Distributed Generation as Combined Heat and Power (DG-CHP)



Program Opportunity Notice (PON) 1241

\$25,000,000 Available

Proposals Due by 5:00 PM Eastern Time*
3 Due Dates: August 14, 2008; December 11, 2008; and April 16, 2009

All or none of the available funds could be allocated to projects selected from any one due date.

The New York State Energy Research and Development Authority (NYSERDA) invites proposals to support: **Demonstration** of DG-CHP systems at facilities in New York State. **Recommissioning Studies** to revisit qualifying, existing, NYSERDA-funded DG-CHP installations.

Technology Transfer Studies to broaden the market penetration of DG-CHP systems in New York State.

Cate	egory	NYSERDA Cost Share	Maximum NYSERDA Award per project
A:	Demonstration Projects	30% to 50%	\$2,000,000
A-1:	Fleet Demonstration Projects	30% to 50%	\$4,000,000
B:	Recommissioning Studies	50%	\$75,000
C:	Technology Transfer Studies	75%	\$100,000

Informational workshops will be held at regional NYSERDA offices to answer questions regarding this PON as follows (all workshops start at 11:00 AM, pre-registration is not required)

Location: Buffalo Office (726 Exchange Street, Suite 821 - (716) 842-1522).

Location: Albany Office (17 Columbia Circle - (518) 862-1090).

Location: Manhattan Office (485 Seventh Avenue, Suite 1006 - (212) 971-5342).

Date: July 9, 2008

Date: July 10, 2008

Date: July 17, 2008

Proposal Submission: Proposers must submit ten (10) hard copies and one (1) digital copy on CD-ROM of the proposal with a completed and signed Proposal Checklist attached to the front of each hard copy, one of which must contain an original signature. Proposals must be clearly labeled and submitted to:

Roseanne Viscusi, PON 1241 NYS Energy Research and Development Authority 17 Columbia Circle Albany, NY 12203-6399

If you have technical questions concerning this solicitation, contact Edward Kear at (518) 862-1090, ext. 3269 or ebk@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 Edward Kear (Designated Contact) at (518) 862-1090, ext. 3269 or ebk@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, or a completed and signed Disclosure of Prior Findings will be returned. Faxed or e-mailed proposals will not be accepted. Proposals will not be accepted at any other NYSERDA location other than the address above. If changes are made to this solicitation, notification will be posted on NYSERDA's web site at www.nyserda.org.

Category A – Demonstrations and Category A-1 Fleet Demonstrations

Introduction

The objective of PON 1241 Categories A and A-1 are to support the installation of DG-CHP systems that offer many of the following benefits:

- 1 Superior environmental performance,
- 2 Improved grid reliability,
- 3 Improved energy security,
- 4 Improved energy efficiency,
- 5 Increased utilization of renewable fuels,
- 6 Reduced energy costs which foster economic expansion, and
- 7 Effective technology transfer.

Category A is for single-site DG-CHP demonstrations.

Category A-1 is for multiple-site DG-CHP demonstrations where the sites have similar electric and thermal load profiles and are under common ownership or control. Category A-1 projects will be structured in 2 phases: a Pilot Installation, where a DG-CHP system will be installed at a single site and operated for a period of time sufficient to determine if the system was appropriately designed; and a Rollout Installation Phase where DG-CHP systems (using an improved design incorporating the lessons learned from the Pilot Installation) will be installed at multiple sites.

Program Funding

The maximum award for any one Category A Demonstration Project is \$2,000,000.

The maximum award for any one Category A-1 Fleet Demonstration Project is \$4,000,000. The maximum funding for the Pilot Installation is \$1,000,000. NYSERDA funding for the remaining Rollout Installations will be evenly split among then, however, funding for any individual Rollout Installation will not exceed that of the Pilot Installation.

