February 14, 2012

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY
Building Construction Technology Extension Program (BCTEP) Pilot Projects

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)

- **Funding Opportunity Title:** Building Construction Technology Extension Program (BCTEP) Pilot Projects

- **Announcement Type:** Initial

- **Funding Opportunity Number:** 2012-BCTEP-01

- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.611, Manufacturing Extension Partnership

- **Dates:** All proposals, paper and electronic, must be received no later than 5:00 p.m. Eastern Time on Friday, March 30, 2012. Proposals received after this deadline will not be reviewed or considered. Review, selection, and award processing is expected to be completed in June 2012. The approximate start date for awards under this FFO is expected to be July 1, 2012.

- **Proposal Submission Address:**

  - Electronic submission: www.grants.gov

  - Paper submission: Diane Henderson
    National Institute of Standards and Technology
    Manufacturing Extension Partnership
    100 Bureau Drive, Mail Stop 4800
    Gaithersburg, MD 20899-4800

    Phone: 301-975-5105

- **Funding Opportunity Description:** NIST invites proposals from eligible proposers to fund pilot projects under a new Building Construction Technology Extension Program (BCTEP). This pilot program will address increasing energy efficiency in commercial and industrial building operations. This pilot program will focus on “re-tuning,” which is a systematic semi-automated process of identifying operational problems in commercial and industrial buildings.

- **Total Amount to be Awarded:** The total amount available for new awards is $1,330,000.

- **Anticipated Amounts:** NIST anticipates funding one (1) to five (5) pilot projects in the range of approximately $250,000 - $1,330,000 for a period of up to two (2) years.

- **Funding Instrument:** Cooperative Agreement

Who Is Eligible: Eligible proposers are existing MEP Centers, which are expected to form an appropriate contractual relationship (subaward or procurement) with community/technical colleges or universities with existing commercial building automation/technology systems curricula and/or trade associations with existing commercial building automation/technology systems curricula. Other MEP Centers may be included as subrecipients as appropriate to the proposer's defined geographic region. Letters of commitment from subawardees and contractors regarding faculty, facilities and/or curriculum/materials should be included.

- **Cost Sharing Requirements:** This Program does not require cost sharing.

- **Webinar Information Sessions.** NIST MEP will hold an information session for organizations considering applying to this opportunity. The information session will be in the form of a webinar to be held approximately 14 business days from the date of this FFO at approximately 2:00 p.m. Eastern Time. Organizations wishing to participate in the webinar must register at the NIST MEP public Web site www.nist.gov/mep.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

NIST invites proposals from eligible proposers to fund projects under a new pilot Building Construction Technology Extension Program (BCTEP). The pilot program will address increasing energy efficiency in commercial and industrial building operations. The pilot program will focus on "re-tuning," which is a systematic semi-automated process of identifying operational problems in commercial and industrial buildings. Re-tuning leverages data collected from the building automation system to identify opportunities to improve the building operations and provides guidance on implementing corrections at no cost or very low cost, leading to reduction in the overall energy consumption. An existing retuning curriculum and support materials for large buildings with sophisticated building control systems are available from the Pacific Northwest National Laboratory (PNNL). PNNL will participate in this effort as an advisor to NIST on the retuning curriculum and materials, as well as in-building techniques and methods of retuning buildings.

The BCTEP has been established pursuant to 15 U.S.C. 278k(g), which authorizes the establishment of an innovative services initiative to assist small- and medium-sized manufacturers in:

a. reducing their energy usage, greenhouse gas emissions, and environmental waste to improve profitability;
b. accelerating the domestic commercialization of new product technologies, including components for renewable energy and energy efficiency systems; and
c. identification of and diversification to new markets, including support for transitioning to the production of components for renewable energy and energy efficiency systems.

Pilot projects will be selected for funding under the BCTEP in collaboration with the Department of Energy, Office of Energy Efficiency and Renewable Energy's Building Technologies Program (BTP). BTP has provided funding to NIST for these pilot projects and will participate in both proposal review and project execution as an advisor to NIST. BTP's mission is to develop

technologies, techniques, and tools for making buildings more energy efficient, productive, and affordable. BTP focuses on improving commercial and residential building components, energy modeling tools, building energy codes and appliance standards. Within BTP, the Commercial Building Initiative (CBI) aims to significantly improve the energy efficiency of new and existing commercial buildings. To achieve this goal, CBI researches technologies, strategies, and tools to improve energy savings over current building codes. CBI also engages commercial building owners and operators to ensure these technologies are market-ready. Through CBI, BTP participates in the President's Better Buildings Initiative (BBI), which aims to make commercial buildings 20% more energy efficient over the next decade. The BBI specifically identifies providing more workforce training in areas such as energy auditing and building operations, as well as the creation of the BCTEP.

