Request for Proposals

RFP #: 7-12
Post Date: May 30, 2012
Proposal Submission Date: June 29, 2012
Topic: SEAD
Region: Global

Title: Internationally-Comparable Test Methods and Efficiency Class Definitions for Distribution Transformers

Introduction

On behalf of the Super-efficient Equipment and Appliance Deployment (SEAD) Initiative, the Collaborative Labeling and Appliance Standards Program (CLASP) is seeking a Contractor to research distribution transformer technologies and efficiency potential and compare energy efficiency test methods and policies currently in place around the world, and based upon this research recommend internationally-comparable test methods, metrics, and efficiency class definitions for use in future national policy measures.

It is envisioned that this project will commence in August 2012 and be completed by August 2013. Further details about the project are provided below, along with instructions for proposal submission.

About SEAD and CLASP

SEAD is a voluntary international government collaboration whose primary objective is to advance global market transformation for energy efficient products. Improvements in appliance and equipment energy efficiency offer enormous opportunity to reduce global energy consumption and carbon emissions, while simultaneously lowering energy costs for consumers, businesses, and institutions. The SEAD Initiative is making it easier for governments and the private sector to capitalize on this opportunity by fostering the sharing of technical information and program design insights and supporting market transformation efforts such as awards, incentives, and procurement. Measures taken by participating governments since the launch of the initiative in 2010 may save up to 170 terawatt-hours of electricity per year and 1,800 petajoules of natural gas and oil by 2030[1].

CLASP is an international not-for-profit organization whose mission is to serve as the primary resource and voice for appliance, lighting and equipment energy efficiency worldwide. CLASP

[1] As of March 2012, SEAD member governments are: Australia, Brazil, Canada, the European Commission, France, Germany, India, Japan, Korea, Mexico, Russia, South Africa, Sweden, the United Arab Emirates, the United Kingdom, and the United States. China is an observer to SEAD.

serves as the Operating Agent for SEAD. As the Operating Agent, CLASP uses its extensive experience in energy efficiency standards and labeling (S&L) for appliances and equipment to support SEAD activities.

Project Background

Energy losses associated with electrical distribution systems amount to nearly nine percent of total global electricity consumption. Distribution transformers are responsible for approximately 30 to 35 percent of these losses.

The SEAD Distribution Transformers Product Collaboration was created in 2011 as a means for policy makers to share information and explore collaborations to promote efficient use of distribution transformers. Government representatives and technical experts from Australia, Canada, Japan, the UK, and the US currently participate in the collaboration.

During the early stages of the Collaboration's work, there was a general agreement amongst collaborators that there is need for greater understanding of the various distribution transformer technologies and efficiency capabilities, and of the transformer efficiency policies in place around the world. In response, Collaboration participants decided to research existing information and data on product testing and technology capabilities, and make this information readily available to SEAD members and others with an interest in distribution transformers.

The SEAD initiative previously catalogued publically-available information relevant to the development of energy efficiency standards and labels for distribution transformers. This project will supplement the previous research and use the compiled information as a basis for developing proposed internationally-comparable test methods, efficiency metrics, and efficiency classes for use in national policy measures.

Objectives

The intent of this project is to develop technical resources for those responsible for establishing distribution transformer energy efficiency policies (e.g., minimum efficiency standards, premium efficiency programs) in a country or region.

Scope of Work

The Contractor will be responsible for the following project activities:

- Taking into consideration regional, national and international requirements for distribution transformers, prepare a detailed comparison of existing test methods, efficiency metrics, and efficiency level definitions to give an understanding of typical requirements for transformer energy performance.
- Examine factors affecting transformer energy efficiency such as equipment loading, design, configuration and materials.

