



**Proposals Due: December 10, 2009
by 5:00 PM Eastern Time***

The New York State Energy Research and Development Authority (NYSERDA) seeks proposals to support the development, demonstration, and commercialization of environmentally preferred power systems and electric energy storage technologies. One round is scheduled under this PON and total available funding is \$5,000,000. All, or none, of the available funds may be allocated. Category descriptions are as follows:

Category 'A' - Early Stage Innovative Product Development Feasibility and Technology Transfer Studies:

Feasibility studies of innovative renewable and other environmentally preferred power systems technologies that address NYSERDA's energy, environmental, and economic goals involving components that would be manufactured in New York State. Also, Technology Transfer Studies that assess topics of general interest to the DG and renewable communities are eligible. Maximum NYSERDA funding for this Category is \$250,000 per project.

Category 'B' - New Product Development: Development of innovative renewable and other environmentally preferred technologies, including distributed generation (DG), electric energy storage, power quality/reliability components, and related technologies that improve performance, and lead to the commercialization of products manufactured in New York State. Maximum NYSERDA funding for this category is \$1,000,000 per project.

Category 'C' - Demonstration Projects: Demonstration of innovative renewable and other environmentally preferred technologies that are past the "proof-of-concept" stage, including distributed generation (DG), power quality/reliability components, and related technologies that improve performance, demonstrate application opportunities, and lead to the commercialization of products manufactured in New York State. Also eligible are demonstrations of emerging electric energy storage technologies such as ultra-capacitors, advanced batteries and flywheels for applications such as power quality/reliability improvement, time-of-use energy cost management, renewable energy generating sources firming, etc. Maximum NYSERDA funding for this category is \$1,500,000 per project. Proposals under this Category must clearly identify why they fall within Category C (Demonstration) rather than Category B (Product Development).

NOTE: Proposer must indicate to which category they are proposing on the proposal checklist. Each proposal will be considered for only one category of funding. Proposals submitted under Categories B and C must be cost-shared at or above 50% of total project costs and those under Category A are encouraged to be cost-shared at or above 50% of total project costs. Proposals submitted under any category that request NYSERDA funds for product development may be subject to recoupment.

Proposal Submission: Proposers must submit twelve (12) print copies and one (1) electronic media copy (CD or 3½ inch floppy) of the proposal in **Microsoft Word format** 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, PON 1670
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399**

If you have technical questions concerning this solicitation, contact the individuals listed below by e-mail or by phoning (518) 862-1090 and selecting the appropriate extension:

James Foster ext. 3376	Project Manager jmf@nyserda.org	Richard Drake ext. 3258	Program Manager rld@nyserda.org	Jennifer Harvey ext. 3264	Sr. Project Manager jlh@nyserda.org
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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 one of the Designated Contacts listed above. 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 may 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.

Introduction

New York State Energy Research and Development Authority (NYSERDA), a public benefit corporation, provides energy-related technical and financial assistance to businesses and institutions to promote energy efficiency and economic development. NYSERDA sponsors energy research and development programs that promote safe and economical energy production and efficiency technologies in New York State, issues tax-exempt bonds and notes for energy-related projects, and analyzes the effect of New York's energy, regulatory, and environmental policies on the State's business, institutional, and residential energy consumers.

The New York **Energy \$mart** ^(sm) program is designed to continue energy efficiency, low-income services, research and development, and environmental protection programs during the State's transition to electric retail competition, and is a key element in the restructuring of New York's utility industry. To ensure that these kinds of programs continue to benefit New Yorkers, the State's Public Service Commission (PSC) named NYSERDA administrator of these programs, which are paid for by a System Benefits Charge (SBC) on the electricity transmitted and distributed by the State's investor-owned utilities. The New York **Energy \$mart** ^(sm) program is being implemented in those utility territories.

In addition to this program, NYSERDA has solicitations to assist in technology and business development and establishing manufacturing facilities (<http://www.nyserderda.org/Funding/default.asp>). NYSERDA's Saratoga Technology + Energy Park® (STEP®), a fully integrated knowledge community, also supports the success of clean-energy and environmental companies by providing an eco-friendly environment in which to build and grow (<http://step.nyserderda.org/>).

Under this solicitation, NYSERDA seeks proposals to develop and demonstrate renewable and other environmentally preferred technologies, including distributed generation, power quality and reliability technologies and components that improve performance, demonstrate application opportunities, and lead to the commercialization of products manufactured in New York State. Also of interest are projects that will develop and demonstrate electrical energy storage systems to be installed on the customer side of the electric meter that can provide alternatives to central generating capacity, renewable energy generating sources firming, cost savings, reliability and power quality benefits, improved energy efficiency, and/or environmental benefits.

Anticipated benefits include the introduction of products that provide end users with additional options for improved reliability, power quality, and competitive electric cost using products that have superior environmental attributes as well as benefits that help to achieve NYSERDA's economic development goals including near-term and sustainable creation or retention of jobs in New York, lower energy cost and reduced life-cycle cost through decreased energy use and reduced need for new central station construction.

This solicitation includes three categories:

- A. Early Stage Innovative Product Feasibility and Technology Transfer Studies;
- B. New Product Development;
- C. Demonstration Projects.

The proposer must indicate under which category they are proposing.

Specific requirements for each category are as follows:

Category A: Innovative Product Feasibility and Technology Transfer Studies

I. Program Requirements

Eligibility – Eligible projects for **Early Stage Innovative Product Feasibility and Technology Transfer Studies** of renewable and other environmentally preferred Distributed Generation (DG) power systems, electrical energy storage and/or related components including:

- (1) Feasibility Studies to assess the viability of innovative renewable and other environmentally preferred DG product designs/concepts of innovative power systems technologies, including DG and/or Combined Heat and Power (CHP) systems/components and electrical energy storage technologies that would be manufactured in New York State.
- (2) Feasibility Studies of other innovative power systems technologies that address NYSERDA's energy, environmental, and economic goals involving components that would be manufactured in New York State.
- (3) Technology Transfer Studies that assess and report on topics of general interest to the renewable and other environmentally preferred DG power systems stakeholder communities in New York. Past studies have included such diverse topics as: developing protocols for standardized testing to assess the electrical, thermal, and environmental performance of DG-CHP systems, evaluating the technical, operational and economic feasibility of various retrofit technologies to reduce NOx emissions from engine-driven generators, evaluation of retrofit electrical energy savings technologies, and assessment of various technologies to meet the power quality and reliability requirements for semiconductor research and manufacturing facilities.