This competition addresses only Section I.a. of this FFO (reducing their energy usage, greenhouse gas emissions, and environmental waste to improve profitability). Funded projects shall address the training of the next generation of commercial and industrial building technology workers, specifically for commercial and industrial buildings with a building automation system (BAS) and small-to-medium commercial and industrial buildings that currently do not have a BAS installed and are expected to become Centers for Building Operations Excellence (CBOEs). The training to be developed and provided shall be based on training materials and curricula on building re-tuning and other aspects of commercial building operations currently available from the Pacific Northwest National Laboratory (PNNL) or the equivalent curriculum/materials. As noted above, PNNL's existing retuning curriculum and support materials were developed for large buildings with sophisticated building control systems The pilot efforts under this FFO are intended to apply to smaller commercial and industrial buildings that may have individual components but not sophisticated building control systems.

Re-tuning is a systematic process that leverages data from the building automation system to identify operational problems. It can be considered as a scaled down retro-commissioning (RCx) process, providing most of the benefits associated with RCx, but at a fraction of the cost. RCx is a systematic, documented process that identifies relatively low-cost operational and maintenance improvements in existing buildings and brings the buildings up to the design intentions of its current usage. RCx typically focuses on energy-using equipment such as mechanical equipment, lighting and related controls and usually optimizes existing system performance, rather than relying on major equipment replacement, typically resulting in improved indoor air quality, comfort, controls, energy and resource efficiency. RCx typically includes an audit of the entire building including a study of past utility bills, interviews with facility personnel, then diagnostic monitoring and functional tests of building systems are executed and analyzed. Building systems are retested and remonitored to fine-tune improvements. This process helps find and repair operational problems.

Proposers choosing not to rely on PNNL's materials shall demonstrate how their proposed materials are equivalent or better. MEP Centers and the technical/community colleges are expected to collaborate to identify appropriate manufacturers and facilities meeting the building type criteria above to field test the training and workers' competence to retune a building. Competitive projects will use innovative and collaborative approaches to develop, modify and deploy the training and to share those approaches with the MEP nationwide network. Successful proposers are expected to fully share their curricula and materials with the goal of having a single, national program curriculum available.

It is important that funded BCTEP pilot projects be well aligned with the MEP nationwide network in order to maximize the potential and impact of existing resources available through the MEP Program. Information regarding the MEP Program is available at www.nist.gov/mep.

The proposal should include plans for integration into the MEP nationwide network and linkages to appropriate national resources.

The statutory authorities for the BCTEP pilot projects are 15 U.S.C. § 278k(g) and 42 U.S.C § 7256 et. seq.

II. Award Information

1. Funding Instrument

The funding instrument that will be used for each award is a cooperative agreement. The nature of NIST's "substantial involvement" will generally be collaboration between MEP and the recipient organizations. This includes MEP collaboration with a recipient with respect to the scope of work, organizational structure, staffing, mode of operations, and other management processes, coupled with close monitoring and/or operational involvement during performance. Additional forms of substantial involvement that may arise are described in the Department of Commerce (DoC) Grants and Cooperative Agreements Interim Manual, which is available at http://www.osec.doc.gov/oam/grants_management/policy/doc_grants_manual/default.htm

2. Funding Availability

NIST anticipates funding one (1) to five (5) pilot projects in the range of approximately $250,000 - $1,330,000, for a period of up to two (2) years.

III. Eligibility Information

1. Eligible Proposers

Eligible proposers are existing MEP Centers, which are expected to form an appropriate contractual relationship (subaward or procurement) with community/technical colleges or universities with existing commercial building automation/technology systems curricula and/or trade associations with existing commercial building automation/technology systems curricula. Other MEP Centers may be included as subrecipients as appropriate to the proposer's defined geographic region. Letters of commitment from subawardees and contractors regarding faculty, facilities and/or curriculum/materials should be included.

2. Cost Sharing Requirement

The BCTEP does not require cost sharing.

3. Other

Pre-Proposals. NIST is not accepting pre-proposals or white papers under the BCTEP.

