Climate Change Education Partnership (CCEP) Program, Phase II (CCEP-II)

PROGRAM SOLICITATION
NSF 12-523

REPLACES DOCUMENT(S):
NSF 10-542

National Science Foundation

Directorate for Education & Human Resources

Directorate for Geosciences

Directorate for Biological Sciences

Office of Polar Programs

Letter of Intent Due Date(s) *(required)* (due by 5 p.m. proposer's local time)*:*

January 24, 2012

Letter of Intent (Required) Due Date

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

March 21, 2012

Full Proposal Submission Deadline

IMPORTANT INFORMATION AND REVISION NOTES

This solicitation has been revised to implement Phase II of the Climate Change Education Partnership (CCEP) program. Only CCEP Phase II (CCEP-II) proposals will be accepted in response to this solicitation.

Proposers to the CCEP-II program should read this solicitation thoroughly. Detailed information about the goals and requirements of the CCEP-II program, guidelines for proposal preparation and required formats, and additional criteria that will be used during the review process are described in this solicitation.

NSF anticipates only one competition for CCEP-II proposals (in FY 2012), pending the availability of funding.

NSF cautions proposers that projects may only present scientific evidence about climate system processes, climate change and climate change impacts so that learners can make informed decisions, without advocating for particular responses to this information. Proposals that prescribe a specific policy position will be returned without review.

Important Reminders

A revised version of the NSF *Proposal and Award Policies and Procedures Guide* (PAPPG)*,* NSF 11-1, was issued on October 1, 2010 and is effective for proposals submitted on or after January 18, 2011. Please be advised that the guidelines contained in NSF 11-1 apply to proposals submitted in response to this funding opportunity.

Cost Sharing: The PAPPG has been revised to implement the National Science Board's recommendations regarding cost sharing. Inclusion of voluntary committed cost sharing is prohibited. In order to assess the scope of the project, all organizational resources necessary for the project must be described in the Facilities, Equipment and Other Resources section of the proposal. The description should be narrative in nature and must not include any quantifiable financial information. Mandatory cost sharing will only be required when explicitly authorized by the NSF Director. See the PAPP Guide Part I: Grant Proposal Guide (GPG) Chapter II.C.2.g(xi) for further information about the implementation of these recommendations.

Data Management Plan: The PAPPG contains a clarification of NSF's long standing data policy. All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. FastLane will not permit submission of a proposal that is missing a Data Management Plan. The Data Management Plan will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. Links to data management requirements and plans relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units are available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/dmp.jsp. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

Postdoctoral Researcher Mentoring Plan: As a reminder, each proposal that requests funding to support postdoctoral researchers must include, as a supplementary document, a description of the mentoring activities that will be provided for such individuals. Please be advised that if required, FastLane will not permit submission of a proposal that is missing a Postdoctoral Researcher Mentoring Plan. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Climate Change Education (CCE): Climate Change Education Partnership (CCEP) Program, Phase II (CCEP-II)

Synopsis of Program:

The Climate Change Education Partnership (CCEP) program seeks to establish a coordinated national network of regionally- or thematically-based partnerships devoted to increasing the adoption of effective, high quality educational programs and resources related to the science of climate change and its impacts. Each CCEP is required to be of a large enough scale that it will have catalytic or transformative impact that cannot be achieved through other core NSF program awards. The CCEP program is one facet of a larger NSF collection of awards related to Climate Change Education (CCE) that has two goals: (1) preparing a new generation of climate scientists, engineers, and technicians equipped to provide innovative and creative approaches to understanding global climate change and to mitigate its impact; and, (2) preparing today's U.S. citizens to understand global climate change and its implications in ways that can lead to informed, evidence-based responses and solutions.

Each CCEP is **required** to include substantial involvement of representatives from each of the following communities: climate scientists; experts in the learning sciences; and, practitioners from within formal or informal education venues. This combined expertise is intended to foster innovative, trans-disciplinary advances in climate change education and insure that educational programs and resources developed by each CCEP reflect current understanding about climate science, the best theoretical approaches for teaching and learning such a complex topic, and the practical means necessary to reach the intended learner audience(s). Additional types of expertise are allowed, but these three required areas must form the core partnership. Each CCEP should be organized around either geographic regions that share similar climate change impacts, or major climate impact themes (e.g., sea-level rise).

The CCEP program is a two-phase program. CCEP Phase I (CCEP-I) projects funded in FY 2010 and FY 2011 and a sub-set of CCE projects funded in FY 2009 have focused on Partnership initiation and strategic planning for Phase II. Objectives for Phase I activities included: (1) conducting an inventory of existing climate change education resources and identifying educational needs and opportunities relevant to their particular region or theme; (2) identifying key players from relevant stakeholder communities and initiating network development; (3) convening community workshops and other community-building activities that lead toward development of a comprehensive climate change education strategic plan for that Partnership; and, (4) laying the groundwork to develop, customize, and scale-up standards-based instructional materials, professional development and training models, and other appropriate activities tailored to the Partnership's goals.

The current solicitation seeks proposals for Phase II Partnerships (CCEP-II) only. CCEP-II awardees will receive up to 5 years of funding to support full-scale implementation of mature and robust strategic plans already developed by regional or thematic partnerships to improve climate change education activities at a significant scale and meet the goals of the CCE program. Strategic plans must include well-integrated formative and summative evaluation activities conducted by an external evaluator. Prior CCEP-I funding is not an eligibility requirement, but all proposed Phase II Partnerships that did not have CCEP-I funding must demonstrate that they meet the required criteria and have undertaken activities that address the goals and objectives described in the CCEP-I program solicitation.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- David B. Campbell, EHR/DRL, telephone: (703) 292-5093, email: dcampbel@nsf.gov

- Jill L. Karsten, GEO/OAD, telephone: (703) 292-8500, email: jkarsten@nsf.gov

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Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.050 --- Geosciences
- 47.074 --- Biological Sciences
- 47.076 --- Education and Human Resources
- 47.078 --- Office of Polar Programs

Award Information

Anticipated Type of Award: Cooperative Agreement

Estimated Number of Awards: 5 to 7

NSF anticipates making 5-7 awards to implement CCEP Phase II Partnerships, pending the availability of funds.

Anticipated Funding Amount: $10,000,000

Anticipated funding amount is $10 million in FY 2012.

