TCEQ - 20560a)

### *Application Submission*

This form is to be used to apply for grants from the Texas Commission on Environmental Quality's (TCEQ) New Technology Research and Development Program (NTRD). Upon submission, all proposals become the property of the State of Texas and as such become subject to public disclosure under the Texas Public Information Act, Texas Government Code, Chapter 552.

**Do not submit any confidential / proprietary information anywhere in this Application Form except as instructed in Part B (Form 20560) Section 5. You agree that you waive any claim of confidentiality you may have in any information you submit in any part of this Application Form other than Part B (Form 20560) Section 5 - even if you have marked it confidential.**

Any information the applicant wishes to protect from public disclosure **MUST** be clearly marked ***“Confidential/Proprietary: inform applicant & seek AG opinion before releasing”*** on every page and **MUST** be submitted as instructed in Part B (Form 20560) Section 5 of the application and nowhere else. Any information that is so marked and submitted in Part B (Form 20560) Section 5, if requested under the PIA, will be sent by the TCEQ to the Texas Attorney General for a decision on whether it may be withheld. Note that the AG may determine that the information is not confidential and therefore must be released. The TCEQ will inform the applicant of the request for the Attorney General's decision but will make no arguments in support of the request. It is the responsibility of the applicant to explain the basis for its claim that the information is confidential to the Attorney General.

The project eligibility criteria and types of purchases eligible under this program are more fully explained in the TCEQ's [New Technology Research and Development Grants: Guidelines for Grants \(RG-481\)](#). In addition, the TCEQ will periodically issue a request for grant applications (RFGA) which outlines the grant application deadlines and provides further instructions for applying for a grant. **Specific instructions for completing this form are located at the end of this document. Potential applicants should first review the guidelines and RFGA instructions before completing the application forms.**

***This form MUST be submitted with a completed Form 20559 (Part A).***

***Do not modify this form other than completing required questions.***

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**PART B - Section 1: Project Summary  
TERP Eligible Projects**

*Please provide answers to the following questions. Applicants may provide as much detail as necessary.*

- 1. Describe the project's goals and objectives. Is verification or certification of a technology the main project goal, yes or no? What are other project goals and objectives?**
  
- 2. Discuss the need or problem the technology or product will address. Describe the degree to which the technology or product is innovative and unique. Describe how the proposed technology exceeds what is legally required (e.g. certification to lower than EPA standards or meeting new emission standards well ahead of required deadlines).**
  
- 3. How will the project help the NTRD program achieve its goals?**
  
- 4. How will the project help the TERP program achieve its goals? TERP Guidelines can be viewed at this [TCEQ website](#)**
  
- 5. Provide a description of the technology or technologies to be developed and work to be done. Include information to explain any testing and analysis procedures that will be used to document the results of the project. Be careful to differentiate between work proposed under this application and the broader or long term plans for this technology or product. A proposed testing analysis protocol should be included as part of the application package.**
  
- 6. If this project is for verification or certification testing only, describe the applicant's interaction with EPA or CARB to date regarding certification or verification of the technology. Has a test protocol been negotiated?**
  
- 7. If this project is for pre-verification or pre-certification activities, please indicate when the technology will be tested for verification or certification, using a best estimate.**
  
- 8. Identify and, to the extent possible, quantify the emission reductions, air quality**

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**benefits, and/or energy efficiency benefits to be expected from widespread implementation of the technology. *In particular, what is the NOx reduction (percent reductions and tons per day) of the commercialization plan discussed below? Percent reductions and tons per day for other regulated pollutants? Describe in detail the basis for these estimates. Attach test results or reports for any previous emissions testing.***

**9. Describe the fuel economy impact of this technology. Describe in detail the basis for this assessment. Attach test results or reports for previous fuel economy testing.**

**10. What is the commercialization plan for this technology? Describe the market for the technology, both in Texas and elsewhere. How much will the developed technology cost the end user to implement? Discuss any issues with intellectual property rights and institutional alliances necessary to implement the commercialization plan. Describe how the technology will be produced and distributed commercially.**

**11. What is the cost-effectiveness of the proposed technology? What is the cost per ton of pollutant reduced? What is the cost per kilowatt hour of energy saved? What is the cost per volume of any fuel saved?**

**12. Will the technology make use of any otherwise unusable energy sources in the state of Texas or produce qualifying fuels at prices lower than otherwise available?**

**13. Please include a full discussion of any safety and health issues and how they are addressed. *Points may be subtracted if this information is inadequate or if there are outstanding safety issues.***

