



**Clean Diesel: Best Available Technology Non-Road
Clearinghouse – Construction Equipment.
Request for Proposals RFP 1666
\$500.000 Available**

Proposals Due: May 11, 2010 by 5:00 pm Eastern Time*

The New York State Energy Research and Development Authority (NYSERDA), in collaboration with the U.S. Environmental Protection Agency Region 2 and others promoting use of best available emission control technology and clean construction practices in NYS (the NY Interest Group) requests proposals to create a useful, web-based clearinghouse and database to allow contractors and regulators to access information detailing entity-approved best available emission control technology (BAT) applications for construction equipment, which can be expanded geographically and broadened to other non-road applications, and can be self sustaining based on demonstrated value.

Proposals are sought from a team with experience and expertise in the areas of: relational database models; web-based information clearinghouses; business planning; diesel emission control technologies; in-use activity/emissions testing, and emission inventories that have a demonstrated ability to engage stakeholder groups in clearinghouse design.

The Contractor working with NYSERDA's project manager (with input from a project advisory group), will be engaged in a number of activities including: establishing administrative and quality control and assurance protocols; developing a means to broaden stakeholder interest in the clearinghouse; designing, creating and populating the database with information gathered initially from entities in the NYC metropolitan area who are implementing mandatory or environmental performance commitment programs specifying the use of BAT; designing and implementing means to assess the usefulness and value of the database to clearinghouse data contributors and other potential users; pursuing a strategy to build a sustainable clearinghouse web service; and gathering sources of in-use duty cycle and activity data.

The \$500,000 available, together with any in-kind and third party support offered by the prospective Contractor subcontractors or other parties, is expected to cover all costs associated with the above mentioned activities and to support the operation of the clearinghouse for a 2-year period. Supplementary support for a 3rd year may be available depending on progress made by the Contractor during the first year and one-half of the project. NYSERDA intends to award one contract under this solicitation.

As is detailed in RFP 1666, NYSERDA requests proposals stating qualifications, experience, and ideas for how to create a useful and sustainable non-road clearinghouse database for construction applications. The proposer should provide sufficient cost information on a task/activity basis to allow for adjustment of project activities, if desired.

Proposal Submission: Proposers must address program requirements detailed in the complete solicitation and submit twelve (12) copies of the proposal, with a completed and signed Proposal Checklist attached to the front of each copy, one of which must contain an original signature. Proposals must be clearly labeled and submitted to:

**Roseanne Viscusi, RFP 1666
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399**

Technical questions should be directed to Barry Liebowitz, ext.3248, e-mail bnl@nyserda.org. Proposers are encouraged to contact Barry Liebowitz if they have any questions after reviewing this solicitation document. Contractual questions should be directed to Nancy Marucci at (518) 862-1090 ext. 3335 or e-mail nsm@nyserda.org

No communication intended to influence this procurement is permitted except by contacting Barry Liebowitz (Designated Contact) at (518) 862-1090, ext. 3248 or bnl@nyserda.org. Contacting anyone other than this Designated Contact (either directly by the proposer or indirectly through a lobbyist or other person acting on the proposer's behalf) in an attempt to influence the procurement: (1) may result in a proposer being deemed a non-responsible offerer, and (2) may result in the proposer not being awarded a contract.

*Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist will be returned. Faxed or e-mailed proposals will not be accepted. Proposals will not be accepted at any other NYSERDA location other than the address above. If changes are made to this solicitation, notification will be posted on NYSERDA's web site at www.nyserda.org.

I. INTRODUCTION

Goal: Create a useful, web-based, clearinghouse and database (Clearinghouse) that will provide users with the ability to ascertain approved best available emissions control technology (BAT) for construction equipment applications in New York State, by approving entity, which can be expanded geographically and broadened to cover other non-road applications and become self sustaining based on demonstrated value. By creating a master inventory of entity-approved BAT, the burden of research into appropriate and effective pairings of engines and devices is intended to be minimized for both contractors and regulators.

The effect of non-road sector emissions on ambient air quality substantially exceeds its contribution based on net energy consumption. While non-road sources in New York State are responsible for about 11 percent of net transportation-sector energy consumption¹ in New York State, non-road vehicles were responsible for 2.5 to 14 times more emissions than on-road vehicles on a unit energy basis. Moreover, emissions from these sources tend to be released in populous areas increasing human exposure to direct emissions.

In an effort to address this problem, New York City and several neighboring counties have adopted requirements that contractors working on municipally funded projects must use **best available emissions control technology** (BAT). In addition, several other entities engaged in Lower Manhattan Reconstruction have adopted environmental performance commitments that specify the use of BAT. These entities constitute the NY Interest Group, which pay some premium for use of BAT but have no means to share information and support the development of a mutually-accessible database. The Clearinghouse is expected to help reduce the cost of BAT discovery, promote consistency in BAT determinations, and provide a “bottom-up” inventory or registry of clean diesel construction equipment and control technology assets in the region. There is interest on the part of the entities engaged in specifying the use of BAT in NYS to collect more information on BAT use including maintenance history, performance, activity and other parameters.

The NY Interest Group includes, but is not limited to: New York State Department of Environmental Conservation (NYSDEC), New York City Department of Environmental Protection (NYCDEP), the Port Authority of New York and New Jersey (PA), the Metropolitan Transit Authority (MTA), the Lower Manhattan Development Corporation (LMDC), and some colleges and universities, such as Columbia University, which have adopted environmental performance commitments including the use of BAT for construction and other activities as part of contract specifications.

This solicitation will obtain the services from a team with experience and expertise in the areas of: relational database models; web-based information clearinghouses; business planning; diesel emission control technologies; in-use activity and emissions testing; and emission inventories that have a demonstrated ability to engage stakeholder groups in clearinghouse design.

Pre-Proposal Webinar/Teleconference.

NYSERDA will conduct a webinar/teleconference, entitled, “**Information Session on RFP 1666**” on **April 20, 2010** starting at **1:00 pm Eastern Standard Time**. Participants can join the webinar, up to 30

¹ NYSERDA Clean Diesel Technology: Non-Road Field Demonstration Program – Interim Report, Table 2-1 2002 NYS Non-Road Emissions by Fuel Type, http://www.nyserdera.org/publications/InterimReport_Final_2007-02-09.pdf, and Patterns Trends New York State Energy Profiles: 1993 - 2007 Table 2-12b New York State Net Transportation Consumption of Energy by Fuel Type, http://www.nyserdera.org/energy_information/patterns%20&%20trends%201993-2007.pdf.

minutes before start time. NYSERDA will review and answer questions on RFP 1666, the proposal requirements, and evaluation process.

The webinar address is <https://nyserda.ilinc.com> . To join the webinar: **click “public sessions”**; then **click the “join” tab**; and then **click “join” next to the event “Information Session on RFP 1666”**. Registration is not required. The webinar is set up so that participants are anonymous, however, the webinar leader will allow anyone who wishes to identify themselves and their interests to do so.

Use your telephone for the audio portion of the webinar by calling **1-888-394-8197**. The participant code is **303066**.

Objectives:

(1) Create and initially populate the Clearinghouse working with the New York Interest Group and others using existing data records within the first three- to six-months of the project;

(2) Establish best strategies to populate the Clearinghouse database by stakeholders on an on-going basis, including specific data import protocols/deliverables, and utilization of controlled vocabularies with look up tables referenced to established data sources, such as U.S. Environmental Protection Agency’s (EPA) engine tier system and California Air Resources Board (CARB)/EPA’s verified control technologies within the first six months of the project;

(3) Establish a working dialogue, demonstrate the web site’s utilization, and disseminate information on the value and benefits of the Clearinghouse, concurrent with Task 1, with a wide stakeholder group to expand the quantity and quality of clearinghouse information. Targeted groups include EPA Office of Transportation & Air Quality (OTAQ), Regional Diesel Collaborative organizations, state and local energy and air quality or regulatory agencies, manufacturers of emission control equipment, engine and equipment manufacturers, environmental groups and national/international associations within six to nine months;

(4) Publicize the availability and assess the usefulness of the Clearinghouse to New York stakeholders and others within in three to six months;

(5) Pursue a strategy designed to sustain the Clearinghouse for its useful life beyond NYSERDA’s possible 3-year support based on the availability of private and public sources of revenue including, but not limited to, government agencies, environmental groups and other interest groups.

Funding

The \$500,000 available, together with any in-kind and any third party support proposed, is expected to cover all costs associated with the above mentioned activities and to support the operation of the Clearinghouse for a 2-year period. Supplementary support for a 3rd year may be available depending on progress made by the Contractor during the first year and a half of the project. NYSERDA intends to award one contract under this solicitation.

II. BACKGROUND

Energy and Environmental Context (Regional & Statewide): Within the Northeast and Mid-Atlantic

States², the transportation sector (on-road plus non-road) accounts for about 30 percent of total energy consumption in 2006³. Non-road sources conventionally include about 300 equipment types used in mining, agriculture, logging, construction, airport ground operations, commercial operations, industrial operations, lawn and garden care, and recreational vehicles as well as pleasure craft. Aircraft, rail transport, and commercial marine vessels are also non-road sources, but they are typically accounted for separately.

In New York State, the transportation sector was responsible for about 28 percent of total energy consumption in 2006. Although non-road equipment was responsible for about 11 percent of net transportation-sector energy consumption in 2002⁴ in New York State, non-road vehicles were responsible for 2.5 to 14 times more emissions than on-road vehicles on a unit energy basis depending on the emission-parameter. Based on 2002 emissions inventory data, the percentage contributions of non-road equipment to the total transportation sector emissions of priority pollutants are as follows: 24% of Carbon Monoxide (CO); 28% of oxides of nitrogen (NOx); 31% of Volatile Organic Carbon and hydrocarbons (VOC, HC); 58% of sulfur oxides (SOx); 58% of particulate matter greater than 10 micron aerodynamic diameter (PM₁₀); and 66% of PM_{2.5}.⁵ In addition to criteria pollutants, the non-road sector is also a source of toxic air pollutants. Therefore, the effect of non-road sector emissions on ambient air quality substantially exceeds its contribution based on net energy consumption. Moreover, emissions from these sources are released in populous areas increasing human exposure to direct emissions.

Non-road Diesel (National Context): Nationally, the EPA has developed a number of programs to further the development and introduction of emission control technologies for on-road and non-road applications including an environmental technology verification program, and a voluntary program through the National Clean Diesel Campaign to introduce verified retrofits into non-road applications. The EPA and the California Air Resources Board (CARB) through a memorandum of understanding have agreed to reciprocally recognize verified technologies, however, they are not prohibited from requiring compliance with other retrofit program elements or criterion.

In 2004, the EPA promulgated new regulations in CFR Parts 9, 69, et al. entitled, “Control Emissions of Air Pollution from Non-road Diesel Engines and Fuel; Final Rule”. The rule requires new non-road diesel engines starting with the 2008 model year and phasing in over a number of years to reduce particulate matter and oxides of nitrogen by 95% and 90%, respectively. Hence, over time the introduction of these new diesel engines with emission control technologies will greatly reduce these emissions as the existing fleet of equipment is replaced. **However, existing diesel engines and equipment used in non-road applications such as construction equipment have long useful life, and improvements in local ambient air quality may be significantly delayed.**

Non-road Diesel (Other states and countries): Some states such as California have supported the replacement of older diesel engines with newer cleaner engines used in on-road applications, and are engaged in programs to demonstrate the use of retrofits in non-road equipment. In 2007, the CARB approved a regulation to reduce emissions from existing non-road diesel vehicles in construction, mining, and other industries. Beginning in 2010, over successive years, the regulation requires small, medium

² Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Vermont, Virginia, and West Virginia.

³ U.S Department of Energy, Energy Information Agency, State Energy Data System
<http://www.eia.doe.gov/emeu/states/seds.html>

⁴ NYSERDA Clean Diesel Technology: Non-Road Field Demonstration Program – Interim Report, Table 2-1 2002 NYS Non-Road Emissions by Fuel Type, http://www.nysERDA.org/publications/InterimReport_Final_2007-02-09.pdf, and Patterns Trends New York State Energy Profiles: 1993 - 2007 Table 2-12b New York State Net Transportation Consumption of Energy by Fuel Type, http://www.nysERDA.org/energy_information/patterns%20&%20trends%201993-2007.pdf.

⁵ Based on analysis of emission inventory data provided by NYS Department of Environmental Conservation (NYSDEC).

and large fleets to meet successively lower average emission rate targets for oxides of nitrogen and particulate matter.

The Texas Commission on Environmental Quality's (TCEQ) Texas Emission Reduction Plan (TERP) has supported equipment replacement and repowering as well as the deployment of control technologies for on-road and non-road equipment aimed at reducing emissions of oxides of nitrogen. In some cases, the TERP requires grantees to install equipment with global position systems to assess impact on meeting emission reduction goals. The TCEQ's New Technology Research & Development (NTRD) program supports the development of technologies to reduce oxides of nitrogen from non-road diesel equipment used in marine, locomotive, transport and construction.

In Europe: Switzerland, Germany and Austria have adopted mandatory requirements for the use diesel particle filters for all construction equipment. Filter verification started in the 1990's with "VERT"- a program of Swiss and German organizations to curtail emissions at tunnel sites. VERT qualified filters and test protocols are posted on the Swiss Agency for the Environment, Forests, and Landscape (BUWAL) website.

Non-road Diesel (New York State Mandatory and Environmental Performance Commitment Programs): New York State, through the Diesel Emission Reduction Act⁶ (NYSDERA), requires non-exempted heavy duty vehicles that are owned, leased or operated on behalf of the state agencies and other state entities to use ultralow sulfur diesel and best available technologies (BAT) to reduce particulate matter to the greatest extent possible. Most heavy duty construction equipment is, however, exempted under NYSDERA. New York City, through Local Law 77, administered by the NYC Department of Environmental Protection (NYCDEP), requires contractors working on projects funded by the municipality to use BAT as determined by the Department. Several counties in the NYC Metro Area have also done the same. In addition, a number of public authorities such as the Port Authority of New York and New Jersey (PA) and the Metropolitan Transit Authority (MTA), the Lower Manhattan Development Corporation (LMDC), some colleges and universities, such as Columbia, have adopted environmental performance commitments including the use of BAT for construction and other activities as part of contract specifications. These entities, "the NY Interest Group," have advocated for the creation of a Clearinghouse to facilitate decision making in the specifying best available technologies in construction projects in the NYC metropolitan area.

