



**DG Integrated Data System Operation and Support
Request for Proposal (RFP) 3328**

Proposals Due: September 20, 2016 by 5:00 PM Eastern Time*

NYSERDA is seeking a qualified vendor to continue the Distributed Generation (DG) – Combined Heat and Power (CHP) performance data collection, analysis, and presentation effort currently being performed by CDH Energy Corp. as represented by NYSERDA's DG Integrated Data System website <http://chp.nyserda.ny.gov>.

Proposers must have demonstrated experience in CHP system installation, remote monitoring and performance analysis, as well as experience in web-based database application development, operation and maintenance.

Proposal Submission: Electronic submission is preferable. NYSERDA will also accept proposals by mail or hand-delivery. If submitting electronically, proposers must submit the proposal in either PDF or MS Word format along with a completed and signed Proposal Checklist and Disclosure of Prior Findings of Non-Responsibility, in PDF format. Proposal PDFs should be searchable and should be created by direct conversion from MS Word, or other conversion utility, rather than scanning. For ease of identification, all electronic files must be named using the proposer's entity name in the title of the document. Proposals may be submitted electronically by following the link for electronic submissions found on this RFP's webpage, which is located in the "Current Opportunities" section of NYSERDA's website (<http://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities.aspx>). Instructions for submitting electronically are located as Attachment I to this RFP.

If mailing or hand-delivering, proposers must submit (2) paper copies of their proposal with a completed and signed Proposal Checklist, along with a CD or DVD containing both a PDF and MS Word digital copy of the proposal, following the above guidelines. Mailed or hand-delivered proposals must be clearly labeled and submitted to:

**Jillina Baxter, RFP 3328
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399**

If you have technical questions concerning this solicitation, contact Paul Vainauskas at (518) 862-1090, ext. 3554 or paul.vainauskas@nyserda.ny.gov. If you have contractual questions concerning this solicitation, contact Venice Forbes at (518) 862-1090, ext. 3507 or venice.forbes@nyserda.ny.gov.

No communication intended to influence this procurement is permitted except by contacting Paul Vainauskas (Designated Contact) at (518) 862-1090, ext. 3554 or paul.vainauskas@nyserda.ny.gov. 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 will be returned. Incomplete proposals may be subject to disqualification. It is the proposer's responsibility to ensure that all pages have been included in the proposal. 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 <http://www.nyserda.ny.gov>.



I. Introduction

NYSERDA offers a number of initiatives that support the installation and operation of distributed generation (DG), combined heat and power (CHP) and other power generation and/or power storage systems. Most of these programs ensure that system performance data is supplied to NYSERDA for analysis and/or presentation to the general public. In 2004, NYSERDA contracted with CDH Energy Corp. to develop and operate the Combined Heat and Power – Data Integration System (currently referred to as the DG Integrated Data System), as described in Attachment D, which automatically receives daily uploads of 15 minute system performance data from each of the NYSERDA funded on-site generation project sites, performs automated quality checks on the data, stores the data in a database, analyzes the data, and presents the results through the publicly available website <http://chp.nyserda.ny.gov>. Over the past several years, the website has been expanded to include not only CHP, but power generation data from various other NYSERDA funded power generation projects, including installations of solar photovoltaic (PV) systems, anaerobic digester (ADG) systems, and fuel cells (collectively referred to as “DG sites” for the purpose of this RFP). The existing agreement with the incumbent (CDH Energy Corp.) is scheduled to expire at the end of 2016. Under this RFP, NYSERDA is requesting proposals from qualified vendors to continue this effort. The existing agreement calls for the incumbent to assist with a smooth transition should a new contractor be selected.

The existing agreement requires CDH Energy Corp. to assist each DG site to develop a monitoring plan consistent with the Attachment E – Monitoring and Data Collection Standard, assist in the establishment of a data transfer protocol with each DG site, develop a case study of each CHP site, perform both automatic and manual data quality assurance reviews, and monitor the system (including data transfer from the sites) so that problems are quickly identified and resolved. Each site, through its own DG implementation contract with NYSERDA, is required to procure, install and maintain monitoring equipment (meters, sensors, data logger, and communications pathway).

The existing agreement requires that CDH Energy Corp. grant NYSERDA a license to use, modify, distribute, and permit others to use, modify and distribute all software developed as part of the development, operation, or maintenance of the DG Integrated Data System. The selected vendor will receive a copy of the source code developed under the existing agreement which provides much of the functionality of the DG Integrated Data System. However, some functionality is currently provided using software written by CDH Energy Corp. prior to the existing effort and this source code will NOT be provided to the selected vendor. This excluded software is described in Section 3 of Attachment D and consists primarily of command line batch files and programs written in PV-WAVE. The selected vendor will be required to replicate the functionality of the excluded software during the Transition and Startup phase of this effort.