IV. Application/Proposal and Submission Information

1. Address to Request Application Package

The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, SF-LLL, and the CD-511, is available at www.grants.gov. The standard application package may also be requested by contacting:

Diane Henderson
National Institute of Standards and Technology
Manufacturing Extension Partnership
100 Bureau Drive, Mail Stop 4800
Gaithersburg, MD 20899-4800

Phone: 301-975-5105

2. Content and Form of Application/Proposal Submission

a. Required Forms and Documents

(1) SF-424, Application for Federal Assistance. The SF-424 must be signed by an authorized representative of the proposer organization. The FFO number 2012-BCTEP-01 must be identified in item 12 of the SF-424. The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B.
(2) SF-424A, Budget Information - Non-Construction Programs (The budget should reflect anticipated expenses for no more than five (5) years, considering all potential cost increases, including cost of living adjustments.)
(3) SF-424B, Assurances - Non-Construction Programs
(4) CD-511, Certification Regarding Lobbying
(5) SF-LLL, Disclosure of Lobbying Activities (if applicable)
(6) Technical Proposal. The Technical Proposal is a word-processed document of no more than twenty-five (25) pages responsive to the program description (*see* Section I. of this FFO) and the evaluation criteria (*see* Section V.1. of this FFO). It should contain the following information:

(a) Executive Summary. Briefly describe the proposed project in no more than two (2) page(s), consistent with the evaluation criteria (*see* Section V.1 of this FFO).
(b) Project Narrative/Statement of Work. Describe the proposed project, sufficient to permit evaluation of the proposal in accordance with each of the evaluation criteria in section V.1.a. through V.1.h. of this FFO.
(c) Qualifications. Identify the key personnel and their qualifications, who will be assigned to work on the proposed project.

(7) Budget Narrative. There is no set format for the Budget Narrative; however, it should provide a detailed breakdown of each of the object class categories as reflected on the SF-424A
(8) Indirect Cost Rate Agreement. If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. Successful proposers will be required to obtain such a rate.

If submitting the proposal electronically via Grants.gov, items IV.2.a.(1) through IV.2.a.(5) above are part of the standard application package in Grants.gov and can be completed through the download application process. Items IV.2.a.(6) through IV.2.a.(8) must be completed and attached by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance. This will create a zip file that allows for transmittal of the documents electronically via Grants.gov. Proposers should carefully follow specific Grants.gov instructions at www.Grants.gov to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating a proposal is received does not provide information about whether attachments have been received.

If submitting a proposal by paper, all of the required proposal documents should be submitted in the order listed above.

b. Proposal Format

(1) **Double-sided copy.** For paper submissions, print on both sides of the paper (front to back counts as two (2) pages).

(2) **E-mail submissions.** Will not be accepted.

(3) **Facsimile submissions (fax).** Will not be accepted.

(4) **Figures, graphs, images, and pictures.** Should be of a size that is easily readable or viewable and may be landscape orientation.

(5) **Font.** Easy to read font (10-point minimum). Smaller type may be used in figures and tables but must be clearly legible.

(6) **Line spacing.** Single.

(7) **Margins.** One (1) inch top, bottom, left, and right.

(8) **Number of paper copies.** For paper submissions, one (1) signed stapled original and two (2) stapled copies. If original proposal is in color, the two (2) copies must also be in color. If submitting electronically via Grants.gov, paper copies are not required.

(9) **Page layout.** Portrait orientation only (except figures, graphs, and pictures (*see* Section IV.2.b.(4)).

(10) **Page Limit.** Twenty-five (25) pages.

Page limit includes: Table of contents (if included), Technical Proposal with all required sections, resumes, figures, graphs, tables, images, and pictures.

Page limit excludes: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs; SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; Budget Narrative; and Indirect Cost Rate Agreement.

(11) **Page numbering.** Number pages sequentially.

(12) Paper size. 21.6 by 27.9 centimeters (8 ½ by 11 inches).

(13) Proposal language. English.

(14) Staple paper submission. For paper submissions, staple the original signed proposal and each of the two (2) copies securely with one (1) staple in the upper left-hand corner.

(15) Typed document. All proposals, including forms, must be typed.

3. Submission Dates and Times

All proposals must be received by NIST no later than 5:00 p.m. Eastern Time on Friday, March 30, 2012. This deadline applies to all modes of proposal submission, including courier services, express mailing, and electronic.

Proposals not received by the specified due date and time will not be considered and will be returned without review. NIST determines whether proposals submitted by paper have been timely received by the deadline by the date and time receipt they are physically received by NIST at its Gaithersburg, Maryland campus. For electronic submissions, NIST will consider the date and time stamped on the validation generated by www.Grants.gov as the official submission time.