Entity-Approved Best Available Technologies may be considered those certified or verified to remove pollutants (such as particulate matter, volatile organic compounds, oxides of nitrogen) at the highest level possible for a given piece of equipment. Contractors must provide a justification for the use of less effective pollution control devices.

The determination of, or at least acceptance of, best available technology is the responsibility of the individual regulatory agency (i.e., NYCDEP, NYSDEC), County Governments, Public Authorities (such as PA-NYNJ, MTA) or construction contract "owners" with active voluntary policies (i.e., Columbia University). Some will base BAT on EPA/CARB verified/certified technologies while others consider VERT verified filter technologies or even unverified applications. **Hence, non-road BAT for construction equipment are those considered as approved by various regulatory agencies, public authorities or private owners.**

Diesel Retrofit Certification/Verification programs as administered by CARB, EPA, or VERT are designed to determine the performance of control technologies on engine applications using steady state and transient test cycles as new and after 1000 hours of operation (2000 hours under the VERT program).

⁶ www.dec.ny.gov/regulations/47297.html

Time-over-temperature is specified for passively regenerated systems. Hence, BAT/construction equipment application determinations depend on knowledge about control device and the equipment application.

Existing Databases: There are several databases that provide some information on BAT for non-road sources: <http://www.arb.ca.gov/bact/bact.htm>; <http://www.arb.ca.gov/msprog/ordiesel/vdecs.htm>; <http://www.akpf.org/db/> ; <http://www.bafu.admin.ch/luft/00596/06906/index.html?lang=en> ;and <http://www.tercairquality.org/NewTechnologyResearchDevelopmentNTRD/ResearchProjects/DieselDataBaseProject/tabid/757/Default.aspx> , however, these do not provide operational data and are not structured to assist in environmental project management.

Proposed Database Clearinghouse Model: An example relationship diagram can be found on Figure 1 (attached), which was created using MS Access. In developing the Clearinghouse, consideration should be given to open-source software. The Tables and typical fields to be captured are included on this diagram and outlined below. These tables and fields should not be considered all-inclusive. The design of the database should be capable of meeting the needs of a wide variety of stakeholders. Joins and table relationships in Figure 1 are provided for guidance. The database is to be designed as a tool for environmental managers to track equipment in-use at various construction projects. The types of Tables, Fields, Reference tables and Queries include, but are not limited to:

A. Tables and Fields:

- project information (e.g., contract/contractor ID, project name, project sponsors, and site ID/name);
- non-road equipment information (e.g., equipment ID, manufacturer ID, type ID, model year, age, tag numbers, owner, and owner contact information);
- engine information (e.g., type, engine family, manufacturer, tier number, number of cylinders, serial number, and model year);
- retrofit information (e.g., retrofit ID number type, manufacturer, model name and number, regeneration mode);
- retrofit performance (e.g., certified or verified performance or reduction levels, expected energy penalty, expected life, maintenance cycle);
- retrofit to equipment “Fit” details (installation and removal dates, installation and equipment cost, serial number details, and maintenance cost);
- equipment tracking (e.g., location, site name, project name, start and end dates); and
- BAT approval and inspection information (e.g., approvals of “Fits,” date of expiration (assumes BAT lasts for 3 years), and approval sticker numbers.

In-use performance data that can be tracked include:

- equipment usage hours of operation (e.g., project specific, and/or cumulative hours);
- equipment fuel consumption;
- maintenance history (e.g., type and actual event); and
- operational issues (e.g., start-up, power levels, and work performance).

Potentially, in-use activity, performance and emission data may be gathered, including:

- duty cycle characterizations (qualitative or quantitative descriptions such as power/activity profile);
- time over temperature with respect to duty cycles;
- activity data (e.g., idle hours, total hours in-use, miles, percent idling, and percent time at

- various loads ; and
- in-use emission factor data.

B. Reference Tables: It is anticipated that the database will include the following reference/look up tables:

- Established lists of verified emissions reduction equipment from CARB, EPA and VERT;
- Verified emission reduction percentages for after-treatment devices;
- Off road engine families, models, and manufacturers;
- Engine tier ratings, and emissions factors;
- Conversion factors, units and default assumptions for emissions calculations when actual data such as run-time (hours) and fuel consumption data are not available; and.
- Any other data that lends itself to the creation of reference tables.

C. Queries:

A set of queries to be pre-established are described below. Again, these queries should not be considered all-inclusive, but provide some general concepts of the data and calculation needs. The ability to create custom queries is also expected, as are exporting and reporting capabilities.

- Baseline emissions per pollutant (CO, HC, NMHC+NO_x, NO_x, PM, CO₂) for example, per equipment, project, site, contract, or other parameter. For emissions calculation, the solution verifies the accuracy of Tier level by evaluating horsepower, model year and 2/4 strokes. With accurate designations of engine Tier levels, baseline emission inventories can be calculated using Tier-specific emissions factors, actual run time hours or fuel consumption, or made using default assumptions of work hours.
- Post-retrofit emissions per pollutant per equipment, project, site, contract, etc:
 - Utilizes CARB/EPA/VERT verified percent reduction numbers for specific retrofit devices
 - Indicates whether the tail pipe device is specifically verified for that engine family.
- Overall emissions reductions generated by retrofitting or other strategies (Baseline minus Retrofitted) per pollutant per equipment, project, site, contract, etc.
- BAT fit expirations.

Data Population: Existing data records from the NY Interest Group will also be migrated into the Clearinghouse. These are “flat file” spreadsheet inventories that may require extensive verification, manual data entry, or processing to import. Examples can be found in Figures 2A & 2B, (attached).

For future data population, the Proposer will need to develop a means that provides both ease of entry and accuracy of inputted data. Examples of possible routines include:

- Electronic Data Deliverable (EDD) structure that can be imported into the Clearinghouse database after being examined for accuracy of technical content. This structure can then be supplied to contractors for population and delivery as a contract submittal
- Easy to use data entry forms including drop down menus for the selection of information from controlled vocabularies where applicable.
- A wizard driven system, where applicable, drawing in horsepower, model year and 2/4 strokes to

select accurate engine Tier assignments

The on-going population of the Clearinghouse may be called for by the NY Interest Group, because it is key to expanding the reach and user base of the Clearinghouse. A web interface will allow access to the Clearinghouse. Bandwidth should be adequate to accommodate 100 concurrent users. The Clearinghouse database and its admin/security should allow power users to create custom queries, track usage, assign rights and manage accounts through the web interface.

III. PROGRAM REQUIREMENTS

Clearinghouse Development, Testing, and Marketing Services

Specific Requirements: In addition to meeting the project goals and objectives defined previously, the proposer will be responsible for providing a strategy to expand and sustain the Clearinghouse for its useful life beyond NYSERDA's possible 3-year support. The proposer should engage stakeholders beyond the NY Interest Group in developing provisional Clearinghouse protocols. Protocols and procedures need to be developed that address Clearinghouse access, data importing, data quality assurance, and data quality standards. A balance needs to be maintained between expanding data entry privileges, third party quality control and self policing. A committee structure should be considered as a means to expand opportunities for stakeholder involvement to address the diversity of perspectives.

The proposer should develop milestones to assess the achievement of project objectives, and provide a budget management strategy to allow NYSERDA's project manager to re-allocate resources across project tasks, if necessary. The proposer will be required to operate the Clearinghouse for NYSERDA for a two-year period making provision to allow transfer of management to another entity, if necessary. Once information on the use of entity-approved BAT in construction projects is coalesced in NYS, a descriptive report should be produced that describes the prevalence of BAT technology by equipment application. The Contractor will be responsible for developing means to convey the value of the Clearinghouse to database users and using this as a tool to expand stakeholder interest.

The selected Contractor will be required to grant NYSERDA a license to use, modify, distribute and permit others to use, modify and distribute all software and other materials developed as part of the development, operation and maintenance of the CD-Clearinghouse.

Proposer Qualifications: The proposer should provide sufficient background for NYSERDA to judge proficiency in all aspects of work outlined in the Statement of Work, and particularly in managing stakeholder involvement leading to the development of consensus on technical/policy issues. Potential stakeholders include the EPA Office of Transportation & Air Quality (OTAQ), Regional Diesel Collaborative organizations, state and local energy and air quality or regulatory agencies, manufacturers of emission control equipment, engine and equipment manufacturers, environmental groups and national/international associations such as the Association of General Contractors and American Association of Port Authorities, etc. Proposers should convey a solid understanding of issues at play in building a useful Clearinghouse, explaining the impediments and barriers and how they may be overcome or converted into strengths. Proposals must include 2 brief examples how principle team member's experience has been employed to address similar issues in other areas. The proposer does not have to have an interest in operating the clearinghouse long term.

Budget: A maximum of \$500,000 of NYSERDA funds is anticipated to be available for this project.

IV. PROPOSAL REQUIREMENTS

Proposers must submit one electronic copy as a pdf file and twelve (12) copies of the completed proposal the address on the front of this Request for Proposals. A completed and signed Proposal Checklist (Attachment A) must be attached as the front cover of each proposal, one of which must contain an original signature. **Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist will be returned.** Faxed or e-mailed copies will not be accepted.

Proposals should not be excessively long or submitted in an elaborate format that includes expensive binders or graphics. Unnecessary attachments beyond those sufficient to present a complete, comprehensive, and effective response will not influence the evaluation of the proposal. Suggested page limits are offered for each of the sections of the proposal. Each page of the proposal should state the name of the proposer, the RFP number, and the page number. The proposal must be in the following format:

- **Proposal Checklist**
- **Procurement Lobbying Requirements - State Finance Law sections 139-j and 139-k**

Procurement lobbying requirements contained in State Finance Law sections 139-j and 139-k became effective on January 1, 2006. (The text of the laws is available at: <http://www.ogs.state.ny.us/aboutogs/regulations/advisoryCouncil/StatutoryReferences.html>). In compliance with §139-j and §139-k of the State Finance Law, for proposals submitted in response to this solicitation that could result in agreements with an annual estimated value in excess of \$15,000, an additional form (or forms) must be completed and filed with proposals: (1) a signed copy of the Proposal Checklist including required certifications under the State Finance Law and (2) a completed Disclosure of Prior Findings of Non-Responsibility form. Failure to include a signed copy of the Proposal Checklist referenced in this solicitation will disqualify your proposal.

- **Proposer Background, Qualifications and Experience (2 - 5 pages maximum excluding short biographical summaries and business/academic information)**

What type of organization are you (e.g., not-for-profit, for-profit, marketing, evaluation, educational/academic, and/or other (specify).

Describe the business activity, approximate size and experience of your organization.

Describe how the proposed project fits into your portfolio of ongoing work.

List key personnel and areas of expertise (include 1-page resumes for key personnel as an appendix).

Describe the most important features and possible functions the Clearinghouse can provide, and explain how this translates into building stakeholder interest and participation.

Describe the chief barriers and weaknesses of the Clearinghouse as conceived in this program and discuss how these barriers and weaknesses can be overcome, mitigated, or converted into strengths.

Describe what strategy you would take to establish an ongoing business or non-profit operation with public support. What are the milestones that need to be accomplished for this strategy to succeed?

What features of the described database model, if any, would you change for the better – how and why.

Describe how team member experience and expertise are aligned with the goals and objectives of the program and well matched to the activities outlined in the Scope of Work. Selected additional business and professional background information such as resumes may be included as Appendices.

- **Examples of Experience and References (3 pages maximum)**

Provide examples of two (2) related projects with references you and each team member have been engaged in that are comparable to the activities outlined in the Statement of Work. These examples should be summarized briefly and should not exceed more than 2 pages. Electronic links to full reports, if available, are encouraged.

Provide references; names, email address, and phone numbers for each of the projects listed.

- **Statement of Work (5 pages maximum)**

These tasks are provided as a starting point and should be adjusted to better represent your vision of the project. Where appropriate describe key milestones or project deliverables. Identify procedures you plan to use to ensure strict oversight of team members' work and quality control.

- 1. Clearinghouse Database: Data Review, Design, Management, and Data Collection**

The Contractor, in consultation with NYSERDA Project Manager, shall:

Review non-road/retrofit data inventories currently held by the NY Interest Group.

Design, create and establish a web-based data base platform.

Host and publish a preliminary dataset to demonstrate functionality of the website for review by NYSERDA Project Manager and representatives of the NY Interest Group.

Develop an advisory panel structure to provide for facilitate stakeholder involvement, beyond the NY Interest Group, on refining Clearinghouse design, operation, and management issues. Clearinghouse issues to be considered, include but are not limited: how to administer quality control and assurance of database content based on a diversity of database users and contributors; defining commonly used queries and reports; should there be different levels of privileges regarding data entry and data retrieval based on the class of clearinghouse user; to what extent are data publicly available or restricted; how can the clearinghouse be designed to allow for sharing information on best clean construction environmental management practices, new fuel blends, electrification, use of best available emission control technology as well as idle reduction technologies; and how should the Clearinghouse be designed to allow for expansion beyond the focus of construction equipment to other non-road sector equipment.

Develop forms and data transfer templates to allow transfer of data to the Clearinghouse. Establish best strategies to populate the Clearinghouse database by stakeholders on an on-going basis, including specific data import protocols/deliverables, and utilization of controlled vocabularies with look up tables referenced to established data sources, such as EPA's engine tier system, as well as California Air Resources Board (CARB), EPA, and European certified and/or verified emission control technology lists.

Gather and quality assure data to populate the Clearinghouse, working initially with entities in New York State to populate the data base. NYS entities include, but not limited to, PA, Federal Transportation Agency (FTA) sponsored Lower Manhattan Construction with activity related data managed by the

Lower Manhattan Construction Command Center (LMCCC), NYS Department of Transportation (DOT), the Metropolitan Transit Authority (MTA), Columbia University, the New York City Department of Environmental Protection (NYCDEP), the New York State Department of Environmental Conservation (DEC), New York City Office of Sustainability, as well counties such as counties in outside of New York City including Nassau, Rockland, Suffolk and Westchester Counties that have passed laws requiring the use of Best Available Control Technologies for county-funded construction projects.