Eligible projects for **Early Stage Innovative Product Feasibility and Technology Transfer Studies** of Power System and/or DG Technologies may address areas already within the scope of existing NYSERDA projects, or may represent new approaches to achieving NYSERDA's energy, environmental, and economic goals. Areas of interest include, but are not limited to:

- (1) Fuel cells and related components and subsystems;
- (2) Innovative electric energy storage technologies including batteries, flywheels, ultra-capacitors, and superconducting magnetic energy storage;
- (3) Solar electric technologies, including innovative photovoltaic and solar thermal-electric systems, components of these systems, and products that incorporate photovoltaics;
- (4) Wind technologies including innovative wind energy-conversion devices, components, and products that support wind-energy systems and power plants;
- (5) Hydro power technologies, including innovative products that increase generating capacity or improve environmental performance;
- (6) Power conditioning equipment;
- (7) Innovative technologies for upgrading performance of new or existing power generation equipment;
- (8) Systems and equipment innovations for improving distribution system performance and reliability;
- (9) Biomass, waste heat to energy, and biogas;
- (10) Innovative packaging of DG products for targeted purposes, such as baseload, CHP, peak-load reduction, power quality, electrical energy storage, hybrid combinations, and other applications;
- (11) Innovative control systems related to power systems, generation, and distribution, such as remote or on-

Instructions for Category A: Innovative Product Feasibility and Technology Transfer Studies

site monitoring and diagnostic systems, intelligent remote or on-site control systems to provide command and communication with power systems equipment, or control systems technologies to promote safe, reliable integration of DG and electric energy storage technologies into the distribution system.

Limitations – Proposals for projects receiving or anticipating to receive Renewable Portfolio Standard (RPS) funding are ineligible for funding under this solicitation. Both power generation and energy storage projects must produce electricity.

Project Scope – Projects selected for funding must:

- (1) Address power generation, availability, reliability, and quality needs of New York State, as well as energy efficiency and environmental performance.
- (2) Provide direct and quantifiable energy, environmental, and economic benefits to New York State such as peak electric demand reduction, high fuel-use efficiency, emissions reductions, reduced power costs, job creation, product manufacturing and sales.
- (3) Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing total project cost and proposer cost-share. Include a budget breakdown by project task.
- (4) Provide sharing of success by agreeing to pay recoupment to NYSEDA upon product commercialization (if applicable, see terms and conditions in Section 8 of attached Sample Agreement.)
- (5) Demonstrate that the proposer and/or team of proposers are qualified to carry out the submitted project proposal.
- (6) For Product Feasibility Studies, emphasize development and/or application of marketable products for near-term commercialization, rather than basic research.
- (7) For Product Feasibility Studies, provide a preliminary commercialization and marketing strategy, and discuss the potential for manufacturing in New York State.

Other Considerations – In addition, note that:

- A proposal may be considered **non-responsive** if it fails to comply with the requirements above, the Proposal Requirements of Category B, Section II, or Section V, General Conditions for ALL categories.
- Prior to an award being made, potential contractors may be required to demonstrate: access to financial resources sufficient to perform the proposed work, technical experience and adequate facilities (or the ability to access them), a good performance record, and the ability to qualify for an award under applicable laws and regulations.

II. Proposal Requirements

Proposers must submit twelve (12) print copies and one (1) electronic media copy (CD or 3½ inch floppy) of the proposal in Microsoft Word format with a completed and signed Proposal Checklist attached to the front of each copy, one of which must contain an original signature. Proposal should be addressed to the attention of Roseanne Viscusi at the address on the front of this Program Opportunity Notice. **Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist may be returned.** Faxed or e-mailed copies will not be accepted.

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, additional 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

Instructions for Category A: Innovative Product Feasibility and Technology Transfer Studies

Checklist referenced in this solicitation will disqualify your proposal.

Proposals should not be excessively long or submitted in an elaborate format that includes expensive binders or graphics - double-sided prints with a staple in the upper left corner is the preferred format. 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. **The proposal must be in the following format and sequence listed below** (suggested page limits for each section are shown in parentheses following the section title).

1. Proposal Checklist - Complete the specific Proposal Checklist attached as part of this PON, and include it as the front cover of the original and each copy of the proposal. Please note the following:

- Indicate whether you accept the standard terms and conditions as contained in the attached Sample Agreement. If you do not accept the standard terms and conditions, provide alternate terms with justification based on the risk and benefit to NYSERDA and New York State. NYSERDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.
- Be sure the individual who is signing the Proposal Checklist is authorized to commit the proposer's organization to the proposal as submitted.

2. Disclosure of Prior Findings of Non-Responsibility Form

3. Executive Summary (one page) – Briefly summarize the power systems-related problem or opportunity, the proposed solution, its innovative characteristics and potential benefits, and the list of team members and their qualifications.

4. Problem Statement and Proposed Solution (two to three pages) – Describe the following:

- The power systems-related problem or opportunity, and its significance to New York State
- The proposed solution and how it addresses the problem or opportunity: the technical basis, innovative characteristics, current stage of research and development, and current market penetration in New York State
- Alternative solutions and why the proposed solution is superior
- Barriers to market entry and your ability to overcome them.
- Any patents or licensing agreements associated with the product or system.
- The status of the earlier phase of a project if the proposal addresses a subsequent follow-on phase of a previously cofunded NYSERDA project.

5. Proposed Statement of Work and Schedule (three to four pages). The Statement of Work (SOW) is the primary contractual document that outlines work activities and quantifies deliverables. It specifically delineates each step or procedure required to accomplish the project objectives. Therefore, each action shall be identified, indicating who will perform it, how it will be performed and its intended result. Be clear and specific: concentrate on “how” and not “why.” Use “active voice” sentence structure to make clear who is responsible for specific actions; for example, use the following phrase to start the description of every task and subtask: “The Contractor shall”

Include a list and three to four-sentence description of each of the major tasks to be accomplished. Typical task titles may include, but are not limited to, the following: project management, requirements definition, evaluation of current practices, cost assessment, test plan development, design, installation, metrics (benefits) quantification, etc. For example:

Task 1.0 Project Management.

Subtask 1.1 Subcontracts (if any). The Contractor shall enter into the following agreements

Subtask 1.2 Meetings. The Contractor shall hold a Kick-Off Meeting, Interim Review Meetings (as warranted), and a Wrap-Up Meeting at the end of the project.

Subtask 1.3 Reporting. NYSERDA will expect to receive written progress reports (typically monthly), as part of the project management task. These activities should be considered when developing your cost proposal. Such reports shall describe any difficulties encountered during the reporting period, and shall include a statement of the Project Director setting forth the cost of the work during the reporting period. The progress reports should be

Instructions for Category A: Innovative Product Feasibility and Technology Transfer Studies

submitted to NYSERDA's Project Manager no later than the 15th of each month. Progress reports shall be in a letter format and shall include the following subjects in the order indicated, with appropriate explanation and discussion.

- a. Title of project
- b. Agreement number
- c. Period of this report
- d. Progress of report
- e. Planned progress in the future
- f. Identification of problems
- g. Planned solutions
- h. Ability to meet schedule, reasons for slippage in schedule
- i. Schedule - percentage completed and projected percentage of completion of performance by months as a bar chart or milestone chart
- j. Analysis of actual cost incurred in relation to the budget

Subtask 1.4. Final Report. The Final Report should detail all of the work performed and task deliverables, but exclude proprietary information. The comprehensive Final Report shall cover all aspects of the project and shall merge together, and build further on, the previously generated monthly progress reports.