NSF anticipates having up to $38 million ($10 million in FY 2012 and $7 million per year in FY 2013 to FY 2016) to support all CCEP Phase II activities, subject to the availability of funds. For Phase II Partnerships, awards are expected to be between $5 million and $6.25 million total for five years, with an average yearly funding rate of $1 million to $1.25 million.

Eligibility Information

Organization Limit:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

Collaborative Proposals submitted as separate submissions from multiple organizations are NOT allowed for this competition. Instead, any proposal to the CCEP program should be a single submission that includes sub-award support for all other partner organizations that are requesting funding from NSF.

An institution may submit only one CCEP-II proposal as Lead institution. Institutions may be a non-Lead partner on more than one proposal.

A central organization that acts as fiscal agent for multiple institutions in a university system is not considered to be the same as the individual colleges and universities that are part of the system, and may act as fiscal agent for one or more proposals submitted in response to this solicitation.

Limit on Number of Proposals per PI:

None Specified

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.

- **Preliminary Proposal Submission:** Not Applicable

- **Full Proposals:**
    - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.
    - Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)

B. Budgetary Information

- **Cost Sharing Requirements:** Inclusion of voluntary committed cost sharing is prohibited.

- **Indirect Cost (F&A) Limitations:** Not Applicable

- **Other Budgetary Limitations:** Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. proposer's local time)*:*

    January 24, 2012

        Letter of Intent (Required) Due Date

- **Full Proposal Deadline(s)** (due by 5 p.m. proposer's local time):

    March 21, 2012

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Proposal Review Information Criteria

Merit Review Criteria: National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions: Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements: Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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I. INTRODUCTION

The Climate Change Education Partnership (CCEP) program is a major interdisciplinary research and development effort designed to promote deeper understanding of and engagement with climate system science and the impacts of climate change on natural and human systems. The vision of this program is a scientifically literate society that can effectively weigh the evidence regarding global climate change as it confronts the challenges ahead, while developing the innovative science and technology workforce to advance our knowledge of human-climate interactions and develop solutions for a sustainable, prosperous future. Achieving this vision requires profound and sustained transformations in formal (K-16) and informal educational systems across the nation, both to improve the quality and effectiveness of learning materials, pedagogies, and educator preparation for climate education and to increase access and exposure to effective resources, through dissemination and scale-up of proven models and changes in education policies. Making progress in addressing these needs requires innovative collaborations among professionals with diverse expertise, including climate scientists, learning scientists, and education practitioners, as well as engagement of relevant government and private-sector stakeholders. New educational models and strategies for successfully communicating with a variety of learners about complex, interdisciplinary, and societally-relevant topics like climate science, that are grounded in research on how people learn and tested in authentic settings, need to be developed and disseminated. Educators in formal and informal settings require better pedagogical approaches for teaching about climate systems and professional development and training that enhances their climate science content knowledge and instructional impact. Greater integration and alignment of climate education content and activities offered through formal and informal learning environments are also needed, to reinforce knowledge gains and capitalize on the growing importance of virtual and out-of-classroom learning. With the rapid pace of progress in climate-relevant research, effective strategies to engage climate scientists in the educational enterprise are essential for keeping the content current; but to be effective in this role, they need to be better prepared in the theory and practice of how people learn.

II. PROGRAM DESCRIPTION

Through this solicitation, NSF seeks to support a coordinated national alliance of Climate Change Education Partnerships at the Phase II level (CCEP-II). CCEP-II Partnerships will be focused around either contiguous geographic regions that are expected to experience similar climate change impacts, or around scientific themes that relate to specific types of climate change processes and impacts. **The primary goal of this program is to foster in learners of all ages a deeper understanding of, and engagement with, the complex processes of the climate system and the potential impacts of a changing climate, through activities that lead to development, evaluation, dissemination, and increased adoption of effective, high quality educational programs and resources. An important secondary goal is to foster development of an innovative climate science and technology workforce for the future, through engagement, education, and training.** The core collaboration within each CCEP-II Partnership is required to include three types of expertise: climate scientists; researchers with expertise in the learning sciences; and, practitioners from the formal (K-16) and/or informal education communities. CCEP-II Partnerships are expected to foster development of innovative, interdisciplinary models for climate change education that integrate knowledge from recent climate research and current understanding of how people learn. Through both individual efforts and participation in the *Climate Change Education Partnership Alliance (CCEPA)* described below, CCEP-II Partnerships are expected to catalyze changes in educational policies and practices that pose barriers to effective teaching and learning about climate science, and serve as a hub of communication, coordination, and dissemination among a variety of stakeholders involved with the regional or scientific theme. It is expected that the combined efforts of the CCEP-II program will have national-scale impact and reach a substantial number of learners.

A. Background

Widespread public understanding about climate change and its potential impacts on natural and human systems is vital for the future economic security and prosperity of our nation, yet difficult to achieve. As noted in recent studies (e.g., Leiserowitz, 2010), there is substantial variability in the level of awareness and understanding about climate change risks in the American public. Improving public climate literacy is challenging, given the complex, interdisciplinary nature of the subject, the potential barriers to including climate change content in pre-college curricula (e.g., Hoffman and Barstow, 2007), and the potential implications of the subject matter for policy decisions related to adaptation and mitigation.

NSF supports a variety of projects and activities related to climate change science research and education through many of its core programs. A dedicated Climate Change Education (CCE) program was established in FY 2009 as one component of NSF's *Climate Research Investments (CRI)* priority area, with the goal of developing a more cohesive and strategic portfolio of investments to advance climate education. To this end, Dear Colleague Letter NSF 09-058 [*http://nsf.gov/pubs/2009/nsf09058/nsf09058.pdf*] invited proposals to the Directorate for Education and Human Resources (EHR) focused on five climate change education themes:

- preparation of a climate science and technology workforce;
- public understanding and engagement;
- resources for learning;
- changes in local and national STEM education policy that enable increased access to climate education resources; and,
- foundations for sound public-policy decision making at all levels (local to national).

Ten awards were made through the FY 2009 CCE investment. Abstracts for these projects can be found by searching the NSF award database: http://nsf.gov/awardsearch/tab.do?dispatch=2 (use Program Reference Code 6891).