Explore and incorporate in-use activity and emissions data from public sources that supports finding appropriate matches of control technologies to construction equipment. Develop a simplified scheme to relate construction equipment work activities in construction parlance with engineering metrics of work activity. Engage construction equipment and emission control technology manufacturers and encourage sharing activity and performance data that allow equipment owners and environmental managers to more easily make best available technology determinations.

2. Expand Stakeholder Involvement

The Contractor, in collaboration with NYSERDA Project Manager, shall:

Develop a plan describing activities over the duration of the project that builds on the advisory panel structure in Task 1 to expand potential stakeholder involvement nationally and internationally, if warranted. The goal of this task to deepen the information to be found on the Clearinghouse regarding the use of retrofit emission control technologies in non-road construction equipment as well as clean construction best management practices from a broad range of potential stakeholders . This is necessary to create conditions that may sustain Clearinghouse activity without further NYSERDA support in the future.

In addition to the entities implementing the use of Best Available Emission Control technology on construction equipment and Best Management Practices for Clean Construction in New York State the Contractor shall widen Stakeholders (information users and/or providers) including, but not limited to: USEPA; Regional Diesel Collaborative(s); State and Local Air Quality or Regulatory Agencies; Port Authorities, Manufacturers of Emission Controls; Engine and Equipment Manufacturers; Equipment rental firms; National and local associations representing these as well as affected groups and interested parties such as Environmental Advocacy Groups, Association of General Contractors, the American Association of Port Authorities (AAPA-Ports).

In developing a plan consideration shall be given to conducting information sharing meetings for interested parties via web-conferencing or via workshops at topical conference venues such as the U.S. Department of Energy's (DOE's) Directions in Engine Efficiency and Emissions Research Conference (DEER), Air & Waste Management Association Annual conference and or the Coordinating Research Council (CRC) On-Road Diesel Emission Workshop.

Note: non-road equipment manufacturers and control technology vendors have access to equipment duty cycle information e.g., load duration curves, time at idle, time over temperature curves for non-road construction equipment applications, which would help reduce the uncertainty in finding appropriate pairings of emission control technology and construction equipment.

The Contractor shall assess the value of incorporating data from other databases including, but not limited to: the Texas Commission on Environmental Quality database managed by the Houston Advanced Research Center (TCEQ/HARC); CARB emission control certification program database; the EPA Environmental Verification Program database; and the Association of European Diesel Particle Filter

Manufacturers (AKPF) database of diesel particle filter applications and estimate the effort needed to incorporate these data.

3 Evaluate the Clearinghouse value to NYS users

The Contractor in collaboration with the NYSERDA Project Manager shall develop a plan to assess the value of the Clearinghouse to users implementing use of best available technology including, but not limited to:

- Evaluating the reduction in time/cost of decision making;
- Evaluating the extent change order premiums are eliminated; and
- Evaluating the usefulness of Clearinghouse data to improve emission inventory estimates.

The plan should describe the data to be sought, how these data are to be collected and how these data would be analyzed.

The Contractor shall develop a plan to assess the incremental cost and the cumulative effect of implementing mandatory and voluntary best available control technology programs in NYS has had on reducing emissions of priority pollutants.

Based on approval of the NYSERDA Project Manager, the Contractor shall conduct the activities outlined in these plans and provide a report that describes the methodology and results.

4. Undertake Strategy to Build a Sustainable Clearinghouse Web Service

The Contractor shall:

- Refine the strategy proposed to build a sustainable Clearinghouse
 - ◆ Describe the business model envisioned to sustain the operation of the Clearinghouse for the long term;
 - ◆ Compare and contrast envisioned Clearinghouse financial requirements to what is known of existing commercial and not-for-profit information sharing web-sites that serve emission control, air quality and diesel-related technology communities;
 - ◆ Identify strategic partners whose support is needed to sustain the Clearinghouse;
 - ◆ Outline the steps that need to be taken and the milestones that need to be achieved in the refined strategy; and
 - ◆ Provide updates to the NYSERDA for review and consideration describing progress and refinements made to building a sustainable Clearinghouse on a monthly basis.
- Undertake steps outlined in the refined strategy
 - ◆ Based on the results of Task 1, 2, 3 and 4 prepare an assessment by month-12 and month-18 of the progress made in attaining a sustainable Clearinghouse beyond NYSERDA support. The assessment should characterize what are the strongest features of Clearinghouse, what is the level of interest in and support of the Clearinghouse beyond the NY Interest Group, who are the most supportive stakeholders and what does this imply for establishing support for the Clearinghouse in the long term, and identify what are greatest weaknesses of Clearinghouse that stand in the way of its future.

- ◆ Provide the assessment to the NYSERDA Project Manager for review and consideration.
- Develop milestone budgets to cover the cost of transferring operation of the Clearinghouse to other website operators including setting up, testing and transferring database content.
 - ◆ Provide milestone budgets as described to the NYSERDA Project Manager for review and consideration.

- **Budget**

Complete and attach the Contract Pricing Proposal Form (CPPF) to show how the total project budget for consulting services will be spent per year over a two year period in accordance with the accompanying “Instructions for Preparation of Cost Estimates.” Proposers may also propose alternate CPPFs to show how the total budget for consulting services will be spent per year over a period greater than two years considered by the proposer to better utilize NYSERDA funds to build a sustainable clearinghouse web service. The budget should state the number of hours of work for each staff person that would be completed under a budget capped at \$500,000 of NYSERDA funds.

Travel budgets should be identified, with number of roundtrips listed.

For each subcontractor receiving more than \$10,000 in expected costs, a separate CPPF should be included.

Provide a Task/Hour matrix that estimates the labor hours for each task by each team member.

Provide a Task budget matrix that estimates the overall costs by Contractor and subcontractor associated for each task.

- **Cost Sharing**

Cost Sharing - Cost sharing is not a requirement for eligibility, but is encouraged and will be included in part as an evaluation criterion. Cost-sharing can be from the proposer, other team members, or government, institutional or private sources. Contributions of direct labor (for which the laborer is paid as an employee) and purchased materials may be considered "cash" contributions. Unpaid labor, indirect labor, or other general overhead may be considered "in-kind" contributions. NYSERDA will not pay for efforts which have already been undertaken. The proposer or proposing team cannot claim as cost-share any expenses that have already been incurred. Show the cost-sharing plan in the following format (expand table as needed):

	Cash	In-Kind Contribution	Total
NYSERDA	\$	\$	\$
Proposer	\$	\$	\$
Others (list individually)	\$	\$	\$
Total	\$	\$	\$

Attach supporting documentation to support indirect cost (overhead) rate(s) included in your proposal as

follows:

1. Describe the basis for the rates proposed (i.e., based on prior period actual results; based on projections; based on federal government or other independently-approved rates).
2. If rate(s) is approved by an independent organization, such as the federal government, provide a copy of such approval.
3. If rate(s) is based on estimated costs or prior period actual results, include calculations to support proposed rate(s). Calculations should provide enough information for NYSERDA to evaluate and confirm that the rate(s) are consistent with generally accepted accounting principles for indirect costs.

NYSERDA reserves the right to audit any indirect rate presented in the proposal and to make adjustments for such differences between actual and projected indirect rates. Requests for financial statements or other needed financial information may be made if deemed necessary.

V. PROPOSAL EVALUATION

Proposals that meet Proposal requirements will be reviewed by a Technical Evaluation Panel (TEP) using the Evaluation Criteria below.

Proposer Understanding & Creativity

- Does the proposer(s) demonstrate the creativity, understanding and insight needed in working with stakeholders in building a useful and sustainable web-based information Clearinghouse?
- Does the proposer(s) articulate a persuasive case for the best way of building wide stakeholder involvement/support for a Clearinghouse as described in this solicitation?
- Does the proposer(s) demonstrate a superior understanding and insight as to how identified barriers or limitations to the Clearinghouse can be minimized or overcome?
- Does the proposed Statement of Work adequately address the program Requirements?

Proposer Qualifications

Does the proposer(s) have the relevant and necessary qualifications, background, and experience in:

- consortium and consensus building;
- database design & management;
- non-road equipment operation and use; and
- emission-control technology needed to build, refine and operate the Clearinghouse as described in this solicitation?

Project Team Coordination & Cost Sharing

- Does the proposer(s) demonstrate resourcefulness, cooperation and team work based on past experience?
- Does the proposer(s) offer unique resources and/or cost sharing to support the overall effort?

VI. GENERAL CONDITIONS

Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes. The NYS Freedom of

Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(2) (d) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted to NYSERDA that the proposer wishes to have treated as proprietary and confidential trade secret information, should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to except it from disclosure, including a written statement of the reasons why the information should be excepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 www.nyserda.org/about/nyserda.regulations.pdf. However, NYSERDA cannot guarantee the confidentiality of any information submitted.

Omnibus Procurement Act of 1992 - It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises, as bidders, subcontractors, and suppliers on its procurement Agreements.

Information on the availability of New York subcontractors and suppliers is available from:

Empire State Development
Division for Small Business
30 South Pearl Street
Albany, NY 12245

A directory of certified minority- and women-owned business enterprises is available from:

Empire State Development
Minority and Women's Business Development Division
30 South Pearl Street
Albany, NY 12245

State Finance Law sections 139-j and 139-k - NYSERDA is required to comply with State Finance Law sections 139-j and 139-k. These provisions contain procurement lobbying requirements which can be found at <http://www.ogs.state.ny.us/aboutogs/regulations/advisoryCouncil/StatutoryReferences.html>

The attached Proposal Checklist calls for a signature certifying that the proposer will comply with State Finance Law sections 139-j and 139-k and the Disclosure of Prior Findings of Non-responsibility form includes a disclosure statement regarding whether the proposer has been found non-responsible under section 139-j of the State Finance Law within the previous four years.

Tax Law Section 5-a - NYSERDA is required to comply with the provisions of Tax Law Section 5-a, which requires a prospective contractor, prior to entering an agreement with NYSERDA having a value in excess of \$100,000, to certify to the Department of Taxation and Finance (the "Department") whether the contractor, its affiliates, its subcontractors and the affiliates of its subcontractors have registered with the Department to collect New York State and local sales and compensating use taxes. The Department has created a form to allow a prospective contractor to readily make such certification. *See*, ST-220-TD (available at http://www.nystax.gov/pdf/2007/fillin/st/st220td_507_fill_in.pdf). Prior to contracting with NYSERDA, the prospective contractor must also certify to NYSERDA whether it has filed such certification with the Department. The Department has created a second form that must be completed by a prospective contractor prior to contacting and filed with NYSERDA. *See*, ST-220-CA (available at http://www.nystax.gov/pdf/2007/fillin/st/st220ca_507_fill_in.pdf). The Department has developed guidance for contractors which is available at http://www.tax.state.ny.us/pdf/publications/sales/pub223_606.pdf.

Contract Award - NYSEDA anticipates making one (1) award under this solicitation. It may award a contract based on initial applications without discussion, or following limited discussion or negotiations. Each offer should be submitted using the most favorable terms. The budget that has been allocated represents NYSEDA's best estimate of the cost to deliver the specified activities. Proposals will not receive points for offering to deliver the specified activities under the budget amount allocated. NYSEDA may request additional data or material to support proposals. NYSEDA will use the Sample Agreement to contract successful proposals. NYSEDA expects to notify proposers in approximately 8 weeks from the May 11th, due date whether your proposal has been selected to receive an award.

Limitation - This solicitation does not commit NYSEDA to award a contract, pay any costs incurred in preparing a proposal, or to procure or contract for services or supplies. NYSEDA reserves the right to accept or reject any or all proposals received, to negotiate with all qualified sources, or to cancel in part or in its entirety the solicitation when it is in NYSEDA's best interest.

Disclosure Requirement - The proposer shall disclose any indictment for any alleged felony, or any conviction for a felony within the past five years, under the laws of the United States or any state or territory of the United States, and shall describe circumstances for each. When a proposer is an association, partnership, corporation, or other organization, this disclosure requirement includes the organization and its officers, partners, and directors or members of any similarly governing body. If an indictment or conviction should come to the attention of NYSEDA after the award of a contract, NYSEDA may exercise its stop-work right pending further investigation, or terminate the agreement; the contractor may be subject to penalties for violation of any law which may apply in the particular circumstances. Proposers must also disclose if they have ever been debarred or suspended by any agency of the U.S. Government or the New York State Department of Labor.

VIII. ATTACHMENTS:

Attachment A - Proposal Checklist
Attachment B - Disclosure of Prior Findings of Non-Responsibility
Attachment C - Contract Pricing Proposal Form
Attachment D - Sample Agreement
Figures 1, 2A & 2B



NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

ATTACHMENT A - RFP No.1666 PROPOSAL CHECKLIST (MANDATORY)

Proposal Title		Due Date	
Primary Contact (Prime Contractor)		Title	
Company		Phone	Fax
		e-mail	
Federal Tax Identification #/Social Security			
Address	City	State or Province	Zip
Secondary Contact		Title	
Company		Phone	Fax
		e-mail	
Address	City	State or Province	Zip
<p>THE PRIME CONTRACTOR MUST SIGN THIS FORM BELOW and ANSWER THE FOLLOWING QUESTIONS:</p> <p>Do you accept all Terms & Conditions in the Sample Agreement? (if no, explain on separate pg) ___ Yes ___ No (NYSERDA anticipates considering only specifically listed exceptions in negotiations.)</p> <p>Have you been indicted/convicted for a felony within the past 5 years? (if yes, explain on separate pg) ___ Yes ___ No</p> <p>Are you a Minority or Women-Owned Business Enterprise? ___ Yes ___ No</p> <p>Does your proposal contain Minority or Women-Owned Business enterprises as subcontractors? ___ Yes ___ No</p> <p>Are you submitting the required number of copies? (See proposal instructions.) ___ Yes ___ No</p> <p>Is other public funding pending/awarded on this and/or very similar topic (prior and/or competing proposals)? ___ Yes ___ No (if yes, explain on separate page)</p>			
ON WHAT PAGE IN YOUR PROPOSAL CAN THESE ITEMS BE FOUND?			
Background (organization type, business activity , size, experience, and project fit) ___ Qualifications (key personnel and areas of expertise) ___ Insights on Clearinghouse features/functions in relation to building stakeholder interest. ___ Insights on overcoming Clearinghouse weaknesses/barriers. ___ Clearinghouse strategy and milestone description. ___ Alignment of team member experience with goals and objectives. ___ Examples of Experience and references. ___ Statement of Work ___ Completed and signed contract pricing proposal form(s) ___ - 2 year ___ - Alternate (if applicable, not required) ___		Cost sharing ___ Appendices: ___ Resumes ___ Indirect cost documentation ___ Letters of commitment from all participating organizations ___ Indictment/Conviction of Felony (if applicable) ___ NYSERDA Contracts Awarded (if applicable) ___ Prior and/or Competing Proposals (if applicable) ___ Exceptions to Terms & Conditions (if applicable) ___ Disclosure of Prior Findings of Non-responsibility Form ___	
AUTHORIZED SIGNATURE & CERTIFICATION			
<p>I certify that the above information, and all information submitted in connection with State Finance Law §139-j and §139-k, is complete, true, and accurate, and that the proposal requirements noted have been completed and are enclosed. I affirm that I understand and will comply with NYSEDA's procedures under §139-j(3) and §139-j(6)(b) of the State Finance Law. I understand that this proposal may be disqualified if the solicitation requirements are not met. I the undersigned am authorized to commit my organization to this proposal.</p>			
Signature		Name	
Title		Organization	
Phone			



NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

NOTE: This completed form **MUST** be signed and attached to the front of all copies of your proposal.



