



Heating and Cooling  
Program Opportunity Notice 1257  
**\$1,500,000 Available**

**Proposals Due: March 5, 2009 by 5:00 PM Eastern Time\***

The New York State Energy Research and Development Authority (NYSEERDA) announces a program to support the research and development of innovative heating and cooling technologies for residential and commercial buildings. The proposed technologies must achieve increased energy efficiency or environmental performance in New York State.

Proposals involving green/sustainable/renewable fuels (including solar thermal) directly impacting heating and cooling are of particular interest.

Up to \$1,500,000 is available. Multiple awards of up to \$300,000 are expected.

All proposals must be cost-shared. Proposals for proprietary, product development and testing by private firms are preferred to be cost-shared at 50% or above. Proposals for non-proprietary, laboratory testing and field demonstrations whose results will be published into the public domain are preferred to be cost-shared at 25% or above. Cost sharing may include cash, labor, materials, or other allowable expenses.

Multiphase projects may be proposed, but NYSEERDA support for additional phases will be subject to a review of the project's continuing competitiveness, success to date, and availability of NYSEERDA funds. Proposals for multiphase projects must include statements of work and budget estimates for all project phases.

**Eligible technologies** include, but are not limited to, space/domestic water heating; air conditioning and refrigeration; food-beverage vending machines; and heating and cooling technologies directly involving green/sustainable/renewable fuels including solar thermal. Eligible project types include new technologies or substantial improvements to existing technologies. Proposals for projects that would demonstrate technologies having the primary function of generating electricity are not eligible under this solicitation.

**Proposal submission:** Proposers must submit one (1) hard copy and one (1) electronic copy (where the completed proposal is one (1) pdf file) on a compact disc (CD), including the completed Proposal Checklist with original signature attached to the front. Proposals must be clearly labeled and submitted to:

**Roseanne Viscusi, PON 1257  
NYS Energy Research and Development Authority  
17 Columbia Circle  
Albany, NY 12203-6399**

If you have technical questions concerning this solicitation, contact Nathan Russell at (518) 862-1090, ext. 3469 or nar@nyserda.org. If you have contractual questions concerning this solicitation, contact Nancy Marucci at (518) 862-1090, ext. 3335 or nsm@nyserda.org.

No communication intended to influence this procurement is permitted except by contacting Nathan Russell (Designated Contact) at (518) 862-1090, ext. 3469 or nar@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 NYSEERDA location other than the address above. If changes are made to this solicitation, notification will be posted on NYSEERDA's web site at [www.nyserda.org](http://www.nyserda.org).

## I. PROGRAM INTEREST AREAS

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### OBJECTIVE

The New York State Energy Research and Development Authority (NYSERDA) announces a program to support the research and development of innovative heating and cooling technologies for residential and commercial buildings.

### ELIGIBLE TECHNOLOGY AREAS

Technologies eligible for funding include (but are not limited to):

- **Heating** - advanced heating system concepts, innovative fuels, improved distribution, improved system components, alternate thermodynamic cycles or renewable energy space and domestic water heating.
- **Cooling** - advanced cooling system concepts, improved distribution, gas or oil-fired air conditioning systems, innovative system components, alternate thermodynamic cycles or renewable energy space cooling.
- **Integrated Systems** - advanced system concepts that combine space heating and cooling with domestic water heating to take advantage of waste heat utilization or reduced thermal mass. Integrated systems might also incorporate the hybrid use of renewable energy.
- **Refrigeration** - advanced commercial refrigeration system concepts, gas or oil-fired refrigeration systems, innovative system components, alternate thermodynamic cycles or renewable energy refrigeration.
- **Appliances** - advanced concepts for cooking ovens, refrigerators, dishwashers, washing machines and clothes dryers.
- **Renewable Energy** – advancement of renewable energy production, processing, distribution, and/or use. Such energy must directly relate to and impact heating and cooling and could involve biodiesel, wood, grass, and solar thermal.