NIST strongly recommends that proposers do not wait until the last minute to submit a proposal. NIST will not make any allowances for late submissions, including but not limited to incomplete Grants.gov registration, delays in mail delivery caused by Federal Government security screening for U.S. Postal Service mail, or for delays by guaranteed express mailing and/or couriers. To avoid any potential processing backlogs due to last minute Grants.gov registrations, proposers are highly encouraged to start their Grants.gov registration process at least four (4) weeks prior to the proposal due date.

Important: All proposers, both electronic and paper submitters, should be aware that adequate time must be factored into proposers' schedules for delivery of their proposal. Submitters of electronic proposals are advised that volume on Grants.gov may be extremely heavy on the deadline date, and if Grants.gov is unable to accept proposals electronically in a timely fashion, proposers are encouraged to exercise their option to submit proposals in paper format. Submitters of paper proposals should allow adequate time to ensure a paper proposal will be received on time, taking into account that Federal Government security screening for U.S. Postal Service mail may delay receipt of mail for up to two (2) weeks and that guaranteed express mailings and/or couriers are not always able to fulfill their guarantees.

In the event of a natural disaster that interferes with timely proposal submissions, NIST may issue an amendment to this FFO to change the proposal submission due date.

4. Executive Order 12372 (Intergovernmental Review of Federal Programs)

Proposals under this Program are not subject to Executive Order 12372.

5. Funding Restrictions

Fees and/or Profits. Fees and/or profits are not allowable costs in any financial assistance awards that may be issued pursuant to this announcement

6. Other Submission Requirements

a. Proposals may be submitted by paper or electronically.

(1) Paper proposals must be submitted in triplicate (an original and two copies) and sent to:

Diane Henderson
National Institute of Standards and Technology
Manufacturing Extension Partnership
100 Bureau Drive, Mail Stop 4800
Gaithersburg, MD 20899-4800

Phone: 301-975-5105

(2) Electronic proposals must be submitted via Grants.gov at www.grants.gov. Submitters of electronic proposals should carefully follow specific Grants.gov instructions to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating a proposal is received does not provide information about whether attachments have been received. For further information or questions regarding applying electronically for the 2012-BCTEP-01announcement, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at christopher.hunton@nist.gov.

Proposers are strongly encouraged to start early and not wait until the approaching due date before logging on and reviewing the instructions for submitting a proposal through Grants.gov. The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes three (3) to five (5) business days. If problems are encountered, the registration process can take up to two (2) weeks or more. Proposers must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number and must be registered with the Federal Central Contractor Registry and with a Credential Provider, as explained on the Grants.gov Web site. After registering, it may take several days or longer from the initial log-on before a new Grants.gov system user can submit a proposal. Only authorized individual(s) will be able to submit the proposal, and the system may need time to process a submitted proposal. Proposers should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the proposer is advised to (a) print any error message received and (b) call Grants.gov directly for immediate assistance. If calling from within the United States or from a U.S. territory, please call 800-518-4726. If calling from a place other than the United States or a U.S. territory, please call 606-545-5035. Assistance from the Grants.gov Help Desk will be available around the clock every day, with the exception of Federal holidays. Help Desk service will resume at 7:00 a.m. Eastern Time the day after Federal holidays. For assistance using Grants.gov, you may also contact support@grants.gov.

Information essential to successful submission of proposals on the Grants.gov system is detailed in the For Applicants section found in red on the left side of the www.grants.gov home page, and all potential proposers should pay close attention to the information contained therein. The All About Grants, Applicant FAQs, and Submit Application FAQs sections found under the Applicant Resources option are particularly important.

Refer to important information in Section IV.3. Submission Dates and Times, to help ensure your proposal is received on time.

b. Any amendments to this FFO will be announced through Grants.gov. Proposers can sign up for Grants.gov FFO amendments or alternatively may call Diane Henderson at 301-975-5105, to request copies.