**14. Please include a full discussion of any potential adverse impacts on the environment and how they are addressed. *Points may be subtracted depending on how the technology will impact other areas of the environment.***

**15. For any technology that will be applied to existing equipment or vehicles, please**

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**include a full discussion of how the proposed technology will affect existing or original equipment manufacturer warranties for that equipment or vehicle. If existing warranties are affected, then provide information on how you will work to minimize or mitigate those effects. Discuss the impact of the technology on equipment and/or vehicle maintenance costs.**

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**16. Indicate which vehicles and/or equipment the technology may reduce NO<sub>x</sub> emissions on using the following table:**

Construction/Mining Equipment		Commercial Equipment	
	Pavers		Air Compressors
	Rollers		Generator Sets
	Scrapers		Pressure Washers
	Trenchers/Drill Rigs		Pumps
	Excavators		Welders
	Cranes	Agricultural Equipment	
	Graders		2 Wheel Tractors
	Off Highway Trucks		Mowers/Tractors
	Rough Terrain Forklifts		Balers
	Rubber Tire Loaders		Combines
	Tractors/Loaders/Backhoes		Hydro-power Units
	Crawler Tractor/Dozers		Irrigation Sets
Industrial Equipment			Other Agricultural Equip.
	A/C Refrigeration		Sprayers
	Aerial Lifts		Swathers
	Forklifts		Tillers > 6 HP
	General Industrial Equipment	On-Road Heavy Duty Diesel Vehicles	
	Sweepers/Scrubbers		HDDV2b
	Terminal Tractors		HDDV3 - HDDV7
	Material Handling Equipment		HDDV8a and HDDV8b
Other Equipment and/or Vehicles			HDDVBT and HDDVBS
	Locomotives		
	Marine		

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**PART B – Section 2: Scope of Work and Project Deliverables  
TERP Eligible Projects**

*Information provided for this section should focus exclusively on the project proposed for funding in this application. While it is appropriate in other portions of the application to discuss the broader or long term plans for this technology, this section should only address work proposed in this application.*

**Part 1: Project Abstract** Please provide an abstract of the project suitable for posting to the TCEQ web site. The statement should be a self-contained description of the project (no longer than 200 words) that would result if the proposal were funded and should demonstrate the potential impact of the project on meeting the NTRD and TERP goals and objectives. The abstract should be informative to other persons working in the same or related fields and (insofar as possible) understandable to a technically literate lay reader. The abstract should name the technology involved and any testing (verification, certification, or developmental) to be done.

**Part 2: Scope of Work** Please provide a complete, detailed scope of work for the project. The scope should include an introduction, project objectives, project schedule, and a work statement for each task under the project. The project should be broken down into a set of logical, discrete tasks that are carried out sequentially or in parallel. Note any significant decision points and the standard for determining project continuation or termination at these points.

The work statement for each task should explicitly identify the following elements:

- a detailed description of the work to be carried out under the task;
- the parties responsible for completing the task;
- the task's completion date (i.e. the due date for deliverables); and
- the grant deliverables for each task.

The scope of work must also include the preparation and submission of detailed quarterly progress reports and a final project report.

SAMPLE SCOPE OF WORK OUTLINE-

*Project Objectives:*

*Task 1: Task goal or description*

- Sub task descriptions
- Deliverable for task
- Deadline for task and deliverable completion

*Task 2: Task goal or description*

- Sub task descriptions
- Etc.

**Part 3: Timeline** Please provide a Gantt Chart or other timeline of all major project milestones and deliverables. All work must be completed by May 31, 2013, and the proposed timeline should allow adequate flexibility for meeting this deadline given any possible delays. Applicants should be prepared to begin work soon after notification of award and contract execution, however the timeline for the proposed work should begin no sooner than three months after the close of the RFGA.

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**PART B – Section 3: Ability to Perform  
TERP Eligible Projects**

*Please respond to the following questions in turn. The TCEQ may require you to supplement your application with additional information relating to your financial capacity to perform. This information may include your financial statements.*

**1. What qualifications does the applicant possess that will allow them to successfully complete the proposed project? Please identify any key personnel that will be involved on this project for the applicant. Is the applicant the primary technology holder? Note that only the primary technology holder is eligible to apply for grants under this category.**

**2. What prior experience does the applicant have with projects of this nature? What relevant prior experience do the key personnel have? Please clearly identify the number of relevant years of experience the applicant and the key personnel have with projects of this nature. In particular, how many technologies belonging to the applicant have received CARB or EPA verification?**