The Climate Change Education Partnership (CCEP) program was launched in FY 2010 as a joint effort among the Directorates for Education and Human Resources (EHR), Geosciences (GEO), and Biological Sciences (BIO), and the Office of Polar Programs (OPP). The CCEP program is conceived as a two-phase program to establish a coordinated national alliance of sustained, regionally- or thematically-based partnerships that integrate expertise in climate science, learning science, and formal or informal education practices. When fully implemented, these partnerships are expected to be catalytic agents in efforts to increase the development, evaluation, dissemination, and adoption of effective, high quality educational programs, resources, and models for learning about climate change and its impacts. Phase I of the program, implemented in FY 2010 - FY 2011, focused on establishing new interdisciplinary collaborations, identifying existing learning resources, community needs, relevant stakeholders, and opportunities for collaboration, and developing strategic plans for each Partnership. Fifteen CCEP Phase I awards were funded in response to program solicitation NSF 10-542 [*http://nsf.gov/pubs/2010/nsf10542/nsf10542.pdf*] as part of the FY 2010 CCE investment. Abstracts for these projects can be found by searching the NSF award database: http://nsf.gov/awardsearch/tab.do?dispatch=2 (use Program Reference Code 6891). In FY 2011, supplemental funding was provided to twelve FY 2009 CCE and FY 2010 CCEP-I projects, in order to expand the initial Partnerships and initiate critical pilot activities identified during the strategic planning process.

The CCE/CCEP program is one element of NSF's *Science, Engineering, and Education for Sustainability (SEES)* initiative, which spans the entire range of scientific domains at NSF (see www.nsf.gov/sees/ for further information). A sustainable world is one in which human needs are met equitably without harm to the environment, and without sacrificing the ability of future generations to meet their needs. Meeting this formidable challenge requires a substantial increase in our understanding of the integrated system of society, the natural world, and the alterations humans bring to Earth. NSF's SEES activities aim to address this need through support for interdisciplinary research and education. Fundamental to all sustainability research is the simultaneous consideration of social, economic, and environmental systems and the long-term viability of those systems. Concepts that underlie the science of sustainability include complex adaptive systems theory, emergent behavior, multi-scale processes, as well as the vulnerability, adaptive capacity, and resilience of coupled human-environment systems. An important research goal is to understand how patterns and processes at the local and regional scales are shaped by-and feed into-processes and patterns that manifest at the global scale over the long term. These topics guide research to explore alternate ways of managing the environment, migrating from finite resources to renewable or inexhaustible resources, and applying technology to improve human well-being. Education for sustainability is especially challenging, in that complex, open systems characterized by interdependence, nonlinear processes and self-organization may operate counter-intuitively and across disciplinary boundaries, requiring new strategies for achieving deep learning and engagement. Conceptual frameworks for sustainability, including general theories and models, are critically needed for informed decision-making.

In Phase II, the CCEP program will continue to focus primarily on the climate-system components within the SEES initiative, rather than on the entire range of disciplines and topics that are involved with sustainability science. CCEP-II proposals may incorporate content related to climate change mitigation and adaptation, but the emphasis should be on improving public understanding of: 1) the fundamental processes of the climate system; 2) the role of human systems in climate change; and, 3) the potential impacts and implications of climate change for human systems. Even with this narrower focus, the CCEP program addresses the broad goals of the SEES framework through support for activities that aim to:

- support interdisciplinary research and education that can facilitate the move towards global sustainability;
- build linkages among existing projects and partners and add new participants to the enterprise of sustainability research and education; and,
- develop a workforce trained in the interdisciplinary scholarship needed to understand and address the complex issues of sustainability.

B. Required Elements for CCEP-II Partnerships and Proposals

This solicitation seeks proposals for CCEP Phase II Partnerships, which are expected to focus on implementation of well-crafted strategic plans developed through interdisciplinary collaborations on climate change education. **Prior funding through the CCEP Phase I program solicitation (NSF 10-542) or the FY 2009 CCE Dear Colleague Letter (NSF 09-058) is not a requirement for proposers seeking CCEP-II funding; however, proposals from Partnerships that did not receive funding through either of those opportunities must be able to document that they have achieved similar goals and objectives of CCEP Phase I strategic planning efforts, as described in greater detail below.**

As noted above, NSF supports a variety of projects through its core programs that serve the CCEP program goals of improving public climate literacy and cultivating the next generation of innovative climate scientists. The CCEP-II program is distinguished from these other efforts by its focus on: innovation through interdisciplinary partnerships; implementation of robust strategic plans developed through significant stakeholder engagement; the scale of impact sought; and, pursuit of transformative and systemic changes in education practices. To ensure these larger objectives are being met, proposals submitted in response to this solicitation must demonstrate that they meet or address several important requirements, described in the following sections.

Key Features of CCEP-II Partnerships

Proposed CCEP-II Partnerships are required to incorporate the following key features and attributes, which should be clearly documented in the proposal:

- A regional or thematic project focus justified on the basis of motivation or need.
- Core expertise that is engaged in innovative, trans-disciplinary collaboration among climate scientists, experts in the learning sciences, and practitioners within formal or informal education venues.
- A demonstrated research-based focus on developing innovative and transformative approaches for improving the availability and impact of climate change education efforts, particularly those that integrate climate science research activities with the formal (K-16) or informal learning environments.
- Clearly stated goals and anticipated outcomes, informed through a needs assessment, of how the project will improve climate change education practice, increase adoption of effective approaches that result from the project, and/or prepare a new generation of climate scientists, engineers and technicians equipped to provide creative approaches to understanding global climate change and mitigating its impact.
- A proposed set of activities for achieving stated goals and outcomes in a realistic timeframe and within the available budget.
- Identification of a Lead Partner who has the demonstrated capacity and vision to manage and lead the team.
- A comprehensive evaluation plan and identification of an external Partnership evaluator with demonstrated qualifications to implement it.
- Strategies to incorporate evidence-based practices for STEM education (e.g., inquiry-based learning) at all levels, as well as national, state, and local STEM education standards and assessment requirements, if focused on K-12 education.
- Demonstrated potential of the Partnership to coordinate efforts in the future with other CCEP Partnerships.
- A management plan that demonstrates that the Partnership team has worked together in formulating a common vision for the project and planning for activities to be implemented through this proposal.