Attachment B
Disclosure of Prior Findings of Non-responsibility Form
(Mandatory)

Name of Individual or Entity seeking to enter the procurement contract:
Address:
Date:
Solicitation or Agreement Number:
Name and Title of Person Submitting this Form:
Has any Governmental Entity made a finding of non-responsibility regarding the Individual or Entity seeking to enter the Procurement Contract in the last four years? (Please indicate with an "X")
Was the basis for the finding of non-responsibility due to due to a violation of §139-j of the State Finance Law? (Please indicate with an "X")
Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please indicate with an "X")
If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.
Government Agency or Authority:
Date of Finding of Non-responsibility:

Basis of Finding of Non-responsibility: (Add additional pages as necessary)

Has any Government al Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named Individual or Entity due to the intentional provision of false or incomplete information ? (Please indicate with an "X") (Please indicate with an "X")		Yes
		No

If you answered yes, please provide details below.

Government Agency or Authority:

Date of Termination or Withholding of Contract:

Basis of Termination or Withholding: (Add additional pages as necessary)

Offerer certifies that all information provided to NYSERDA with respect to State Finance Law §139-k is complete, true, and accurate.

By: _____ Date: _____
Signature

Name: _____ Title: _____



NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY
Attachment C - Contract Pricing Proposal Form

New York State Energy Research and Development Authority Contract Pricing Proposal Form			Solicitation/Contract No.	Page	
Contractor:			Name of Proposed Project:		
Address:					
Location (where work is to be performed):			NYSERDA funding:		
			Total Project Cost:		
Cost Element			Total Project Cost	Funding & Co-funding via NYSERDA	Cost-sharing & Other Co-funding
1. Direct Materials					
a. Purchased Parts					
b. Other					
Total Direct Materials					
2. Materials Overhead			Rate:		
3. Direct Labor (specify names/titles)			Hours	Rate/hr	
Total Direct Labor					
4. Labor Overhead			Rate %	\$ Base	
Total Labor Overhead					
5. Outside Special Testing					
6. Equipment					
7. Travel					
8. Other Direct Costs					
9. Subcontractors/Consultants					
Total Subcontractors/Consultants					
10. General & Administrative Expense			Rate %	Element(s)	
11. Fee or Profit (If allowable) Rate:					
12. Total Estimated Project Cost					
This proposal reflects our best estimates as of this date, in accordance with the instructions to proposers.					
Typed Name and Title:			Signature:		Date:

Has any executive agency of the U.S. government performed any review of your records in connection with any prime contract or subcontract within the past twelve months? ____ Yes ____ No
 If yes, identify:

Supporting Schedule - Contract Pricing Proposal Form		
Element No.	Item Description	Amount

INSTRUCTIONS FOR PREPARATION OF COST ESTIMATE

Your cost proposal may be the basis of contract negotiation; it should be specific and complete in every detail. Supporting schedules (as described in Section B) providing the basis for your estimates must be provided.

A. GENERAL

The schedule must be submitted on NYSERDA's Contract Pricing Proposal Form.

B. INSTRUCTIONS AND DESCRIPTION OF REQUIRED SUPPORT DETAIL

(Title each supporting schedule and cross-reference it to the item number on the Contract Pricing Proposal Form)

1a. DIRECT MATERIALS - PURCHASED PARTS

Provide the following information for each proposed item with an estimated unit cost in excess of \$15,000.

- o Description of item
- o Proposed vendor
- o Quantity needed
- o Unit cost
- o Basis for cost (i.e., catalog, prior purchase, quote, etc.)
- o Total cost
- o Evidence of a competitive selection process in accordance with the requirements of the Subcontract Procedures section of the attached Sample Agreement.

1b. OTHER DIRECT MATERIALS

In accordance with the requirements of the Subcontract Procedures section of the attached Sample Agreement, for all items in excess of \$5,000, provide whatever information would be necessary to understand what is being obtained, how it is being obtained, what it will cost and how the estimated cost was determined with justification for all items.

2. MATERIALS OVERHEAD (also applicable to other Indirect Rate categories: 4. LABOR OVERHEAD and 10. G&A EXPENSE)

- o If Government-approved indirect rates are proposed, then supply a copy of an appropriate Government document verifying those rates.
- o If Government-approved rates are not proposed, supply the following, unless previously provided, for the years comprising the proposed period of contract performance.
 - o A description (chart or other) of the organization of the indirect cost center.
 - o The budget of indirect costs, by account, for each proposed indirect expense rate.
 - o The budget for the base, for each proposed rate, (direct labor dollars, hours, costs, etc.) itemized as to contract hours or costs, research and development hours of costs, and any other direct base effort.
 - o Actual incurred rates for the prior three years, including actual base and pool amounts.

3. DIRECT LABOR

- a. Commercial Enterprises

- (1) Attach supporting schedules showing:
 - o Each category or type of labor being estimated
 - o Applicable labor rates per hour (straight-time)
- (2) Explain the method used for computing the rates (i.e., actual of an individual, actual average of a category or other grouping, etc.) Also identify any proposed labor escalation and the bases for it.

b. Educational Institutions

Provide the following for each calendar year of the contract:

- (1) For individuals not on an "actual hours worked" basis:
 - o individual's name
 - o annual salary and the period for which the salary is applicable (preferably in weeks)
 - o the proportionate time to be charged to this effort.
- (2) For individuals who maintain time records as the basis for charging costs, supply the detail as requested in Instructions 3(a)(1)

4. LABOR OVERHEAD (Same as Instructions for 2. MATERIALS OVERHEAD)

5. OUTSIDE SPECIAL TESTING

- a. Describe the effort.
- b. Provide the units of time (hours, days, weeks), cost rates, and the vendor.
- c. In accordance with the requirements of the Subcontract Procedures section of the attached Sample Agreement, provide the basis for selection of the vendor. Identify M/WBE vendors contacted for quotes and if none, explain why. Explain and justify the basis for any non-competitive selection.

6. EQUIPMENT

Capability to perform the work with existing facilities and equipment is assumed. It is NYSERDA's policy not to compensate for general purpose facilities or equipment. If some special purpose items are needed solely for this contract and are not available by other means (contractor assets, lease, etc.), then provide the following information for each item of required equipment.

- o vendor
- o model number
- o quantity
- o competitive selection process
- o unit cost and source of cost/price (i.e., quote, catalog, purchase history)
- o description of the use or application (NYSERDA dedicated, contract dedicated, other)

7. TRAVEL

- a. NYSERDA will accept as a direct charge only that travel required to perform the statement of work.
- b. Attach a schedule indicating the need for the proposed travel, the estimated number of person-trips required, destinations, mode and cost of transportation, and number of days subsistence per trip for each destination.
- c. Identify and support any other special transportation costs required in the performance of this project.

8. OTHER DIRECT COSTS

- a. Identify the type of cost (i.e. postage, telephone, publications, graphics, etc.)
- b. Provide cost details for the amounts estimated (hours or units, rates, etc.)
- c. If any internal service center rates are applied, provide details similar to that required in Instruction #B.
- d. For computer costs identify the make, model and type of computer, hours of service and appropriate rates, and whether the machine is company owned or leased.

9. SUBCONTRACTORS/CONSULTANTS

- a. Explain the specific technical area in which such service is to be used and identify the contemplated consultants.
- b. State the number of days and the hours per day of such service estimated to be required and the consultant's quoted rate per day. Document when/where the consultant has received the proposed rate in performing similar services for others.

10. GENERAL & ADMINISTRATIVE (G&A) EXPENSE (Same as instructions for 2. MATERIALS OVERHEAD)

11. FEE OR PROFIT

List the rate proposed for profit. No fee or profit is allowed under product development, demonstration or other certain cost-sharing projects.

Agreement No.:
Amount:
Type: **Cost-Sharing**

Agreement

Agreement dated this ___ day of _____, ___ by and between the **NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY** ("NYSERDA"), a New York public benefit corporation having its principal office and place of business at 17 Columbia Circle, Albany, New York 12203-6399, and **Contractor** having its principal office and place of business at _____ (the "Contractor").

In consideration of the premises and of the mutual covenants and agreements hereinafter set forth, the parties do hereby agree as follows:

Article I

Definitions

Section 1.01. Definitions. Unless the context otherwise requires, the terms defined below shall have, for all purposes of this Agreement, the respective meanings set forth below, the following definitions to be equally applicable to both the singular and plural forms of any of the terms defined.

(a) General Definitions:

Agreement: This Agreement and Exhibits A, B, C, and D hereto, all of which are made a part hereof as though herein set forth in full.

Budget: The Budget set forth in Exhibit A hereto.

Contract Administrator: NYSERDA's Director of Contract Management, Cheryl L. Earley, or such other person who may be designated, in writing, by NYSERDA.

Effective Date: The effective date of this Agreement shall be the date in the first paragraph of page one, above.

Final Report: The Final Report required by the Statement of Work hereof.

Person: An individual, a corporation, an association or partnership, an organization, a business or a government or political subdivision thereof, or any governmental agency or instrumentality.

Progress Reports: The Progress Reports required by the Statement of Work hereof.

Statement of Work: The Statement of Work attached hereto as Exhibit A.

Subcontract: An agreement for the performance of Work by a Subcontractor, including any purchase order for the procurement of permanent equipment or expendable supplies in connection with the Work.

Subcontractor: A person who performs Work directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor) but not including any employees of the Contractor or the Subcontractors.

Work: The Work described in the Exhibit A (including the procurement of equipment and supplies in connection therewith) and the performance of all other requirements imposed upon the Contractor under this Agreement.

(b) Data Rights and Patents Definitions:

Contract Data: Technical Data first produced in the performance of the contract, Technical Data which are specified to be delivered under the contract, or Technical Data actually delivered in connection with the contract.

Practical Application: To manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system, and under conditions which indicate that the benefits of the invention are available to the public on reasonable terms.

Proprietary Data: Technical Data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:

- (i) are not generally known or available from other sources without obligation concerning their confidentiality;
- (ii) have not been made available by the owner to others without obligation concerning its confidentiality; and
- (iii) are not already available to NYSERDA without obligation concerning their confidentiality.

Subject Invention: Any invention or discovery of the Contractor conceived or first actually reduced to practice in the course of or under this Agreement, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented, under the Patent Laws of the United States of America or any foreign country.

Technical Data: Recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental or developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents or computer software (including computer software programs, computer software data bases, and computer software documentation). Examples of Technical Data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical Data as used herein does not include financial reports, cost analyses, and other information incidental to contract administration.

Unlimited Rights: Rights to use, duplicate, or disclose Contract Data, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

Article II

Performance of Work

Section 2.01. Manner of Performance. Subject to the provisions of Article XII hereof, the Contractor shall perform all of the Work described in the Statement of Work, or cause such Work to be performed in an efficient and expeditious manner and in accordance with all of the terms and provisions of this Agreement. The Contractor shall perform the Work in accordance with the current professional standards and with the diligence and skill expected for the performance of work of the type described in the Statement of Work. The Contractor shall furnish such personnel and shall procure such materials, machinery, supplies, tools, equipment and other items as may reasonably be necessary or appropriate to perform the Work in accordance with this Agreement.

Section 2.02. Project Personnel. It is understood and agreed that Mr./Ms. _____ shall serve as Project Director and as such shall have the responsibility of the overall supervision and conduct of the Work on behalf of the Contractor and that the persons described in the Statement of Work shall serve in the capacities described therein. Any change of Project Director by the Contractor shall be subject to the prior written approval of NYSERDA. Such approval shall not be unreasonably withheld, and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval by NYSERDA, the requested change in Project Director shall be considered approved. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to 180 days.

Article III

Deliverables

Section 3.01. Deliverables. All deliverables shall be provided in accordance with the Exhibit A Statement of Work.

Article IV

Compensation

Section 4.01. Cost-Sharing. It is understood and agreed that NYSERDA and the Contractor are sharing the costs for the Work to be performed. In consideration for this Agreement and as full compensation for NYSERDA's share of the costs for the performance of all Work, and in respect of all other direct and indirect costs, charges or expenses incurred in connection therewith, NYSERDA shall pay to the Contractor a maximum amount of \$_____ for the cost elements identified in the Budget to be funded with NYSERDA funds, subject to the provisions and restrictions contained herein. Such amount shall be paid only to the extent that costs are incurred by the Contractor in performance of the Work in accordance with the provisions of this Agreement, the Budget and the following:

(a) Staff Charges: The Contractor shall be compensated for the services performed by its employees under the terms of this Agreement at the employee's actual wage rate.