**3. Will the applicant be using any subcontractors? If so, please identify the subcontractors you anticipate using and the work they will do individually. If you have not currently identified a subcontractor for a particular task, then describe the nature of the work for which a subcontractor will be needed. Keep in mind that all contractual expenses must have the prior approval of the TCEQ. For each subcontractor the TCEQ will require the subcontractor's scope of work, names of key personnel, budget detail which identifies the costs associated with each task to be performed by the subcontractor. Attach any letters of commitment from authorized officials of your subcontractor's organizations.**

**4. Please provide a description of your environmental experience as well as information relating to past and present compliance with environmental laws.**

**5. Please provide evidence of insurance as required under Texas Govt. Code 2261.102: The contractor is required to carry director or officer liability insurance coverage in an amount not less than the value of the contract that is sufficient to protect the interests of the state in the event an actionable act or omission by a director or officer of the contractor damages the state's interests. If proof of such insurance is not provided with this application then it will be required before work may begin.**

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**6. Please note that if a grant is awarded, the Terms and Conditions in the sample contract will be used and be controlling in the grant award. If there are any Terms and Conditions in the sample grant agreement that you cannot agree to you MUST identify those in your application below. If you need additional space please use an attachment. Please also note that the TCEQ may not agree to any or all of the changes and may award the agreement upon the sample agreement.**

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## PART B – Section 4: Proposed Budget TERP Eligible Projects

Complete and submit a project budget using the provided Excel worksheet. Include detailed information in the columns indicated for both costs budgeted for TCEQ reimbursement and the proposed cost share. Expenses that are ineligible for reimbursement (e.g. indirect costs for for-profit institutions, food, lobbyist salaries, etc) are usually not allowable as matching expenses.

The project budget cannot be held confidential for any reason. Applicants may supply supporting documentation for the budget that details confidential information, for example salaries or benefits for specific employees, but the budget must provide sufficient detail to demonstrate the eligibility of expenses and allow for clear connections to the supporting documentation for reimbursement.

### *Proposed Budget Instructions*

- A. Salaries:** Include the costs of salaries for employees of the applicant to be funded under the grant. If you wish to keep the salaries of individual employees confidential you may complete the budget using position titles or roles rather than actual names, however you must also submit a legend of the actual names under the confidential portion, Part B Section 5. The TCEQ cannot reimburse for salaries of lobbyists registered in the state of Texas.
- B. Fringe Benefits:** Include costs for fringe benefits. Enter the fringe benefit rate in Columns E and F of this section. Salaries and fringe must be broken out separately.
- C. Travel:** For governmental agencies and universities, travel costs may not exceed the charges normally allowed by the governmental unit under written travel policies. For non-governmental entities and governmental agencies that do not have an official travel policy that is consistent with the travel policies of the State of Texas, travel costs may not exceed the limits normally allowed for state employees under state travel regulations; current rates may be found at the [Texas Comptroller's TexTravel website](#). As a default rate for budgeting purposes, for FY10 allow **\$85** per day for lodging; **\$36** per day for meals, and **\$0.50** per mile for personal vehicle use. Authorization must be requested from the TCEQ for reimbursement of expenses that exceed this amount. Airfare costs should not exceed the customary standard (coach or equivalent) airfare. To be eligible for the maximum daily allowable rate, travel time must be more than 10 hours per day beginning before 6:30 a.m. or ending after 6:30 p.m. Invoices or receipts will be required for reimbursement of all travel costs regardless of amount, and only actual expenses will be reimbursed.
- D. Equipment:** Equipment is defined as non-construction related, tangible personal property having a unit acquisition cost of \$5,000 or more (including sales tax and delivery) with an estimated useful life of over one year. Equipment to be purchased must be identified and may become the property of the TCEQ. The purchase of testing equipment will not be funded through this program. Note that equipment constructed with grant funds should be budgeted as Equipment if the sum of the separate component parts (including tax and delivery) has an original value of \$5000 or more. An invoice and cancelled check as proof of payment will be required for reimbursement of all equipment costs. Reimbursement of equipment costs that do not involve an arms length transaction (e.g. use of inventory without a proof of purchase) is not reimbursable although such costs may be included as matching funds.