### ELIGIBLE PROJECT TYPES

- Development of new technologies or substantial improvements to existing technologies;
- Demonstration of eligible technologies;
- Commercialization of eligible technologies;

## II. PROGRAM REQUIREMENTS

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Maximum NYSERDA funding per project is \$300,000. Multiphase projects may be proposed, but NYSERDA support for additional phases will be subject to a review of continuing competitiveness, success to date, and the future availability of funds. Proposals for multiphase projects must include statements of work and budget estimates for all project phases.

Proposals for project funding must meet the following minimum requirements to be considered for funding:

- Proposed projects must be innovative and address the energy and environmental needs of consumers and small businesses in New York State.

- Proposals must address the commercialization strategies to be used in achieving market success for the described technology.
- Proposers must demonstrate that they have technical and financial resources to perform the proposed work, and have access to adequate facilities or the ability to get them.
- All proposals must be cost-shared. Proposals for proprietary, product development and testing by private firms are preferred to be cost-shared at 50% or above. Proposals for non-proprietary, laboratory testing and field demonstrations whose results will be published into the public domain are preferred to be cost-shared at 25% or above. Cost sharing may include cash, funding from other organizations, labor, materials or other allowable expenses, reduced overhead rates, and/or use of special equipment where a fee is normally charged for its use.

### Teaming Arrangements

- Teaming arrangements are encouraged when necessary to meet project goals. Teams may consist of commercial firms, government organizations, universities, or other organizations.

## III. PROPOSAL REQUIREMENTS

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Proposers must submit one (1) hard copy of and a pdf on a CD of the completed proposal to the attention of Roseanne Viscusi at the address on the front of this Program Opportunity Notice. A completed and signed Proposal Checklist 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. Each page of the proposal should state the name of the proposer, the PON number, and the page number.

### 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 are 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.

Proposals must be in the following format:

#### ➤ Title & Principal Contact

A completed and signed Proposal Checklist with the project title and name, address, and telephone/fax number(s) of the principal contact person must be attached to the front of all copies of the proposal, one of which must be an original signature. **Proposals lacking the appropriate completed and signed Proposal Checklist will not be accepted.**

Indicate whether you accept the Standard Terms and Conditions in the Sample Agreement. If you do not accept the Standard Terms and Conditions, provide alternative terms with justification based on the risk and benefit to NYSERDA and New York State.

➤ **Description of Proposed Project** (two pages maximum)

What is the title of the proposed project?

What energy or environmental issues would the project address?

What is the goal of the project?

Briefly describe the technology to be developed and/or demonstrated.

Explain the scientific or engineering principles incorporated into the technology.

What is the current stage of development?

Describe existing or potential competitors of the technology.

How would the technology compare in cost and performance with existing or potential competitors?

➤ **Benefits to New York State** (one page maximum)

Why should NYSERDA fund the project?

Would most or all of the project be performed in New York State?

How many customers in New York State would be able to use the technology?

What energy and environmental benefits would be achieved in New York State?

Approximately how many and what types of jobs might be created in New York State?

➤ **Proposer(s) Qualifications and Resumes** (two pages maximum plus resumes and business literature)

What type of organization are you (e.g., not-for-profit, consulting firm, manufacturer, etc.)?

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

Describe your research and business goals and how the proposed project would accomplish these goals.

Include resumes for key personnel.

Business or product literature and brochures may be included.

➤ **Achieving Market Success** (one page maximum)

Estimate the size of the potential market in New York State for the proposed technology using information from market studies, publications, trade associations, or business experience.

Identify possible market barriers.

Discuss strategies for commercializing the technology.

For public-domain, laboratory testing and field demonstration proposals, describe the technology transfer strategies to be used in achieving widespread use of project results.

➤ **Statement of Work** (two pages maximum)

List the major tasks necessary to complete the project.

Provide a detailed description of each task, indicating who will perform it, how it will be performed, and anticipated results.

➤ **Budget**

Complete and attach the Contract Pricing Proposal Form (CPPF) for the total project and for each subcontractor over \$10,000 in expected cost.

Indicate project cost sharing by the proposer and other team members.

Describe in-kind contributions and any funding from other organizations.