Task 2.0, 3.0, 4.0, etc. Project-specific Work Scope Tasks. Add as many tasks and subtasks as necessary to cover all actions needed to achieve the goals and objectives of the project. These will be action steps. Each task should include a concise narrative description of the work that will be performed and how the work will be performed and deliverables to be provided. Typical tasks may include, but are not limited to, requirements definition, preliminary design, prototype construction, testing, final design, and demonstration. Deliverable(s) for each Task should be identified as appropriate.

Schedule. Present a work schedule with a starting point and duration for each task and subtask. Presentation of the schedule in a bar chart is preferred starting with "Month 1," "Month 2," etc. The schedule should include timing of major milestones such as design reviews, test result analyses, completion of working prototypes, delivery of products, and the start of metrics reporting to NYSERDA, showing progress toward project objectives and goals.

If applicable, a brief description and anticipated duration of additional development or commercialization activities, beyond the proposed work, that will be necessary to fully achieve commercialization.

6. Proposer Qualifications (one to three pages, depending on team size) – Identify the following:

- Proposer and any other team members and major subcontractors, with Project Manager and other key individuals listed. Note: Subcontracts of \$25,000 or more are subject to competitive bid procedures except where the proposal identifies a specific subcontractor as an integral participant in the proposed work (see attached Sample Agreement).
- Qualifications of all businesses, organizations, and individuals named above, including relevant experience and references.
- All NYSERDA contracts awarded to the proposer, if any, in the past five years, with the funding totals and current status or outcome of the project included.

7. Project Benefits (two pages) – Outline benefits as follows:

- **Quantify** the following potential direct benefits to New York State to the extent possible:
 - Energy benefits (e.g., barrels/day reductions in petroleum fuels consumption in New York State, percentage improvement in energy efficiency, etc.)
 - Environmental benefits (e.g., pollutant emission reductions, elimination of hazardous materials, etc.)
 - Economic benefits (e.g., near-term jobs created, power generation equipment life-cycle cost reductions, etc.)
- **Identify** other benefits (e.g., compliance with New York State or federal regulations, increased mobility, etc.)
- **Describe** how the success of the project can be measured and verified.

Instructions for Category B: Innovative Product Feasibility and Technology Transfer Studies

8. Technology Transfer and Commercialization Plan (Two to three pages) – Describe how project results will be used to commercialize or deploy new products and indicate the parties involved in the process. Projects nearing commercialization should have a detailed commercialization plan, whereas an early-stage concept should be accompanied by at least a rough outline of how the concept may ultimately be deployed. Cover the following topics:

- **Project Timeline:** Provide a multi-year timeline (e.g., graph) showing the paths, activities, milestones, resources, timing to take the technology from its current state of development to commercial product, and cost sharing in relation to total costs.
- **Marketing:** Identify target markets and their relevant characteristics (e.g., size, competition, regulatory and technological trends, etc.). Describe your proposed marketing strategies, explain why they should be successful, and provide sales estimates. Provide an estimate of the price of the product or system that eventually will be commercialized and provide a comparison of that price to competing products or systems. Briefly explain the customer's economic motivation for buying the new product or system, versus alternatives.
 - **Design & Production:** Describe remaining technical development steps leading to the start of manufacturing or deployment. Describe plans for setting up or expanding manufacturing facilities. Discuss any key issues such as: need for specialized production equipment or strategic alliances; critical make/buy decisions or cost/volume issues; and plans for ancillary activities such as service support functions.
 - **Finance:** Estimate funds required to go from the current stage of development to a financially self-sustaining level of commercialization. Include funding for R&D and initial marketing and manufacturing/deployment programs. Identify potential funding sources and how those sources will be addressed. Identify any potential strategic partners who could reduce your costs by providing access to marketing/distribution channels, manufacturing facilities or other assets.
 - **Organization Plan:** Describe staffing plans for transition from R&D stage to commercialization stage; include all organizational functions, such as management, administration, engineering, marketing/sales, and manufacturing.
 - **Technology Transfer:** Describe any additional actions to promote the new technology, such as the presentation of technical papers.

9. Budget – Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing a total of project costs and proposer cost-share (maximum NYSERDA funding for this category is \$250,000 per project). Include a budget breakdown by project task. Use the format below (expand table as needed).

Cost Sharing - Proposals submitted under Category A are encouraged to show non-NYSERDA funding at or above 50% of the total cost of the project. Cost sharing can be from the proposer, other team members, and other government 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 that have already been undertaken. The proposer or proposing team cannot claim as cost-share any expenses that have already been incurred.

PROPOSAL COST SHARING TABLE							
Funding Source	Task 1		Task 2		Task ...	Project Total	
	Cash	In-Kind	Cash	In-Kind	...	Cash	In-Kind
NYSERDA							
Proposer							
Co-Funder (identify)							
Co-Funder (identify)							
Task 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).

Instructions for Category A: Innovative Product Feasibility and Technology Transfer Studies

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). Calculation 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 adjustment for such difference. Requests for financial statements or other needed financial information may be made if deemed necessary.

10. Appendices – Include any resumes, company qualifications, or ancillary information that is deemed necessary to support your proposal. If appropriate, also include:

- **Letters of Interest or Commitment** – If you are relying on any other organization to do some of the work, provide services or equipment, or share in the non-NYSERDA cost, include a letter from that organization describing their planned participation. Also include letters of interest or commitment from businesses or other organizations critical to the future commercialization, demonstration, or implementation of the project. **Absence of letters of interest or commitment will be interpreted as the proposer not having support from the identified parties.**
- **Exceptions to the Terms and Conditions** – If you do not accept the standard terms and conditions (including the recoupment provisions) as contained in the attached Sample Agreement, provide alternate terms with justification based on the risk and benefit to NYSERDA and New York State. NYSERDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.

III. Recoupment Provisions

Recoupment may be required. Please refer to Section V, “General Conditions for ALL Categories” located after the “Instructions for Category C” section.

IV. Proposal Evaluation

Proposals that meet Proposal Requirements will be reviewed by a Technical Evaluation Panel (TEP) using the Evaluation Criteria identified below. After the proposals are reviewed, NYSERDA will issue a letter to each proposer indicating the proposal evaluation results. Proposers receiving favorable evaluations will be invited to enter into contract negotiations with NYSERDA. The proposer may also be asked to address specific questions or recommendations of the TEP before contract award.

