

REQUEST FOR QUALIFICATIONS: New York City Solar Data Acquisition System

The New York City Solar America City Partnership is requesting qualification statements from interested companies for the supply, installation, and commissioning of solar PV data monitors (defined as meter, logger, and gateway) for the NYC Smart Solar City Project. Up to 200 data monitors will be installed in the New York City Solar Empowerment Zones: Staten Island East, Downtown Brooklyn, and Greenpoint-Gateway [Attachment A]. Each data monitor will include a data logger (power and energy) together with the necessary communications equipment to transfer data. The monitoring system will include hardware requirements for web-based monitoring of photovoltaic (PV) generation data at each site.

Experienced responders will be short-listed for bidding on the project. The successful bidder (Contractor) will enter into an AIA101/AIA201 construction contract with the Research Foundation of the City University of New York (RF CUNY). For informational purposes only, general contract requirements are included in Attachment B.

ARRA Funding

This project is funded under the American Recovery and Reinvestment Act (ARRA). The Contractor must comply with the Davis Bacon Act, the Buy American Act, and all ARRA reporting requirements.

Background

In 2007, New York City was designated a “Solar America City” by the U.S. Department of Energy. As a result, the New York City Solar America City Partnership (NYC SAC), led by Sustainable CUNY and comprised of CUNY, the New York City Economic Development Corporation and the Mayor’s Office of Long-Term Planning and Sustainability, has made significant progress in understanding the technical barriers to interconnecting distributed PV within Con Edison’s network grid system. The Smart Solar City Project will build on this knowledge by monitoring real-time PV production information on selected Con Edison networks.

Project Partners

City University of New York (CUNY)
Con Edison
Research Foundation of the City of New York (RF CUNY)
National Renewable Energy Laboratory (NREL)
New York City Economic Development Corporation (NYC EDC)
New York City Mayor’s Office
New York State Energy Research and Development Authority (NYSERDA)
U.S. Department of Energy (DOE)

Project Description

NYC SAC is seeking to install data monitors on existing (currently over 80 systems installed) and future PV installations within the New York City Solar Empowerment Zones. NREL will be storing the data from these systems and providing a web-based data display. A cost share partner is providing the first 45 data monitors as a match to federal funding. All additional data monitors will be provided, installed, and maintained by the Contractor. The Contractor will be responsible for customer level access to the data including a web portal and analytics. NREL will have direct access to the data for its ongoing research initiatives. Information on the existing solar installations where data monitors are to be installed will be included in the Request for Proposals. The Contractor will be expected to install data monitors on future PV systems as new solar installations are completed in the Solar Empowerment Zones throughout the term of the contract, as limited by supply.

Contractor Responsibilities

The Contractor will be responsible for the following tasks, which will be developed into a full Scope of Work and attached to the contract upon selection. A specification for the DAS has been developed by the National Renewable Energy Laboratory and is attached to this RFQ [Attachment C].

- Provide or procure data monitors for existing and future solar PV systems in NYC Solar Empowerment Zones after initial 45 data monitors are installed
- Install hardware based on system locations and permissions gathered by CUNY
- Test/commission hardware
- Provide a web portal for the system owner that displays data analytics
- Provide on-call maintenance for data monitors for 5 years

Required Experience and Qualifications

- Successful completion (installation and commissioning) of at least three data acquisition systems in the past five years
- BICSI – certification of DAS installers
- Current electrical contractor license in New York State

Project Budget and Timeline

It is expected that the installation of hardware will be ongoing through the end of 2012 as new PV systems are installed in the Solar Empowerment Zones.

Project budget will not exceed \$210,000.

Response to this RFQ

In written format no longer than 10 pages, please describe the following:

- Experience with solar PV systems (with references)
- Data acquisition system installation experience, together with a list of references
- Experience with Con Edison
- Understanding of New York City codes, NFPA, and other applicable standards
- Proposed installing contractor
- Experience with communications systems data security

Please include a primary contact, with email address, in your response. All communications to responders will be through email.

Respondents may email, in pdf format, their proposals to nycsolardata@mail.cuny.edu. Responses must be received by 5:00pm on the due date.