Project Focus: Two types of CCEP-II Partnerships are sought. A **Regional Partnership** would focus its efforts on a contiguous geographic region where the impacts of climate change are expected to be similar. Examples of regions include: the Southwestern United States, expected to have significant drought; the Arctic region, where the impacts of climate change are accelerated; or, neighboring coastal states that share impacts of rising sea level. A **Thematic Partnership** would focus its efforts on a set of common processes or features related to climate change and its impacts, with the expectation that learning resources could be utilized by other localities where these resources are relevant. Examples of themes include: the impact of changing temperature/precipitation patterns on biodiversity; severe weather risks and climate change; or, processes in the carbon cycle. A thematic partnership may also focus on a set of analytical approaches to improving public or individual understanding of climate change. National climate impact assessment reports, available through the US Global Change Research Program (USGCRP) web site (http://www.globalchange.gov/), provide information that can help to define relevant regions and themes (e.g., USGCRP, 2009a).

Core Expertise: A fundamental premise of the CCEP program is that significant advances in climate change education can be catalyzed through trans-disciplinary approaches. Each CCEP-II Partnership is required to explicitly integrate a minimum of three types of collaborators: climate scientists, experts in the learning sciences, and practitioners within formal or informal education venues. Partnerships may also benefit from inclusion of experts from the social, behavioral, economic, communications, and policy science fields (e.g., risk analysis related to climate change impacts). All of the core partners must be deeply engaged in the effort at both the individual and institutional level, and must provide evidence that they share goals, responsibilities, and accountability for the Partnership's success. Successful proposals will provide a coherent rationale, based on experience and relevant literature, for why they have chosen the specific constituency, organizational structure, and processes of their Partnership, and explain how they will undertake innovative, inter- and/or trans-disciplinary approaches that span the three core areas of expertise in order to achieve Partnership goals. All must commit to implementing institutional changes necessary to sustain the Partnership's successes for the long term. Done properly, all three core partners will both contribute to and learn from the Phase II activities and collaborations. Proposals from CCEP-I awardees may add new partners, as appropriate, but must describe thoroughly the benefits of these new contributions and provide evidence that these new partners can work synergistically with the original Partnership.

The climate-science research partner may be represented by faculty, researchers, or other experts from institutions with a primary mission of conducting basic climate research and/or graduate education in one or more of the following fields: the atmospheric, oceanographic, geological, biological sciences, or other appropriate STEM fields; or, science research in the Polar regions. University or college departments or programs, as well as autonomous research centers and government laboratories, would be appropriate. Expertise in the learning sciences may be represented by any of the following: education or cognitive science faculty; faculty with expertise in STEM disciplinary education; experts in the study of informal learning environments; or, professionals with expertise in assessment of learning. Practitioner partners could include representatives from formal or informal education institutions or structures (e.g., school districts; multi-state educational alliances), or professional groups that reach relevant audiences (e.g., professional societies). Contributions of the practitioner partner may be two-fold, through use of their situational awareness of existing challenges to identify implementable approaches and through their capacity to bring about widespread adoption of products and findings of the Partnership's work within their sector.

The combined Partnership should demonstrate its capacity to successfully integrate multidisciplinary climate science and education, innovate new strategies for teaching complex system science, blend formal and informal learning environments, facilitate transitions between K-12 and college/university levels, develop innovative learning materials and practices grounded in what is known about how people learn, and bring about significant and widespread adoption of the effective practices it develops. The commitment of all three core partners and the nature and outcome(s) of their prior collaborations must be documented in the Phase II proposal. The role of any additional partners with non-core expertise, and how that expertise is expected to complement the core expertise, must be described.

Foundational Activities for Phase II

All CCEP Phase II proposers, regardless of whether they did or did not receive CCEP Phase I funding, must document efforts related to, and progress in achieving, the following activities, which are identified as essential precursors to Phase II implementation. Proposals that do not adequately document that they have addressed these requirements will not be competitive for funding at the Phase II level.

- Completed an inventory of current scientific and education resources, organizations, and practices that identifies needs and opportunities related to climate change education for the chosen climate impact region or theme.
- Identified areas where additional learning-science research is needed as a foundation for making progress in the climate change education activities implemented through this Partnership.
- Identified additional key players from relevant stakeholder communities, with particular attention to the end users or implementers of planned materials or approaches.
- Established an external Advisory Board for the Partnership, with representation from key stakeholder communities.
- Engaged relevant stakeholders in planning for activities to be implemented in Phase II, e.g., by convening community workshops and other community-building activities.
- Developed a comprehensive strategic plan for a Phase II Partnership that integrates climate education and research.
- Developed a comprehensive formative and summative evaluation plan for a Phase II Partnership with clearly defined metrics and measurable outcomes that are linked to the strategic plan goals and objectives.
- Initiated test-bed activities for developing, customizing, and scaling up standards-based instructional materials, professional development and training models, and other appropriate activities tailored to the Partnership's goals.

CCEP Phase II proposals must summarize the results of evaluation and assessment activities conducted during pre-Phase II collaborations that can be used to demonstrate the potential capacity of the Partnership to reach its specific goals, address the needs and opportunities facing climate change education, and make progress toward achieving the long term goals of the CCEP program. The

proposal should demonstrate how formative assessment has been used to shape development of the strategic plan for Phase II, contribute to a shared understanding of the goals of the Partnership, identify areas for improvement, and demonstrate to stakeholders the merits and worth of this effort. Evaluation results that originate through development and testing of innovative approaches and tools that pertain more specifically to climate change education, such as issues concerning the educational context, cultural responsiveness, key concepts, new cyber-based instrumentation, or, workforce/learning environments, should also be included.

In addition, CCEP-II proposals are expected to report on the following outcomes from evaluation activities conducted during the strategic planning or CCEP Phase I period:

- Indication that the Partnership has representation and commitment of relevant stakeholder communities with processes in place to ensure on-going engagement.
- Evidence of the potential efficacy of supported activities (e.g., instructional materials, professional development and training models) and other activities tailored to the Partnership's goals.
- Indication of the robustness of the Partnership to engage collaboratively and sustain the work.
- Evidence of the effectiveness of, or potential for, leveraging of efforts and/or resources.
- Evidence of the potential of the Partnership for full-scale implementation.