Evaluation Criteria:

- **Problem and Proposed Solution** - How significant is the problem or opportunity to New York State? How well does the proposed solution address the problem or opportunity? Are fundamental scientific principles well understood and clearly presented? Does the proposer exhibit an understanding of the state-of-the-art, competing products and alternative designs? Is the proposed work technically feasible, innovative, and superior to alternatives? How significant are the barriers to market entry? Does the proposer demonstrate a clear understanding of the steps required to overcome these barriers? If the proposed work is a follow-on to a previously cofunded NYSERDA project, what was the outcome of the earlier phase?
- **Project Scope and Schedule** - How appropriate are the technical and performance goals for the proposed technology or system? Is the statement of work well organized, complete, and appropriate for the goals identified? How realistic is the schedule for achievement of the goals of the proposed project?
- **Proposer Qualifications** - Has the proposer provided evidence of being qualified to perform the proposed work? To what degree does the proposer have the necessary technical and business background and experience? Has the proposer provided evidence of good past performance on other relevant projects?
- **Project Benefits** - How well are the potential benefits to New York State quantified? Does the proposed project have favorable energy, environmental and economic impacts in New York State? How significant are these impacts? Does the proposed project assist New York State in complying with federal clean air regulations or achieving the goals of New York’s Renewable Portfolio Standard (RPS)? Is the plan for measurement and verification of the success of the proposed project clear and complete? How well does the project reflect

Instructions for Category A: Innovative Product Feasibility and Technology Transfer Studies

NYSERDA's overall objectives (risk/reward relationships, similar ongoing or completed projects, the general distribution of NYSERDA projects among industries and other organizations, and the distribution of projects within New York State)?

- **Project Outcome & Cost** - Has the market been identified and characterized? Is the estimated product price competitive with alternative products or solutions? Has a realistic strategy been presented for producing the technology, product, or system and introducing it to the market? Is the commercialization plan appropriate for the stage of development? Is the overall project cost justified based on the expected benefits? How significant is the potential market opportunity relative to the project cost? How appropriate are the proposer's cofunding contributions (sources and amounts) with respect to the degree of risk, potential to benefit from the work, and financial status of the organization? How firm are the commitments and support from essential participants, cofunders, and related business and other organizations? Are the overhead rates reasonable and supported with appropriate documentation?

Category B: New Product Development

I. Program Requirements

Eligibility – Eligible projects for **New Product Development** of innovative renewable and other environmentally preferred Distributed Generation (DG) power systems and/or related components include:

- (1) Development and commercialization of power systems technologies, including DG and/or Combined Heat and Power (CHP) systems or components manufactured in New York State.
- (2) Development of other innovative power systems technologies that address NYSERDA's energy, environmental, and economic goals involving components manufactured in New York State. Proposals may address DG and/or CHP technologies at varying stages of development from definition of requirements, through proof of concept and early product development, to field evaluation for initial market introduction.

Eligible projects for **New Product Development** of Power System and/or DG Technologies may address areas already within the scope of existing NYSERDA projects, or may represent new approaches to achieving NYSERDA's energy, environmental, and economic goals. Areas of interest include, but are not limited to:

- (1) Fuel cells and related components and subsystems;
- (2) Innovative electric energy storage technologies including batteries, flywheels, ultra-capacitors, and superconducting magnetic energy storage;
- (3) Solar electric technologies, including innovative photovoltaic and solar thermal-electric systems, components of these systems, and products that incorporate photovoltaics;
- (4) Wind technologies including innovative wind energy-conversion devices, components, and products that support wind-energy systems and power plants;
- (5) Hydro power technologies, including innovative products that increase generating capacity or improve environmental performance;
- (6) Power conditioning equipment;
- (7) Innovative technologies for upgrading performance of new or existing power generation equipment;
- (8) Systems and equipment innovations for improving distribution system performance and reliability;
- (9) Biomass, waste heat to energy, and biogas;
- (10) Innovative packaging of DG products for targeted purposes, such as baseload, CHP, peak-load reduction, power quality, electrical energy storage, hybrid combinations, and other applications;
- (11) Innovative control systems related to power systems, generation, and distribution, such as remote or on-site monitoring and diagnostic systems, intelligent remote or on-site control systems to provide command and communication with power systems equipment, or control systems technologies to promote safe, reliable integration of DG and storage technologies into the distribution system.

Limitations – Proposals for projects receiving or anticipating to receive Renewable Portfolio Standard (RPS) funding are ineligible for funding under this solicitation. Both power generation and energy storage projects must produce electricity.

Project Scope – Projects selected for funding must:

- (1) Address power generation, availability, reliability, and quality needs of New York State, as well as energy efficiency and environmental performance.

Instructions for Category B: New Product Development

- (2) Provide direct and quantifiable energy, environmental, and economic benefits to New York State such as peak electric demand reduction, high fuel-use efficiency, emissions reductions, reduced power costs, job creation, product manufacturing and sales.
- (3) Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing total project cost and proposer cost-share. Include a budget breakdown by project task.
- (4) Provide sharing of success by agreeing to pay recoupment to NYSERDA upon product commercialization (if applicable, see terms and conditions in Section 8 of attached Sample Agreement.)
- (5) Demonstrate that the proposer and/or team of proposers are qualified to carry out the submitted project proposal.
- (6) Emphasize development and/or application of marketable products for near-term commercialization, rather than basic research.
- (7) Provide a preliminary commercialization and marketing strategy, and discuss the potential for manufacturing in New York State.

Other Considerations – In addition, note that:

- A proposal may be considered **non-responsive** if it fails to comply with the requirements above, the Proposal Requirements of Category B, Section II, or Section V, General Conditions for ALL categories.
- Prior to an award being made, potential contractors may be required to demonstrate: access to financial resources sufficient to perform the proposed work, technical experience and adequate facilities (or the ability to access them), a good performance record, and the ability to qualify for an award under applicable laws and regulations.

II. Proposal Requirements

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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, additional 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 should not be excessively long or submitted in an elaborate format that includes expensive binders or graphics - double-sided prints with a staple in the upper left corner is the preferred format. 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. **The proposal must be in the following format and sequence listed below** (suggested page limits for each section are shown in parentheses following the section title).

- 1. Proposal Checklist - Complete the specific Proposal Checklist attached as part of this PON, and include it as**

the front cover of the original and each copy of the proposal. Please note the following:

- Indicate whether you accept the standard terms and conditions as contained in the attached Sample Agreement. If you do not accept the standard terms and conditions, provide alternate terms with justification based on the risk and benefit to NYSERDA and New York State. NYSERDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.
- Be sure the individual who is signing the Proposal Checklist is authorized to commit the proposer's organization to the proposal as submitted.

2. Disclosure of Prior Findings of Non-Responsibility Form

3. Executive Summary (one page) – Briefly summarize the power systems-related problem or opportunity, the proposed solution, its innovative characteristics and potential benefits, and the list of team members and their qualifications.

4. Problem Statement and Proposed Solution (two to three pages) – Describe the following:

- The power systems-related problem or opportunity, and its significance to New York State
- The proposed solution and how it addresses the problem or opportunity: the technical basis, innovative characteristics, current stage of research and development, and current market penetration in New York State
- Alternative solutions and why the proposed solution is superior
- Barriers to market entry and your ability to overcome them.
- Any patents or licensing agreements associated with the product or system.
- The status of the earlier phase of a project if the proposal addresses a subsequent follow-on phase of a previously cofunded NYSERDA project.