Alternatively, please mail four (4) hard copies of your proposal, along with a copy on CD, to:

NYC Solar America City Partnership
c/o Sustainable CUNY
75 Park Place, 5th Floor
New York, NY 10007

Evaluation

Responses to this RFQ will be evaluated and bidders will be short-listed according to criteria which includes the following:

- Experience with PV systems
- Experience with data monitoring hardware
- Experience in NYC
- Subcontractor experience
- Experience with communications systems data security

Estimated Procurement Timeline

February 2, 2011: RFQ released

February 9, 2011: Questions due to nycsolardata@mail.cuny.edu

February 16, 2011: Q&A posted on www.nycsolarcity.com

February 23, 2011: Responses due

March 11, 2011: Short list receives Request for Proposals

April 1, 2011: Responses due back

April 15, 2011: Final selection

May 6, 2011: Target for contract execution and project start

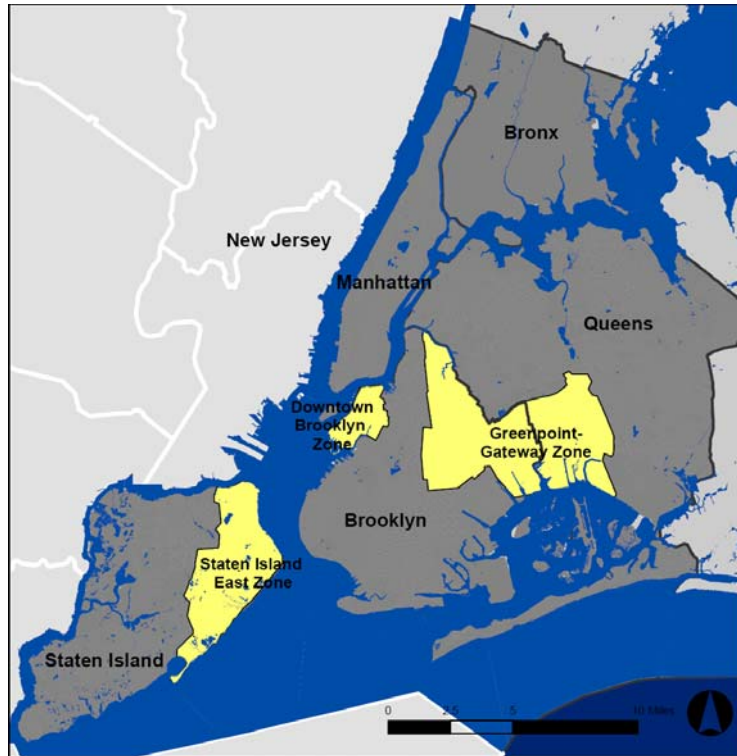
Attachments

Attachment A: Solar Empowerment Zones

Attachment B: General Contract Requirements

Attachment C: Specification

Attachment A: Solar Empowerment Zones



The NYC Solar Empowerment Zones are strategically selected geographical regions where solar power is most viable and beneficial from a technical standpoint, and where the Solar America Cities partnership will focus its outreach and program development.

An advisory group consisting of representatives from several NYC agencies, Consolidated Edison, the New York Department of Public Service, NYSERDA, and the New York Power Authority undertook a rigorous assessment process to select the Solar Empowerment Zones.

Each of the three initial zones has a “day-peaking” energy usage profile that conforms closely to the daily production of solar power. The three zones are also in need of moderate capacity upgrades and/or demand reduction measures over the next few years in order to meet expected load growth. Finally, each of the zones has a significant amount of rooftop square footage to accommodate solar installations.

Targeted solar power development in the three Empowerment Zones could play a critical role in reducing peak demand—and associated pollution from dirty peaking plants—while also potentially deferring or eliminating the need for costly upgrades to the electrical system that would increase electricity rates. For more information, go to <http://www.cuny.edu/about/resources/sustainability/solar-america/sez.html>.

Attachment B: General Contract Requirements

Licensing:

The Contractor must have a current electrical license in New York State.

Insurance:

The Contractor must have the following insurance certificates:

- Comprehensive Maximum Liability: \$1,000,000 per occurrence
- Workers Compensation: As statutorily required
- Professional Liability: \$1,000,000 per occurrence

A general liability sample form is attached on the next page.

Certificate Holder: All insurance policies must name the Research Foundation as the certificate holder as "Research Foundation of CUNY, 230 West 41st St. 7th Fl New York, NY 10036."

Additional Insured: All insurance policies must name the following as separate "additional insured:" Research Foundation of CUNY, The City University of New York

Description of Operations/Location: In addition to the requirements for certificate holder and additional insured, the certificate of liability insurance must also provide a brief description of the work to be done under the contract. This is important as some insurance company policies issue classification specific endorsements.

The policy must be obtained from an insurer licensed to do business in the state of New York and the insurer must have a Best's rating of no less than B+.

Any subcontractors or sub-subcontractors hired by the general contractor must maintain liability insurance of the types and in the amounts specified above.

In the event any insurance policies are required by this contract written on a "claims made" basis (instead of on an "occurrence" basis), coverage must extend for two (2) years past completion and acceptance of the work or services as evidenced by the annual Certificate of Insurance. This requirement will have to be in the Bid document.