The actual award that any one project receives (Category A or A-1) will depend on the total cost and certain characteristics of the project. In general, each project may be awarded up to 30% of total project cost. A project may be able to increase the award to a maximum of 50% of total project cost if the project has certain characteristics. Each of the following characteristics can increase the award by 10 percentage points:

The project is located in Consolidated Edison (Con Edison) service territory,

The project is connected to a "spot network" (as opposed to "radial grid") outside of Con Edison service territory. A facility is connected to a spot network when it is connected to multiple high-voltage feeds which serve a common bus and/or circuit,

The project is directly powered by a renewable or opportunity fuel, or waste heat, and not eligible under any NYSERDA Customer Sited Tier Renewable Portfolio Standard (CST-RPS) program,

The DG-CHP system will be an integral part of a documented and verifiable "facility of refuge". A facility of refuge is a structure or facility capable of providing shelter for a significant portion of the local population during times of man-made or natural disaster, and is cooperating and coordinated with county or city emergency management officials, as appropriate,

The project is designed to provide a seamless, flicker free transition between normal and backup power operation using the DG-CHP prime mover to serve priority loads during periods of grid outage, and The project utilizes a pre-engineered, pre-packaged, factory tested, DG-CHP system(s) that integrate electric generation and thermal systems.

For example, a project that will provide seamless transition to grid-independent operation could receive up to 40% of total project cost if located outside of Con Edison service territory, and up to 50% of total project costs if located within Con Edison service territory.

Program Requirements and Eligibility

All proposed projects (Category A and Category A-1) must meet **all** of the following program requirements: All Demonstration Sites (a site where the DG-CHP system will be installed), including Pilot and Rollout sites for Category A-1 projects, must be located in New York State and be an electric customer of one of the following utility companies: Central Hudson Gas and Electric, Consolidated Edison (Con Edison), New York State Electric and Gas (NYSEG), National Grid, Orange and Rockland Utilities, Inc., or Rochester Gas and Electric (RG&E). Demonstration Sites which are customers of municipal electric utilities, electric co-op utilities, Long Island Power Authority (LIPA) and New York Power Authority (NYPA) are **not eligible**.

- If a Demonstration Site is an existing facility that is connected to the grid, it must be contributing to the System Benefit Charge (SBC) fund at the time of proposal submission. If a Demonstration site is an existing facility that is currently grid isolated, the proposed project must include connecting to the grid and the site must contribute to the SBC fund once connected. New Demonstration Site facilities, currently being designed or constructed, must contribute to the SBC fund when built.
- NYSERDA prefers to contract directly with the owners of Demonstration Sites, and as such, the owner of the
 Demonstration Site is expected to serve as NYSERDA's Prime Contractor. Under certain circumstances it
 may be necessary for NYSERDA to contract with a project developer or an energy services company (ESCO),
 but this contractual arrangement will only be permitted on an exception basis. NYSERDA reserves the
 exclusive right to determine/define the entity to serve as its Prime Contractor.
- Commercially available fuel-cell systems and DG systems fueled by anaerobic digester gas (ADG) that are
 eligible for participation in any NYSERDA RPS program are not eligible for this program.
- Projects that were selected for an award under PONs 536, 554, 669, 750, 800, 914,1043, or 1178 and which
 were either in "contract negotiation" or "contracted" status with NYSERDA as of June 1, 2008 are not eligible
 for this PON.
- Proposals intending to augment existing DG-CHP equipment so it will meet all eligibility requirements for this PON are eligible.
- Proposed projects at Demonstration Sites in locations where the local authorities have imposed special requirements (such as the need for NYC Dept. of Buildings issued Materials and Equipment Acceptance (MEA) numbers for the installation of some equipment in NYC) must, at the time of proposal submission, document compliance with such local requirements in order to be eligible.
- DG-CHP systems must be designed as a "permanent" installation and provide a long-term electric power and thermal supply solution for the Demonstration Site(s).
- DG-CHP systems must be designed and installed to be capable of providing grid independent operation using the DG-CHP prime mover to supply priority loads during periods of grid outage. A priority load may be any load that provides a health, safety, and/or economic benefit to the Demonstration Site, for example: lighting, space conditioning, refrigeration for food storage, communications, and assisting in the orderly shutdown of industrial processes. The DG-CHP system must be capable of black-start.
- DG-CHP systems must, in general, have a projected overall annual thermal efficiency of 60% or more. Overall
 annual thermal efficiency is defined as the sum of the annual net electricity generated and the thermal energy
 used, divided by the energy input to the prime mover. Fuel energy inputs are to be calculated using higher
 heating values (HHV). On a case-by-case basis, projects that meet the following characteristics may have a
 projected overall annual thermal efficiency as low as 50% if there is significant public benefit. Documentation
 must be provided in your proposal.
 - DG-CHP systems powered by a sustainable renewable fuel,
 - DG-CHP systems that result in the permanent avoidance of a significant, and costly, utility upgrade, or
 - Existing grid isolated DG-CHP systems that will be recommissioned for grid parallel operation.
- The prime mover of all DG-CHP systems must meet an air emission limit of no more than 1.6 lbs of NOx per MWh.
- A Category A DG-CHP system should be commissioned within one (1) year of NYSERDA award notification.
 NYSERDA reserves the right to terminate any project that does not adhere to the proposed schedule.
- A CHP System Installation Report is required detailing system design, procurement, installation, commissioning, emission testing, and performance data measured during commissioning (See Appendix A1 for details).
- Demonstration Sites will be required to provide the necessary instrumentation and data logging system to
 accommodate access to the DG-CHP system performance data (at least 15 minute interval data, with data
 delivery to NYSERDA through its Data Integration Agent at least as frequent as once per day.) System
 performance data access will be required for four (4) years following commissioning. System performance
 data is defined in Appendix A1 and includes, but is not limited to, DG-CHP system fuel flow, electric power
 output, recovered thermal output which is beneficially used, and overall facility electric power and thermal
 consumption. System performance data will be publicly displayed on NYSERDA's DG-CHP website
 chp.nyserda.org.
- DG-CHP systems will not be considered "commissioned" until system performance data is being properly delivered to NYSERDA through its Data Integration Agent and the CHP System Installation Report has been approved by NYSERDA's Project Manager.