- Develop a set of draft recommendations for internationally-comparable test methods and efficiency metrics. The test method specifications may include several tests and/or components of tests to accommodate different applications and product types, but should strive towards the ideal of one harmonized method.
- Develop a set of draft efficiency class definitions for consideration by regulators and efficiency program developers in setting minimum standards, premium product endorsement specifications, or categorical labels. The proposed efficiency class definitions should accomplish the following:
    - Take into consideration various metrics used to measure and compare energy efficiency.
    - Where possible, establish correlations between the various metrics.
    - Take into consideration the following factors that policy makers use in determining efficiency policies:
        - minimum total life cycle costs
        - net cost benefit
        - total cost of ownership (TCO)
        - equipment supply and cost
        - material supply, cost and availability

Deliverables

- A 15-20 page report (exclusive of executive summary, graphics, and citations) citing the similarities and differences amongst available distribution transformer test methods and efficiency levels.
- A 10-15 page report on proposed internationally-comparable test methods. Provide data and rationale for any trade-offs and decisions that are made during the selection of test method elements.
- A 10-15 page report on proposed internationally-comparable efficiency class definitions.

All reports should contain a concise executive summary and references to all original source materials.

Timeline

It is envisioned that this project will commence in August 2012 to be completed by August 2013. The timeline for the development and implementation of specific deliverables will be coordinated with the selected Contractor for this project.

Selection Criteria

A committee appointed by CLASP, consisting of CLASP staff and external advisors, will evaluate project and budget proposals received from respondents. The criteria used to determine the winning proposal will include:

- Relevant qualifications of the project team, with a technical background in distribution transformers and experience developing energy efficiency standards preferred.
- Understanding of the SEAD Initiative, its objectives and activities, and issues related to energy efficiency; and
- Total cost of plan.

Proposals will be evaluated using a Quality and Cost-Based Selection (QCBS) method, with weights of 70 percent towards project proposal quality and team and organization experience, and 30 percent towards proposed costs. Additional information about CLASP's selection process is available here.

All questions may be directed to Jenny Corry at jcorry@clasponline.org. We request all inquiries be made via e-mail and not by phone.

Application

Companies and organizations that wish to bid on this project must first register as a CLASP Implementing Partner. Registration is easy, and must be completed via the CLASP website before final submittal.

Applicants are required to submit two separate proposals: a Technical Proposal and a Financial Proposal. The file should be named as per the following example: "[***Contractor Name***]**: RFP #7-12**"

The ***Technical Proposal*** should not exceed 25 pages in length and must include the following elements:

- Background and introduction to the project *[1 to 2 pages]*;
- Detailed approach and methodology for implementation and management of the project *[2 to 4 pages]*;
- Detailed timeline of deliverables and milestones *[1 to 2 pages]*;
- A summary of qualifications relevant to this assignment *[1 to 2 pages]*;
- A description of the Contractor's experience with energy efficiency or related issues *[1 page]*;
- Three examples of project experience that best illustrate the Contractor's ability to deliver the harmonized test methods and efficiency levels for distribution transformers *[5 to 6 pages]*; and

- A summary of qualifications for key personnel that will be engaged in the project, along with a description of each person's role *[6 to 8 pages]*.

The ***Financial Proposal*** must include the following elements:

- Cost breakdown (in days) of the level of effort and costs for each deliverable and project milestone, associated with each team member that will be engaged in the project;
- List of anticipated out-of-pocket expenses; and
- Description of the Contractor's policies, controls, and track record of accomplishing proposed results within budget.

All proposals must be submitted electronically by June 29, 2012 via the CLASP website using the "Submit Bid" button above and filling out all the requested information. Any proposal not addressing each of the previously mentioned requirements can be considered non-responsive and rejected without further review. Late proposals will be rejected without being considered. Revisions or additions to the proposal will not be accepted after the due date unless specifically invited by CLASP.

Additional Information

Applicants interested in learning more about the work of CLASP and the SEAD Initiative are encouraged to visit the following websites:

- CLASP: www.clasponline.org
- SEAD: www.superefficient.org

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