C. CCEP Phase II Activities

CCEP Phase II proposals are expected to articulate a comprehensive strategic plan, a detailed implementation and management plan, and an aligned evaluation plan that will be used to document progress toward achieving strategic goals and objectives. The role of the Partnership as a key component in this rationale should be clear. Phase II proposals should briefly describe the motivation or need for selecting the regional or thematic focus of the Partnership, identify key stakeholders who were involved in the strategic planning process and why they were chosen, and describe activities and events that were used to solicit input or identify/recruit additional partners. The expertise of the core team of the Partnership, their roles in the Phase II program, and a plan for managing team efforts should be clearly articulated. The contributions of any supporting partners or larger networks that are involved in the project should be described. The proposal should indicate specific activities that will be undertaken during Phase II and provide within the Project Description a timeline for their execution. It is expected that most projects will incorporate both activities that focus on creation and/or delivery of high quality climate education resources **and** activities that constitute research intended to advance knowledge on more effective climate education, and they each should be clearly distinguished in the proposal.

The main thrust of each Phase II Partnership must be focused on developing and implementing innovative and transformative approaches for improving the availability, quality, and impact of climate change education efforts in formal (K-16) or informal learning environments. Each Partnership is expected to implement a cohesive suite of programs and activities that utilize or leverage existing resources and tools and incorporate, as needed, high-quality educational resources or practices newly developed by the Partnership. A Partnership may mount demonstration programs consistent with its goals, but its primary focus should be to catalyze increased access to effective strategies and resources through dissemination and adoption. All activities should be clearly linked to achieving the goals and objectives of the Partnership's strategic plan and have measurable outputs, outcomes, and impacts that can be documented through evaluation. Realistic strategies to sustain effective programs and engage diverse and underrepresented communities will be essential components of a successful Partnership. Integration of authentic climate-related research and data with educational practice is strongly encouraged. Some sample activities that might be undertaken by CCEP-II Partnerships are described in the CCEP-I solicitation (NSF 10-542), but they are illustrative rather than comprehensive.

Support for activities directly targeting climate science research (i.e., are intended to advance our knowledge of climate processes) will be considered only to the extent that they provide a platform for connecting climate change researchers to formal and informal educators who serve a variety of audiences, including decision and policy makers. In addition to the primary educational thrust for the Partnership, activities that provide background, pedagogical insights, community connections, and experiences that may be used by the climate science community to enhance the Broader Impacts of their research are also encouraged.

Phase II activities should have the primary goal of improving climate literacy, as articulated in the "*Climate Literacy: The Essential Principles of Climate Science*" framework (USGCRP, 2009b). Activities that contribute to the engagement and preparation of the future climate science and technology workforce through community and K-16 outreach programs that highlight information on climate-related careers or provide exposure to climate-related careers through fellowships or internship are allowed. Partnerships with intermediaries who provide resources that outline the many pathways into a variety of climate-related careers (e.g., guidance counselors, vocational-technical programs, or associations serving community college faculty) are encouraged.

Each CCEP-II Partnership is expected to build, coordinate and maintain an appropriate website that will be linked through the CCEP Alliance (see below). The proposal should describe a dissemination plan that distinguishes activities intended to scale-up access to, or use of, effective learning resources within formal and informal learning environments from activities to share model programs, lessons learned, and results of climate-related education research with relevant scientific and STEM education research communities.

Partnership Management

Each Phase II Partnership is required to identify and designate a Lead Partner who has the capacity and vision to manage and lead the team. In addition, each Partnership must have an internal management structure capable of supporting the research, education, and evaluation missions of the Partnership in a manner that balances the interests of the different institutions involved. Partnerships will support personnel having expertise to engage each of the communities at the core of the Partnership's work. The office(s) for each Partnership may be located at any of the partnering affiliates. Affiliates of a CCEP-II Partnership need not be in close proximity to each other, but all personnel associated with a Partnership must work together as a team, and there must be evidence that the Lead Partner has the capacity to convene disparate members of the Partnership.

Each CCEP-II Partnership will be required to have an external Advisory Board composed of representatives of its core stakeholders. The membership of this Advisory Board should be identified in the Supplementary Documents section of the proposal. Each external Advisory Board will regularly provide advice on the Partnership's operations, direction, priorities, and opportunities. NSF expects to attend selected Advisory Board meetings as part of its oversight of the Partnership's progress. Partnerships will be required to provide regular reports of Advisory Board recommendations to the cognizant NSF Program Officer.

Evaluation

All Phase II proposals should describe a strategic plan for the proposed Phase II project, conceived in Phase I (or equivalent), and a comprehensive evaluation plan with measurable outcomes that is clearly linked to the strategic goals and objectives of the Partnership. **A 1-page summary graphic that depicts the conceptual framework for the evaluation plan (e.g., logic model, theory of action) should be included in the Supplementary Documents section; all further details must be described in the Program Description section.** Each Partnership is required to have an external evaluator for Phase II activities. The credentials of this evaluator should provided in a 2-page Biographical Sketch in the Supplementary Documents section. NSF expects that 5-10% of the total project budget will be allocated for evaluation purposes. Evaluation activities should include both formative and summative components that measure, report on, and, if appropriate, guide the project's progress toward realizing improved outcomes related to understanding of and engagement with climate science and the impacts of climate change. Attention

should be given not only to the educational activities implemented through the Partnership, but also to the evolving impact of the collaboration on the partners and their networks. The proposal should clearly distinguish between evaluation activities that are intended to document the outcomes and impacts of the Partnership and those evaluation activities that provide data that feed into STEM education research. In general, NSF anticipates that formative evaluation activities will be concentrated in the first three years, as projects are implemented, with increasing emphasis on summative evaluation in later years.

All funded projects will be required to cooperate with NSF-funded efforts to conduct formative program evaluation and third-party monitoring, and to respond to inquiries from NSF or its designated representatives for additional information about the Partnership's efforts. These inquiries may include requests to participate in surveys, interviews and other approaches for collecting data needed to monitor and evaluate the entire CCEP program.