- Demonstration Sites must allow NYSERDA (or appointed third party) to inspect the instrumentation and data logging system and/or to monitor emissions any time during the project period (both during commissioning and for four (4) years after commissioning).
- Demonstration Sites will be required to monitor emissions during system commissioning to validate the manufacturer's performance specifications.
- NYSERDA intends to establish contracts based on the example "Statement of Work (SOW)" shown in Appendix A1
- This PON will not fund tasks that have already been completed. Proposals will only be accepted for work yet
 to be performed. Expenses that have already been incurred (including proposal preparation costs) can not be
 included in the total project cost.

In addition, Category A-1 projects must meet the following requirements:

- All Category A-1 DG-CHP systems and Demonstration Sites must meet all Category A requirements above.
- The Pilot Installation must be operated for a sufficiently long period of time, such that the proper operation of the DG-CHP system will be demonstrated under real-life conditions for each of the system's operating modes, prior to finalizing the design for the Rollout Installations. For example, a system which will provide both winter heating and summer cooling must be operated under both winter heating load and summer cooling load conditions.
- The Pilot Installation should be commissioned within one (1) year of NYSERDA award notification. All Rollout Installations should be commissioned within two (2) years of the commissioning of the Pilot Installation.

Proposal Requirements

All proposals (Category A and Category A-1) must meet all of the following proposal requirements:

- The "Proposer" should be the entity that NYSERDA will contract with. Generally, this will be the site owner. If the Proposer is other than the site owner, the proposal must contain a justification and a statement requesting that NYSERDA contract with an entity other than the site owner.
- Proposers must submit ten (10) hard copies and one (1) digital copy on CD-ROM of the completed proposal to
 the attention of Roseanne Viscusi at the address on the front of this PON. A completed and signed Proposal
 Checklist must be attached as the front cover of your proposal, one of which must contain an original
 signature. Late proposals and proposals lacking the appropriate completed and signed Proposal
 Checklist (Attachment A), or a completed and signed Disclosure of Prior Findings (Attachment B) will
 be returned. Faxed or e-mailed copies will be not be accepted.
- Proposals should not be excessively long, or submitted in an elaborate format that includes expensive
 graphics. Please do not use binders, a single staple in the upper left-hand corner is preferred. 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 digital copy of your proposal must be submitted on a CD-ROM in a format readable on Windows XP systems. Narrative files and schematics must be in either Microsoft Office 2003 or earlier, Portable Document Format (PDF), or Open Document formats. A completed copy of PON1241_Worksheets.xls must also be included in Microsoft Excel Format.
- Proposal must include a summary describing the Demonstration Site, any existing DG-CHP system, the proposed DG-CHP system installation, and existing/proposed thermal energy loads.
- A schematic outlining the basic electrical, mechanical, and instrument layout must be included with the proposal on standard letter-size paper.
- Proposal must include a description of how the DG-CHP demonstration project addresses NYSERDA's seven
 (7) major program objective benefits listed previously in the Introduction section and further elaborated in the Proposal Evaluation section that follows.
- Proposal must include a substantial discussion regarding how the system will respond during a grid power outage, including: the type of loads (priority loads) that will be served by the DG-CHP system during an outage, why these loads were selected to receive priority power, and any economic valuation or other benefit that can be assigned to the priority loads during a grid outage.
- If the Demonstration Site is applying as a "facility of refuge", a letter confirming this status from the local Emergency Management Official must be included in the proposal.
- Proposal must include a detailed financial analysis using applicable tariff information. If the proposed project is
 eligible for an exemption from stand-by tariffs, then the financial analysis must include a comparison of the
 costs with the exemption tariff and with the stand-by tariff.

