

Note: If you did not receive a letter indicating your pre-application was successful and requesting you to submit a full proposal, then you are not eligible to respond to this RFP. There are no exceptions.

BATTELLE ENERGY ALLIANCE, LLC
REQUEST FOR PROPOSAL NO. NE-UP R&D RFP 1

SUBJECT: NUCLEAR ENERGY UNIVERSITY PROGRAMS: UNIVERSITY RESEARCH AND DEVELOPMENT

DATE: February 6, 2009

PROPOSAL DUE DATE: March 16, 2009

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1. **INTRODUCTION**

This Request for Proposal (RFP) was prepared by the Center for Advanced Energy Studies (CAES) for its sponsor, the Department of Energy (DOE - aka the Department) Office of Nuclear Energy (NE) as part of NE's University Programs (NEUP) initiative. The RFP is administered by CAES through the Battelle Energy Alliance, LLC (BEA), a Management and Operating contractor for the United States Department of Energy at the Idaho National Laboratory (INL).

Under no circumstances shall the recipients of this RFP contact any individual within CAES or BEA, other than the CAES Point-of-Contact named herein, regarding this RFP. All questions regarding this RFP should be made using the question and answer (Q&A) feature on the Request For Proposal (RFP) website accessible via the CAES home page located at www.caesenergy.org.

Under the direction of NE, CAES is responsible for the integration of university research with NE research and development (R&D) program mission and objectives. This solicitation is a component of NE's strategy to achieve its R&D objectives.

- 1.1. You submitted applications in response to REQUEST FOR PRE-APPLICATIONS (RPA) NO. CROPCA-001-08 that were successful and are now invited to submit your best proposal for performing work in accordance with this RFP. The specific work scope(s) for which you are requested to submit a proposal on is/are identified in the acceptance letter you received. IF YOU DID NOT RECEIVE AN R&D PRE-APPLICATION ACCEPTANCE LETTER FROM CAES, THEN YOU ARE NOT ELIGIBLE TO RESPOND TO THIS RFP.

NOTE: All information and instructions required to respond to this RFP are accessible at www.caesenergy.org. Applicants who participated in the NEUP R&D Pre-application stage of this process may use the same log-in credentials to enter the secure R&D RFP website beginning at 8 a.m. February 6, 2009 MST. Offerors MUST submit their proposal(s) electronically through the R&D RFP website. NO hard copy proposals will be accepted.

2. **ESTIMATED FUNDING**

- 2.1. Approximately \$13 million and up to \$50 million is expected to be available in fiscal year 2009 for new R&D awards under this RFP. The Department, through CAES, may issue awards in multiple phases throughout the fiscal year pending availability of funds. The actual level of funding in each research area depends on the fiscal year 2009 appropriation for the Department of Energy NE R&D programs. Approximately 5 percent of the total funding is targeted for investigator- initiated research. An additional set aside may be made by NE leadership to facilitate Director's Choice awards.

3. **ELIGIBILITY INFORMATION**

- 3.1. Any proposal submitted in response to this RFP must be submitted by a U.S. university or college. Collaborations (i.e. teaming partners) between universities, and between universities and industry or national laboratories, are permitted. Partnering with minority serving institutions such as Historically Black Colleges and Universities and/or minority serving institutions is encouraged. The following link provides the list of minority institutions: <http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html>. Furthermore, including young researchers on application teams is encouraged. Any scope performed by a non-university

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teaming partner or combination of non-university teaming partners cannot exceed more than 20% of the total award amount of any resulting contract. No more than 20% of the total contracted amount may go non-university partners. Any number of Universities may team together on the proposal and share the funding at their discretion.

3.2. BASIS FOR AWARD

3.3. Selection Method

3.3.1. BEA will utilize a **best-value** selection process whereby all relevant evaluation factors will be assessed, including cost considerations, to select the successful candidates. The evaluation process will be based solely upon the written information, references and independent pre-award assessment actions as outlined within this solicitation. The best-value selection process will be conducted as follows:

- 3.3.1.1. **Mandatory Requirements** - Within the written proposal, Offeror shall address the mandatory (Go/No-go) requirements. Only proposals deemed fully compliant with the mandatory requirements shall be eligible for continued evaluation.
- 3.3.1.2. **Written Proposals** - Offeror shall provide a written proposal, fully compliant with the electronic submittal requirements specified on the R&D RFP website. CAES will make a determination as to the responsiveness of each proposal to the solicitation requirements.
- 3.3.1.3. **Cost Considerations** - To assess the cost component of the proposal, CAES will perform a review of the detailed cost proposal (Section 5.7) to determine reasonableness of the labor and non-labor costs for performing the proposed work.
- 3.3.1.4. CAES may solicit from available sources, including references and past clients identified by the Offeror, experience and past performance information on an Offeror or key personnel, and consider such information in its evaluation. Offerors are reminded to submit their best initial proposal as CAES may award without further discussions.
- 3.3.1.5. If CAES determines that revised proposals or best and final offers are necessary, CAES may solicit them from only those Offerors deemed by CAES (based upon evaluation of the current proposals) to have a reasonable chance to be selected for award, i.e., the competitive range.

3.4. Mandatory Requirements

- 3.4.1. If an Offeror cannot meet, or does not address compliance with the following mandatory (Go/No-go) requirements, its proposal will be considered nonresponsive and will not be evaluated further. Each Offeror (i.e. U.S. University submitting a proposal) is responsible for obtaining the commitment of each of their teaming partners to the mandatory requirements; their submittal of a response to this RFP is indicative of each teaming partner's acceptance of the mandatory requirements. The Offeror is not required to submit formal letters of commitment of their partners as part of their proposal. However, prior to award of any resultant contract, the Offeror must demonstrate that the proposed team has been formed and all teaming partner agreements are finalized.

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DOE NE University Programs R&D RFP Mandatory Requirements

No.	Requirement	Description	Evaluation
1	Commitment to reporting and budget requirements	Commitment to quarterly billing. Commitment to quarterly reporting to National campaign director and reports approved by Campaign director; Annual Report. The quarterly report will provide status and progress information on R&D, deliverables, milestones, schedule and budget. The annual report is due each year within one month of the anniversary of the contract award date and will provide the same type of information as the quarterly reports, but with more detail and a section on future outlook of the R&D.	Go/No-go
2	10 CFR 851 Worker Safety and Health Program	If an applicant proposes work scope to be conducted at a DOE facility, the work performed at DOE facilities shall be conducted in accordance with 10 CFR 851, Worker Safety and Health Program requirements.	Go/No-go
3	Export Control	Each respondent to the RFP and their partners are responsible for their own compliance with all US Export Control regulations in the performance of any work that is funded through the NEUP program. Respondents and partners who are selected to perform work in accordance with this RFP agree to have in place a documented export control process by the time a contract is awarded. Respondents and partners can contact the U.S. Departments of Commerce, State, Energy and Treasury for guidance as to applicable licensing requirements and other restrictions. By participating in this RFP, respondents and partners acknowledge that the work proposed will be subject to all export control regulations that may prohibit or restrict (i) transactions with certain persons, and (ii) the type and level of technologies and services that may be exported. These regulations include, without limitation, the Arms Export Control Act, the Export Administration Act, the International Economic Emergency Powers Act, the Atomic Energy Act and regulations issued pursuant to these including the Export Administration Regulations (EAR) (15 CFR Parts 730-774), the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130), and the Nuclear Regulatory Commission and Department of Energy	Go/No-go

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		export regulations (10 CFR Parts 110 and 810). Respondents and partners acknowledge that export control requirements may change and that the export of goods, technical data or services from the U.S. without an export license or other governmental authorization may result in both civil and criminal liability.	
4	Standard Research Subcontract	Applicant must agree to the terms and conditions of a Standard Research Subcontract (available on the RFP website), without exceptions. If the lead institution has a current Blanket Agreement in place with BEA and is awarded a R&D contract in response to this RFP, then the NEUP R&D award will be added to the existing Blanket (i.e. Release or Task Order). If no current Blanket exists, the action will be awarded under a stand-alone Standard Research Subcontract.	Go/No-go
5	Quality Assurance (applies only to nonacademic partners)	Each respondent to the RPA (NO.CROPCA-001-08) and their partners agreed to meet QA requirements as they apply to a specific scope of work and associated deliverables. As noted in the RPA, in most cases, an institution's process for peer review in support of publishing research results in refereed technical journals provides a sufficient basis for QA requirements. For some work scopes, however, respondents and partners must meet additional QA requirements. Accompanying each acceptance letter that invited full proposals is a QA Requirements form that defines the QA requirements deemed necessary by the TIOs to insure the integrity of R&D products and their usability by NE. These requirements range from the publication standards noted above to selected elements of the NQA-1 standard. Respondents and partners who are selected to perform work in accordance with this RFP agree to have in place a documented QA process that conforms with the specifications of the QA Requirements form by the time a contract is awarded.	Go/No-go
6	Commitment to prepare additional contract elements	Depending on the nature and terms of agreements already in place with BEA, offerors should be prepared to provide the following: University Contract Office Approval, Current Negotiated Rate Agreement, Most Recent Audit Report, University Travel Policy, Resumes for other degreed individuals, faculty members, and administrators, Forecast of monthly accrual based on best estimate of costs incurred.	Go/No-go