(b) Direct Charges: The Contractor shall be reimbursed for reasonable and necessary actual direct costs incurred (e.g., equipment, supplies, travel and other costs directly associated with the performance of the Agreement) to the extent required in the performance of the Work in accordance with the provisions of the Budget. Travel, lodging, meals and incidental expenses shall be reimbursed for reasonable and necessary costs incurred. Costs should generally not exceed the daily per diem rates published in the Federal Travel Regulations. Reimbursement for the use of personal vehicles shall be limited to the Internal Revenue Service business standard mileage rate.

(c) Indirect Costs: The Contractor shall be reimbursed for fringe benefits, overhead, general and administrative (G&A), and other indirect costs included in the Budget at such rates as the Contractor may periodically calculate, consistent with appropriate federal guidelines or generally accepted accounting principles.

Section 4.02. Title to Equipment. Title shall vest in NYSERDA to all of the following equipment purchased hereunder:

- 1)
- 2)
- 3)
- 4)

Upon the request of NYSERDA, the Contractor shall execute, acknowledge, deliver and perform, or cause to be executed, acknowledged, delivered or performed, all such bills of sale, assignments, conveyances or other documents or acts as NYSERDA may reasonably request in order to assure the better vesting in and confirming to NYSERDA, its successor and assigns, of title to and possession of such equipment. If, after six months following the completion of the Work or the termination of this Agreement, NYSERDA has not removed any such equipment, it will be deemed abandoned and become the property of the Contractor. Any such removal of equipment by NYSERDA shall be at NYSERDA's expense.

Section 4.03. Progress Payments. The Contractor may submit invoices for progress payment no more than once each month or no less than once each calendar quarter for Work performed during such period. Invoices shall be addressed to NYSERDA, "Attention: Accounts Payable." Such invoices shall make reference to the Agreement number shown on the upper right hand corner of page one of the Agreement. Invoices shall set forth total project costs incurred. These shall be broken down into NYSERDA's Funding share and into the Cost-Share and Other Cofunding share, and they shall be in a format consistent with the cost categories set forth in the Budget. Invoices shall provide reasonable documentation for the above to provide evidence of costs incurred, including:

- (a) Staff charges: for each employee, the name, title, number of hours worked, hourly rate and labor extension;
- (b) Direct charges: all direct costs shall be itemized on the invoice and supported by documentation, such as vendor invoices, travel vouchers or other documentation; and
- (c) Indirect charges: indirect cost rates and method by which rates are applied.

The Contractor shall be notified by NYSERDA in accordance with Section 504.4 (b)(2) of NYSERDA's Prompt Payment Policy Statement, attached hereto as Exhibit D, of any such information or documentation which the Contractor did not include with such invoice.

In accordance with and subject to the provisions of such Exhibit D, NYSERDA shall pay to the Contractor, within the prescribed time after receipt of an invoice for a progress payment, 90% of NYSERDA's share of the amount so requested, unless NYSERDA should determine that any such payment or any part thereof is otherwise not properly payable pursuant to the terms of the Agreement or the Budget.

Section 4.04. Final Payment. Upon final acceptance by NYSERDA of the Final Report and all other deliverables contained in Exhibit A, Statement of Work, pursuant to Section 6.02 hereof, the Contractor shall submit an invoice for final payment with respect to the Work, together with such supporting information and documentation as, and in such form as, NYSERDA may require. An invoice for final payment shall include, in addition to the material required pursuant to Section 4.03 hereof, a statement as to whether any invention or patentable devices have resulted from the performance of the Work. All invoices for final payment hereunder must, under any and all circumstances, be received by NYSERDA within six months

following Acceptance of Work pursuant to Section 6.02 hereof. In accordance with and subject to the provisions of NYSERDA's Prompt Payment Policy Statement, attached hereto as Exhibit D, NYSERDA shall pay to the Contractor within the prescribed time after receipt of such invoice for final payment, the total amount payable pursuant to Section 4.01 hereof, less all progress payments previously made to the Contractor with respect thereto and subject to the maximum commitment of \$_____ set forth in Section 4.07 hereof.

Section 4.05. Release by the Contractor. The acceptance by the Contractor of final payment shall release NYSERDA from all claims and liability that the Contractor, its representatives and assigns might otherwise have relating to this Agreement.

Section 4.06. Maintenance of Records. The Contractor shall keep, maintain, and preserve at its principal office throughout the term of the Agreement and for a period of three years after acceptance of the Work, full and detailed books, accounts, and records pertaining to the performance of the Agreement, including without limitation, all bills, invoices, payrolls, subcontracting efforts and other data evidencing, or in any material way related to, the direct and indirect costs and expenses incurred by the Contractor in the course of such performance.

Section 4.07. Maximum Commitment. The maximum aggregate amount payable by NYSERDA to the Contractor hereunder is \$_____. NYSERDA shall not be liable for any costs or expenses in excess of such amount incurred by the Contractor in the performance and completion of the Work.

Section 4.08. Audit. NYSERDA shall have the right from time to time and at all reasonable times during the term of the Agreement and such period thereafter to inspect and audit any and all books, accounts and records at the office or offices of the Contractor where they are then being kept, maintained and preserved pursuant to Section 4.06 hereof. Any payment made under the Agreement shall be subject to retroactive reduction for amounts included therein which are found by NYSERDA on the basis of any audit of the Contractor by an agency of the United States, State of New York or NYSERDA not to constitute an allowable charge or cost hereunder.

Article V

Assignments, Subcontracts and Purchase Orders

Section 5.01. General Restrictions. Except as specifically provided otherwise in this Article, the assignment, transfer, conveyance, subcontracting or other disposal of this Agreement or any of the Contractor's rights, obligations, interests or responsibilities hereunder, in whole or in part, without the express consent in writing of NYSERDA shall be void and of no effect as to NYSERDA.

Section 5.02. Subcontract Procedures. Without relieving it of, or in any way limiting, its obligations to NYSERDA under this Agreement, the Contractor may enter into Subcontracts for the performance of Work or for the purchase of materials or equipment. Except for a Subcontractor or supplier specified in a team arrangement with the Contractor in the Contractor's

original proposal, and except for any Subcontract or order for equipment, supplies or materials from a single Subcontractor or supplier totaling under \$25,000, the Contractor shall select all Subcontractors or suppliers through a process of competitive bidding or multi-source price review. A team arrangement is one where a Subcontractor or supplier specified in the Contractor's proposal is performing a substantial portion of the Work and is making a substantial contribution to the management and/or design of the Project. In the event that a competitive bidding or multi-source price review is not feasible, the Contractor shall document an explanation for, and justification of, a sole source selection. The Contractor shall document the process by which a Subcontractor or supplier is selected by making a record summarizing the nature and scope of the work, equipment, supplies or materials sought, the name of each person or organization submitting, or requested to submit, a bid or proposal, the price or fee bid, and the basis for selection of the Subcontractor or supplier. An explanation for, and justification of, a sole source selection must identify why the work, equipment, supplies or materials involved are obtainable from or require a Subcontractor with unique or exceptionally scarce qualifications or experience, specialized equipment, or facilities not readily available from other sources, or patents, copyrights, or proprietary data. All Subcontracts shall contain provisions comparable to those set forth in this Agreement applicable to a Subcontractor or supplier, and those set forth in Exhibit B to the extent required by law, and all other provisions now or hereafter required by law to be contained therein. The Contractor shall submit to NYSERDA's Contract Administrator for review and written approval any Subcontract(s) specified in the Statement of Work as requiring NYSERDA approval.

Section 5.03. Performance. The Contractor shall promptly and diligently comply with its obligations under each Subcontract and shall take no action which would impair its rights there under. The Contractor shall not assign, cancel or terminate any Subcontract without the prior written approval of the Contract Administrator as long as this Agreement remains in effect. Such approval shall not be unreasonably withheld and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval by NYSERDA, the requested assignment, cancellation, or termination of the Subcontract shall be considered approved by NYSERDA. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to 180 days.

Article VI

Schedule; Acceptance of Work

Section 6.01. Schedule. The Work shall be performed as expeditiously as possible in conformity with the schedule requirements contained herein and in the Statement of Work. The draft and final versions of the Final Report shall be submitted by the dates specified in the Exhibit A Schedule. It is understood and agreed that the delivery of the draft and final versions of such reports by the Contractor shall occur in a timely manner and in accordance with the requirements of the Exhibit A Schedule.

Section 6.02. Acceptance of Work. The completion of the Work shall be subject to acceptance by NYSERDA in writing of the Final Report and all other deliverables as defined in Exhibit A, Statement of Work.

Article VII

Force Majeure

Section 7.01. Force Majeure. Neither party hereto shall be liable for any failure or delay in the performance of its respective obligations hereunder if and to the extent that such delay or failure is due to a cause or circumstance beyond the reasonable control of such party, including, without limitation, acts of God or the public enemy, expropriation or confiscation of land or facilities, compliance with any law, order or request of any Federal, State, municipal or local governmental authority, acts of war, rebellion or sabotage or damage resulting therefrom, fires, floods, storms, explosions, accidents, riots, strikes, or the delay or failure to perform by any Subcontractor by reason of any cause or circumstance beyond the reasonable control of such Subcontractor.

Article VIII

Technical Data; Patents

Section 8.01. Rights in Technical Data

(a) Technical Data: Rights in Technical Data shall be allocated as follows:

(1) NYSERDA shall have:

- (i) Unlimited Rights in Contract Data except as otherwise provided below with respect to Proprietary Data; and
- (ii) no rights under this Agreement in any Technical Data which are not Contract Data.

(2) The Contractor shall have:

- (i) the right to withhold Proprietary Data in accordance with the provisions of this clause; and
- (ii) the right to use for its private purposes subject to patent, or other provisions of this Agreement, Contract Data it first produces in the performance of this Agreement provided the data requirements of this Agreement have been met as of the date of the private use of such data.

The Contractor agrees that to the extent it receives or is given access to Proprietary Data or other technical, business or financial data in the form of recorded information from NYSERDA or a NYSERDA contractor or subcontractor, the Contractor shall treat such data in accordance with any restrictive legend contained thereon, unless another use is specifically authorized by prior written approval of the Contract Administrator.

The selected Contractor shall grant NYSERDA a license to use, modify, distribute and permit others to use, modify and distribute all software and other materials developed as part of the development, operation and maintenance of the CD-Clearinghouse.

Section 8.02. Patents.

(a) The Contractor may elect to retain the entire right, title and interest throughout the world to each Subject Invention of the Contractor conceived or first actually reduced to practice in the performance of the Work under the Agreement; except, that with respect to any Subject Invention in which the Contractor elects to retain title, NYSERDA shall have a non-exclusive, non-transferrable, irrevocable, paid-up license for itself, the State of New York and all political subdivisions and other instrumentalities of the State of New York, to practice or have practiced for or on their behalf the Subject Invention throughout the world, exclusively for their own use of the Subject Invention.

(b) Within six months of the time a Subject Invention is made, or as part of the request for final payment, whichever shall occur first, the Contractor shall submit to NYSERDA a written invention disclosure. Within twelve months of the time a Subject Invention is made, or as part of the request for final payment, whichever shall occur first, the Contractor shall advise NYSERDA in writing whether the Contractor elects to retain principal rights in the Subject Invention. The Contractor shall file the patent application for a Subject Invention within two years of the date of election. If the Contractor fails to disclose a Subject Invention, fails to elect to retain principal rights thereto, or to file a patent application within the time specified in this paragraph, or if the Contractor elects not to retain principal rights in a Subject Invention, the Contractor shall convey to NYSERDA title to the Subject Invention unless NYSERDA shall waive in writing its right to take title. In the event the Contractor elects not to retain principal rights in a Subject Invention, the Contractor shall retain a non-exclusive, royalty-free license throughout the world in such Subject Invention transferable only with the written approval of NYSERDA. Such approval shall not be unreasonably withheld, and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval, the requested transfer shall be considered approved. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to 180 days.

(c) The Contractor shall submit to NYSERDA, not less frequently than annually, written reports which indicate the status of utilization of Subject Inventions in which the Contractor retains principal rights. The reports shall include information regarding the status of

development, date of first commercial sale or use, and gross royalties received by the Contractor. Such report shall be furnished to NYSERDA not later than February 1 following the calendar year covered by the report. In the event the Contractor fails to demonstrate that the Contractor has taken effective steps within three years after a patent is issued to bring the Subject Invention to the point of Practical Application, then NYSERDA shall have the right to grant a non-exclusive or exclusive license to responsible applicants under terms that are reasonable under the circumstances, or to require the Contractor to do so.

(d) The Contractor shall include the foregoing patent clauses, suitably modified to identify the parties, in all subcontracts which involve the performance of Work under this Agreement. The Subcontractor shall retain all rights provided for the Contractor, and the Contractor shall retain all rights provided for NYSERDA, as set forth above.

Article IX

Warranties and Guarantees

Section 9.01. Warranties and Guarantees. The Contractor warrants and guarantees that:

- (a) it is financially and technically qualified to perform the Work;
- (b) it is familiar with and will comply with all general and special Federal, State, municipal and local laws, ordinances and regulations, if any, that may in any way affect the performance of this Agreement;
- (c) the design, supervision and workmanship furnished with respect to performance of the Work shall be in accordance with sound and currently accepted scientific standards and engineering practices;
- (d) all materials, equipment and workmanship furnished by it and by Subcontractors in performance of the Work or any portion thereof shall be free of defects in design, material and workmanship, and all such materials and equipment shall be of first-class quality, shall conform with all applicable codes, specifications, standards and ordinances and shall have service lives and maintenance characteristics suitable for their intended purposes in accordance with sound and currently accepted scientific standards and engineering practices;
- (e) neither the Contractor nor any of its employees, agents, representatives or servants has actual knowledge of any patent issued under the laws of the United States or any other matter which could constitute a basis for any claim that the performance of the Work or any part thereof infringes any patent or otherwise interferes with any other right of any Person;
- (f) there are no existing undisclosed or threatened legal actions, claims, or encumbrances, or liabilities that may adversely affect the Work or NYSERDA's rights hereunder;

(g) it has no actual knowledge that any information or document or statement furnished by the Contractor in connection with this Agreement contains any untrue statement of a material fact or omits to state a material fact necessary to make the statement not misleading, and that all facts have been disclosed that would materially adversely affect the Work; and

(h) Contractor certifies that all information provided to NYSERDA with respect to State Finance Law Sections 139-j and 139-k is complete, true and accurate.