Cost Sharing - The proposal must show non-NYSERDA funding. Proposals for proprietary, product development and testing by private firms are preferred to be cost-shared at 50% or above. Proposals for non-proprietary, laboratory testing and field demonstrations whose results will be published into the public domain are preferred to be cost-shared at 25% or above. Cost sharing may include cash, funding from other organizations, labor, materials or other allowable expenses, reduced overhead rates, and/or use of special equipment where a fee is normally charged for its use. The extent of cost-sharing will be evaluated when considering which projects to fund.

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 the indirect cost (overhead) rate 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 is approved by an independent organization, such as the federal government, provide a copy of such approval.
3. If rate is based on estimated costs or prior period actual results, include calculations to support the proposed rate. Calculations should provide enough information for NYSERDA to evaluate and confirm that the rate is 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 difference. Requests for financial statements or other needed financial information may be made if deemed necessary.

➤ **Recoupment**

For any new product development projects requesting NYSERDA funding over \$50,000, NYSERDA will require a royalty based on sales of the new product developed. See Section V. General Conditions for further information.

➤ **Schedule and Payment Method**

NYSERDA uses one of two payment methods: cost-reimbursable and milestone billing. With milestone billing, milestones are created and as they are accomplished predetermined payment amounts are released. This is the preferred method by NYSERDA’s Project Manager. With cost-reimbursable billing, funding is released, typically monthly, to match incurred expenses. Justification must be provided if this method is preferred by the proposer. The requested payment method **will not** impact the evaluation process.

Using the statement of work, break the project up into suitable milestones. With each milestone include a reference task, description, completion date, and payment. Leave the completion date nonspecific i.e. instead of stating May 28<sup>th</sup>, state day 15, week 2, or month 1 in reference to a starting date that will be determined later. The payment for each milestone should reflect the progress accomplished. Reserve at least 10% of the budget for a final milestone titled final report.

The following example assumes a five task statement of work (Concept Design, Prototype Development, Prototype Redesign and Modification, Field Demonstration, Final Report) broken up into 8 milestones with a proposed budget of \$150,000.

Milestone	Reference task	Description of milestone	Completion Date (Month)	Payment
1	1	Concept design	1	25,000
2	2	Construct Prototype	4	20,000
3	2	Lab Test Prototype	6	15,000
4	3	Prototype Redesign	7	15,000
5	3	Prototype Modification	9	15,000
6	4	Field Demonstration Site Selection	10	25,000
7	4	Field Demonstration	15	20,000
8	5	Final Report	18	15,000
			Total	150,000

If the cost-reimbursable funding method is requested, a schedule should be included that details when each task will be completed. In the case of the above example, the schedule would consist of listing the five tasks (Concept Design, Prototype Development, Prototype Redesign and Modification, Field Demonstration, Final Report) and associated completion dates that are nonspecific, i.e. day 15, week 2, month 1. A milestone billing schedule must still be included.

➤ **Letters of Commitment**

Include letters of commitment, signed by a person authorized to contractually obligate the organization, for all participating organizations and cost-sharers.

#### **IV. PROPOSAL EVALUATION**

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Proposals that meet the Proposal Requirements above will be reviewed and ranked for technical merit, program merit, and cost-value relationship, including cost-sharing. Proposals will be evaluated by a Technical Evaluation Panel (TEP) consisting of NYSERDA staff and selected outside reviewers, based on the criteria below. Final rankings may be based on programmatic and management considerations, such as those identified below.

##### **PROPOSAL EVALUATION CRITERIA**

**Description of Proposed Project** - Is the proposed technology innovative and technically feasible? Would the proposed technology achieve significant improvements in energy or environmental performance? Does the proposed project incorporate renewable/sustainable/green fuels including solar?

**Benefits to New York State** - Would the proposed technology achieve significant energy and environmental benefits in New York State? Would most or all of the project be performed in New York State? Would the project achieve significant economic development benefits in New York State?

**Proposer(s) Qualifications** - Does the proposed team have the relevant and necessary technical and business background and experience?