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3.4.2. Written Proposal –

3.4.2.1. Technical Proposal:

3.4.2.1.1. Offeror shall provide a written narrative addressing its strategy to execute R&D that supports the specified Technical Work Scope. The documentation provided shall include the items specified below:

- Proposal Title
- Technical Work Scope Identification: From the Technical Work Scope Table, as indicated on the original pre-application
- Proposed Scope Description
- Logical path to accomplishing scope including descriptions of tasks
- Milestones and Deliverables
- Type/description of facilities that will be used to execute the scope (N/A is acceptable)
- Schedule: Define timelines for executing the specified work scope
- The roles and responsibilities of each partnering organization in the execution of the work scope
- Unique challenges to accomplishing the work and innovations expected to mitigate such challenges
- Information, data, plans, or drawings necessary to explain the details of Offeror's proposal
- Quality Assurance: Describe the applicable QA requirements and how they will be met.

The R&D written narrative shall NOT include:

- Cost and pricing information
- Identification, by individual name or name of institution, any teaming partner.
- Official name or title of facilities used to execute scope. Describe the facility by function and/or technical attributes such as an accelerator, a test reactor, etc.

3.4.3. Capabilities

3.4.3.1. Infrastructure Requirements: In a separate document, Offeror shall identify the infrastructure (e.g., facilities, equipment, and instrumentation) required to execute the proposed scope of work. Describe the non-labor (e.g., facilities, equipment, and

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instrumentation) resources available and accessible to the Offeror and are required to execute the scope of work. Describe any unique equipment and facilities that are needed, are accessible, and will be used to execute the scope of work. Discuss the adequacy of these resources and identify any gaps. See the electronic proposal submission form for document guidance.

3.4.3.2. Technical Expertise and Qualifications: Offer shall name all teaming partners and their proposed roles and responsibilities. For the principle investigator from each partnering organization and other key personnel, the Offeror shall provide a brief vita that lists:

- Contact information;
- Academic and professional credentials;
- Relevant professional history;
- Five recent relevant publications or commensurate professional experiences.
- See the electronic proposal submission form for document guidance.

Technical expertise and qualifications are to be provided for a maximum of four individuals.

3.4.4. Balanced Opportunity

3.4.4.1. Minority institutions: A goal is to award 10% of the total dollars awarded under this solicitation to minority institutions that submit competitive proposals.

3.4.4.2. Award Ceiling: A ceiling of \$1M has been established for the total dollar amount that is awarded to one university. Exceptions to this ceiling may be made, if there are multiple instances where one-in-the-same University submits the only responsive proposals to multiple work scopes. The \$1M ceiling is also based upon initial estimates of total available funding for this solicitation process during FY09. Should additional funding become available for this program beyond the initial estimate, then this ceiling may be raised.

3.4.4.3. Geographical balance: When scoring based on evaluation criteria does not clearly distinguish a set of proposals, a geographical balance criterion will be applied during the final selection process.

3.4.5. Pricing

3.4.5.1. The Offeror shall use the spreadsheet, "RFP Budget Form example.xls" to provide all pricing information for execution of the proposed scope of work. Note that the required information is for the lead University, as well as for each partner. Additional pricing information beyond that requested may be provided, but will be used at the discretion of CAES. The budget form is available on the RFP website.

3.4.6. Scoring

3.4.6.1. CAES will evaluate and score each Offeror's proposal based on the information submitted in response to this RFP. Points for the technical score will be calculated as follows:

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Criterion	Description	Weight (Percent)
Technical Proposal		
Scientific Merit	Advances the state of the knowledge in the relevant program element(s).	20
Mission-relevant and Technical Merit ¹	Mission-relevance; Aligned with technical objectives; practicality of scope with respect to specified funding range for work scope and period of performance.	20
Research Plan	Logical path to work accomplishment.	35
Capabilities		
R&D Resources and Capabilities	Demonstrate that labor and non-labor resources are adequate to accomplish the proposed work scope. Costs delineated on the budget worksheet will be considered within this section.	10
Team Qualifications	Relevant credentials, publications, experience, and past accomplishments of principal investigator and collaborators.	15
<p>1. Mission Relevant and Technical Merit: The technical section of the application will clearly define the research being proposed and its relationship to the relevant program element(s). This criterion will consider the technical merit of the application including proposed technical objectives and deliverables and the likelihood of achieving them.</p>		