Climate Change Education Partnership Alliance (CCEPA)

Each CCEP-II Partnership is expected to participate in collaborative activities offered through the CCEP Alliance (CCEPA), which will be established within 30 days after the official start date of the CCEP-II Cooperative Agreements. All Phase II Partnerships will be members of the CCEPA and each will be represented by one PI or Co-PI. The primary purpose of the CCEPA is to: (1) facilitate on-going communication between the different CCEP-II Partnerships; (2) promote dissemination of information and resources both among the Partnerships and to additional stakeholder communities beyond the reach of individual Partnerships; (3) identify common concerns and needs; (4) identify opportunities to leverage resources or develop synergistic activities; (5) provide input into the development of agendas for annual PI meetings; and, (6) coordinate implementation of data gathering activities associated with program-wide evaluation. Communication will occur through monthly teleconferences of the CCEPA representatives and semi-annual face-to-face meetings held each Fall and in conjunction with annual PI meetings held each Spring. Funds to support travel to the annual CCEPA and PI meetings should be included in the budget request. Nominal operational support for the CCEP Alliance will be managed through a limited-term, third-party contract or cooperative agreement from NSF that will be issued after the Phase II awardees have been identified. **Note that it will not be possible for organizations involved with CCEP-II awards to serve as the CCEP Alliance contractor.**

Synergistic Activities

NSF expects the CCEP awardees to serve as major avenues for synergy among the climate research and education communities. Large NSF-funded programs related to climate research, including major research facilities and Science and Technology Centers (e.g., http://www.nsf.gov/od/oia/programs/stc/index.jsp), offer particularly important opportunities for collaboration. Resources and tools available through the *Climate, Adaptation, Mitigation, E-Learning (CAMEL)* (http://www.camelclimatechange.org/) and *Climate Literacy and Energy Awareness Network (CLEAN)* (http://cleanet.org/) projects and the new *InTeGrate: Interdisciplinary Teaching of Geoscience for a Sustainable Future* STEP Center (http://serc.carleton.edu/integrate/) can facilitate dissemination of Partnership-developed resources to larger audiences. NSF also encourages leveraging of relevant resources supported through NASA- and NOAA-funded education and outreach programs, including: the National Estuarine Research Reserves; National Marine Sanctuaries; Sea Grant College program; Space Grant program; and, projects funded by NOAA's Environmental Literacy Grant (ELG) program and NASA's Innovations in Climate Education (NICE) program. Information about some of these programs can be found at these web sites:

https://nice.larc.nasa.gov/

http://www.oesd.noaa.gov/elg/NOAA_assets.html

http://vsgc.odu.edu/TriAgencyPIMeeting/Tri-Agency-PI-Meeting.htm

Partnerships are also encouraged to consider affiliation with NSF-funded programs focused on systemic STEM education reform and broadening participation in STEM pathways, including those funded through the following programs: Math and Science Partnership (MSP); Louis Stokes Alliances for Minority Participation (LSAMP); Tribal Colleges and Universities (TCUP); Advanced Technological Education (ATE); Alliances for Graduate Education Program (AGEP); and, Integrative Graduate Education and Research Traineeships (IGERT). Information on these programs may be found via the NSF website at http://www.nsf.gov/dir/index.jsp?org=EHR.

As new concepts and knowledge from climate change scientists emerge, it is important that innovative collaborations flourish in ways that disseminate knowledge, create broader public awareness of the role of scientific discovery in society, and enhance educational opportunities and content. The CCEP-II awardees are expected to provide agile structures that can respond rapidly to emerging opportunities and enhanced collaborations, as research on climate impact, mitigation, and adaptation continues to evolve. Collectively, the CCEP Alliance will define a network that can help with rapid dissemination of effective approaches and minimize duplication of effort.

D. RELATED REFERENCES

AC-ERE (2009) *Transitions and Tipping Points in Complex Environmental Systems,* A Report by the NSF Advisory Committee for Environmental Research and Education. 56 pp. http://www.nsf.gov/geo/ere/ereweb/ac-ere/nsf6895_ere_report_090809.pdf

AC-GEO (2009) GEO Vision Report, NSF Advisory Committee for Geosciences, 39 pp. http://www.nsf.gov/geo/acgeo/geovision/start.jsp

Hoffman, M. and D. Barstow (2007) *Revolutionizing Earth System Science Education for the 21st Century, Report and Recommendations from a 50-State Analysis of Earth Science Education Standards*, TERC, Cambridge MA, 59 pp.

IPCC (2007a) *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 996 pp.

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IPCC (2007c) *Climate Change 2007: Mitigation of Climate Change. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Metz, B., O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds.)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 851 pp.

Leiserowitz, A. (2010) "Climate change risk perceptions and behavior in the United States," in S. Schneider, A. Rosencranz, and M. Mastrandrea, eds. Climate Change Science and Policy. Island Press.

National Research Council. (1999). *How people learn*: *Brain, mind, experience, and school*. Washington, DC: National Academy Press.

National Research Council. (2002). *Scientific research in education.* Washington, DC: National Academy Press.

National Research Council (2007). *Taking science to school: Learning and teaching science in grades K-8.* Washington, DC: National

Academy Press.

National Research Council (2009). *Learning science in informal environments: People, places, and pursuits.* Washington, DC: National Academy Press.

National Research Council (2011). *America's Climate Choices.* Washington, DC: National Academy Press.

USGCRP (2009a) *Global Climate Change Impacts in the United States* [Eds. T R Karl, J M Melillo; T C Peterson; and S J Hassol], Cambridge University Press, New York, 188 pp.

USGCRP (2009b) *Climate Literacy: The Essential Principles of Climate Science, A Guide for Individuals and Communities*, US Global Change Research Program, Washington, DC.

III. AWARD INFORMATION

Anticipated Type of Award: Cooperative Agreement

Estimated Number of Awards: 5 to 7

NSF anticipates making 5-7 awards to implement CCEP Phase II Partnerships, pending the availability of funds.

Anticipated Funding Amount: $10,000,000

Anticipated funding amount is $10 million in FY 2012.

NSF anticipates having up to $38 million ($10 million in FY 2012 and $7 million per year in FY 2013 to FY 2016) to support all CCEP Phase II activities, subject to the availability of funds. For Phase II Partnerships, awards are expected to be between $5 million and $6.25 million total for five years, with an average yearly funding rate of $1 million to $1.25 million.

IV. ELIGIBILITY INFORMATION

Organization Limit:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the Grant Proposal Guide, Chapter I, Section E.

PI Limit:

None Specified

Limit on Number of Proposals per Organization:

Collaborative Proposals submitted as separate submissions from multiple organizations are NOT allowed for this competition. Instead, any proposal to the CCEP program should be a single submission that includes sub-award support for all other partner organizations that are requesting funding from NSF.