**Achieving Market Success** - Is there a substantial market or audience in New York State for the proposed work? Does the proposer describe a reasonable strategy for commercialization or technology transfer? Are there any significant market barriers?

**Statement of Work** - Is the proposed project well conceived? Are the proposed tasks appropriate and suitable? Do the tasks address the project objectives?

**Budget** - Is the overall cost reasonable? What is the cofunding percentage? Are the proposer's cofunding contributions (cash, in-kind contributions, etc.) appropriate? Is the overall cost justified by the anticipated benefits? Are overhead and G&A rates reasonable? Are equipment, facility, material, and travel costs based on reasonable estimates? Are the labor rates reflective of the industry?

**Schedule** - Is the schedule realistic? Are significant milestones and delivery of reports and products identified?

**Other Considerations** - Projects will be reviewed to determine if they reflect NYSERDA's overall program objectives. The considerations include:

- The balance among NYSERDA projects of long-term and short-term benefits, risk/reward relationships, and similar presently or previously funded projects;
- The general distribution of NYSERDA projects among diverse commercial, industrial, and other organizations, as well as the geographic distribution of projects within New York State.

#### **V. GENERAL CONDITIONS**

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**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 NYSEDA 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 NYSEDA 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 exempt it from disclosure, including a written statement of the reasons why the information should be exempted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 [www.nyserda.org/about/nyserda.regulations.pdf](http://www.nyserda.org/about/nyserda.regulations.pdf). However, NYSEDA 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** - NYSEDA 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** - NYSEDA is required to comply with the provisions of Tax Law Section 5-a, which requires a prospective contractor, prior to entering an agreement with NYSEDA 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.tax.state.ny.us/pdf/2006/killin/st/st220td\\_606\\_fill\\_in.pdf](http://www.tax.state.ny.us/pdf/2006/killin/st/st220td_606_fill_in.pdf)). Prior to contracting with NYSEDA, the prospective contractor must also certify to NYSEDA whether it has filed such certification with the Department.

The Department has created a second form that must be completed by a perspective contractor prior to contacting and filed with NYSEDA. See, ST-220-CA (available at [http://www.tax.state.ny.us/pdf/2006/killin/st/st220ca\\_606\\_fill\\_in.pdf](http://www.tax.state.ny.us/pdf/2006/killin/st/st220ca_606_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](http://www.tax.state.ny.us/pdf/publications/sales/pub223_606.pdf).

**Contract Award** - NYSEDA anticipates making multiple awards under this solicitation. It may award contracts based on initial applications without discussion, or following limited discussion or negotiations. Each offer should be submitted using the most favorable cost and technical terms. NYSEDA may request additional data or material to support applications. NYSEDA will use the Sample Agreement to contract successful proposals. NYSEDA expects to notify proposers in approximately 12 weeks from the proposal due date as to whether your proposal has been selected to receive an award.

**Recoupment** - For any new product development projects requesting NYSERDA funding over \$50,000, NYSERDA will require a royalty based on sales of the new product developed. NYSERDA's standard royalty terms are 1.5% of sales for products produced in New York State (for a period of fifteen years or until the Contractor pays NYSERDA an amount equal to the amount of funds paid by NYSERDA to the Contractor, whichever comes first) and 5% of sales for products produced outside of New York State (for a period of fifteen years or until the Contractor pays NYSERDA an amount equal to three times the amount of funds paid by NYSERDA to the Contractor, whichever comes first).

**Limitation** - This solicitation does not commit NYSERDA to award a contract, pay any costs incurred in preparing a proposal, or to procure or contract for services or supplies. NYSERDA 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 NYSERDA'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 NYSERDA after the award of a contract, NYSERDA 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.

## **VI. ATTACHMENTS**

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Attachment A - Proposal Checklist

Attachment B - Disclosure of Prior Findings of Non-responsibility Form

Attachment C - Contract Pricing Proposal Form (CPPF) and Instructions ([pdf](#)) or see our [Standard Forms](#) page for other formats

Attachment D - Intent to Propose Form (optional)

Attachment E - Sample Agreement