3.4.6.2. Scoring Balanced Opportunity

- 3.4.6.2.1. Three peers will independently employ a semi-blind process to evaluate and score the proposals. This peer evaluation process will produce a ranked list of proposals for each work scope. CAES will facilitate a process in which TIO Directors and NE PMs and senior leadership will select from the ranked proposals a final set of proposals to fund. The selection process will be guided by the three balanced opportunity criteria within the total available dollars.
- 3.4.6.2.2. The selections made will always be governed by proposal rankings within a specified scope of work. The rules that will be applied are:
 - 3.4.6.2.2.1. When no balanced opportunity criteria are applied, the highest ranked proposal will be funded.

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- 3.4.6.2.2.2. If two minority universities submitted competitive proposals for a scope of work, the minority institution that submitted the higher ranked proposal will always be funded first.
- 3.4.6.2.2.3. If two (non minority) universities in the same geographical region submitted competitive proposals for a scope of work and geographical balance is being achieved, then the university that submitted the higher ranked proposal will be funded first.
- 3.4.6.2.2.4. Selection of which proposals to fund for a University that has reached the agreed upon monetary ceiling will be at the discretion of the selection board.

3.4.7. Competitive Range: If CAES determines that revised proposals or best and final offers are necessary, CAES may solicit them from only those Offerors deemed by CAES (based upon evaluation of the current proposals) to have a reasonable chance to be selected for award, i.e., the competitive range.

4. **PROPOSAL SUBMITTAL REQUIREMENTS**

- 4.1. Proposal Due Date: The proposal is due by 11:59 p.m. MST March 9, 2009. Applicants **MUST** submit their responses through the R&D RFP website on the electronic proposal submission form.
- 4.2. RFP Schedule:

Issue RFP	February 6, 2009
R&D Full Proposals Due	March 9, 2009
R&D Selection Review Completed	May 1, 2009

- 4.3. Late Proposals: Proposals received after the designated date and time, i.e. late, may be retained without opening, with the Offeror notified of this decision. Extension of the proposal due date shall be at the sole discretion of CAES on behalf of its sponsor, the Department.
- 4.4. Proposal Packaging: Responses must be submitted as specified on the R&D RFP website to allow technical, pricing, and capabilities to be evaluated separately. The files shall be named as specified on the R&D RFP website.
- 4.5. Format and Content Requirements: The following must be completed and submitted to CAES using the R&D RFP website (Note: Specified forms are provided at the website).
- 4.5.1. Technical Proposal: See the electronic proposal submission form for document guidance.
- 4.6. Fully executed Organizational Conflicts of Interest Certification, Form PROC-3204 (available on the RFP website). The Offeror must provide, for itself and all partners, full disclosure of all previous current and planned contract activities where the Offeror is providing assistance on the same or similar matters to any other organization.