Article X

Indemnification

Section 10.01. Indemnification. The Contractor shall protect, indemnify and hold harmless NYSERDA and the State of New York from and against all liabilities, losses, claims, damages, judgments, penalties, causes of action, costs and expenses (including, without limitation, attorneys' fees and expenses) imposed upon or incurred by or asserted against NYSERDA or the State of New York resulting from, arising out of or relating to the performance of this Agreement. The obligations of the Contractor under this Article shall survive any expiration or termination of this Agreement, and shall not be limited by any enumeration herein of required insurance coverage.

Article XI

Insurance

Section 11.01. Maintenance of Insurance; Policy Provisions. The Contractor, at no additional cost to NYSERDA, shall maintain or cause to be maintained throughout the term of this Agreement, insurance of the types and in the amounts specified in the Section hereof entitled Types of Insurance. All such insurance shall be evidenced by insurance policies, each of which shall:

(a) name or be endorsed to cover NYSERDA, the State of New York and the Contractor as additional insureds;

(b) provide that such policy may not be cancelled or modified until at least 30 days after receipt by NYSERDA of written notice thereof; and

(c) be reasonably satisfactory to NYSERDA in all other respects.

Section 11.02. Type of Insurance. The type and amounts of insurance required to be maintained under this Article are as follows:

Commercial general liability insurance for bodily injury liability, including death, and property damage liability, incurred in connection with the performance of this Agreement, with minimum limits of \$1,000,000 in respect of claims arising out of personal injury or sickness or

death of any one person, \$1,000,000 in respect of claims arising out of personal injury, sickness or death in any one accident or disaster, and \$1,000,000 in respect of claims arising out of property damage in any one accident or disaster.

Section 11.03. Delivery of Policies; Insurance Certificates. Prior to commencing the Work, the Contractor shall deliver to NYSERDA certificates of insurance issued by the respective insurers, indicating the Agreement number thereon, evidencing the insurance required by this Article and bearing notations evidencing the payment of the premiums thereon or accompanied by other evidence of such payment satisfactory to NYSERDA. In the event any policy furnished or carried pursuant to this Article will expire on a date prior to acceptance of the Work by NYSERDA pursuant to the section hereof entitled Acceptance of Work, the Contractor, not less than 15 days prior to such expiration date, shall deliver to NYSERDA certificates of insurance evidencing the renewal of such policies, and the Contractor shall promptly pay all premiums thereon due. In the event of threatened legal action, claims, encumbrances, or liabilities that may affect NYSERDA hereunder, or if deemed necessary by NYSERDA due to events rendering a review necessary, upon request the Contractor shall deliver to NYSERDA a certified copy of each policy.

Article XII

Stop Work Order; Termination

Section 12.01. Stop Work Order.

(a) NYSERDA may at any time, by written Order to the Contractor, require the Contractor to stop all or any part of the Work called for by this Agreement for a period of up to 90 days after the Stop Work Order is delivered to the Contractor, and for any further period to which the parties may agree. Any such order shall be specifically identified as a Stop Work Order issued pursuant to this Section. Upon receipt of such an Order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the Work covered by the Order during the period of work stoppage consistent with public health and safety. Within a period of 90 days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, NYSERDA shall either:

- (i) by written notice to the Contractor, cancel the Stop Work Order, which shall be effective as provided in such cancellation notice, or if not specified therein, upon receipt by the Contractor, or
- (ii) terminate the Work covered by such order as provided in the Termination Section of this Agreement.

(b) If a Stop Work Order issued under this Section is cancelled or the period of the Order or any extension thereof expires, the Contractor shall resume Work. An equitable adjustment shall be made in the delivery schedule, the estimated cost, the fee, if any, or a combination

thereof, and in any other provisions of the Agreement that may be affected, and the Agreement shall be modified in writing accordingly, if:

- (i) the Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Agreement, and
- (ii) the Contractor asserts a claim for such adjustments within 30 days after the end of the period of Work stoppage; provided that, if NYSERDA decides the facts justify such action, NYSERDA may receive and act upon any such claim asserted at any time prior to final payment under this Agreement.

(c) If a Stop Work Order is not cancelled and the Work covered by such Order is terminated, the reasonable costs resulting from the Stop Work Order shall be allowed by equitable adjustment or otherwise.

(d) Notwithstanding the provisions of this Section 12.01, the maximum amount payable by NYSERDA to the Contractor pursuant to this Section 12.01 shall not be increased or deemed to be increased except by specific written amendment hereto.

Section 12.02. Termination.

(a) This Agreement may be terminated by NYSERDA at any time during the term of this Agreement with or without cause, upon 30 days prior written notice to the Contractor. In such event, compensation shall be paid to the Contractor for Work performed and expenses incurred prior to the effective date of termination in accordance with the provisions of the Article hereof entitled Compensation and in reimbursement of any amounts required to be paid by the Contractor pursuant to Subcontracts; provided, however, that upon receipt of any such notice of termination, the Contractor shall cease the performance of Work, shall make no further commitments with respect thereto and shall reduce insofar as possible the amount of outstanding commitments (including, to the extent requested by NYSERDA, through termination of subcontracts containing provisions therefore).

(b) Nothing in this Article shall preclude the Contractor from continuing to carry out the Work called for by the Agreement after receipt of a Stop Work Order or termination notice at its own election, provided that, if the Contractor so elects, (i) any such continuing Work after receipt of the Stop Work Order or termination notice shall be deemed not to be Work pursuant to the Agreement and (ii) NYSERDA shall have no liability to the Contractor for any costs of the Work continuing after receipt of the Stop Work Order or termination notice.

(c) NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with State Finance Law Sections 139-j and 139-k was intentionally false or intentionally incomplete. Upon such finding, NYSERDA may

exercise its termination right by providing written notification to the Contractor as set forth in Article XV of this Agreement.

(d) NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with New York State Tax Law Section 5-a was intentionally false when made. Upon such finding, NYSERDA may exercise its termination right by providing written notification to the Contractor as set forth in Article XV of this Agreement.

Article XIII

Independent Contractor

Section 13.01. Independent Contractor. The status of the Contractor under this Agreement shall be that of an independent contractor and not that of an agent, and in accordance with such status, the Contractor, the Subcontractors, and their respective officers, agents, employees, representatives and servants shall at all times during the term of this Agreement conduct themselves in a manner consistent with such status and by reason of this Agreement shall neither hold themselves out as, nor claim to be acting in the capacity of, officers, employees, agents, representatives or servants of NYSERDA nor make any claim, demand or application for any right or privilege applicable to NYSERDA, including, without limitation, rights or privileges derived from workers' compensation coverage, unemployment insurance benefits, social security coverage and retirement membership or credit.

Article XIV

Compliance with Certain Laws

Section 14.01. Laws of the State of New York. The Contractor shall comply with all of the requirements set forth in Exhibit B hereto.

Section 14.02. All Legal Provisions Deemed Included. It is the intent and understanding of the Contractor and NYSERDA that each and every provision of law required by the laws of the State of New York to be contained in this Agreement shall be contained herein, and if, through mistake, oversight or otherwise, any such provision is not contained herein, or is not contained herein in correct form, this Agreement shall, upon the application of either NYSERDA or the Contractor, promptly be amended so as to comply strictly with the laws of the State of New York with respect to the inclusion in this Agreement of all such provisions.

Section 14.03. Other Legal Requirements. The references to particular laws of the State of New York in this Article, in Exhibit B and elsewhere in this Agreement are not intended to be exclusive and nothing contained in such Article, Exhibit and Agreement shall be deemed to modify the obligations of the Contractor to comply with all legal requirements.

Article XV

Notices, Entire Agreement, Amendment, Counterparts

Section 15.01. Notices.

(a) All notices, requests, consents, approvals and other communications which may or are required to be given by either party to the other under this Agreement shall be in writing and shall be transmitted either:

- (i) via certified or registered United States mail, return receipt requested;
- (ii) by facsimile transmission;
- (iii) by personal delivery;
- (iv) by expedited delivery service; or
- (v) by e-mail, return receipt requested.

Such notices shall be addressed as follows, or to such different addresses as the parties may from time-to-time designate as set forth in paragraph (c) below:

NYSERDA

Name: Cheryl L. Earley

Title: Director of Contract Management

Address: 17 Columbia Circle, Albany, New York 12203

Facsimile Number: 518-862-1091

E-Mail Address: cle@nyserda.org

Personal Delivery: Reception desk at the above address

[Contractor Name]

Name:

Title:

Address:

Facsimile Number:

E-Mail Address:

(b) Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt.

(c) The parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

Article XVI

Publicity

Section 16.01. Publicity.

(a) The Contractor shall collaborate with NYSERDA's Director of Technical Communications to prepare any press release and to plan for any news conference concerning the Work. In addition the Contractor shall notify NYSERDA's Director of Technical Communications regarding any media interview in which the Work is referred to or discussed.

(b) It is recognized that during the course of the Work under this Agreement, the Contractor or its employees may from time to time desire to publish information regarding scientific or technical developments made or conceived in the course of or under this Agreement. In any such information, the Contractor shall credit NYSERDA's funding participation in the Project, and shall state that "NYSERDA has not reviewed the information contained herein, and the opinions expressed in this report do not necessarily reflect those of NYSERDA or the State of New York." Notwithstanding anything to the contrary contained herein, the Contractor shall have the right to use and freely disseminate project results for educational purposes, if applicable, consistent with the Contractor's policies.

(c) Commercial promotional materials or advertisements produced by the Contractor shall credit NYSERDA, as stated above, and shall be submitted to NYSERDA for review and recommendations to improve their effectiveness prior to use. The wording of such credit can be approved in advance by NYSERDA, and, after initial approval, such credit may be used in subsequent promotional materials or advertisements without additional approvals for the credit, provided, however, that all such promotional materials or advertisements shall be submitted to NYSERDA prior to use for review, as stated above. Such approvals shall not be unreasonably withheld, and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval, the promotional materials or advertisement shall be considered approved. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to 180 days. If NYSERDA and the Contractor do not agree on the wording of such credit in connection with such materials, the Contractor may use such materials, but agrees not to include such credit.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day, month and year first above written.

(CONTRACTOR NAME)

NEW YORK STATE ENERGY
RESEARCH AND DEVELOPMENT
AUTHORITY

By _____

Name _____

Title _____

By _____

Jeffrey J. Pitkin
Treasurer

STATE OF)
) SS.:
COUNTY OF)

On the ____ day of _____ in the year _____, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individuals(s), or the person upon behalf of which the individual(s) acted, executed the document.

Notary Public

Exhibit A

Statement of work

To be determined.

EXHIBIT B

REVISED 9/06

STANDARD TERMS AND CONDITIONS FOR ALL NYSERDA AGREEMENTS

(Based on Standard Clauses for New York State Contracts and Tax Law Section 5-a)

The parties to the attached agreement, contract, license, lease, amendment, modification or other agreement of any kind (hereinafter, "the Agreement" or "this Agreement") agree to be bound by the following clauses which are hereby made a part of the Agreement (the word "Contractor" herein refers to any party other than NYSERDA, whether a contractor, licensor, licensee, lessor, lessee or any other party):

1. NON-DISCRIMINATION REQUIREMENTS. In accordance with Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, age, disability or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is an Agreement for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this Agreement shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. If this is a building service Agreement as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this Agreement and forfeiture of all moneys due hereunder for a second subsequent violation.

2. WAGE AND HOURS PROVISIONS. If this is a public work Agreement covered by Article 8 of the Labor Law or a building service Agreement covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.

3. NON-COLLUSIVE BIDDING REQUIREMENT. In accordance with Section 2878 of the Public Authorities Law, if this Agreement was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to NYSERDA a non-collusive bidding certification on Contractor's behalf.

4. INTERNATIONAL BOYCOTT PROHIBITION. If this Agreement exceeds \$5,000, the Contractor agrees, as a material condition of the Agreement, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the Agreement's execution, such Agreement, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify NYSERDA within five (5) business days of such conviction, determination or disposition of appeal. (See and compare Section 220-f of the Labor Law, Section 139-h of the State Finance Law, and 2 NYCRR 105.4).

5. SET-OFF RIGHTS. NYSERDA shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, NYSERDA's option to withhold for the purposes of set-off any moneys due to the Contractor under this Agreement up to any amounts due and owing to NYSERDA with regard to this Agreement, any other Agreement, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to NYSERDA for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

6. CONFLICTING TERMS. In the event of a conflict between the terms of the Agreement (including any and all attachments thereto and amendments thereof) and the terms of this Exhibit B, the terms of this Exhibit B shall control.

7. GOVERNING LAW. This Agreement shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

8. NO ARBITRATION. Disputes involving this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily required) without the NYSERDA's written consent, but must, instead, be heard in a court of competent jurisdiction of the State of New York.

9. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law and Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon NYSERDA's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify NYSERDA, in writing, of each and every change of address to which service of process can be

made. Service by NYSERDA to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

10. CRIMINAL ACTIVITY. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of any allegation previously unknown to it that the Contractor or any of its principals is under indictment for a felony, or has been, within five (5) years prior to submission of the Contractor's proposal to NYSERDA, convicted of a felony, under the laws of the United States or Territory of the United States, then NYSERDA may exercise its stop work right under this Agreement. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of the fact, previously unknown to it, that Contractor or any of its principals is under such indictment or has been so convicted, then NYSERDA may exercise its right to terminate this Agreement. If the Contractor knowingly withheld information about such an indictment or conviction, NYSERDA may declare the Agreement null and void and may seek legal remedies against the Contractor and its principals. The Contractor or its principals may also be subject to penalties for any violation of law which may apply in the particular circumstances. For a Contractor which is an association, partnership, corporation, or other organization, the provisions of this paragraph apply to any such indictment or conviction of the organization itself or any of its officers, partners, or directors or members of any similar governing body, as applicable.

11. PERMITS. It is the responsibility of the Contractor to acquire and maintain, at its own cost, any and all permits, licenses, easements, waivers and permissions of every nature necessary to perform the work.

12. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this Agreement will be in accordance with, but not limited to, the specifications and provisions of State Finance Law Section 165 (Use of Tropical Hardwoods), which prohibits purchase and use of tropical hardwoods, unless specifically exempted by NYSERDA.