Each insurance policy must contain a clause requiring the insurer to give the RF at least 30 days prior written notice of any alteration in the terms of policy or the cancellation, thereof.

Performance Bond & Payment Bond: - Contractors only - Depending on the type and scope of work, a performance bond and payment bond may be required of the contractor. For all projects over \$100,000, the contractor must post a performance and payment bond. The bid document will state if a performance/payment bond is required.

Bid Bond: - Contractors only - Depending on the type and scope of work, a bid bond may be required of the contractor. The bid document will state if a bid bond is required. For all projects over \$100,000, the contractor must post a bid bond. The bond amount must equal 5% of the bid.

Client#: 14290

RESFO

ACORDTM CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED INSURED'S NAME INSURED'S ADDRESS	INSURER A:	INSURANCE COMPANY NAME
	INSURER B:	INSURANCE COMPANY NAME
	INSURER C:	INSURANCE COMPANY NAME
	INSURER D:	INSURANCE COMPANY NAME
	INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A		GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY CLAIMS MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input checked="" type="checkbox"/> FROJECT <input type="checkbox"/> LOC	POLICY #	00/00/00	00/00/00	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Per occurrence) \$50,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COM/OP AGG \$2,000,000
B		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	POLICY #	00/00/00	00/00/00	COMBINED SINGLE LIMIT (Per accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ GARAGE LIABILITY <input type="checkbox"/> ANY AUTO AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
C		EXCESS/UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000	POLICY #	00/00/00	00/00/00	EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$ \$ \$
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below OTHER	POLICY #	00/00/00	00/00/00	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
REFERENCE HERE JOB AND LOCATION (ie Plumbing Work at 123 Main Street, NY NY)
INCLUDED AS ADDITIONAL INSURED ARE:
 - The Research Foundation of the City University of New York
 - The City University of New York
 - The Dormitory Authority of the State of New York (must be named only if the building is owned by DASNY)

CERTIFICATE HOLDER RESEARCH FOUNDATION OF THE CITY UNIVERSITY OF NEW YORK 555 WEST 57TH STREET NEW YORK NEW YORK 10019	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. AUTHORIZED REPRESENTATIVE
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IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

Attachment C: Specification

This specification was written by the National Renewable Energy Laboratory, in collaboration with the New York City Solar America City Partnership and Con Edison.

Data Acquisition System Specification

This specification covers the meter/data logger, communications/data transfer requirements, and monitoring/administration requirements for a data acquisition system for the NYC Smart Solar City Project. The objective of the project is to provide real-time information on NYC solar production to Con Edison, PV system owners, and ultimately the general public. Monitoring of data display and basic analysis shall be web-based (these services provided by NREL).

1. Energy Meter/Data Logger Specifications

- Voltage, amperage rated for the rating of the inverter. Single phase and three phase
- Accuracy: ANSI C12.20 Revenue grade, +/- 0.2% accuracy
- Digital communications between the meter and logger is recommended
- Minimum parameters to be monitored: power (kW or W, real component, not reactive), voltage (V), current (A), cumulative energy since inception (kWh), maximum real power (kW or W), power factor (pf)
- Enclosure: NEMA 4
- Power Requirements: The Contractor is responsible for providing any circuiting that may be necessary for the operation of the meter/data logger
- Meter/Data logger operating temperature range: -25 deg C to 50 deg C
- Measurement interval: 5 sec interval
- Data logger memory: 2 days
- Data upload frequency: Hourly
- Battery backup: Lithium
- 1-year warranty for sensors, data logger, and installation

2. Communication/Data Transfer Specifications

- Protocol: Modbus
- GSM/GPRS modem or Ethernet
- Monitoring of data display and basic analysis shall be web-based
- Communication ports: Ethernet, RS-485, cellular modem, or Wi-Fi
- The Contractor is responsible for ensuring that all final communication equipment/components are installed and operational for each site. Contractor will commission the system and coordinate with NREL personnel until each system is functional.

- Capability of providing non site-specific data for web-based general monitoring

3. Monitoring and Administration

- Availability 24 hours/day, 7 days a week
- Data Storage capacity: NREL will store raw data
- Capability of tracking total kW-H energy generated by each site for up to 7 years
- Contractor must handle maintenance issues. Provide 5 year service contract for all hardware & software
- During the 5 year service period, annual reports shall be provided by Contractor with record of O&M services performed (including number of site visits, costs, etc.).
- Provide quote for 5 year extension of the service contract at the expiration of the initial 5 year service contract.