5. Proposed Statement of Work and Schedule (three to four pages). The Statement of Work (SOW) is the primary contractual document that outlines work activities and quantifies deliverables. It specifically delineates each step or procedure required to accomplish the project objectives. Therefore, each action shall be identified, indicating who will perform it, how it will be performed and its intended result. Be clear and specific: concentrate on “how” and not “why.” Use “active voice” sentence structure to make clear who is responsible for specific actions; for example, use the following phrase to start the description of every task and subtask: “The Contractor shall”

Include a list and three to four-sentence description of each of the major tasks to be accomplished. Typical task titles may include, but are not limited to, the following: project management, requirements definition, evaluation of current practices, cost assessment, test plan development, design, installation, metrics (benefits) quantification, etc. For example:

Task 1.0 Project Management.

Subtask 1.1 Subcontracts (if any). The Contractor shall enter into the following agreements

Subtask 1.2 Meetings. The Contractor shall hold a Kick-Off Meeting, Interim Review Meetings (as warranted), and a Wrap-Up Meeting at the end of the project.

Subtask 1.3 Reporting. NYSERDA will expect to receive written progress reports (typically monthly), as part of the project management task. These activities should be considered when developing your cost proposal. Such reports shall describe any difficulties encountered during the reporting period, and shall include a statement of the Project Director setting forth the cost of the work during the reporting period. The progress reports should be submitted to NYSERDA's Project Manager no later than the 15th of each month. Progress reports shall be in a letter format and shall include the following subjects in the order indicated, with appropriate explanation and discussion.

- a. Title of project
- b. Agreement number
- c. Period of this report
- d. Progress of report
- e. Planned progress in the future

- f. Identification of problems
- g. Planned solutions
- h. Ability to meet schedule, reasons for slippage in schedule
- i. Schedule - percentage completed and projected percentage of completion of performance by months as a bar chart or milestone chart
- j. Analysis of actual cost incurred in relation to the budget

Subtask 1.4. Final Report. The Final Report should detail all of the work performed and task deliverables, but exclude proprietary information. The comprehensive Final Report shall cover all aspects of the project and shall merge together, and build further on, the previously generated monthly progress reports.

Task 2.0, 3.0, 4.0, etc. Project-specific Work Scope Tasks. Add as many tasks and subtasks as necessary to cover all actions needed to achieve the goals and objectives of the project. These will be action steps. Each task should include a concise narrative description of the work that will be performed and how the work will be performed and deliverables to be provided. Typical tasks may include, but are not limited to, requirements definition, preliminary design, prototype construction, testing, final design, and demonstration.

Schedule. Present a work schedule with a starting point and duration for each task and subtask. Presentation of the schedule in a bar chart is preferred starting with "Month 1," "Month 2," etc. The schedule should include timing of major milestones such as design reviews, test result analyses, completion of working prototypes, delivery of products, and the start of metrics reporting to NYSERDA, showing progress toward project objectives and goals.

If applicable, a brief description and anticipated duration of additional development or commercialization activities, beyond the proposed work, that will be necessary to fully achieve commercialization.

6. Proposer Qualifications (one to three pages, depending on team size) – Identify the following:

- Proposer and any other team members and major subcontractors, with Project Manager and other key individuals listed. Note: Subcontracts of \$25,000 or more are subject to competitive bid procedures except where the proposal identifies a specific subcontractor as an integral participant in the proposed work (see attached Sample Agreement).
- Qualifications of all businesses, organizations, and individuals named above, including relevant experience and references.
- All NYSERDA contracts awarded to the proposer, if any, in the past five years, with the funding totals and current status or outcome of the project included.

7. Project Benefits (two pages) – Outline benefits as follows:

- **Quantify** the following potential direct benefits to New York State to the extent possible:
 - Energy benefits (e.g., barrels/day reductions in petroleum fuels consumption in New York State, percentage improvement in energy efficiency, etc.)
 - Environmental benefits (e.g.: pollutant emission reductions, elimination of hazardous materials, etc.)
 - Economic benefits (e.g., near-term jobs created, power generation equipment life-cycle cost reductions, etc.)
- **Identify** other benefits (e.g., compliance with New York State or federal regulations, increased mobility, etc.)
- **Describe** how the success of the project can be measured and verified.

8. Technology Transfer and Commercialization Plan (Two to three pages) – Describe how project results will be used to commercialize or deploy new products and indicate the parties involved in the process. Projects nearing commercialization should have a detailed commercialization plan, whereas an early-stage concept should be accompanied by at least a rough outline of how the concept may ultimately be deployed. Cover the following topics:

- **Project Timeline:** Provide a multi-year timeline (e.g., graph) showing the paths, activities, milestones, resources, timing to take the technology from its current state of development to commercial product, and cost sharing in relation to total costs.
- **Marketing:** Identify target markets and their relevant characteristics (e.g., size, competition, regulatory and technological trends, etc.). Describe your proposed marketing strategies, explain why they should be successful, and provide sales estimates. Provide an estimate of the price of the product or system that eventually will be commercialized, and provide a comparison of that price to competing products or systems. Briefly explain the

Instructions for Category B: New Product Development

customer's economic motivation for buying the new product or system, versus alternatives.

- **Design & Production:** Describe remaining technical development steps leading to the start of manufacturing or deployment. Describe plans for setting up or expanding manufacturing facilities. Discuss any key issues such as: need for specialized production equipment or strategic alliances; critical make/buy decisions or cost/volume issues; and plans for ancillary activities such as service support functions.
- **Finance:** Estimate funds required to go from the current stage of development to a financially self-sustaining level of commercialization. Include funding for R&D and initial marketing and manufacturing/deployment programs. Identify potential funding sources and how those sources will be addressed. Identify any potential strategic partners who could reduce your costs by providing access to marketing/distribution channels, manufacturing facilities or other assets.
- **Organization Plan:** Describe staffing plans for transition from R&D stage to commercialization stage; include all organizational functions, such as management, administration, engineering, marketing/sales, and manufacturing.
- **Technology Transfer:** Describe any additional actions to promote the new technology, such as the presentation of technical papers.

9. Budget – Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing a total of project costs and proposer cost-share (maximum NYSERDA funding for this category is \$1,000,000 per project). Include a budget breakdown by project task. Use the format below (expand table as needed).

Cost Sharing - The proposal should show non-NYSERDA funding of at least 50% of the total cost of the project. Cost sharing can be from the proposer, other team members, and other government 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 that have already been undertaken. The proposer or proposing team cannot claim as cost-share any expenses that have already been incurred.

PROPOSAL COST SHARING TABLE							
Funding Source	Task 1		Task 2		Task ...	Project Total	
	Cash	In-Kind	Cash	In-Kind	...	Cash	In-Kind
NYSERDA							
Proposer							
Co-Funder (identify)							
Co-Funder (identify)							
Task 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). Calculation 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 adjustment for such difference. Requests for financial statements or other needed financial information may be made if deemed necessary.

10. Appendices – Include any resumes, company qualifications, or ancillary information that is deemed necessary to support your proposal. If appropriate, also include:

- **Letters of Interest or Commitment** – If you are relying on any other organization to do some of the work, provide services or equipment, or share in the non-NYSERDA cost, include a letter from that organization describing their planned participation. Also include letters of interest or commitment from businesses or other organizations critical to the future commercialization, demonstration, or implementation of the project. **Absence of letters of interest or commitment will be interpreted as the proposer not having support from the identified parties.**
- **Exceptions to the Terms and Conditions** – If you do not accept the standard terms and conditions (including the recoupment provisions) as contained in the attached Sample Agreement, provide alternate terms with justification based on the risk and benefit to NYSEDA and New York State. NYSEDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.