Proposals must include a description of how the availability of NYSERDA funds influenced the scope of the proposed project. For example, if NYSERDA funds allowed the Demonstration Site to consider a slightly more expensive, but cleaner on-site generator, this should be clearly noted.

Provide a description of any energy conservation measures recently implemented at the Demonstration Site. Provide a list of all DG-CHP projects and feasibility studies previously completed by any member of the proposing team, along with appropriate references, and information regarding the proposing team's qualifications for demonstrating a DG-CHP system.

A letter of commitment from each and every non-NYSERDA funding source is required for the proposal to be considered responsive (each and every such letter must state whether that organization's funds are fully committed to the proposed project or are awaiting subsequent approval, and must specify the total dollar value of the cost-share contribution to be provided by that organization in terms of cash versus in-kind). If the Demonstration Site is not the prime contractor, a letter of commitment from the Demonstration Site is required for the proposal to be considered responsive. Each and every letter of commitment must be written on the organization's letterhead and signed by an Officer of the organization (with an actual signature - not an "autopen" or digitized signature). Each and every letter of commitment shall identify all other organizations which constitute the teaming arrangement of the proposal, and indicate that organization's commitment to participating in such team arrangement.

Worksheets CHP.1 through CHP.7 in **1241worksheets.xls** (see Appendix A3) must be completed fully. A hard copy printout of each of these completed worksheets and the Summary Worksheet must be included in your proposal and the digital version of the completed spreadsheet included on the CD-ROM in Microsoft Excel format. This file is available from NYSERDA's website and has been tested to work with both Microsoft Excel 2002 and OpenOffice.org 2.2.

Baseline energy usage and costs must be provided for all proposed projects. Existing facilities must provide data extracted from 12 months of previous fuel and electric bills, and accurately summarize the baseline costs and fuel/electric usage with their proposal. New, upgraded or expanded facilities must provide an estimate of fuel and electricity usage and costs, on a monthly basis for one (1) year for an equivalent new/upgraded/expanded facility of "conventional" design (i.e., without the DG-CHP system) to serve as a baseline for comparing fuel and electricity usage and costs with the DG-CHP system. Worksheet CHP.3 must be completed with this information.

In addition, Category A-1 projects must meet the following requirements:

The proposal should treat the Pilot Site as a Category A Demonstration Site and provide Pilot Site information for all information requested above for the Demonstration Site.

Worksheets CHP.1 through CHP.7 in **1241worksheets.xls** must be completed fully for the **Pilot Site only**. For example, CHP.7 must only show project costs for the Pilot Installation.

Provide a list of all proposed Rollout Sites and complete a Worksheet A1.x in 1241worksheets.xls for each Rollout Site. If you are proposing more than four (4) Rollout Sites, complete a Worksheet A1.x for four (4) representative Rollout Sites.

Complete Worksheet A1.Cost in 1241worksheets.xls showing the costs and cost-sharing for a representative Rollout Installation.

Proposal Evaluation

Proposals that meet Proposal Requirements will be reviewed by a Technical Evaluation Panel (TEP) according to how well they satisfy the following major program objectives (these objectives are not listed in any priority order), along with consideration of the project team's qualifications and the value of the proposed project with respect to the amount of NYSERDA funds requested:

Superior environmental performance

Will the project result in reduced local or regional air emissions?

Will the DG-CHP system include environmental controls?

Will emissions from the DG-CHP system be monitored continuously throughout the project? Improved grid reliability

Will the project be grid connected?

Will the project allow the local utility to avoid or delay distribution system upgrades?

Is the project located within a load pocket?