An institution may submit only one CCEP-II proposal as Lead institution. Institutions may be a non-Lead partner on more than one proposal.

A central organization that acts as fiscal agent for multiple institutions in a university system is not considered to be the same as the individual colleges and universities that are part of the system, and may act as fiscal agent for one or more proposals submitted in response to this solicitation.

Limit on Number of Proposals per PI:

None Specified

Additional Eligibility Info:

Previous funding through the CCEP Phase I program solicitation (NSF 10-542) is not required for proposers wishing to submit a CCEP Phase II proposal.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent*(required)***:**

A Letter of Intent must be officially submitted by the **Authorized Organizational Representative** prior to the posted deadline. All Letters of Intent must be submitted through the NSF FastLane system, with the EHR/DUE program identified as the Unit of Consideration. **IMPORTANT: Proposers who fail to officially submit their Letter of Intent before the deadline will**

not be allowed to submit a full proposal.

The Letter of Intent must identify participants who will be providing the three required areas of expertise: climate scientists; experts in the learning sciences; and practitioners (either educators or administrators) from formal (K-16), informal, or other learning environments. Letters should briefly outline the region or theme being addressed by the Partnership, the rationale for establishing the Partnership, the major goals and objectives of a 5-year Phase II Partnership, and anticipated outcomes or impact of the Partnership. The Letter of Intent also should identify ALL core participating organizations and primary representatives of those organizations. Members of the external Advisory Board and their affiliations should also be identified.

Letters of Intent are for NSF planning purposes only. As such, NSF does not provide feedback to the proposers regarding the contents of the Letter of Intent and the details of the Letter of Intent are non-binding for the proposers. The Letter of Intent will be used to facilitate timely identification of reviewers for the proposals who do not have conflicts of interest.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through FastLane in response to this Program Solicitation please note the conditions outlined below:

- Sponsored Projects Office (SPO) Submission is required when submitting Letters of Intent
- A Minimum of 3 and Maximum of 4 Other Senior Project Personnel are allowed
- A Minimum of 0 and Maximum of 15 Other Participating Organizations are allowed
- List of Additional Partner Organizations and their Representatives is required when submitting Letters of Intent
- Submission of multiple Letters of Intent is not allowed

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

Detailed Instructions for Preparing a CCEP-II Proposal

The following instructions supersede or supplement the formatting guidelines identified in the NSF Grant Proposal Guide (GPG) or NSF Grants.gov Application Guide. Unless otherwise indicated, the GPG or NSF Grants.gov Application Guide requirements should be followed.

All CCEP Phase II Partnership proposals must contain the following information:

1. NSF Cover Page

Proposal Title: Titles should begin with "CCEP-II:" followed by the substantive title.

Unit of Consideration: Proposers should select the "EHR Division of Undergraduate Education" as the Unit of Consideration for review. [EHR/DUE is the managing Directorate for the CCEP program, but all proposals submitted in response to this solicitation will be reviewed by a Working Group comprised of representatives from all four participating Directorates/Office.]

Human Subjects Research/IRB Status: The status of Institutional Review Board (IRB) review of proposed evaluation activities related to Human Subjects Research, whether approved, exempt, or pending, should be indicated. If IRB review has been completed, please include a copy of the IRB determination in the Supplementary Documents section of the proposal. Note that NSF will not be able to award funding to conduct Human Subjects Research without receiving documentation that IRB approval or exemption has been received. For more information, see: http://www.nsf.gov/bfa/dias/policy/human.jsp.

2. Project Summary

Provide a 1-page summary that briefly describes the project vision, goals and work to be undertaken by the CCEP Phase II Partnership. The Project Summary should begin by listing the following: the title of the proposed project; the name of the Lead Partner; and, the name(s) of any additional core and supporting partners. Note that for all proposals the Project Summary MUST address both NSB-approved merit review criteria (Intellectual Merit and Broader Impacts) in separate statements that are clearly labeled. **NSF will return without review proposals that do not address both merit review criteria in separate statements.**

3. Project Description

CCEP-II proposals will be allowed up to 20 pages of text in the Project Description section. Margin and font size requirements defined in the NSF GPG must be adhered to, however. The Project Description should address ALL of the Key Features described in the Program Description section in this solicitation, within the following elements. Proposers are strongly encouraged to use these as section headers in the proposal.

Vision, Goals and Outcomes: The proposal must clearly describe the Partnership's vision, goals and anticipated outcomes with respect to all of the CCEP Key Features. The vision and goals should be informed by current knowledge of the formal or informal education context within which the proposed work would occur, including relevant systemic education policies, practices, and needs, and curricular, instructional, and technological initiatives within which this STEM effort would sit. Any pending changes in education policy that would be supportive of this proposed effort, or necessary for achieving project success, should also be identified. The proposal should provide evidence of: (a) an effective partnership among core and supporting organizations that will work together to realize the project's vision and goals; (b) the participation of all key stakeholders in project planning and design; and, (c) sufficient capacity among key partners to support the scale and scope of the project at the level of a Phase II Partnership. The proposal should also clearly

indicate how the intended work differs from, builds on, or is otherwise informed by prior efforts.

The Partnership: Identify the core institutions and organizations that will be engaged in the Phase II Partnership. Describe why these organizations are working together and the process through which they have interacted to date. Identify the disciplinary experts who represent the three required types of expertise, their titles and affiliations, specify the roles that they will take within the Partnership, and describe how the three types of expertise will integrate with each other; other experts to be involved may also be listed. Identify the process by which the Partnership has engaged relevant stakeholders and conducted an analysis of their needs, and how those findings provide the framework for the proposed work. Be sure to address all Key Features that were required for CCEP-I Partnerships. Demonstrate how the proposed work will build on the literature about STEM teaching and learning, as well as funding from other NSF and related projects.

Strategic Planning Summary: Proposers should provide a detailed summary regarding the strategic planning process undertaken as a precursor to the CCEP Phase II proposal. This summary should briefly describe efforts to identify and engage relevant stakeholders and inventory existing resources and provide a summary of the major outcomes of the strategic planning process.