III. Recoupment Provisions

Recoupment may be required. Please refer to Section V, “General Conditions for ALL Categories” located after the “Instructions for Category C” section.

IV. Proposal Evaluation

Proposals that meet Proposal Requirements will be reviewed by a Technical Evaluation Panel (TEP) using the Evaluation Criteria identified below. After the proposals are reviewed, NYSEDA will issue a letter to each proposer indicating the proposal evaluation results. Proposers receiving favorable evaluations will be invited to enter into contract negotiations with NYSEDA. The proposer may also be asked to address specific questions or recommendations of the TEP before contract award.

Evaluation Criteria:

- **Problem and Proposed Solution** - How significant is the problem or opportunity to New York State? How well does the proposed solution address the problem or opportunity? Are fundamental scientific principles well understood and clearly presented? Does the proposer exhibit an understanding of the state-of-the-art, competing products and alternative designs? Is the proposed work technically feasible, innovative, and superior to alternatives? How significant are the barriers to market entry? Does the proposer demonstrate a clear understanding of the steps required to overcome these barriers? If the proposed work is a follow-on to a previously cofunded NYSEDA project, what was the outcome of the earlier phase?
- **Project Scope and Schedule** - How appropriate are the technical and performance goals for the proposed technology or system? Is the statement of work well organized, complete, and appropriate for the goals identified? How realistic is the schedule for achievement of the goals of the proposed project?
- **Proposer Qualifications** - Has the proposer provided evidence of being qualified to perform the proposed work? To what degree does the proposer have the necessary technical and business background and experience? Has the proposer provided evidence of good past performance on other relevant projects?
- **Project Benefits** - How well are the potential benefits to New York State quantified? Does the proposed project have favorable energy, environmental and economic impacts in New York State? How significant are these impacts? Does the proposed project assist New York State in complying with federal clean air regulations or achieving the goals of New York’s Renewable Portfolio Standard (RPS)? Is the plan for measurement and verification of the success of the proposed project clear and complete? How well does the project reflect NYSEDA’s overall objectives (risk/reward relationships, similar ongoing or completed projects, the general distribution of NYSEDA projects among industries and other organizations, and the distribution of projects within New York State)?
- **Project Outcome & Cost** - Has the market been identified and characterized? Is the estimated product price competitive with alternative products or solutions? Has a realistic strategy been presented for producing the technology, product, or system and introducing it to the market? Is the commercialization plan appropriate for the stage of development? Is the overall project cost justified based on the expected benefits? How significant is the potential market opportunity relative to the project cost? How appropriate are the proposer’s cofunding contributions (sources and amounts) with respect to the degree of risk, potential to benefit from the work, and financial status of the organization? How firm are the commitments and support from essential participants, cofunders, and related business and other organizations? Are the overhead rates reasonable and supported with appropriate

documentation?

Category C: Demonstration Projects

I. Program Requirements

Eligibility – Eligible projects under this Category include demonstrations of Power Systems, DG and/or Electric Energy Storage Technologies that are past the “proof-of-concept” stage. Proposals may address areas already within the scope of existing NYSERDA projects, or may represent new approaches to achieving NYSERDA's energy, environmental, and economic goals. Areas of interest include, but are not limited to:

- (1) Innovative storage technologies demonstrating customer benefits including but not limited to: batteries, flywheels, ultra-capacitors, flow batteries, and superconducting magnetic energy storage;
- (2) Fuel cells and related components and subsystems;
- (3) Solar electric technologies, including innovative photovoltaic and solar thermal-electric systems, components of these systems, and products that incorporate photovoltaics;
- (4) Wind technologies including innovative wind energy-conversion devices, components, and products that support wind-energy systems and power plants;
- (5) Hydro power technologies, including innovative products that increase generating capacity or improve environmental performance;
- (6) Power conditioning equipment;
- (7) Innovative technologies for upgrading performance of new or existing power generation equipment;
- (8) Systems and equipment innovations for improving distribution system performance and reliability;
- (9) Biomass, waste heat to energy, and biogas;
- (10) Innovative packaging of DG products for targeted purposes, such as baseload, CHP, peak-load reduction, power quality, electric energy storage, hybrid combinations, and other applications;
- (11) Innovative control systems related to power systems, generation, and distribution, such as remote or on-site monitoring and diagnostic systems, intelligent remote or on-site control systems to provide command and communication with power systems equipment, or control systems technologies to promote safe, reliable integration of DG and storage technologies into the distribution system.

Project Scope – Projects selected for funding **must**:

- (1) Address power generation, availability, reliability, and quality needs of New York State, as well as energy efficiency and environmental performance.
- (2) Provide direct and quantifiable energy, environmental, and economic benefits to New York State such as peak electric demand reduction, high fuel-use efficiency, emissions reductions, reduced power costs, job creation, product manufacturing and sales.
- (3) Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing total project cost and proposer cost-share. Include a budget breakdown by project task.
- (4) Provide sharing of success by agreeing to pay recoupment to NYSERDA upon product commercialization (if applicable, see terms and conditions in Section 8 of attached Sample Agreement.)
- (5) Demonstrate that the proposer and/or team of proposers are qualified to carry out the submitted project proposal.

Instructions for Category C: Demonstration Projects

- (6) Provide a preliminary commercialization and marketing strategy, and discuss the potential for manufacturing in New York State.

Limitations - Proposed projects that exclusively benefit ratepayers in the Long Island Power Authority (LIPA) service territory, which do not support the System Benefits Charge, may not be eligible to receive the full NYSERDA funding indicated above. Proposals for projects receiving or anticipating to receive Renewable Portfolio Standard (RPS) funding are ineligible for funding under this solicitation. Both power generation and energy storage projects must produce electricity.

Project Scope - Projects selected for funding **must**:

- (1) Have a **New York State demonstration site**;
- (2) Provide equipment sensors, instrumentation, and a complete data acquisition system for remote monitoring and reporting as specified below;
- (3) Demonstrate the technology viability and monitor the performance, characteristics, and benefits for a minimum period of 18 months;
- (4) Present an economic analysis of the proposed technology demonstration including an estimated cost/benefit ratio, and a plan to measure the actual cost/benefit ratio during the demonstration.
- (5) Address power generation, availability, reliability, and quality needs of New York State, as well as energy efficiency and environmental performance.
- (6) Provide direct and quantifiable energy, environmental, and economic benefits to New York State such as peak electric demand reduction, high fuel-use efficiency, emissions reductions, reduced power costs, job creation, product manufacturing and sales.
- (7) Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing total project cost and proposer cost-share. Include a budget breakdown by project task.
- (8) Provide sharing of success by agreeing to pay recoupment to NYSERDA upon product commercialization (if applicable, see terms and conditions in Section 8 of attached Sample Agreement.)