Will the DG-CHP system participate in New York Independent System Operator (NYISO) demand response n programs?

Improved energy security

Will the Demonstration Site facility provide strategic services in response to local emergencies?

Will the DG-CHP system be setup to automatically serve priority loads during grid outages?

Will the loads served by the DG-CHP system during grid outages provide a health and safety and/or economic benefit to the Demonstration Site?

Improved energy efficiency

Is the DG-CHP system designed to satisfy the base thermal load of the facility?

Has the Demonstration Site implemented other energy conservation strategies?

Does the DG-CHP system demonstrate an overall efficiency exceeding 60% on a monthly basis for each month throughout the year?

Increased utilization of renewable fuels

Will the DG-CHP system operate on renewable fuel?

Is the Demonstration Site willing to contract with a State agency to allocate renewable power from the DG-CHP system?

Reduced energy costs which foster economic expansion

Will the project result in significant energy cost savings at the Demonstration Site?

Will the project result in the retention or creation of jobs in New York State?

Effective technology transfer

Is there a commitment to showcase the DG-CHP system in an effort to promote replication?

Are other innovative technology transfer opportunities identified?

Other Considerations

How well does the project fit within or expand upon NYSERDA's existing portfolio?

Does the project complement other NYSERDA or DOE R&D programs or projects?

Is the project a good value for the amount of NYSERDA funds requested?

Does the project make good engineering and economic sense?

The following Appendices are relevant to Category A and Category A-1:

Appendix A1: Example Statement of Work (SOW)

Appendix A2: Monitoring and Data Collection Standard

The following forms <u>must</u> be fully completed for the proposal to be considered responsive under Category A or Category A-1:

Appendix A3: Worksheets for Categories A and A-1 found in "1241worksheets.xls"

Summarv

CHP.1: Contact Information

CHP.2: General Information

CHP.3: Baseline Facility Electricity and Fuel Consumption

CHP.4: Proposed CHP System Performance

CHP.5: Proposed Facility Overall Cost Analysis

CHP.6: Environmental Assessment Questionnaire

CHP.7: Milestone Budget and Schedule

A1.x: Rollout #x Baseline Facility Electricity and Fuel Consumption (one worksheet for each Rollout

Site Category A-1 only)

A1.Cost: Cost for a Representative Rollout Installation (Category A-1 only)

Attachment A - Proposal Checklist

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

Category B - Recommissioning Studies

Introduction

NYSERDA has funded 28 DG-CHP Demonstration systems that have started operation prior to June 1, 2005. The conditions in which these systems are operating today are likely very different from what was envisioned when the systems were designed and installed. The building uses and electric and thermal loads may have changed, individual components may not be operating as they once did, available technology may have improved, tariffs may have changed, as well as the relative costs of fuel and electricity. The objective of PON 1241 Category B is to support studies of existing NYSERDA funded DG-CHP systems to identify cost-effective changes that could be implemented that would increase the value of the system to the DG-CHP demonstration site (Demonstration Site).

Program Funding

DG-CHP Recommissioning Studies funded under this PON may receive up to 50% of total study cost up to \$75,000.

Program Requirements and Eligibility

All proposed projects must meet **all** of the following program requirements:

- Installation of the DG-CHP system must have been funded under a NYSERDA demonstration program.
- The DG-CHP system must have been operational prior to June 1, 2005.
- Sufficient DG-CHP operational data must be available to adequately determine the operational performance of the DG-CHP system and the Demonstration Site thermal and electric loads.
- At the time of proposal submission, the DG-CHP system must be operational, or able to be made operational
 with minimum effort.
- All proposals for PON 1241 Category B must be submitted by the Demonstration Site, which will serve as the prime contractor. In addition, the Consultant performing the proposed study must be independent from the equipment developer of the original project.