V. Application/Proposal Review Information

1. Evaluation Criteria

The proposals will be evaluated based on the evaluation criteria described below, which are assigned equal weighting.

a. Quality of proposed approach and demonstrated ability to deliver on proposed activities. *Demonstrate that the proposed project outputs and objectives are aligned with and will meet the training needs of commercial and industrial building technology workers and result in reductions in energy usage for commercial and industrial buildings with special consideration of those used by small/mid-size manufacturers. The proposal must clearly articulate the needs to be addressed and solutions to be demonstrated within the proposed scope. Show how the efforts being proposed meet the needs identified and have clearly defined goals. Factors that may be considered include: a clear articulation of the tools, training and methodologies to be developed; an articulation of the retro-commissioning (RCx) and re-tuning needs for commercial and industrial buildings; and demonstration of what the training program is and how it will be tested and deployed. Additional consideration will also be given to the inclusion of the ISO 50001 energy management standard in the curriculum and deployment.*

b. Development methodology and leverage of existing resources. *Describe the technical plan for the development of the training material(s) or resource(s), including a clearly articulated project plan for development, training and demonstration of the curriculum and its deployment. Sources of expertise to be used should be clearly delineated and may include sources internal to the proposer or from other organizations. Factors that may be considered include: adequacy of the proposed technical plan; strength of core competency in the proposed area of activity; and demonstrated access to relevant subject matter expertise external to the organization. Because of differences in climate across the country, describe how the curriculum and deployment would be carried out in the proposed region. If teaming across multiple regions, the description should include the similarities and differences in climate and approach to re-tuning required by those climatic differences.*

c. Relevant faculty and program. *Demonstrate the inclusion of a strong building focused program/curriculum, preferably in building operations, has/demonstrates a basic understanding of commercial building RCx processes and has/demonstrates a basic understanding of building controls and building automation systems. Demonstrates use of PNNL or equivalent curriculum as a starting point for teaching.*

Factors that may be considered include: number and depth of faculty with appropriate building operations experience and expertise including building commissioning and RCx, building controls and automation systems, quality of existing teaching materials and course curriculum to be used as a starting point for teaching, stated willingness to modify existing

materials and curriculum to use PNNL or other relevant content, stated willingness to share existing and final materials and curriculum with other proposers and willingness to work with national trade and professional organizations with an interest in the materials/curriculum such as but not limited to Building Owners and Managers Association, the American Society of Heating, Refrigerating and Air-Conditioning Engineers and Association of Energy Engineers to ensure consistency with national and international standards. Letters of commitment from subawardees and contractors regarding faculty, facilities and/or curriculum/materials should be included.

d. Degree of integration with the Manufacturing Extension Partnership. *Demonstrate that the tools, training or resources will be integrated into and will be of service to the NIST Manufacturing Extension Partnership Centers and their client manufacturers. Factors that may be considered include: ability to access the tool or resource by MEP Centers; adequacy of methodology for disseminating or promoting use of the training, tools or techniques, especially within the MEP nationwide network; and demonstrated interest by the manufacturers in reducing energy usage using the workers trained. A plan that reflects not only the development activities but the specific actions needed to educate, train and deploy within the MEP nationwide network is critical.*

e. Coordination with other relevant organizations. *Wherever possible the project should be coordinated with and leverage other organizations, including other MEP Centers, which are developing or have expertise on similar tools, techniques, practices, or analyses. If no such organizations exist, the proposal should show that this is the case. Proposers should describe how they will coordinate to allow for increased economies of scale and to avoid duplication. Factors that may be considered include: demonstrated understanding of existing organizations and resources relevant to the proposed project; adequate linkages and partnerships with existing organizations and clear definition of those organizations' roles in the proposed activities; and demonstration that the proposed activity does not duplicate existing services or resources.*

f. Program evaluation. *Specify plans for evaluation of the effectiveness of the training. Factors that may be considered include: thoroughness of evaluation plans, (including internal evaluation for management control); use of adequate case studies for the use of external evaluation for assessing outcomes of the activity; and "customer satisfaction" measures of performance.*

g. Management experience and plans. *Specify plans for proper project staffing, and management of the project. Factors that may be considered include: appropriateness and authority of the organization to conduct the proposed activities; qualifications of the project team and the project team's leadership to conduct the proposed activity; and appropriateness of the organizational approach for carrying out the proposed project. The plans should make allowance for coordinating and sharing materials, curriculum, best practices, and lessons learned with other successful proposers (if any) on a quarterly basis.*

h. Financial plan. *Show the relevance and cost effectiveness of the financial plan for meeting the objectives of the project and the firmness and level of the proposer's total financial capacity for the project. Factors that may be considered include: reasonableness of the budget; strength of commitment; effectiveness of management plans for control of budget; and demonstration of past successful experience on similar projects.*

2. Selection Factors

The Selecting Official shall select proposals for award based upon the rank order of the proposals, and may select a proposal out of rank based on one or more of the following selection factors:

a. The availability of Federal funds.
b. Appropriate consideration for number of commercial and industrial buildings available for re-tuning within a region.
c. Geographic diversity to reflect the differences in climate and possible re-tuning specifics as a result.
d. Whether the project duplicates other projects funded by DoC or other Federal agencies.