All demonstration projects under this solicitation are expected to be commissioned within 12 months of contract award. Additionally, each demonstration project is expected to have a minimum operating performance period of 18 months.

Data Acquisition System (DAS)

It is the intent of NYSERDA to provide system level operation and performance information, including economic performance information, to the general public on each of the demonstration projects funded under this solicitation. In order to meet this objective, it is required that each demonstration project provide sufficient instrumentation and data transmittal capabilities to allow the collection of technical and economic performance data. If necessary, the demonstration project proposal should include a Data Acquisition System (DAS) for the purpose of providing system operating data to be used for evaluation and generation of reports on the overall performance of the technology being demonstrated. Data acquisition sampling rates must be adequate to characterize the application and any event that may influence the overall system. For example, to monitor power quality operations for an electric energy storage system demonstration, a high-speed data acquisition would generally be required to adequately capture power quality or system stability events. In addition, energy management operations such as peak shaving or arbitrage applications require high speed sampling with 15 minute averages to determine the effect (positive or negative) the energy storage system may have had on the over-all system. In the event that the demonstration system performs multiple activities, the DAS must provide for the collection of data for all activities.

Instructions for Category C: Demonstration Projects

All raw and summary data collected at the project sites must be archived and protected from loss on permanent media. At the Electric Energy Storage demonstration project sites, real-time data storage systems must be employed to accommodate at least 365 operating days of data.

Reporting Requirements Specific to Electric Energy Storage (EES) Demonstration Projects

The proposal must identify the project team member who will be responsible for the preparation and delivery of periodic written project reports. System operational summary information must be generated monthly and included in mandatory Monthly Progress Reports. At a minimum, the system operational summary information must include the following:

- A written summary of the economic benefit derived for the month;
- A written summary of all operations and maintenance activities for the month;
- System dispatch information and use patterns associated with the project;
- Energy consumption breakdown of parasitic loads introduced by the demonstration system;
- System performance under typical utility fault conditions, e.g. lightning strikes, primary phase to ground faults, voltage sags/spikes, electric outages, etc.;
- System performance under user fault conditions, e.g. fault in customer plant;
- System reliability, failure rates, and performance summary

Annual reports must be generated that consolidate all the information from the monthly reports and summarize demonstration system performance for the preceding year.

Benefits Data Tracking and Reporting

In addition to the hardware data above, data sufficient to demonstrate the economic and other benefits defined in the proposal must be measured, collected, and recorded. For applications that claim multiple benefits, data must be provided on a monthly basis that adequately supports the claimed benefit for each of the benefits specified in the original proposal. A brief outline of this data and the transmittal method must be included in the proposal. The monthly benefits data report containing this information must be delivered to the NYSERDA Project Manager no later than the 15th day of each month following the month in which the data was collected.

Historical Performance Data Reporting

Historical utility system operational data prior to the installation of the demonstration system is required in order to provide credible baseline data on electrical system performance before and after the installation of the EES demonstration system. Using a time period of at least 6 months prior to system commissioning, information concerning load profiles, peaks, overloads, faults, power quality events, and any other information required to fully characterize the operation of the electrical utility at the demonstration site prior to installation of the demonstration system must be collected by the proposer. Comparison information must be made part of the Monthly Progress Reports starting after the 2-month system commissioning anniversary.

Other Considerations - In addition, note that:

- A proposal may be considered **non-responsive** if it fails to comply with the requirements above, the Proposal Requirements of Category C, Section II, or Section V, General Conditions for ALL categories.
- Prior to an award being made, potential contractors may be required to demonstrate: access to financial resources sufficient to perform the proposed work, technical experience and adequate facilities (or the ability to access them), a good performance record, and the ability to qualify for an award under applicable laws and regulations.

II. Proposal Requirements

Proposers must submit twelve (12) print copies and one (1) electronic media copy (CD or 3½ inch floppy) of the proposal in Microsoft Word format with a completed and signed Proposal Checklist attached to the front of each copy, one of which must contain an original signature. Proposal should be addressed to the attention of Roseanne Viscusi at the address on the front of this Program Opportunity Notice. **Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist may be returned.** Faxed or e-mailed copies will not be accepted.

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, additional 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.

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- Indicate whether you accept the standard terms and conditions as contained in the attached Sample Agreement. If you do not accept the standard terms and conditions, provide alternate terms with justification based on the risk and benefit to NYSERDA and New York State. NYSERDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.
- Be sure the individual who is signing the Proposal Checklist is authorized to commit the proposer's organization to the proposal as submitted.

2. Disclosure of Prior Findings of Non-Responsibility Form

3. Project Summary (one page) - Briefly summarize the proposed demonstration project. Present the proposed effort, teaming arrangements, project scope, and project benefits. What are the energy management, power quality, and/or electric system reliability-related problem(s) that will be addressed by the project? Who will be affected and how? How are similar problems being addressed at other sites? What are likely energy, environmental, and economic benefits to New York State?

4. Proposed Demonstration (four pages) - Describe the proposed technology demonstration, the potential for application of the demonstrated technology at other sites, estimated commercial market in New York State, and potential advantages over competing technologies. Include a plan for using project results to improve technology development and further commercialization efforts. Provide a description of the demonstration project design including the selected project site.

5. Project Team Qualifications (two pages) - Prepare a list of project team members including the project manager, subcontractors, other participants, and project cofunders besides NYSERDA. Clearly delineate the role and involvement of each party in the project. Describe team member qualifications, expertise, and relevant project experience, including a demonstrated understanding of New York State energy markets and interconnection requirements. Attach one-page resumes of all key project personnel, including those of subcontractors and consultants, in the appendix. Also list all NYSERDA contracts awarded to the proposer, if any, in the past five years, with the funding totals and current status or outcome of the project included.

6. Performance and Benefits (four pages) - Outline a plan to measure the performance and benefits of the electric energy storage technology demonstration for a minimum period of 18 months in accordance with the Data Acquisition and Reporting Requirements. The plan must include provisions for remote performance monitoring and independent data analysis by a third party. Discuss how the performance measurements will be used to determine technology benefits and the cost/benefit ratio.

7. Technology Transfer (one page) - Identify the target audience for the demonstrated technology that could benefit from the project results and may consider using the technology for other applications in New York State and nationally. Describe the strategy for transferring project results to the target audience. Include the preparation of a technical paper

for presentation at Electricity Storage Association sponsored conferences and workshops. Discuss arrangements for an on-site public demonstration/media event. Prepare and implement a technology commercialization plan.

8. Proposed Statement of Work and Schedule (three to four pages). The Statement of Work (SOW) is the primary contractual document that outlines work activities and quantifies deliverables. It specifically delineates each step or procedure required to accomplish the project objectives. Therefore, each action shall be identified, indicating who will perform it, how it will be performed and its intended result. Be clear and specific: concentrate on “how” and not “why.” Use “active voice” sentence structure to make clear who is responsible for specific actions; for example, use the following phrase to start the description of every task and subtask: “The Contractor shall”

Include a list and three to four-sentence description of each of the major tasks to be accomplished. Typical task titles may include, but are not limited to, the following: project management, requirements definition, evaluation of current practices, cost assessment, test plan development, design, installation, metrics (benefits) quantification, etc. For example:

Task 1.0 Project Management.