13. COMPLIANCE WITH TAX LAW SECTION 5-a. The following provisions apply to Contractors that have entered into agreements in an amount exceeding \$100,000 for the purchase of goods and services:

- a. Before such agreement can take effect, the Contractor must have on file with the New York State Department of Taxation and Finance a Contractor Certification form (ST-220-TD).
- b. Prior to entering into such an agreement, the Contractor is required to provide NYSERDA with a completed Contractor Certification to Covered Agency form (Form ST-220-CA).
- c. Prior to any renewal period (if applicable) under the agreement, the Contractor is required to provide NYSERDA with a completed Form ST-220-CA.

- d. Certifications referenced in paragraphs (b) and (c) above will be maintained by NYSERDA and made a part hereof and incorporated herein by reference.
- e. NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with Tax Law Section 5-a was false when made.

Exhibit C
REPORT FORMAT AND STYLE GUIDE

PURPOSE

This document explains how to prepare a technical report for the New York State Energy Research and Development Authority (NYSERDA). It describes editorial and production procedures and gives electronic data-transfer information. NYSERDA's contractors prepare the reports describing NYSERDA research and development projects that NYSERDA publishes. Please direct questions about format and style to Diane Welch of NYSERDA's Technical Communications unit: (518) 862-1090, ext. 3276; fax (518) 862-1091; e-mail dlw@nyserdera.org

COPYRIGHTS

All material borrowed or adapted from other sources should be properly identified (i.e., document, source, date, and page). The contractor must obtain and submit to NYSERDA the copyright owner's written permission to use copyrighted illustrations, tables, or substantial amounts of text from another publication.

REPORT FORMAT AND SEQUENCE

The following items are required in all technical reports and should be paginated in the following sequence:

- Title page (no page number)
- Notice (no page number)
- Abstract (iii)
- Acknowledgments (optional) (iv)
- Table of Contents, including listings of figures and tables (v or vii)
- Summary (S-1)

NOTE: the Abstract, Table of Contents, and each section begin on right-hand, odd-numbered pages.

Title Page

- The following information is required (see sample on last page):
 - Report title and type of report (i.e., final, interim, or summary)
 - Name of NYSERDA project manager(s)
 - Corporate name, city, and state of contractor(s), including contact person(s) or project manager(s)
 - Project cosponsors, including contact person(s) or project manager(s)
 - Contract number (e.g., 3178-ERTER-MW-94)

Notices

One of these legal notices or disclaimers is required:

- When NYSERDA is the project's sole sponsor, this notice must be used:

NOTICE

This report was prepared by _____ in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority (hereafter "NYSERDA"). The opinions expressed in this report do not necessarily reflect those of NYSERDA or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, NYSERDA, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. NYSERDA, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

- When there are other project cosponsors, use the following notice instead:

NOTICE

This report was prepared by _____ in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority and the _____ (hereafter the "Sponsors"). The opinions expressed in this report do not necessarily reflect those of the Sponsors or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, the Sponsors and the State of New York make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. The Sponsors, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

Abstract and Key Words — right-hand, odd-numbered page [iii]

An abstract is a brief, 200-word description of project objectives; investigative methods used, and research conclusions or applications. This information will be used when NYSERDA registers the report with the National Technical Information Service (NTIS). A list of key words that describe the project and identify the major research concept should be submitted with the report. Four to six precise descriptors are generally sufficient and will be used for indexing, registering, and distributing the report through NTIS.

Acknowledgments (optional) — left-hand, even-numbered page [iv]

Acknowledgments precede the contents and should be no longer than two paragraphs.

Table of Contents and Lists of Figures and Tables — begin on odd-numbered, right-hand pages [v. vii, ix, etc.]

The Table of Contents should list section numbers, titles, second-level headings, and their page numbers. Third-level headings also may be listed. If the report contains five or more figures or tables, they should be listed using the style of the Table of Contents. The following samples are boxed only to set them apart in this document.

Summary — right-hand, odd-numbered page [S-1]

The Summary, which immediately precedes the body of the text, should be written for a general audience. The Summary may be the only part of the technical report closely read by a number of people, many of whom lack a technical background. These may include industry and utility executives, government officials, legislators, the general public, and media representatives. The Summary should be 500-1000 words long.

TABLE OF CONTENTS	
<u>Section</u>	<u>Page</u>
SUMMARY	S-1
1. DESCRIPTION OF STUDY	1-1
Sources of Information	1-5
Bases of Evaluation	1-9
2. EXISTING CONDITIONS.....	2-1
Architecture	2-3
Mechanical and Electrical Systems	2-13
3. ANALYSIS OF PRESENT ENERGY USE	3-1
Analysis of Use by Systems.....	3-3
Analysis of Use by Hospital Services.....	3-17
APPENDIX A Comparison of Expenses for NYS Hospitals	A-1
APPENDIX B Forms for Energy Audits in Hospitals	B-1

FIGURES	
<u>Figure</u>	<u>Page</u>
1-1 Comparative Energy Use Per Cubic Foot in Hospitals Under 200 Beds	1-2
2-1 View of Community Hospital from South	2-1
2-2 Site Plan.....	2-5

GENERAL INFORMATION

The first reference to NYSERDA should read “the New York State Energy Research and Development Authority (NYSERDA).” Subsequent references should read simply “NYSERDA.” When it is clear that you are referring to New York State, use State; otherwise, use New York State or the State of New York.

COPY

•Page format:

- Margins should be 1.25 inches left and right; 1 inch top and bottom.
 - Use left-hand justification only.
 - Text should be in a 10-point serif font (i.e., Times Roman, Bookman, etc.); captions, tables, and figures should be in a sans-serif font (i.e., Helvetica, Arial, etc.).
 - Spacing should be 1.5 lines, printed on one side of the paper.
 - Block-style paragraphs should be used, with no indentation (except for fifth-level headings, which should be blocked on the left; see Heading Styles, below).
 - There should be two returns between a paragraph and the next heading.
- Material borrowed or adapted from external sources must be identified (i.e., document, source, date, and page). Written permission to use copyrighted illustrations, tables, or text taken from another publication must be submitted with the report.
 - Avoid half-page and one-sentence paragraphs.
 - Do not use contractions.
 - When referring to a specific figure or table, spell out and capitalize the words "Figure" and "Table."
 - Indented lists of material should be set off with bullets:
 - If a typographical bullet is unavailable, the bullet is a lower case "o," not zero.
 - One blank line should precede and follow a list.
 - Bulleted items should be indented left and right.
 - All new sections should begin on a right-hand, odd-numbered page (e.g., 1-1, 2-1, A-1, etc.).
 - Percentages should be written as follows: 1%, 76%, etc.
 - Acronyms must be spelled out the first time used, followed by the acronym in parentheses.

HEADING STYLES

The heading styles illustrated below should be used. (Only section headings should be numbered.)

FIRST-LEVEL HEADING

Section 1

INTRODUCTION

The heading is upper case, centered, and boldfaced; the text is below the heading, at the left margin.

SECOND-LEVEL HEADING

The heading is upper case, at the left margin, and boldfaced; the text is at the left margin.

Third-Level Heading

The heading is upper and lower case, at the left margin, boldfaced, and underscored; the text is at the left margin.

Fourth-Level Heading. The heading is upper and lower case, at the left margin, boldfaced, and underscored, with a period at the end. The text continues on the same line as the heading. The remaining text goes back out to the left margin.

Fifth-Level Heading. The heading is upper and lower case, indented, boldfaced, and underscored with a period at the end. The text continues on the same line, with the remaining text indented left and right.

TABLES AND FIGURES

- Tables and figures must be numbered sequentially and titled individually.
- Place tables and figures as close as possible to the text in which they are mentioned.
- Distinguish tabular material from the text.
- Cite a source if the tabular material or figure content has not been generated by the contractor.
- Figure captions should be complete sentences when appropriate.
- Use "Figure 1," not "Fig. 1," or "Table 1." in the text, as well as for captions. Examples:
 - Table 1 details demand-side management options.
 - As shown in Figure 1, the demand-side management program offers numerous options.
- Figure captions should be typed in boldface.
 - **Figure 1. Demand-Side Management Options in New York State.**
- Unless generated by the contractor, a source should always be cited. The figure source should appear after the caption (e.g., Source: Lawrence Berkeley Laboratory); the table source should be noted with an asterisk and footnoted.
- Photographs and drawings should be limited in number, with the following guidelines:
 - Black-and-white line drawings or good-quality, clear halftones (black-and-white photographs) may be used. Color artwork and photos will be printed in black-and-white.
 - Slides should be converted to black-and-white photos before being submitted.
 - Photographs should be printed on glossy stock, preferably 5"x7".

REFERENCES AND BIBLIOGRAPHIES

The format in Manual of Style (University of Chicago Press, Chicago, Illinois) should be used for reference listings and bibliographies.

Bibliographic entries should be listed alphabetically by author, as follows:

Hawkins, R.R. Scientific, Medical, and Technical Books Published in the United States of America. 2d ed. New York: Bowker, 1958.

REPORT REQUIREMENTS

Two hard copies of the draft final report must be submitted to NYSERDA's Director of Communications. After review by the Project Manager and Technical Communications staff, the draft will be returned to the contractor for final corrections. The contractor is responsible for satisfactorily addressing technical comments from NYSERDA and other co-funders. When making editorial corrections, the contractor must ensure that technical content is not compromised.

After editorial corrections have been made, the contractor must submit two hard copies of the final report (one a camera-ready original and the other a photocopy) and the report on a digital video disc, compact disc, Iomega 100 PC-Zip disk, or IBM personal computer-compatible diskette to NYSERDA's Director of Communications.

Electronic Requirements

- Material must be submitted in any of the following formats:
 - Digital Versatile Disc or Digital Video Disc (DVD)
 - Compact disc (CD-ROM)
 - Iomega 100 PC-Zip disk
 - IBM personal computer-compatible 3.5-inch, double-sided (DS), high-density (HD) diskette

- Textual material should be created in a format compatible with Microsoft Office (1997-03 or 2007). While other word-processing programs may be able to be converted, results may vary. Characteristics such as underlining, bold, italics, and special characters that often appear in equations may be lost if Microsoft Word (1997-03 or 2007) is not used.

- Reports that are to be published on the web must be submitted as either a PDF or HTML file.

If you are unable to meet these electronic transfer requirements, before submitting your report please contact

Diane Welch of NYSERDA's Technical Communications unit at (518) 862-1090, ext. 3276; fax (518) 862-1091; e-mail dlw@nyserda.org

**CITY OF LOCKPORT INFLUENT HYDROPOWER
FEASIBILITY STUDY
Final Report**

Prepared for

**THE NEW YORK STATE
ENERGY RESEARCH AND DEVELOPMENT AUTHORITY**
Albany, NY

Lawrence J. Pakenas, P.E.
Senior Project Manager

Prepared by

CITY OF LOCKPORT
Lockport, NY

Michael Diel
Project Manager

and

MALCOLM PIRNIE, INC.
Buffalo, NY

Vincent J. Funigiello, P.E.
Project Manager

4311-ERTER-MW-97

NYSERDA
Report 98-11

July 1998

*Sample title page. Font is a serif font (Times Roman). Bold-faced text is 13 pt., small caps. The rest of the type is 11 pt., plain text.



EXHIBIT D

PART 504

PROMPT PAYMENT POLICY STATEMENT

Section 504.1 Purpose and applicability. (a) The purpose of this Part is to implement section 2880 of the Public Authorities Law by detailing the authority's policy for making payment promptly on amounts properly due and owing by the authority under contracts. This Part constitutes the authority's prompt payment policy statement as required by that section.

(b) This Part generally applies to payments due and owing by the authority to a person or business in the private sector under a contract it has entered into with the authority on or after May 1, 1988. This Part does not apply to payments due and owing:

(1) under the Eminent Domain Procedure Law;

(2) as interest allowed on judgments rendered by a court pursuant to any provision of law except Section 2880 of the Public Authorities Law;

(3) to the Federal government; to any state agency or its instrumentalities; to any duly constituted unit of local government, including but not limited to counties, cities, towns, villages, school districts, special districts or any of their related instrumentalities; to any other public authority or public benefit corporation; or to its employees when acting in, or incidental to, their public employment capacity;

(4) if the Authority is exercising a legally authorized set-off against all or part of the payment; or

(5) if other State or Federal law or rule or regulation specifically requires otherwise.

Section 504.2 Definitions. As used in this Part, the following terms shall have the following meanings, unless the context shall indicate another or different meaning or intent:

(a) "Authority" means the New York State Energy Research and Development Authority.

(b) "Contract" means an enforceable agreement entered into between the Authority and a contractor.

(c) "Contractor" means any person, partnership, private corporation, or association:

(1) selling materials, equipment or supplies or leasing property or equipment to the Authority pursuant to a contract;

(2) constructing, reconstructing, rehabilitating or repairing buildings, highways or other improvements for, or on behalf of, the Authority pursuant to a contract; or

(3) rendering or providing services to the Authority pursuant to a contract.

(d) "Date of payment" means the date on which the Authority requisitions a check from its statutory fiscal agent, the Department of Taxation and Finance, to make a payment.

(e) "Designated payment office" means the Office of the Authority's Controller, located at 17 Columbia Circle, Albany, New York 12203.

(f) "Payment" means provision by the Authority of funds in an amount sufficient to satisfy a debt properly due and owing to a contractor and payable under all applicable provisions of a contract to which this Part applies and of law, including but not limited to provisions for retained amounts or provisions which may limit the Authority's power to pay, such as claims, liens, attachments or judgments against the contractor which have not been properly discharged, waived or released.

(g) "Prompt payment" means a payment within the time periods applicable pursuant to Sections 504.3 through 504.5 of this Part in order for the Authority not to be liable for interest pursuant to Section 504.6.

(h) "Payment due date" means the date by which the date of payment must occur, in accordance with the provisions of Sections 504.3 through 504.5 of this Part, in order for the Authority not to be liable for interest pursuant to Section 5.06.

(i) "Proper invoice" means a written request for a contract payment that is submitted by a contractor setting forth the description, price or cost, and quantity of goods, property or services delivered or rendered, in such form, and supported by such other substantiating documentation, as the Authority may reasonably require, including but not limited to any requirements set forth in the contract; and addressed to the Authority's Controller, marked "Attention: Accounts Payable," at the designated payment office.