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- 4.7. Pricing: Submit core information using the spreadsheet and associated guidance provided on the R&D RFP website. The spreadsheet shall be submitted with the file name 09-ID# budget form.xls (example: 09-000 budget form.xls). A copy of the spreadsheet is provided on the RFP website as RFP Budget Form example.xls.
- 4.7.1. (Applies only to nonacademic partners). Offeror shall submit a cost proposal on the basis of fully burdened hourly labor rates for each of the labor categories proposed. Offeror's rates shall include only those labor costs required by law and may not unfairly burden CAES or the Government with overhead, profit and other factors already accounted for in standard labor rates. Offeror's fully burdened rates shall include, but not be limited to, the following:
- 4.7.1.1. Offeror's overhead, e.g., the cost of maintaining places of business, fringe benefits, statutory benefits, other direct and indirect costs
- 4.7.1.2. Costs of owning, renting, leasing, operating, and maintaining equipment and services typically required in the staffing support business, e.g., telephones (fixed and mobile), pagers, faxes, office machines (computers, copiers, fax machines, filming equipment, plotters, printers, servers, networks, data ports for customer electronic access, data storage and retrieval systems, filing systems, furniture, developing and maintaining Offeror's standards/guides and procedures.
- 4.7.1.3. Costs of normal and customary human resource and department manager functions, e.g., staff oversight, employee performance assessments, awards, promotions, transfers, disciplinary actions, and terminations.
- 4.7.1.4. Costs for routine business mail and express delivery (for delivery within three business days).
- 4.7.1.5. Costs for routine printing jobs.
- 4.7.2. (Applies only to nonacademic partners). A fully executed Proposal/Certification Form PROC-2120 (available on the RFP website).
- 4.7.3. Capabilities: Submit all capabilities information in accordance with the guidance provided on the R&D RFP website. The required capabilities information and associated guidance is provided on the electronic proposal submission form.
- 4.7.4. Commitment that the Offeror will comply with the mandatory (go/no-go) requirements identified in Paragraph 4.2.1, Basis for Award and evidence that Offeror has the capabilities to meet the requirements set forth in the RFP. The commitment is made by checking the Terms and Conditions box located on the electronic proposal submission form available on the R&D RFP website.
- 4.7.5. Foreign Ownership Control or Influence over Contractor Representation, Form PROC 2113 (Questionnaire, Certification, Consultant Certification, List of Owners, or Change of Company Name forms), as applicable. Form available on the RFP website.
- 4.7.6. Failure to submit any of the foregoing, at CAES's discretion, could result in the Offeror being determined non-responsive.

5. SPECIAL CONSIDERATIONS

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- 5.1. Ombudsman Program: Offeror is hereby notified that protests relative to this solicitation shall be resolved through BEA's Ombudsman Program (Phone: (208) 526-4513)

6. PROPOSAL INSTRUCTIONS

6.1. Interpretations and Exceptions

- 6.1.1. Offerors shall submit proposals on the basis of compliance with the RFP requirements. Any interpretation of the requirements by the Offeror may be considered an exception and treated accordingly, i.e., establish the proposal as non-responsive. Offeror must obtain from CAES concurrence/clarification regarding its interpretation to classify its proposal as compliant with, or exception to, the RFP requirements. Any exception must be documented as part of the proposal and priced as an alternative.
- 6.1.2. If Offeror takes exception to any RFP requirement, either technical or administrative, it shall be so stated in the proposal and formatted as follows: technical exceptions shall be numbered and attached to the technical proposal in a single document; administrative exceptions shall be numbered and attached to the price proposal; and each exception shall be clearly and completely defined.

6.2. Rights Reserved by CAES

- 6.2.1. CAES reserves the right to accept or reject any proposal with or without prior discussion with the Offeror and to disregard minor irregularities in proposals received.
- 6.2.2. CAES reserves the right to conduct any necessary pre-award survey and analysis to evaluate an Offeror's capabilities to comply with the requirements of this RFP.
- 6.2.3. CAES reserves the right to conduct a pricing audit to facilitate a determination of the reasonableness of proposed pricing.
- 6.2.4. Offerors are advised that although negotiations and a request for best and final may follow receipt of proposals, award may be made without discussions on proposals received. Thus, proposals should be submitted initially on the most favorable terms of price, technical compliance, and completeness.

- 6.3. Proposal Validity Period: A proposal shall remain firm for 180 days after the proposal due date, unless otherwise specified by the Offeror

6.4. Proprietary Information:

- 6.4.1. If you can provide a proposal without proprietary information, CAES prefers this approach. If proprietary data/information is essential to an effective presentation of your proposal, please adhere to the following:
- 6.4.1.1. If it is possible to do so without destroying the effectiveness of your presentation, place all proprietary data in a separate document as an attachment or appendix to the appropriate proposal volume.
- 6.4.1.2. Each page containing proprietary data must be marked with the following legend, an alternative legend that CAES specifically agrees to accept, or a statement that the documents are submitted pursuant to a specifically identified written agreement between you and CAES defining the duties and obligations of the parties relative to the

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proprietary data: ***"This contains 'proprietary data', furnished under BEA Request for Proposal No. xxx which may be duplicated and used by BEA with the express limitations that the 'proprietary data' may not be disclosed outside BEA and the U. S. Government."*** Contact the Procurement Agent if the legend furnished by BEA is not considered appropriate, must be revised, or should be replaced by a written agreement controlling submittal of proprietary data.

Discrepancies in the Request for Proposal: Should an Offeror find discrepancies in, or omissions from, the RFP, its attachments or related documents, or should Offeror be in doubt as to the meaning of any requirements, Offeror shall notify CAES and obtain correction or clarification prior to submitting its proposal.