Proposal Requirements

- Proposers must submit ten (10) hard copies and one (1) digital copy on CD-ROM of the completed proposal to
 the attention of Roseanne Viscusi at the address on the front of this PON. A completed and signed Proposal
 Checklist must be attached as the front cover of your proposal, one of which must contain an original
 signature. Late proposals and proposals lacking the appropriate completed and signed Proposal
 Checklist Attachment A), or a completed and signed Disclosure of Prior Findings (Attachment B) will
 be returned. Faxed or e-mailed copies will be not be accepted.
- Proposals should not be excessively long, or submitted in an elaborate format that includes expensive
 graphics. Please do not use binders, a single staple in the upper left-hand corner is preferred. 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 digital copy of your proposal must be submitted on a CD-ROM in a format readable on Windows XP systems. Narrative files and schematics must be in either Microsoft Office 2003 or earlier, Portable Document Format (PDF), or Open Document formats.
- A letter of commitment from each and every proposed project team member is required for the proposal to be considered responsive. Each and every letter of commitment must be written on the organization's letterhead and signed by an Officer of the organization (with an actual signature not an "autopen" or digitized signature).
- Provide the following information:
 - a. Executive Summary:

Briefly summarize your proposal and list team members.

b. Background

Describe the current state of the existing DG-CHP system, including a description of the system and how it has been modified since installation, what thermal loads are being served, how the system is being operated, problems that have occurred, and how the site has changed since the system was installed. Summarize the quantity and quality of the operational performance data available for your DG-CHP system.

c. Proposed Work Scope and Schedule

Describe in detail the proposed recommissioning study, including tests and analysis that will be performed and potential changes to the system or its operation that will be investigated. Include a schedule showing when each major task will be completed, including a Final Report detailing activities and results.

d. Proposer Qualifications

Described the relevant experience of the proposed team members.

- Include a project budget using the Contract Pricing Proposal Form (CPPF Attachment C) showing total
 project cost and proposer cost-share. Include a budget breakdown by project task that shows hours and
 dollars allocated to each task.
- Include a cost-sharing plan which should show non-NYSERDA funding of at least <u>50</u>% 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 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 using the Cost-Share Form (**Attachment D**).
- Attach supporting documentation to support indirect cost (overhead) rate(s) included in your proposal as follows:
 - 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).
 - If rate(s) is approved by an independent organization, such as the federal government, provide a copy of such approval.
 - 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.

Proposal Evaluation

Proposals that meet Proposal Requirements will be reviewed by a Technical Evaluation Panel (TEP) according to how well they satisfy the following major program objectives (these objectives are not listed in any priority order), along with consideration of the project team's qualifications and the value of the proposed project with respect to the amount of NYSERDA funds requested:

Team experience

Does the proposed Team (companies and individuals) have the relevant experience to perform the proposed work?

Performance data availability

Is sufficient DG-CHP system operational performance data available to adequately evaluate the existing system?

Testing and Analysis

Will the proposed testing and analysis result in sufficient information to make and justify recommendations?

Other Considerations

Is the project a good value for the amount of NYSERDA funds requested?

Does the project make good engineering and economic sense?

If the system is currently non-operational, can it be made operational with minimal effort?

The following forms <u>must</u> be fully completed for the proposal to be considered responsive under Category B:

Attachment A - Proposal Checklist

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

Attachment C - Contract Pricing Proposal Form & Instructions

Attachment D - Cost-Sharing Form

Category C - Technology Transfer Studies

Proposer Qualifications

NYSERDA is seeking proposals for Technology Transfer Studies regarding DG-CHP in New York State. Proposers must have demonstrated experience in formulating and conducting relevant studies, a demonstrated knowledge of the pertinent factors affecting the marketplace in New York State, and sufficient staff and resources available to achieve the proposed efforts.

Program Funding

DG-CHP Technology Transfer Studies funded under this PON may receive up to 75% of total study cost up to \$100,000.

Program Requirements

All proposed projects must meet **all** of the following program requirements:

- DG-CHP Technology Transfer Studies must be completed within two (2) years of NYSERDA award notification.
- DG-CHP Technology Transfer Studies must produce non-confidential/non-proprietary technology transfer documentation (e.g., studies, reports).
- DG-CHP Technology Transfer Studies proposed under this PON must build-upon and/or be integrated with
 other on-going NYSERDA DG-CHP efforts, including but not limited to other on-going/completed DG-CHP
 Technology Transfer Studies (for a listing of such studies, see Appendix C1). Proposals which intend to
 leverage studies that have been conducted, or are on-going, for clientele elsewhere in the nation must
 emphasize tasks to provide a New York State focus which was otherwise lacking in the original study. Topics
 for consideration include but are not limited to:
 - Evaluation of DG-CHP as a means to address requirements of Executive Order #111 (Directing State Agencies to be More Energy Efficient and Environmentally Aware: Green and Clean State Buildings and Vehicles).
 - Cataloguing and promoting DG-CHP at sites of essential public services, including facilities of refuge.
 - Evaluation of the cost-effectiveness, reliability, and replicability of DG technologies and CHP configurations for various end-use sectors applicable to energy consumers in New York State, including consideration of the value of a CHP system where the equipment primarily in use has stand-alone capability (in contrast to a traditional emergency/standby/backup generator).
 - -- Assessment of energy efficiency and environmental performance of DG-CHP operating in New York State.