The DG Integrated Data System is currently receiving daily operational data from approximately 400 active sites. It is anticipated that between approximately 250 and 400 new active sites will be added during the first two years of effort under this RFP, and, if NYSERDA authorizes the selected vendor to continue beyond the initial two-year period, then it is anticipated that between approximately 150 and 500 new active sites will be added during the subsequent three years of effort under this RFP.

The vendor selected as a result of this RFP (selected vendor) will receive an agreement for an initial period of 2 years, followed by an optional renewal period of 3 years, for a total period of 5 years.

II. Program Requirements

Proposers may be individual entities or teams of entities. Proposers must have demonstrated experience in each of the areas listed below under “Proposer Qualifications”.

NYSERDA anticipates that a single award will be made to a proposer, or proposing team, which will be selected to perform the work as defined in Attachment C – Statement of Work.



The selected vendor will be required to grant NYSERDA a license to use, modify, distribute, and permit others to use, modify and distribute all software and other materials developed as part of the development, operation, or maintenance of the DG Integrated Data System.

III. Proposal Requirements

A completed and signed Proposal Checklist must be attached as the front cover of your proposal. **Late proposals will be returned and proposals lacking the appropriate completed and signed Proposal Checklist may be returned. Faxed or e-mailed copies will not be accepted.**

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

Proposer Qualifications

Document experience in each of the following areas. Provide specific, detailed examples, web addresses, and site contact information, as appropriate. Identify team-member individuals and the specific activities that they have performed.

- CHP system design and installation;
- Automated remote monitoring of CHP systems;
- Analysis of CHP system performance;
- Database development, operation and maintenance, particularly using MYSQL and Access and;
- Website development, operation and maintenance, particularly using database driven dynamic web pages using ColdFusion and Python.

DG Integrated Data System Implementation

Carefully review the Monitoring and Data Collection Standard (described in Attachment E). Describe what changes you would make (if any) and why.

Carefully review the existing DG Integrated Data System website at <http://chp.nyserda.ny.gov> and describe what changes you would make to the DG Integrated Data System which would improve its functionality, particularly with respect to technology transfer. Where possible, include examples in your proposal of work that you've done that illustrates your recommended changes.

Carefully review the existing DG Integrated Data System hardware and software environments as described in Attachment D. Fully describe the hardware and software environments that you propose to utilize to support the DG Integrated Data System, and, if different from what is currently used, how the change(s) would improve the functionality of the DG Integrated Data System. If you are proposing to use a hosting service, provide its name, its web address, and level of service (and options if any) that you are contemplating using.

The DG Integrated Data System website contains a wealth of information pertaining to the operation and performance of DG systems. Fully describe your capability and experience in maximizing the use of large data sets and how you would use this data to extract more value to the marketplace.

Additional Generation Data Services for DG Projects

The DG Integrated Data System must be capable of automated addition of new DG project sites through integration with accessible NYSERDA project databases, as these databases are developed, including



but not limited to Salesforce and the New York Generation Attributes Tracking System (NYGATS)¹. It shall also be capable of integrating automated transfers of generation data between companion databases maintained by NYSERDA or NYSERDA contractors on, at a minimum, a monthly basis.

Data Collection Systems and Services

The data collected and reported on the DG Integrated Data Systems website is more comprehensive for some DG systems providing both electric and thermal parameters (Full-data Site), compared to other DG systems providing electric only (Partial-data Site, including but not limited to solar PV sites, and battery electric storage sites). In all cases, the data collection activities administered by the vendor selected under this RFP shall:

- interface with the site's measurement instrumentation
- properly convert raw measurements supplied by the site's sensors and meters into the appropriate engineering units
- provide adequate security to protect against unauthorized access to the system and data
- provide for automatic polling of the instrumentation and recording the data at fifteen (15) minute intervals (more frequent sampling may be performed as long as data sampled at 15 minute intervals is recorded)
- provide for protection of data during system failure and power outage
- provide storage for at least seven (7) days' worth of data so that the data logging function can continue during communication failures
- and provide automatic transmittal of data to DG Integrated Data Systems website

For the Full-data collection system, the types of parameters to be measured for Full-data Sites include, but are not limited to:

- Temperature
- Water Flow Rate
- Gas Flow Rate
- Thermal energy recovered/used (BTU meter)
- Site kW demand
- kWhr produced/used
- Binary (on-off)

For the Partial-data collection system, the activities administered by the vendor selected under this RFP shall consist of receiving mainly electric only data from sites including but not limited to solar PV sites, and battery electric storage sites. The vendor selected under this RFP shall expect to receive outputs from the site derived from an internet enabled electric meter that displays instantaneous AC power and cumulative total AC energy production and, at a minimum, can record cumulative total AC energy production of the DG system on an hourly and time-stamped basis, store the hourly readings for at least 7 days, and can transmit recorded readings once per day to a NYSERDA designated Data Agent via e-mail, FTP, HTTP or Modbus TCP/IP. The meter must meet the American National Standards Institute (ANSI) C12.20, be Revenue grade with a +/-0.2% accuracy, and be properly calibrated. The meter must also have battery backup to prevent the loss of data during power outages. Under the category of Partial-

¹ NYGATS is an online certificate-tracking system that records information about electricity generated, imported, and consumed within New York State. Using unique serial numbers, it can issue, track, and manage energy attribute certificates and renewable energy certificates (RECs). It prevents double-counting of certificates, provides public reports, and records a full audit trail of all transactions to support the integrity of the certificates issued and held in the system. Registered NYGATS users can trade, retire, or verify and substantiate ownership of RECs to support compliance or voluntary claims. Certificates may be traded "bundled" with megawatt-hours of energy, but NYGATS tracks only certificates.



data collection system, it may be necessary to monitor one or two additional parameters to be determined (electric or non-electric).

On rare instances, NYSERDA may request that the vendor selected under this RFP provide, install, operate and maintain data collection systems at various DG sites that do not include a data collection and reporting system as part of the original project, or where the original system is no longer in operation. When so tasked, the vendor selected under this RFP will be responsible for the installation, operation and maintenance of such systems, sampling and recording measurements, and transmitting the recorded data to the website in an appropriate format on a daily basis.

Cost

A milestone payment structure will be used in the agreement resulting from this solicitation. Provide your proposed milestone payment amount for each of the following using Attachment F – Milestone Budget Form.

- **Transition and Startup** – A fixed milestone payment for all activities leading up to an approved, fully functional DG Integrated Data System, including acquiring and configuring all hardware and software, installing and updating the DG Integrated Data System software and files, establishing reliable data transfer from all existing active project sites, and attending transition meeting(s) (See Tasks 2 and 3 of Attachment C – Statement of Work). This milestone payment may be invoiced upon final approval for “public roll-out” of the DG Integrated Data System received from NYSERDA’s Project Manager.
- **Update of the Monitoring and Data Collection Standard** – A fixed milestone payment for this effort if you are proposing to update the Monitoring and Data Collection Standard (See Task 4 of Attachment C – Statement of Work). This milestone payment may be invoiced upon approval of the Final Monitoring and Data Collection Standard by NYSERDA’s Project Manager.
- **Upgrading and Improving the DG Integrated Data System** – A fixed milestone payment for upgrade and improvement of the system’s functionality and usefulness (See Task 5 of Attachment C – Statement of Work). This milestone payment may be invoiced upon approval of the Upgraded DG Integrated Data System received from NYSERDA’s Project Manager.
- **System Operation and Maintenance** – Milestone payments for operation and maintenance will be broken down into two components: a fixed monthly fee (to generally cover fixed costs) and a variable monthly fee based on the number of active sites monitored throughout the month (based on a fixed dollar amount per site, to be multiplied by the number of sites). See Task 6 of Attachment C – Statement of Work. These milestone payments may be invoiced monthly. Due to the expected difference in level of effort in operation and maintenance between the Full-data Site and Partial-data Site, the variable monthly fee can be different. The proposal should reflect this difference.
- **Adding New Full-data Sites (Electric & Thermal)** – Where the site has/will be installing the monitoring system through its DG implementation contract with NYSERDA, the vendor selected under this RFP will seek a fixed milestone payment for adding a new active Full-data Site to the DG Integrated Data System after transition/startup (\$/new site), including assisting the site to develop an approved Monitoring Plan, entering all site information into the DG Integrated Data System, creating and publishing a Fact Sheet for the site, and establishing reliable daily DG system performance data transfer from the site (See Task 7 of Attachment C – Statement of Work). This milestone payment may be invoiced once site data and the Fact Sheet are available through the DG Integrated Data System, reliable daily data transfer has been established, and automated analysis and reporting are functional for the site.
- **Adding new Partial-data Sites (Electric Only)** – Where the site has/will be installing the monitoring system through its DG implementation contract with NYSERDA, the vendor selected under this RFP will seek a fixed milestone payment for adding a new active DG site (electric only) to the DG Integrated Data System after transition/startup (\$/new site), entering site electric information into the DG Integrated Data System, and establishing reliable daily electric performance data transfer from the site (See Task 7 of Attachment C – Statement of Work). This



milestone payment may be invoiced once site data is available through the DG Integrated Data System, reliable daily data transfer has been established, and automated analysis and reporting are functional for the site.