3. Review and Selection Process

a. Initial Administrative Review of Proposals. An initial review of timely received proposals will be conducted to determine eligibility, completeness, and responsiveness to this FFO and the scope of the stated program objectives. Proposals determined to be ineligible, incomplete, and/or non-responsive may be eliminated from further review.

b. Full Review of Eligible, Complete, and Responsive Proposals. Proposals that are determined to be eligible, complete, and responsive will proceed for full reviews in accordance with the review and selection processes below:

(1) Evaluation/Review and Ranking. NIST will appoint an evaluation panel, consisting of at least three technically qualified reviewers, to conduct independent and objective reviews and evaluations of each proposal based on the evaluation criteria (*see* Section V.1. of this FFO) and assign a numeric score for each proposal. If more than one non-Federal employee reviewer is used on the panel, the panel member reviewers may discuss the proposals with each other, but scores will be determined on an individual basis, not as a consensus. Based on the average of the panel member reviewers' scores, a rank order will be prepared and provided to the Selecting Official for further consideration.

(2) Selection. The Selecting Official, who is the Director of the NIST MEP Program, will then select funding recipients based upon the rank order and the selection factors (*see* Section V.2. of this FFO).

NIST reserves the right to negotiate the budget costs with the proposers that have been selected to receive awards, which may include requesting that the proposer remove certain costs. Additionally, NIST may request that the proposer modify objectives or work plans and provide supplemental information required by the agency prior to award. NIST also reserves the right to reject a proposal where information is uncovered that raises a reasonable doubt as to the responsibility of the proposer. NIST may select part, some, all, or none of the proposals. The final approval of selected proposals and issuance of awards will be by the NIST Grants Officer. The award decisions of the NIST Grants Officer are final.

4. Anticipated Announcement and Award Date

Review, selection, and award processing is expected to be completed in June 2012. The earliest anticipated start date for awards made under this FFO is expected to be July 1, 2012.

5. Additional Information

a. **Proposal Replacement Pages.** Proposers may not submit replacement pages and/or missing documents once a proposal has been submitted. Any revisions must be made by submission of a new proposal that must be received by NIST by the submission deadline.
b. **Notification to Unsuccessful Proposers.** Unsuccessful proposers will be notified in writing.
c. **Retention of Unsuccessful Proposals.** One (1) of each non-selected proposal will be retained for three (3) years for record keeping purposes and the other two (2) copies will be destroyed. After three (3) years the remaining copy will be destroyed.

VI. Award Administration Information

1. **Award Notices.** Successful proposers will receive an award from the NIST Grants Officer. The award cover page, i.e., CD-450, Financial Assistance Award is available at http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/dev01_002513.pdf and the DoC Financial Assistance Standard Terms and Conditions (March 2008), which may be updated by the time of award, are available at http://www.osec.doc.gov/oam/archive/docs/GRANTS/DOC%20STCsMAR08Rev.pdf.

2. Administrative and National Policy Requirements.

a. **DoC Pre-Award Notification Requirements.** The DoC Pre-Award Notification Requirements for Grants and Cooperative Agreements, which are contained in the *Federal Register* notice of February 11, 2008 (73 FR 7696), are applicable to this FFO and are available at http://edocket.access.gpo.gov/2008/pdf/E8-2482.pdf.

b. **Employer/Taxpayer Identification Number (EIN/TIN), Dun and Bradstreet Data Universal Numbering System (DUNS), and Central Contractor Registration (CCR).** All proposers for Federal financial assistance are required to obtain a universal identifier in the form of DUNS number and maintain a current registration in the CCR database. On the form SF-424 items 8.b. and 8.c., the proposer's 9-digit EIN/TIN and 9-digit DUNS number must be consistent with the information on the CCR (www.ccr.gov) and Automated Standard Application for Payment System (ASAP). For complex organizations with multiple EIN/TIN and DUNS numbers, the EIN/TIN and DUNS numbers MUST be the numbers for the applying organization. Organizations that provide incorrect/inconsistent EIN/TIN and DUNS numbers may experience significant delays in receiving funds if their proposal is selected for funding. Confirm that the EIN/TIN and DUNS numbers are consistent with the information on the CCR and ASAP.

Per the requirements of 2 C.F.R. Part 25, each proposer must:

(1) Be registered in the CCR before submitting a proposal;
(2) Maintain an active CCR registration with current information at all times during which it has an active Federal award or a proposal under consideration by an agency; and
(3) Provide its DUNS number in each application or proposal it submits to the agency.

