Modeling Software for use in the New York Home Performance with ENERGY STAR® Program

Request for Qualifications (RFQ) No. 1303

Applications accepted through June 30, 2011 by 5:00PM EST

HOME PERFORMANCE WITH ENERGY STAR® Modeling Software Qualification Application

The New York State Energy Research and Development Authority (NYSERDA) seeks applications from software developers to provide building modeling software for use in NYSERDA's New York Home Performance with ENERGY STAR® (HPwES) Program.

RFQ 1303 establishes an open process for qualifying building modeling software for use in the New York Home Performance with ENERGY STAR Program. This solicitation identifies the required software features for building modeling and reporting that satisfy consumer and program management requirements. No incentives will be paid by NYSERDA under this solicitation

Software developers that have an analytical building modeling software tool that satisfies the Software Requirements of NYSERDA's Home Performance with ENERGY STAR Program are encouraged to apply for qualification for use of the software tool in the HPwES Program by following the process outlined in this RFQ. Qualified software may be accepted for use on several pre-approved pilot projects. After successful completion of the pilot projects, the software will be approved for general use for Participating Partners in the HPwES Program.

Application Submission: Software developers must submit five (5) copies of the Software Qualification Application with the completed and signed checklist (see Attachment A) attached to the front of each copy, one of which must contain an original signature to:

Roseanne Viscusi, RFQ 1303
NYS Energy Research and Development Authority
17 Columbia Circle
Albany, NY 12203-6399

Program questions on this RFQ should be directed to Brian Atchinson at (518) 862-1090, ext.3382, or bta@nyserda.org. Contractual questions should be directed to Venice Forbes at (518) 862-1090, ext. 3507, or vwf@nyserda.org.

Incomplete or substantially unresponsive applications will not be reviewed and will be returned to the applicant. Faxed or e-mailed applications will not be accepted. Applications 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.

PROGRAM BACKGROUND AND DESIRED GOALS

Home Performance with ENERGY STAR provides comprehensive energy efficiency services to existing one-to-four family homes through a network of independent home improvement contractors that are accredited by the Building Performance Institute (BPI). BPI is a national resource for building science technology that sets standards for assessing and improving the energy performance and health and safety of homes. Since its inception in 2001, the HPwES Program has completed over 25,000 jobs valued at more than $190 million. These totals include over 8,500 Assisted Home Performance jobs with more than $33 million in subsidies ($3,883 per job) paid on behalf of lower income households.

Market transformation efforts through the HPwES Program have led to the development of an infrastructure that currently includes 162 participating contractors, 224 BPI-accredited firms, and 691 certified technicians in New York State. Participating contractors have been trained in taking a 'whole house' approach when testing homes and identifying energy efficiency improvements. Additional information on the Program is available at www.getenergysmart.org.

The ability to accurately estimate energy savings and prioritize implementation of energy efficiency measures is critical to program effectiveness. Several software tools are available to assist auditors in this important task, but a balance has to be reached between software capabilities and ease of use. The HPwES program currently relies on Targeted Residential Energy Assessment Tool (TREAT) software. TREAT has been reviewed and determined to meet the software requirements in RFQ 1303 and will continue to be available for use in the program. However, since Program inception, other software developers have made significant software improvements that have enhanced building modeling capabilities, improving the ease of use and reliability of energy savings estimates. NYSERDA has decided that an open, market-based process for qualifying software for use in the program is appropriate at this time.

SOFTWARE REQUIREMENTS

Software must be commercially available and satisfy the additional requirements outlined in this section to be considered eligible for approval.

Modeling Capabilities: The software tool must model and estimate whole building energy usage for pre- and post-energy retrofit work in existing one-to-four family homes. The software must also calculate individual energy savings associated with improvements to the typical systems and components that are found in homes that participate in the HPwES Program. At a minimum, all the energy savings measures that are eligible for Program incentives must be supported by the software. See Section 2 of the Software Qualification Application for a complete description of required modeling capabilities.

Reporting: The software must be able to generate a home assessment report with a description of key home features and recommended improvements including improvement cost, Savings to Investment Ratio (SIR), and estimated energy savings. See Section 3 of the Software Qualification Application for a complete outline of reporting requirements.

Quality Assurance Mechanism: The software must provide means for users to check and troubleshoot the calculations, and have internal checks to ensure that inputs are reasonable, for example through non-editable surface construction libraries, fuel costs, etc. Section 4 of the Software Qualification Application provides a complete description of the quality assurance requirements.

Training/ Documentation/ Technical Support: Training and technical support services must be available to the users. There must be a User Manual or equivalent documentation to ensure that the software is used as intended. Section 5 of the Software Qualification Application outlines the technical support requirements.

Validated Calculation Algorithms: Results produced by the software tool must be peer reviewed and validated, and must be consistent with results produced by the software tools previously qualified for use in the HPwES Program. See Section 6 of the Software Qualification Application for additional information.

Data Exchange File: The software must be able to generate data files for NYSERDA to extract key data points required for quality assurance and incorporate project information into a central database. Allowed formats include XML or text files such as comma separated values (CSV). See Section 7 of the Software Qualification Application and Appendix B for additional information.