Proposal Requirements

- Proposers must submit ten (10) hard copies and one (1) digital copy on CD-ROM of the completed proposal to
 the attention of Roseanne Viscusi at the address on the front of this PON. A completed and signed Proposal
 Checklist must be attached as the front cover of your proposal, one of which must contain an original
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 PON number, and the page number.
- The digital copy of your proposal must be submitted on a CD-ROM in a format readable on Windows XP systems. Narrative files and schematics must be in either Microsoft Office 2003 or earlier, Portable Document Format (PDF), or Open Document formats.
- Provide the following information:
 - a. **Executive Summary** Briefly summarize the information contained in paragraphs b, d, and e below, including the DG-CHP Technology Transfer-related problem or opportunity, the proposed solution, its innovative characteristics and potential benefits, and the list of team members.
 - b. Problem Statement and Proposed Solution Describe the following:
 - Description of proposed study. Describe the DG-CHP Technology Transfer-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 (e.g., use of specialized database/software, and extent/limitation for on-going NYSERDA access to such, availability and access to data), major assumptions, innovative characteristics, current stage of development and extent of focus on New York State-specific issues;
- Alternative solutions and why the proposed solution is superior;
- Include a brief status report on the earlier phase of a project if the proposal addresses a subsequent follow-on phase of a previously funded NYSERDA project.

c. **Proposed Work Scope and Schedule -** Provide the following:

- Technical or performance goals for proposed DG-CHP Technology Transfer study;
- A list and a two to three sentence description of each of the major project tasks to be accomplished.
 Typical tasks may include, but are not limited to project management and reporting, requirements definition, data collection, statistical evaluation and sensitivity analysis, and synthesis of conclusions.
 NYSERDA expects to receive written monthly progress reports and a final report, and have periodic project review meetings as part of the project management task;
- Project schedule and timing of major milestones such as methodology reviews, assumption verification, data collection, and delivery of results/recommendations.
- This PON does not seek to fund efforts that have already been completed. Please differentiate between relevant efforts that have already been completed, and proposed efforts that have not yet commenced.

d. Proposer Qualifications - Identify the following:

- Proposer and any other proposal team members and major subcontractors. Provide a chart showing the relationship among the team members;
- Project Manager and other key individuals;
- Qualifications of all businesses, organizations, and individuals named above, including relevant experience (with emphasis on New York State-marketplace relevancy) and references;
 - Any NYSERDA contracts awarded in the past five (5) years to any of the team members.

e. Project Benefits - Identify and quantify the potential project benefits to New York State:

- Energy benefits such as barrels/day reductions in petroleum fuels consumption in New York State, or percentage improvement in energy efficiency;
- Environmental benefits such as pollutant emission reductions, elimination of hazardous materials;
- Economic benefits such as near-term jobs created, power generation equipment life-cycle cost reductions;
- Other benefits such as lower-cost route to compliance with New York State or federal regulations:
- Highlights of the emphasis on New York State focus in the proposed DG-CHP Technology Transfer study;
- Highlights of how the proposed study will build-upon and/or be integrated with other on-going NYSERDA DG-CHP efforts;
- Highlights of how the proposed project will facilitate promotion of DG-CHP in New York State in a
 manner that addresses superior environmental performance, improved grid reliability, improved energy
 security, improved energy efficiency, increased utilization of renewable fuels, reduced energy costs
 and economic expansion, and effective technology transfer.

f. **Technology Transfer -** Indicate the following:

- How the project results will be disseminated, and the parties involved in the process;
- The target audience and iimpact on New York State;
- Description of the format of the non-confidential/non-proprietary technology transfer documentation to be produced by the proposed study.
- A letter of commitment from each and every proposing team member is required for the proposal to be
 considered responsive. Each and every letter of commitment must be written on the organization's letterhead
 and signed by an Officer of the organization (with an actual signature not an "autopen" or digitized signature).
 Each and every letter of commitment shall identify all other organizations which constitute the teaming
 arrangement of the proposal, and indicate that organization's commitment to participating in such team
 arrangement.
- Include a project budget using the Contract Pricing Proposal Form (CPPF **Attachment C**) showing total project cost and proposer cost-share. Include a budget breakdown by project task that shows hours and dollars allocated to each task.
- Include a cost-sharing plan which should show non-NYSERDA funding of at least <u>25</u>% 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 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 using the Cost-Share Form (**Attachment D**).