See also the *Federal Register* notice published on September 14, 2010, at 75 FR 55671.

c. Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects including Software Testing. Any proposal that includes research involving human subjects, human tissue/cells, data or recordings involving human subjects, including software testing, must meet the requirements of the Common Rule for the Protection of Human Subjects ("Common Rule"), codified for the Department of Commerce (DoC) at 15 C.F.R. Part 27. In addition, any such application that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other Federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, the Food and Drug Administration, and other Federal agencies on these topics, and all Executive Orders and Presidential statements of policy on these topics.

NIST reserves the right to make an independent determination of whether an applicant's research involves human subjects. If NIST determines that your research project involves human subjects, you will be required to provide additional information for review and approval. If an award is issued, no research activities involving human subjects shall be initiated or costs incurred under the award until the NIST Grants Officer issues written approval. Retroactive approvals are not permitted.

NIST will accept applications that include research activities involving human subjects that have been or will be approved by an Institutional Review Board (IRB) currently registered with the Office for Human Research Protections (OHRP) within the DHHS and that will be performed by entities possessing a currently valid Federal-wide Assurance (FWA) on file from OHRP that is appropriately linked to the cognizant IRB for the protocol. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST. Information regarding how to apply for an FWA and register and IRB with OHRP can be found at http://www.hhs.gov/ohrp/assurances/index.html.

Generally, NIST does not fund research involving human subjects in foreign countries. NIST will consider, however, the use of **preexisting** tissue, cells, or data from a foreign source on a limited basis if all of the following criteria are satisfied:

(1) the scientific source is considered unique,
(2) an equivalent source is unavailable within the United States,
(3) an alternative approach is not scientifically of equivalent merit, and
(4) the specific use qualifies for an exemption under the Common Rule.

Any award issued by NIST for the BCTEP is required to adhere to all Presidential policies, statutes, guidelines and regulations regarding the use of human embryonic stem cells. The DoC follows the NIH Guidelines by supporting and conducting research using only human embryonic stem cell lines that have been approved by NIH in accordance with the NIH Guidelines. Detailed information regarding NIH Guidelines for stem cells is located on the NIH Stem Cell Information website: http://stemcells.nih.gov. The DoC will not support or conduct any type of research that the NIH Guidelines prohibit NIH from funding. The DoC will review research using human embryonic stem cell lines that it supports and conducts in accordance with the Common Rule and NIST implementing procedures, as appropriate.

Any request to support or conduct research using human embryonic stem cell lines not currently approved by the NIH, will require that the owner, deriver or licensee of the human embryonic stem cell line apply for and receive approval of the registration of the cell line through the established NIH application procedures:

http://hescregapp.od.nih.gov/NIH_Form_2890_Login.htm. Due to the timing uncertainty associated with establishing an embryonic stem cell line in the NIH registry, the use of existing human embryonic stem cell lines in the NIH Embryonic Stem Cell Registry may be preferred by applicants or current award recipients. The NIH Embryonic Stem Cell Registry is located at: http://grants.nih.gov/stem_cells/registry/current.htm.

An applicant or current award recipient proposing to use a registered embryonic stem cell line will be required to document an executed agreement for access to the cell line with the provider of the cell line, and acceptance of any established restrictions for use of the cell line, as may be noted in the NIH Embryonic Stem Cell Registry.

If the applicant's proposal includes exempt and/or non-exempt research activities involving human subjects the following information is required in the proposal:

(1) The name(s) of the institution(s) where the research will be conducted;
(2) The name(s) and institution(s) of the cognizant IRB(s), and the IRB registration number(s);
(3) The FWA number of the applicant linked to the cognizant IRB(s);
(4) The FWAs associated with all organizations engaged in the planned research activity linked to the cognizant IRB;
(5) If the IRB review(s) is pending, the estimated start date for research involving human subjects;
(6) The IRB approval date (if currently approved for exempt or non-exempt research);
(7) If any FWAs or IRB registrations are being applied for, that should be clearly stated.