Software Qualification Application Submission: Software Qualification Applications will be accepted continuously over the life of the HPwES Program. NYSERDA will make every effort to complete its initial review of each application within five (5) weeks of receipt. Applicants with qualified software will be offered a Software Provider Agreement for a period of two (2) years, subject to extension at NYSERDA's discretion.

Software developers that have an analytical building modeling software tool that satisfies the Software Requirements should submit five (5) copies of the Software Qualification Application to the address provided on Page 1 of this RFQ. A completed and signed Application Checklist (see Attachment A) must be attached to the front of each copy of the application.

Software developers must provide the software on a CD-ROM and five (5) software licenses to NYSERDA at no cost. The licenses will be used to facilitate the review of the Software Qualification Application and to perform quality control on models submitted to the program. Licenses provided to NYSERDA will not be used for any other commercial purpose. If the software is available for download via the Internet, the URL, along with any relevant passwords and user IDs may be provided in lieu of a CD-ROM.

A Software Application Data File Requirements.xls spreadsheet with additional details and examples related to data exchange file requirements is available for download at NYSERDA's Web site: http://www.nyserda.org/funding/1303rfq.asp. Prior to beginning a Software Qualification Application, please check this location regarding any changes to this RFQ.

To be considered eligible for review, applications must be accompanied by the required supporting documentation, including the model and results for the case study described in Appendix A.

EVALUATION COMPONENTS

A. Modeling Capabilities

1. Does the software tool model and estimate whole building energy usage for pre- and post-energy retrofit work?

2. Does the software calculate individual energy savings associated with improvements to the typical systems and components that are found in homes that participate in the HPwES program?

3. Are all the measures that are eligible for program incentives supported by the software? (See Section 2 of the Software Qualification Application for a complete outline of required capabilities)

4. Does the software address all other requirements of Section 2?

B. Reporting

1. Can the software generate a home assessment report with a description of key home features and recommended improvements, including improvement cost, Savings to Investment Ratio (SIR), and estimated energy savings?

C. Quality Assurance Mechanism

1. Does the software provide the means for users to check and trouble-shoot the calculations?

2. Does the software have the functionality to allow NYSERDA to conveniently extract key data points required for quality assurance?

D. Training/ Documentation/ Technical Support

1. Are training and technical support services available to the users?

2. Is there a User Manual or equivalent documentation to ensure that the software is used as intended?

E. Accuracy Verification

1. Is the software approved for use in other programs?

2. Has the software been tested according to BESTEST (Building Energy Simulation TEST) or other verification procedure to ensure calculation accuracy?

3. Is the software commercially-available?

4. Has the software been used to calculate energy usage and savings for the case study described in Appendix A?

Based on the results of the NYSERDA software review, the tool may be accepted for use on several pre-approved pilot projects. After successful completion of the pilot projects, the tool will be approved for general use in the HPwES Program. The HPwES Program has stringent requirements on modeling capabilities, reporting, and rigorous guidelines for quality control. To maintain approval status in the

HPwES Program, software developers will be required to provide NYSERDA with ongoing reports of software development and quality control issues. NYSERDA reserves the right to remove any software tool from the list of approved tools at its discretion.

GENERAL CONDITIONS

Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your application. Review should include whether it is critical for evaluating an application, 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 applicant 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 accepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 http://www.nyserda.org/about/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 Corporation
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 Corporation
Minority and Women's Business Development Division
30 South Pearl Street
Albany, NY 12245

Tax Law Section 5-a - NYSERDA is required to comply with the provisions of Tax Law Section 5-a, which requires contractors, prior to entering an agreement with NYSERDA, to certify whether the contractor, its affiliates, its subcontractors and the affiliates of its subcontractors have registered with the New York State Department of Taxation and Finance to collect New York State and local sales and

compensating use taxes. The Department of Taxation and Finance has developed guidance and a certification form (ST-220-TD) for contractors which are available at: http://www.nystax.gov/pdf/2007/fillin/st/st220td_507_fill_in.pdf or http://www.nyserda.org/Funding/stdforms.asp. The completed Form ST-220-TD, which is also available upon request, will be incorporated in the agreement between NYSERDA and the contractor.

Software Provider Agreement-- NYSERDA anticipates that multiple agreements will be made under this solicitation.

Limitation - This solicitation does not commit NYSERDA to enter an agreement, pay any costs incurred in preparing an application, or to procure or contract for services or supplies. NYSERDA reserves the right to qualify or not qualify any or all applications 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 applicant 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 an applicant is an association, partnership, corporation, or other organization, this disclosure requirement includes the organization and its officers, partners, and directors or members of any similarly governing body. If an indictment or conviction should come to the attention of NYSERDA after the award of a contract, NYSERDA may exercise its stop-work right pending further investigation, or terminate the agreement; the contractor may be subject to penalties for violation of any law that may apply in the particular circumstances. Applicants 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:

Software Qualification Application

Disclosure of Prior Findings of Non-Responsibility

Attachment A - Application Checklist

Attachment B - Software Provider Agreement (Sample)

Attachment C - HPwES Eligible Measures and Accessories