

**HAWAII RENEWABLE ENERGY DEVELOPMENT VENTURE
Request for Proposals**

DATE: September 2009

**Administered by the:
Pacific International Center for High Technology Research (PICHTR)
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814**

SOLICITATION: HREDV 09-01 (DOE)

POINT OF CONTACT: Harold S. Masumoto, HREDV Project Director, Phone: (808) 237-5160.

INITIAL ABSTRACT DUE: Monday, October 26, 2009, Noon HST

The Hawaii Renewable Energy Development Venture (HREDV), a project of the Pacific International Center for High Technology Research (PICHTR), is soliciting proposals for advanced pre-commercial demonstration, or commercialization of clean energy technologies. HREDV will execute the program outlined in this announcement contingent upon funding amount and availability.

Subject areas of interest, in accordance with the HREDV Roadmap, include:

- Reduction of cycling of significant available supplies of intermittent renewable resources like wind in the small island grids,
- Increased reliance on distributed renewable energy systems while providing ancillary services to the electric grid,
- Potential integration of electric and transportation technologies with significant impact on island grids, e.g. plug-in hybrid electric vehicles, to enhance utilization of renewable resources,
- Development of controls, smart grids, storage technologies, systems engineering, integration and application,
- Significant uptake of island-based biofuels to include non-grain ethanol for transportation and biodiesel as substitute fuel in diesel electric generation units, all to provide significant market pull for these non-petroleum based fuels, and
- Novel approaches for new biofuels, including micro-algae as a platform for the production of bio-oils.

Priority will be given to projects which promote Hawaii's strengths and advantages in:

- Solar energy systems: photovoltaic and solar thermal
- Small scale wind turbines
- Biomass: conversion technologies and energy crops
- Information systems for grid operation and end use efficiency
- Energy storage
- Transportation technologies for electric vehicles
- Geothermal, including engineered systems and low grade geothermal heat
- Water resources: small pumped hydro, water/energy integration, and wastewater

Contract awards shall be based on proposal merit and funding availability. Proposed work should be structured with a base period of performance of up to 12 months. Options to extend the period of performance may be included in proposal plans but is not guaranteed.

HREDV anticipates that initial contractor selections will be made during November 2009 from submissions received by PICHTR in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, October 26, 2009. However, properly formatted proposal abstracts received after initial contractor selections and before 12 PM Noon, Hawaii Standard Time, November 6, 2009 will be considered for award if funding is available.

HREDV will use a two-step submission process to formulate a Core Program from projects submitted under this announcement. The first step requires submission of a Proposal Abstract. HREDV will evaluate all abstracts against the evaluation criteria herein without regard to other abstracts submitted. For the second step, HREDV will request full technical and cost proposals, including required application forms, from selected offerors for proposed efforts deemed as best qualified for potential negotiation under this announcement. HREDV will specify the format for full proposals in the invitation to submit more detailed project information. No selection for negotiation or subsequent funding will be made under this announcement without full technical and cost proposals.

PROPOSAL PROCESS

To be considered, offerors shall submit an unclassified abstract of the proposed effort to HREDV in Honolulu, Hawaii, by 12 PM Noon, Hawaii Standard Time, October 26, 2009. The abstract should provide an overview of the project and associated costs. Additional details may be included as attachments or appendices and will not count against the page limit. To be eligible for consideration, the offeror must be a commercial, for-profit enterprise.

Abstracts should be submitted electronically through the e-mail to hredv@pichtr.org according to other procedures outlined in this document. The submissions shall be prepared in either PDF or Microsoft Word-compatible formats and each project should have a separate submission.

Abstracts submitted by any means other than what is specified will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve-point typeface, with margins not less than one inch, and pages numbered. Submissions that do not meet the formatting requirements may be disqualified as non-compliant. HREDV will attempt to respond no later than November 30, 2009, to companies whose project abstracts are received on or before 12 PM Noon, Hawaii Standard Time, October 26, 2009.

The Abstract shall consist of a cover page and up to four (4) additional pages of project information, including figures and tables. Abstracts exceeding five (5) pages will be rejected. Additional details may be included as attachments or appendices and will not count against the page limit. However, there is no guarantee that technical reviewers will be able to read and digest all of the materials contained in attachments or appendices.

The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to produce the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations. The balance of the Abstract should clearly describe the project's Problem, Product, Process, Importance and Price.

The Abstract shall include the following sections, each clearly labeled:

- A. Problem. Stating the technical problem, describing the technical rationale for the proposed effort, and summarizing the technical objectives of the work.
- B. Products. Describing the work's expected results and discussing the anticipated application of the result, and patents or other intellectual property that may result from the work.
- C. Process. Describing the technical approach and methods to be used, including work schedules, task assignments, and major project milestones. This section should summarize special capabilities of the work team, and special techniques or facilities to be used for the proposed work. The prime offeror must perform the substantial portion of work.
 - If a subcontractor, or subcontractor facilities are to be included in the project, include an approved draft of the subcontract agreement and/or approval for use of subcontractor facilities, as appropriate. Such agreements are not subject to the page limitation for the submission.

- D. Importance. Stating specific technical advances and innovation that will be demonstrated by the work, describing the work's anticipated benefits to Hawaii and USDOE objectives and discussing the advances to state-of-the-art expected and relevance to HREDV program objectives.
- E. Price. Consisting of an estimate, including cost share, for a not-to-exceed level of effort project, including the principal cost elements, direct material costs, direct labor costs, other direct costs, and indirect costs.