Additional documentation may be requested, as warranted, during review of the applicant's proposal, but may include the following for research activities involving human subjects that are planned in the first year of the award:

(1) A signed (by the study principal investigator) copy of each applicable final IRB-approved protocol;
(2) A signed and dated approval letter from the cognizant IRB(s) that includes the name of the institution housing each applicable IRB, provides the start and end dates for the approval of the research activities, and any IRB-required interim reporting or continuing review requirements;
(3) A copy of any IRB-required application information, such as documentation of approval of special clearances (i.e. biohazard, HIPAA, etc.) conflict-of-interest letters, or special training requirements;
(4) A brief description of what portions of the IRB submitted protocol are specifically included in the applicant's proposal submitted to NIST, if the protocol includes tasks not applicable to the proposal, or if the protocol is supported by multiple funding sources. For protocols with multiple funding sources, NIST will not approve the study without a nonduplication-of-funding letter indicating that no other federal funds will be used to support the tasks proposed under the proposed research or ongoing project;
(5) If a new protocol will only be submitted to an IRB if an award from NIST issued, a draft of the proposed protocol may be requested.
(6) Any additional clarifying documentation that NIST may request during review of proposals to perform the NIST administrative review of research involving human subjects.

3. Reporting

a. Reporting Requirements. In lieu of the reporting requirements described in sections A.01 Financial Reports and B.01 Performance (Technical) Reports of the DoC Financial Assistance Standard Terms and Conditions dated March 2008 (http://www.osec.doc.gov/oam/archive/docs/GRANTS/DOC%20STCsMAR08Rev.pdf), the following reporting requirements shall apply:

(1) Financial Reports. Each award recipient will be required to submit an SF-425, Federal Financial Report in triplicate (an original and two (2) copies), on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31 of each year. Reports will be due within 30 days after the end of the reporting period

(2) Performance (Technical) Reports. Each award recipient will be required to submit a technical progress report in triplicate (an original and two (2) copies), on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31 of each year. Reports will be due within 30 days after the end of the reporting period. A final technical progress report shall be submitted within 90 days after the expiration date of the award. Two (2) copies of the technical progress report shall be submitted to the Project Manager and the original report to the NIST Grants Officer. Technical progress reports shall contain information as prescribed in 15 C.F.R. § 14.51.

b. OMB Circular A-133 Audit Requirements. Single or program-specific audits shall be performed in accordance with the requirements contained in OMB Circular A-133, "*Audits of States, Local Governments, and Non-Profit Organizations*," and the related *Compliance Supplement*. OMB Circular A-133 requires any non-Federal entity (*i.e.*, including non-profit institutions of higher education and other non-profit organizations) that expends Federal awards of $500,000 or more in the recipient's fiscal year to conduct a single or program-specific audit in accordance with the requirements set out in the Circular. Proposers are reminded that NIST, the DoC Office of Inspector General or another authorized Federal agency may conduct an audit of an award at any time.

c. Federal Funding Accountability and Transparency Act of 2006. In accordance with 2 C.F.R. Part 170, all recipients of a Federal award made on or after October 1, 2010, are required to comply with reporting requirements under the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282). In general, all recipients are responsible for reporting sub-awards of $25,000 or more. In addition, recipients that meet certain criteria are responsible for reporting executive compensation. Proposers must ensure they have the necessary processes and systems in place to comply with the reporting requirements should they receive funding. Also see the *Federal Register* notice published September 14, 2010, at 75 FR 55663.

4. Post Client Project Follow-Up: For demonstration activities, as applicable, the recipient shall provide client and project data in the specified format to the organization identified by NIST/MEP in order for post-project follow-up data to be obtained (OMB Control Number 0693-0032).

VII. Agency Contact(s)

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Programmatic and technical questions	David Cranmer Manufacturing Extension Partnership NIST Phone: 301-975-5753 Fax: 301-963-6556 E-mail: david.cranmer@nist.gov
Administrative, budget, cost-sharing, eligibility questions and other programmatic questions.	Diane Henderson Manufacturing Extension Partnership NIST Phone: 301-975-5105 Fax: 301-963-6556 E-mail: diane.henderson@nist.gov
Grants.gov - Proposal submission	Christopher Hunton Grants & Agreements Management Division NIST Phone: 301–975–5718 Fax: 301–840-5976 E-mail: christopher.hunton@nist.gov
Grant rules and regulations	Melinda Chukran Grants & Agreements Management Division NIST Phone: 301-975-5266 Fax: 301-926-6458 E-mail: melinda.chukran@nist.gov

VIII. Other Information

Webinar Information Session. NIST MEP will hold an information session for organizations considering applying to this opportunity. The information session will be in the form of a webinar to be held approximately 14 business days at approximately 2:00 p.m. Eastern Time from the date of this FFO. Organizations wishing to participate in the webinar must register at the NIST MEP public website www.nist.gov/mep.