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- E. Supplies:** Supplies are defined as non-construction related costs for goods and materials having a unit acquisition cost (including sales tax and delivery) of less than **\$5,000**. Basic items such as telephones, tools (wrenches, screwdrivers, etc.), office supplies, etc. are considered to be a cost of doing business and will not be funded. An invoice and cancelled check as proof of payment will be required for reimbursement of all supplies greater than \$500 in value. The TCEQ cannot reimburse for food or drink as Supplies.
- F. Contractual:** Contractual expenses are defined as non-construction related costs for professional services or tasks provided by a firm or individual who is not employed by the applicant. Each subcontractor/consultant should be listed separately.
- G. Other:** Other expenses not falling under the other cost definitions should be itemized in this category. The TCEQ cannot reimburse for food or drink as Other. Overhead expenses such as rent and utilities fall under Indirect Costs. Note: Construction expenses are defined as the costs for the enhancement or building of permanent facilities. No construction costs will be allowed with NTRD funds.
- H. Total Direct:** Total of all costs included in items A - G above.
- I. Indirect Costs:** Indirect costs may only be included in the proposed budget and reimbursed with NTRD funds for grantees that are academic institutions and governmental agencies. Indirect costs may be included if the applicant has an indirect cost allocation plan and indirect rate approved by a Federal Cognizant Agency or State Coordinating Agency within the last 24 months. Inclusion of indirect costs in the grant is at the sole discretion of the TCEQ. *The indirect cost rate submitted with your proposal is fixed and cannot be increased during the period of performance of a TCEQ Grant.* A copy of the indirect rate approval letter should be provided with the application. The maximum indirect rate reimbursable with TCEQ funds is 15%. Actual indirect costs greater than 15% may be included in the budget of academic institutions and governmental agencies as matching funds. See the RFGA for more information about indirect costs and their eligibility.
- J. Total Costs:** This information should be calculated by the spreadsheet based on the information provided.
- K. Cost Share:** This information should be calculated by the spreadsheet based on the information provided.
- L. Total Requested:** This information should be calculated by the spreadsheet based on the information provided.

***Supplemental Subcontract Proposed Budget Instructions***

You may complete and submit this budget for major subcontractors. This form is particularly recommended for projects in which a partner will be completing a major portion of the proposed work. See the above cost category descriptions for direction in completing this form.

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**PART B – Section 5: Confidential Information  
TERP Eligible Projects**

***PART B – Section 5: Confidential Information***

Any information the proposer wishes to protect from public disclosure **MUST** be submitted clearly marked ***“Confidential/Proprietary: inform applicant & seek AG opinion before releasing”*** on every page and **MUST** be submitted in a brown envelope in Part B (Form 20560) Section 5 of the application and nowhere else. Any information that is so marked and submitted in Part B (Form 20560) Section 5, if requested under the PIA, will be sent by the TCEQ to the Texas Attorney General for a decision on whether it may be withheld. Note that the Attorney General may determine that the information is not confidential and therefore must be released. The TCEQ will inform the applicant of the request for the Attorney General’s decision but will make no arguments in support of the request. It is the responsibility of the applicant to explain the basis for its claim that the information is confidential to the Attorney General.

# NEW TECHNOLOGY RESEARCH AND DEVELOPMENT GRANT PROJECT APPLICATION FORM

## Instructions for Completing Form TCEQ - 20560.a – Part B

### ***PART B – Section 1: PROVIDE A COMPLETE SUMMARY OF THE PROPOSED PROJECT***

Answer each question that is applicable to your project. You should provide as much detail as necessary. Attachments to supplement your answers are acceptable.

### ***PART B – Section 2: SCOPE OF WORK AND PROJECT DELIVERABLES***

This section serves to assure the TCEQ that you have a scope of work including specific tasks and objectives. The abstract must be a separate attachment suitable for posting to the TCEQ web site. Attachments are acceptable.

### ***PART B – Section 3: ABILITY TO PERFORM***

This section serves to assure the TCEQ that you have the ability to conduct the work which is being proposed. Please answer each question fully. Resumes and curricula vitae as attachments are acceptable.

### ***PART B – Section 4: PROPOSED BUDGET***

This section is the summary of the financial cost of the project. Detailed instructions are included with the form.

### ***PART B – Section 5: CONFIDENTIAL INFORMATION***

This section provides instructions for submittal of any confidential or proprietary information. These instructions must be followed exactly for all such information.

### ***Required Attachments***

1. If the applicant is a non-governmental entity, attach copies of any pamphlets and other materials that provide general information about the applicant.
2. Include any attachments that have been referenced in the application
  - Previous emission and fuel economy test reports;
  - Proposed testing protocol;
  - Drawings and photos of the technology;
  - Safety studies;
  - Abstract, scope of work, and timeline;
  - Proposed project budget and any supplemental subcontractor budgets; and
  - Letters of support from partners.