- **Transition and Shutdown** – A fixed milestone payment for performing the transition and shutdown effort described in Tasks 9 and 10 of Attachment C – Statement of Work. This milestone payment can be invoiced once the DG Integrated Data System has been successfully handed off to the “New Contractor”.

Include a completed Personnel and Rates Form (Attachment H – Personnel and Rates Form) for the Proposer and each proposed team member organization or identified subcontractor.

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) are approved by an independent organization, such as the federal government, provide a copy of such approval.
- If rate(s) are 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.

Letters of Intent to Participate

- If a subcontractor is listed as part of your team, please provide a Letter of Intent to Participate from the subcontractor, as part of the proposal.

IV. Proposal Evaluation

Proposals that meet proposal requirements will be reviewed by a Technical Evaluation Panel using the evaluation criteria below.

- **Experience** – For each of the five areas of experience listed above, is the Proposer’s or Proposing Team’s experience excellent, satisfactory, or poor?
- **Benefits** – Will the Proposer, or Proposing Team, bring a capability that will ensure or enhance the continued operation of the DG Integrated Data System? If changes are proposed, will the proposed changes to the DG Integrated Data System and/or Monitoring and Data Collection Standard provide benefit(s) to the project sites, NYSERDA or the public?
- **Value** – What is the overall value, considering experience, benefits and cost, when compared to the other Proposers?

NYSERDA may consider the following program policy factors in making award selection decisions:

- The degree to which the applicant has the resources (human and financial) to be able to complete the work.
- The degree to which the proposal optimizes the use of available funding.

V. GENERAL CONDITIONS



Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes. The NYS Freedom of Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(2)(d) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted to NYSERDA that the proposer wishes to have treated as proprietary, and confidential trade secret information, should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to except it from disclosure, including a written statement of the reasons why the information should be excepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 <http://www.nyserda.ny.gov/About/-/media/Files/About/Contact/NYSERDA-Regulations.ashx>. 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
625 Broadway
Albany, NY 12207

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

Empire State Development
Minority and Women's Business Development Division
625 Broadway
Albany, NY 12207

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.ny.gov/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.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf). Prior to contracting with NYSERDA, the prospective contractor must also certify to NYSERDA whether it has filed such certification with the Department. The Department has created a second form that must be completed by a prospective contractor prior to contacting and filed with NYSERDA. See, ST-220-CA (available at http://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf). The Department has



developed guidance for contractors which is available at <http://www.tax.ny.gov/pdf/publications/sales/pub223.pdf>.

Contract Award - NYSERDA anticipates making one award under this solicitation. It may award a contract based on initial applications without discussion, or following limited discussion or negotiations pertaining to the Statement of Work. 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 (the enclosed Statement of Work may be adjusted based on negotiations between NYSERDA and the vendor selected under this RFP). NYSERDA reserves the right to limit any negotiations to exceptions to standard terms and conditions in the Sample Agreement to those specifically identified in the submitted proposal (see Proposal Checklist). Proposers should keep in mind that acceptance of all standard terms and conditions will generally result in a more expedited contracting process. NYSERDA expects to notify proposers in approximately eight weeks from the proposal due date whether your proposal has been selected to receive an award. NYSERDA may decline to contract with awardees that are delinquent with respect to any obligation under any previous or active NYSERDA agreement.

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. 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 which may apply in the particular circumstances. Proposers must also disclose if they have ever been debarred or suspended by any agency of the U.S. Government or the New York State Department of Labor.

VI. Attachments:

- Attachment A – Proposal Checklist
- Attachment B – Disclosure of Prior Findings of Non-Responsibility
- Attachment C – Statement of Work
- Attachment D – DG/CHP Integrated Database Functional Description
- Attachment E – Monitoring and Data Collection Standard
- Attachment F – Milestone Budget Form
- Attachment G – Sample Agreement
- Attachment H – Project Personnel and Rates Form
- Attachment I – Instructions for Submitting Electronic Proposals