- Attach supporting documentation to support indirect cost (overhead) rate(s) included in your proposal as follows:
 - 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).
 - If rate(s) is approved by an independent organization, such as the federal government, provide a copy on such approval.
 - 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.

Proposal Evaluation

Proposals that meet Proposal Requirements will be reviewed by a Technical Evaluation Panel (TEP) according to the evaluation criteria below (these criteria are not listed in any priority order):

- How extensively will the proposed Technology Transfer Study build-upon and/or be integrated with other ongoing NYSERDA DG-CHP efforts?
- Is the proposal well written? Are the concepts clear and complete? Does the proposal differentiate between relevant efforts that have already been accomplished, and proposed efforts that have not yet commenced? Does the proposal clearly articulate the New York State-specific focus of the proposed effort?
- How significant is the Technology Transfer problem or opportunity to New York State?
- Does the proposed solution represent a probable opportunity to address the Technology Transfer problem or opportunity? Can the major assumptions adequately be defended?
- Will the proposed effort utilize high-quality data (e.g., recent data, trending data of duration covering a statistically-significant time period, accurate and precise data), and how certain is it that such data will be available?
- Does the proposed effort address a target audience that could have significant market impact for DG-CHP in New York State? Will the project help to accelerate the rate at which New York State Demonstration sites pursue clean and energy-efficient DG-CHP?
- Will the proposed effort assist New York State DG-CHP stakeholders to capitalize on energy, environmental, and economic benefits associated with clean and energy-efficient DG-CHP?
- Does the team possess the relevant and necessary technical background and experience based on the documentation provided?
- Is the cost of the study reasonable? Is there a good match between the budget and scope? Is a detailed budget provided (does it include a budget breakdown by project task that shows hours and dollars allocated to each task)? Is the proposed project cost-shared by proposing team at or above 25% (cash and in-kind) extra preference will be given to higher proposer contribution levels.
- Are staff allocations and schedule reasonable and realistic?
- Does the project reflect the overall objectives of NYSERDA to complete projects with a variety of technologies and sectors and facilitate NYSERDA's stated interests in promoting DG-CHP?

The following Appendix is relevant to Category C:

Appendix C1: NYSERDA's DG-CHP Technology Transfer Studies

The following forms must be fully completed for the proposal to be considered responsive under Category C:

Attachment A - Proposal Checklist

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

Attachment C - Contract Pricing Proposal Form & Instructions

Attachment D - Cost-Sharing Form

GENERAL CONDITIONS

Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes. The NYS Freedom of Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(2)(d) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause <u>substantial injury to the competitive position</u> 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 "<u>Confidential</u>" or "<u>Proprietary</u>" on each page at the time of disclosure. This information should include a written request to accept 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 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-i 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 which 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 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.

Attachments:

Appendix A1: Example Statement of Work (SOW)

Appendix A2: Monitoring and Data Collection Standard

Appendix A3: Worksheets for Categories A and A-1 found in "1241worksheets.xls"

Summary

CHP.1: Contact Information CHP.2: General Information

CHP.3: Baseline Facility Electricity and Fuel Consumption

CHP.4: Proposed CHP System PerformanceCHP.5: Proposed Facility Overall Cost AnalysisCHP.6: Environmental Assessment Questionnaire

CHP.7: Milestone Budget and Schedule

A1.x: Rollout #x Baseline Facility Electricity and Fuel Consumption (one worksheet for each Rollout

Site Category A-1 only)

A1.Cost: Cost for a Representative Rollout Installation (Category A-1 only)

Appendix C1: NYSERDA's DG-CHP Technology Transfer Studies

Attachment A - Proposal Checklist

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

Attachment C - Contract Pricing Proposal Form & Instructions

Attachment D - Cost-Sharing Form Attachment E - Sample Agreement