Subtask 1.1 Subcontracts (if any). The Contractor shall enter into the following agreements

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- b. Agreement number
- c. Period of this report
- d. Progress of report
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- f. Identification of problems
- g. Planned solutions
- h. Ability to meet schedule, reasons for slippage in schedule
- i. Schedule - percentage completed and projected percentage of completion of performance by months as a bar chart or milestone chart
- j. Analysis of actual cost incurred in relation to the budget

Subtask 1.4. Final Report. The Final Report should detail all of the work performed and task deliverables, but exclude proprietary information. The comprehensive Final Report shall cover all aspects of the project and shall merge together, and build further on, the previously generated monthly progress reports.

Task 2.0, 3.0, 4.0, etc. Project-specific Work Scope Tasks. Add as many tasks and subtasks as necessary to cover all actions needed to achieve the goals and objectives of the project. These will be action steps. Each task should include a concise narrative description of the work that will be performed and how the work will be performed and deliverables to be provided. Typical tasks may include, but are not limited to, requirements definition, preliminary design, prototype construction, testing, final design, and demonstration.

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and goals.

If applicable, a brief description and anticipated duration of additional development or commercialization activities, beyond the proposed work, that will be necessary to fully achieve commercialization.

9. Schedule (one page) - Prepare a master schedule showing starting and completion times for each task outlined in the Statement of Work in terms of weeks or months. Identify major milestones, demonstration start-up, reporting intervals and other deliverables, as well as project review meetings.

10. Budget – Include a project budget using the attached Contract Pricing Proposal Form (CPPF) showing a total of project costs and proposer cost-share (maximum NYSERDA funding for this category is \$1,500,000 per project). Include a budget breakdown by project task. Use the format below (expand table as needed).

Cost Sharing - The proposal should show non-NYSERDA funding of at least 50% of the total cost of the project. Cost sharing can be from the proposer, other team members, and other government 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 that have already been undertaken. The proposer or proposing team cannot claim as cost-share any expenses that have already been incurred.

PROPOSAL COST SHARING TABLE							
Funding Source	Task 1		Task 2		Task ...	Project Total	
	Cash	In-Kind	Cash	In-Kind	...	Cash	In-Kind
NYSERDA							
Proposer							
Co-Funder (identify)							
Co-Funder (identify)							
Task 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). Calculation 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 adjustment for such difference. Requests for financial statements or other needed financial information may be made if deemed necessary.

11. Letters of Commitment or Support - Include letters of commitment signed by a person authorized to contractually obligate the organization for all participating organizations and cost-sharing parties. Absence of letters of commitment or support may be interpreted as the proposer not having commitment or support from those parties.

III. Recoupment Provisions

Recoupment may be required. Please refer to “General Conditions for ALL Categories” located after the “Instructions for Category C” section.

IV. Proposal Evaluation

Proposals that meet Proposal requirements will be reviewed by a Technical Evaluation Panel (TEP) using the Evaluation Criteria identified below. After the proposals are reviewed, NYSERDA will issue a letter to each proposer indicating the proposal evaluation results. Proposers receiving favorable evaluations will be invited to enter into contract negotiations with NYSERDA. The proposer may also be asked to address specific questions or recommendations of the TEP before contract award.

Evaluation Criteria:

- **Proposed Work** – How significant is the demonstration opportunity to New York State? Does the proposed demonstration technology have commercial applications at other New York State sites? Is the proposed demonstration well conceived and technically feasible? Does the proposed technology demonstration address the needs of a deregulated electricity market? Does the proposer exhibit an understanding of the state-of-the-art, competing products and alternative designs? How significant are the barriers to market entry? Does the proposer demonstrate a clear understanding of the steps required to overcome these barriers? If the proposed work is follow-on to a previously cofunded NYSERDA project, what was the outcome of the earlier phase? Has the proposer identified and entered into a contractual agreement with a New York State site? Is a performance monitoring and data analysis effort included in the proposal? Does the proposal include an economic analysis of the technology based on performance measurements?
- **New York State Impact and Project Benefits** - Does the proposed project have favorable energy, environmental and economic impacts in New York State? – e.g.- does the proposed project assist New York State in complying with federal clean air regulations or achieving the goals of New York’s Renewable Portfolio Standard (RPS)? How significant are these impacts? How well are the potential benefits to New York State quantified? Does the proposal include a New York State demonstration site? Does the project team include New York State organizations? Does the proposed project lead to New York State economic growth?
- **Proposer Qualifications** - Does each member of the project team possess the relevant and necessary technical background and experience? Does the team have the requisite knowledge of the New York State energy market, utility requirements, and existing tariffs, if applicable? Does the team demonstrate resourcefulness, cooperation, and teamwork? Has the proposer provided evidence of good past performance on other relevant projects?
- **Statement of Work and Schedule** - How appropriate are the technical and performance goals for the proposed technology or system? Is the statement of work well organized, complete, and appropriate for the goals identified? Is the schedule for achievement of the goals of the proposed project realistic and complete? Are staff allocations reasonable?
- **Project Outcome and Cost** - Is the overall cost reasonable? Is the project cost justified based on the expected outcome and benefits? Is the cofunding 50% or more? How appropriate are the proposer’s cofunding contributions (sources and amounts) with respect to the degree of risk, potential to benefit from the work, and financial status of the organization? Has the market been identified and characterized? How significant is the potential market opportunity relative to the project cost? Is the commercialization plan appropriate for the stage of development? Has a realistic strategy been presented for producing the technology, product, or system and introducing it to the market?

V. General Conditions for ALL Categories

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/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 that 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.tax.state.ny.us/pdf/2006/fillin/st/st220td_606_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 perspective contractor prior to contacting and filed with NYSERDA. See, ST-220-CA (available at http://www.tax.state.ny.us/pdf/2006/fillin/st/st220ca_606_fill_in.pdf). The Department has developed guidance for contractors that is available at http://www.tax.state.ny.us/pdf/publications/sales/pub223_606.pdf.

Contract Award - NYSERDA anticipates making multiple awards 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 cost and technical terms. NYSERDA may request additional data or material to support applications. NYSERDA will use the Sample Agreement to contract successful proposals. NYSERDA expects to notify proposers in approximately ten (10) weeks from the proposal due date whether your proposal has been selected to receive an award.

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

General Conditions and Attachments for ALL Categories

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. NYSERDA reserves the right to reject proposals based on the nature and number of any exceptions taken to the standard terms and conditions of the Sample Agreement.

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 that 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.

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 identified in Attachment D, Sample Agreement.

VI. Attachments for ALL Categories

The following forms (except Attachment D) must be fully completed for the proposal to be considered responsive:

Attachment A - Proposal checklist

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

Attachment C - Contract Pricing Proposal Form and Instructions

Attachment D - Sample Agreement