The Abstract may also contain any other information deemed germane to the proposed effort, such as descriptions of leveraged assets, co-funding arrangements, consultant commitments, or technical references. A discussion concerning intellectual property and patents is important to supporting the effort, especially if such intellectual property is to be secured from other sources.

EVALUATION CRITERIA

The following criteria apply to both Abstracts and full proposals requested under this announcement. HREDV will select for award those projects offering the best value and, except for the first criterion (Item A), will give equal weight to each of the following criteria. Item A will receive twice the weight of any other criterion in the evaluation. The details on the specific metrics by which the criteria will be scored are included in the HREDV Roadmap, Appendix E.

- A. Quality. Technical quality of the proposed effort and its potential for success by advancing the technical state-of-the-art; relevance and consistency with Hawaii and DOE portfolio priorities; readiness for commercial application of the product(s); linkages to State policies and regulatory initiatives; and the overall broader commercialization potential of the developed product(s).
- B. Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans.

The prime offeror must perform the substantial portion of technical work for the project. Abstracts and/or Proposals submitted on behalf of a subcontractor, whereby the subcontractor performs the substantial portion of technical work, will not be accepted.

HREDV reserves the right to disqualify companies that do not demonstrate core business, project management, and financial capabilities. HREDV requires that key managers or principals have completed government contracting and/or project

management training. Copies of certificates and/or other validation/confirmation of the completion of such training shall be included in evaluation materials provided to HREDV.

- C. Anticipated Benefits. Potential to advance commercial capabilities at reasonable cost and in a timely manner, potential for sustained, significant benefit to the state of Hawaii; potential for generating intellectual property or follow-on support from sources other than HREDV; and potential for replication and/or broad commercialization of product(s). The relevance and uniqueness to Hawaii as well as the ability to leverage the project with other collaborations and projects shall be articulated in the submission.
- D. Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence. Cost share will be one of the critical evaluation criteria and must be addressed in the abstract submission and can be treated but not limited to the following examples: a 20% cost share covering pre-deployment costs covering test and evaluation and/or applied research; a 50% cost-share covering deployment and demonstration to qualified companies. Cost share commitments must be substantiated during subcontract negotiations.

Furthermore, each technically qualified project will be scrutinized for operational significance and near-term application as well as the ability to be replicated. Letters indicating interest from government and/or utility agents will be strongly considered if such interest can be independently verified.

OTHER REQUIREMENTS

HREDV plans to make up to \$2.4 million available to fund proposals in response to this announcement. Specific funding depends on funding availability and out-year funding has not been defined. Multiple, cost-reimbursable (fixed ceiling) contract awards are anticipated as a result of this announcement, contingent upon funding. HREDV encourages submission of proposals involving multiple entities ("teaming") to leverage capabilities, and develop technology in Hawaii. Non-commercial, not-for-profit and/or government entities may be part of project teams but the team must be headed by a commercial enterprise.

Awards are not expected to exceed \$500,000, however exceptions may be made depending on a number of factors including, but not limited to, near commercial/transition product development, cost sharing and other leveraging factors. No profit, fee or facilities cost of capital shall be allowed. All lower tier subcontracts shall be executed on a cost-reimbursable, no fee or profit basis. No fixed price subcontracts shall be executed.

Contract awards will be based on proposal merit and funding availability. HREDV may require that successful offerors deliver at least one technical presentation in Hawaii as part of the

project. Successful offerors will be required to participate in government contracting and accounting, project management and other training organized by HREDV unless offerors can demonstrate that responsible staff persons have previously completed such training.

This solicitation will remain open for ninety (90) days from the date of this announcement. However, to be considered in the initial award period, a properly formatted abstract must be received by HREDV in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, October 26, 2009.

Offerors responding to this announcement are wholly responsible for timely submissions. It is HREDV policy to treat all submissions as competitive information and to disclose the contents only for the purposes of evaluation. HREDV may use selected contractors as special resources to evaluate abstracts and proposals. These contractors are restricted by contract from disclosing proposal information or using it for purposes other than the technical assessments for HREDV.

By submitting an abstract to HREDV, an offeror agrees that the project's technical, and business and management information may be disclosed to selected contractors and evaluators for the limited purpose stated above or unless otherwise required by law. Any information submitted to HREDV that an offeror intends to exclude from such limited release must be clearly marked proprietary and submitted apart from other proposal material.

An invitation from HREDV to submit a full proposal does not assure subsequent award. The decision to submit or not submit a full proposal is the responsibility of the offeror submitting the abstract.

Successful offerors will be required to execute a cost reimbursable sub-agreement with the Pacific International Center for High Technology Research (PICHTR) and contract payments shall be contingent upon the receipt of federal funds.

ADDITIONAL INFORMATION

Information about HREDV is available through the website at www.hredv.com.

Contact Point. Questions relating to this announcement are to be directed to Maurice Kaya, Technical Director, or Keith Matsumoto, HREDV Technical Consultant, HREDV Project Office, 2800 Woodlawn Drive, Suite 132, Honolulu, Hawaii 96822, phone (808) 237-5051.

All responsive sources may submit a proposal abstract, which shall be considered by HREDV. HREDV reserves the right to select for award all, some, or none of the proposals received in response to this announcement. The program described in this announcement is contingent upon funding availability.