(j)(1) "Receipt of an invoice" means:

(i) if the payment is one for which an invoice is required, the later of:

(a) the date on which a proper invoice is actually received in the designated payment office during normal business hours; or

(b) the date by which, during normal business hours, the Authority has actually received all the purchased goods, property or services covered by a proper invoice previously received in the designated payment office.

(ii) if a contract provides that a payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice the 30th calendar day, excluding legal holidays, before the date so specified or predetermined.

(2) For purposes of this subdivision, if the contract requires a multifaceted, completed or working system, or delivery of no less than a specified quantity of goods, property or services

and only a portion of such systems or less than the required goods, property or services are working, completed or delivered, even though the Contractor has invoiced the Authority for the portion working, completed or delivered, the Authority will not be in receipt of an invoice until the specified minimum amount of the systems, goods, property or services are working, completed or delivered.

(k) "Set-off" means the reduction by the Authority of a payment due a contractor by an amount equal to the amount of an unpaid legally enforceable debt owed by the contractor to the Authority.

Section 504.3 Prompt payment schedule. Except as otherwise provided by law or regulation or in Sections 504.4 and 504.5 of this Part, the date of payment by the Authority of an amount properly due and owing under a contract shall be no later than 30 calendar days, excluding legal holidays, after such receipt.

Section 504.4 Payment procedures.

(a) Unless otherwise specified by a contract provision, a proper invoice submitted by the contractor to the designated payment office shall be required to initiate payment for goods, property or services. As soon as any invoice is received in the designated payment office during normal business hours, such invoice shall be date-stamped. The invoice shall then promptly be reviewed by the Authority.

(b) The Authority shall notify the contractor within 15 calendar days after receipt of an invoice of:

- (1) any defects in the delivered goods, property or services;
- (2) any defects in the invoice; and
- (3) suspected improprieties of any kind.

(c) The existence of any defects or suspected improprieties shall prevent the commencement of the time period specified in Section 504.3 until any such defects or improprieties are corrected or otherwise resolved.

(d) If the Authority fails to notify a contractor of a defect or impropriety within the fifteen calendar day period specified in subdivision (b) of this section, the sole effect shall be that the number of days allowed for payment shall be reduced by the number of days between the 15th day and the day that notification was transmitted to the contractor. If the Authority fails to provide reasonable grounds for its contention that a defect or impropriety exists, the sole effect shall be that the payment due date shall be calculated using the original date of receipt of an invoice.

(e) In the absence of any defect or suspected impropriety, or upon satisfactory correction or resolution of a defect or suspected impropriety, the Authority shall make payment, consistent with any such correction or resolution and the provisions of this Part.

Section 504.5 Exceptions and extension of payment due date. The Authority has determined

that, notwithstanding the provisions of Sections 504.3 and 504.4 of this Part, any of the following facts or circumstances, which may occur concurrently or consecutively, reasonably justify extension of the payment due date:

(a) If the case of a payment which a contract provides will be made on a specific date or at a predetermined interval, without having to submit a written invoice, if any documentation, supporting data, performance verification, or notice specifically required by the contract or other State or Federal mandate has not been submitted to the Authority on a timely basis, then the payment due date shall be extended by the number of calendar days from the date by which all such matter was to be submitted to the Authority and the date when the Authority has actually received such matter.

(b) If an inspection or testing period, performance verification, audit or other review or documentation independent of the contractor is specifically required by the contract or by other State or Federal mandate, whether to be performed by or on behalf of the Authority or another entity, or is specifically permitted by the contract or by other State or Federal provision and the Authority or other entity with the right to do so elects to have such activity or documentation undertaken, then the payment due date shall be extended by the number of calendar days from the date of receipt of an invoice to the date when any such activity or documentation has been completed, the Authority has actually received the results of such activity or documentation conducted by another entity, and any deficiencies identified or issues raised as a result of such activity or documentation have been corrected or otherwise resolved.

(c) If an invoice must be examined by a State or Federal agency, or by another party contributing to the funding of the contract, prior to payment, then the payment due date shall be extended by the number of calendar days from the date of receipt of an invoice to the date when the State or Federal agency, or other contributing party to the contract, has completed the inspection, advised the Authority of the results of the inspection, and any deficiencies identified or issues raised as a result of such inspection have been corrected or otherwise resolved.

(d) If appropriated funds from which payment is to be made have not yet been appropriated or, if appropriated, not yet been made available to the Authority, then the payment due date shall be extended by the number of calendar days from the date of receipt of an invoice to the date when such funds are made available to the Authority.

Section 504.6 Interest eligibility and computation. If the Authority fails to make prompt payment, the Authority shall pay interest to a contractor on the payment when such interest computed as provided herein is equal to or more than ten dollars. Interest shall be computed and accrue at the daily rate in effect on the date of payment, as set by the New York State Tax Commission for corporate taxes pursuant to Section 1096(e)(1) of the Tax Law. Interest on such a payment shall be computed for the period beginning on the day after the payment due date and ending on the date of payment.

Section 504.7 Sources of funds to pay interest. Any interest payable by the Authority pursuant to this Part shall be paid only from the same accounts, funds, or appropriations that are lawfully available to make the related contract payment.

Section 504.8 Incorporation of prompt payment policy statement into contracts. The provisions of this Part in effect at the time of the creation of a contract shall be incorporated into and made a part of such contract and shall apply to all payments as they become due and owing pursuant to the terms and conditions of such contract, notwithstanding that the Authority may subsequently amend this Part by further rulemaking.

Section 504.9 Notice of objection. Unless a different procedure is specifically prescribed in a contract, a contractor may object to any action taken by the Authority pursuant to this Part which prevents the commencement of the time in which interest will be paid by submitting a written notice of objection to the Authority. Such notice shall be signed and dated and concisely and clearly set forth the basis for the objection and be addressed to the Vice President, New York State Energy Research and Development Authority, at the address set forth in Section 504.2(e). The Vice President of the Authority, or his or her designee, shall review the objection for purposes of affirming or modifying the Authority's action. Within 15 working days of the receipt of the objection, the Vice President, or his or her designee, shall notify the contractor either that the Authority's action is affirmed or that it is modified or that, due to the complexity of the issue, additional time is needed to conduct the review; provided, however, in no event shall the extended review period exceed 30 working days.

Section 504.10 Judicial Review. Any determination made by the Authority pursuant to this Part which prevents the commencement of the time in which interest will be paid is subject to judicial review in a proceeding pursuant to Article 78 of the Civil Practice Law and Rules. Such proceedings shall only be commenced upon completion of the review procedure specified in Section 504.9 of this Part or any other review procedure that may be specified in the contract or by other law, rule, or regulation.

Section 504.11 Court action or other legal processes.

(a) Notwithstanding any other law to the contrary, the liability of the Authority to make an interest payment to a contractor pursuant to this Part shall not extend beyond the date of a notice of intention to file a claim, the date of a notice of a claim, or the date commencing a legal action for the payment of such interest, whichever occurs first.

(b) With respect to the court action or other legal processes referred to in subdivision (a) of this section, any interest obligation incurred by the Authority after the date specified therein pursuant to any provision of law other than Public Authorities Law Section 2880 shall be determined as prescribed by such separate provision of law, shall be paid as directed by the court, and shall be paid from any source of funds available for that purpose.

Section 504.12 Amendments. These regulations may be amended by resolution of the Authority, provided that the Chair, upon written notice to the other Members of the Authority, may from time to time promulgate nonmaterial amendments of these regulations.

Relationships for EquipmentLog

Wednesday, September 23, 2009

Figure 1

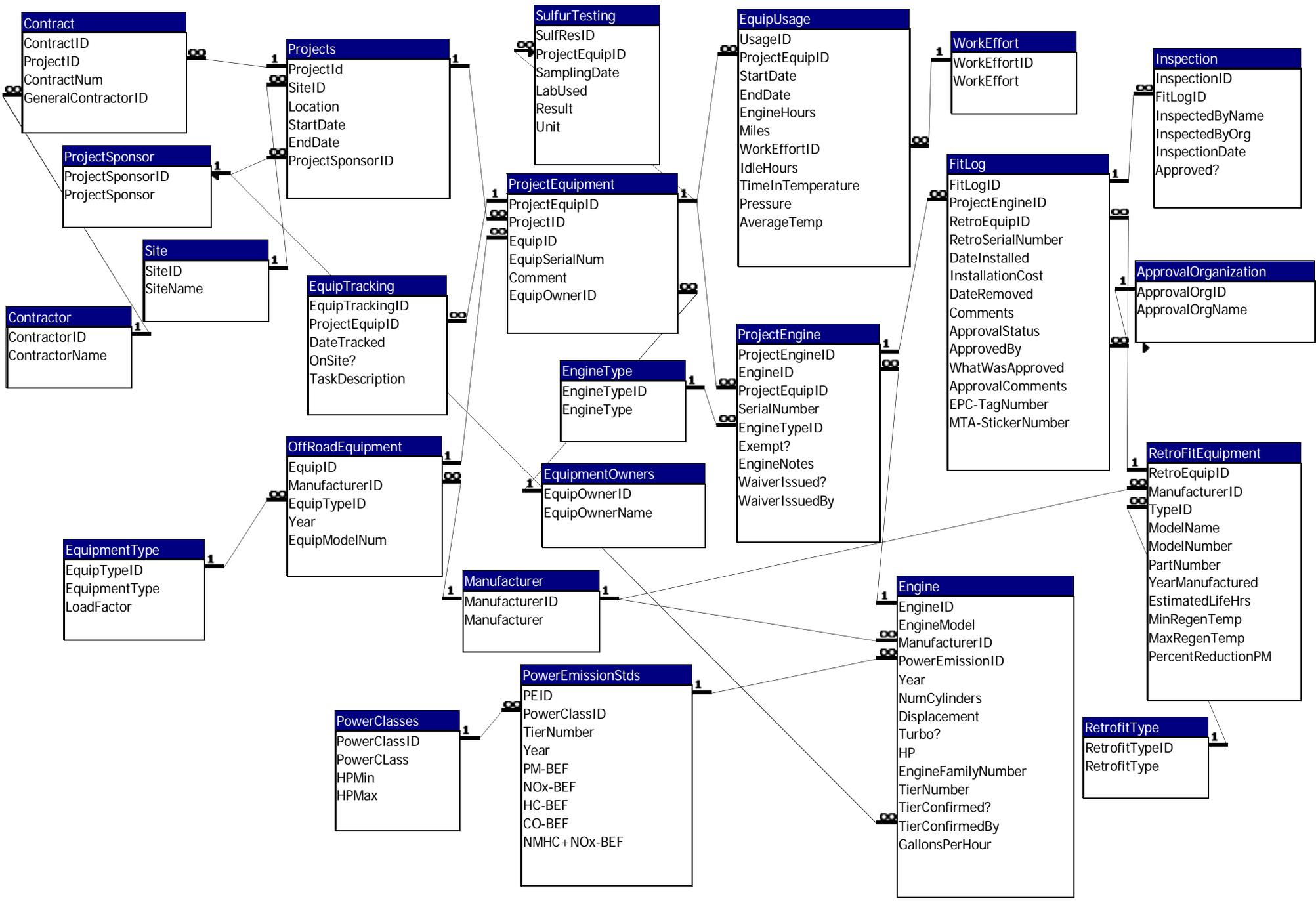


Figure 2A

Equipment Data for Package #17							Retrofit Update Information							Fuel/Energy				EPC Tag #	Status	
Equipment Owner	Manufacturer	Equipment Description	Equipment Serial #	Quantity	Date Equipment on site	Date Equipment off site	Retrofit Manufacturer	Equipment Age	Model #	Certification (CARB, EPA, VERT)	HP	Retro Type ADPF/DDPF/DOC	Tier (Diesel Engine Only) 1 2 3 4	Fuel				EPC Tag #	Comments from PA	
														ULSD	Natural Gas	Unleaded Gas/Petrol	Electric/Power Plant			
E.E.CRUZ	Liebherr	Crawler Crane	134.119	1	6/16/09		DCL	2009	DCF-6	CARB	362	Passive	3	X						
E.E.CRUZ	Komatsu	mini excavator	8590	1	N/A	Offsite	N/A	2007	PC50MR-2	N/A	38	N/A	3	X						
JV EEC / Nich	Sullair # 6	Compressor	200609240003	1	7/3/09	Offsite	DCL	2006	1150XH	CARB	540	Passive	3	X					4029	
Nicholson	Casagrande	Drill Rig	M9.07CF-0115	1	7/10/09	9/16/09	ECS	1999	M9-02	EPA	153	Passive	1	X						
Arpielle	KAESER	Compressor	1010	1	6/22/09	10/6/09	DCL	2008	M121	CARB	105	Passive	3	X						
E.E.CRUZ	Ingersoll-rand	Compressor #17	381612UARB12	1	1-Oct-09	Offsite	ECS	2007	XP375	EPA	125	Passive	3	X						
Robo-Breaking	Brokk	Robo Breaker	941579	1	10/2/09	11/4/09	N/A	2008	180	N/A	18	N/A	N/A	N/A						
Arpielle Equip.	KAESER	Generator	7304897	1	10/2/09		DCL	2007	DCA70	CARB	90	Passive	3	X						
E.E.CRUZ	Caterpillar	Skidsteer	SLK01016	1	10/2/09		DCL	2004	257B	CARB	59	Passive	2	X						
E.E.CRUZ	Caterpillar	Excavator	PAB07227	1	10/5/09	11/5/09	ECS	2007	320CL	EPA	138	DPF	3	X						
Robo-Breaking	Brokk	Breaker	940499	1	11/27/09		N/A	1998	150	N/A	N/A	N/A	N/A	N/A						
Robo-Breaking	Brokk	Breaker	941579	1	11/27/09		N/A	2008	180	N/A	18	N/A	N/A	N/A						
Foley Rents	Multi-Quip	Generator	8801466	1	11/27/09		ECS	2008	DCA70	EPA	98	Passive	3	X						
Foley Rents	Multi-Quip	Generator	8801468	1	11/27/09		ECS	2008	DCA70	EPA	98	Passive	3	X						