Research and Implementation Framework: Describe in detail the plan by which the Partnership will achieve the project vision, goals and outcomes by means of a coherent research and implementation plan. This description should include the research or evidence base that constitutes the foundation on which the proposed work rests. The proposal should offer a clear rationale for the strategies being proposed, including theoretical foundations that are tied to the appropriate research and literature in STEM education. Describe the creative, strategic actions that extend beyond common approaches to climate change education that promise significant improvements in climate literacy and climate workforce development, as a result of the work of the Partnership. Describe how each partner will contribute to the proposed work and learn from the contributions of others. Identify existing resources and tools that will be leveraged, as well as any synergies with existing programs funded by NSF or other Federal agencies that support climate change research and education. Provide a project timeline in the Project Description that correlates with the proposed action plan.

Management Plan: A management plan should be included in the proposal. Describe the management and administrative structure with sufficient detail to demonstrate the capability for conducting the proposed work. Identify the members of any Partnership Leadership Team. Describe the process through which the external Advisory Board will be engaged with the Partnership and a timeline for when any regular meetings will be held. The members of the Advisory Board should be listed in the Supplementary Documents section of the proposal.

Evaluation Plan: The proposal should describe plans for formative and summative evaluation of activities undertaken through the CCEP-II award. Be sure to include specific information on metrics and measurable outcomes and how they are linked to project goals and objectives. The conceptual framework for the evaluation plan, whether illustrated by a logic model or theory of action (or equivalent), is required. **A 1-page graphic illustration summarizing key elements of this conceptual framework must be included in the Supplementary Documents section.** The proposal should clearly distinguish between evaluation activities that are intended to document the outcomes and impacts of the Partnership and those evaluation activities that provide data that feed into STEM education research. Partnerships are required to engage an **external evaluator** who is clearly separate and distinct from the Partnership participants and their departments/units (e.g., in a department/unit within a university that is not part of the Partnership itself). The qualifications of the evaluator(s) should be provided in the Supplementary Documents section.

Dissemination Plan: The proposal should discuss how educational resources that are developed through the Partnership will be disseminated within the stakeholder community and made available to other relevant stakeholders. The proposal should also discuss how the findings of scientific and education research will be communicated to other experts in these fields.

Sustainability Plan: The proposal should include a realistic discussion about potential scenarios for sustaining the Partnership, or its most significant programs and activities, beyond the lifetime of the NSF CCEP-II award. A discussion about how any programs or resources developed or implemented through CCEP-II funding would be sustained or institutionalized should be included.

4. Results from Prior NSF Support

Prior NSF Support results should be reported for the PI, Co-PIs, and all other Senior Personnel listed in the budget pages, if they have received funding from NSF in the last five years. Information on the prior award is required if it is relevant to the proposed scope of work. Each PI or Co-PI who has received more than one prior award (excluding amendments) must report on the award most closely related to the proposal. The results of any prior NSF investment(s) should be clearly demonstrated and supported by data. A discussion of both successes and lessons learned from previous support MUST be included. The proposal should also clearly indicate how the intended work differs from, builds on or is otherwise informed by prior efforts. Information on Prior NSF Support should be included in the Project Description.

5. Special Information and Supplementary Documentation

Only the following information will be allowed in the Supplementary Documentation section of the proposal; inclusion of other information in this section without prior approval by NSF will result in the proposal being returned without review.

Postdoctoral Researcher Mentoring Plan (PRMP): Proposals that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. Only one PRMP should be submitted, even if multiple postdoctoral researchers from different institutions are involved. Please be advised that if required, FastLane will not permit submission of a proposal that is missing a PRMP. See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

Data Management Plan (DMP): All proposals must describe plans for data management and sharing of the products of research, or assert the absence of the need for such plans. FastLane will not permit submission of a proposal that is missing a DMP. The DMP will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. Links to DMP requirements relevant to specific Directorates, Offices, Divisions, Programs, or other NSF units are available on the NSF website at: http://www.nsf.gov/bfa/dias/policy/dmp.jsp. It is recommended that proposers review and follow, as appropriate, the guidance given for EHR proposals, available at: http://www.nsf.gov/bfa/dias/policy/dmpdocs/ehr.pdf See Chapter II.C.2.j of the GPG for further information about the implementation of this requirement.

Advisory Board Membership: Provide a list of members of the external Advisory Board and their affiliations; briefly describe their area(s) of expertise.

External Evaluator: Provide a 2-page Biographical Sketch for the external evaluator(s). **Note that this should be in the same format as is required for Senior Personnel, as described in the GPG.**

Evaluation Conceptual Framework: A 1-page diagram depicting the logic model or theory of change (or equivalent) that underpins the evaluation plan must be included. This diagram must fit on one page.

Letters of Commitment: Letters of commitment/collaboration from all key organizations and personnel engaged in the Partnership from outside the submitting organization, including members of the external Advisory Board, should be included in this section.

IRB Documentation: If the IRB review has been completed, please include documentation regarding exemption or approval.

6. Single Copy Documents:

Combined Conflict of Interest Statement: For the PI, all Co-PIs, and all Senior Personnel list all persons or institutions with which there is a conflict of interest, using an alphabetized spreadsheet with the following column headers: full name (last name first), institutional affiliation, and type of conflict (e.g., advisor, advisee, co-author in last 48 months, co-editor in last 24 months, collaborator, institutional). Do not include the names of people with whom you do not have conflicts as this may unnecessarily limit qualified reviewers, but do include potential conflicts that might arise through personal associations (i.e., spouse, children). In addition, list all sub-awardees who would receive funds through the CCEP-II award.

7. Budget Requirements

Proposers are required to include a request for funds to support participation of up to 3 project personnel in **annual** Principal Investigator (PI) meetings, including travel, lodging, and per diem. Funds should be requested for a 3-day PI meeting each budget year. It is anticipated that these meetings will primarily be held in the Washington, DC metro area. Proposers should also include a request for funds to support participation of the PI from the Lead Institution in a stand-alone annual meeting of the CCEP Alliance (CCEPA), including travel, lodging, and per diem. It is anticipated that the CCEPA meetings will change location each year.

Collaboration with international partners who bring relevant expertise to the project is allowed, provided support is requested only for the U.S. portion of the collaborative effort.

Proposal Preparation Checklist

- Letter of Intent submitted by the Authorized Organizational Representative through FastLane before the posted deadline.
- The NSF Cover Page identifies the CCEP-II solicitation, with the EHR Division of Undergraduate Education listed as the Unit of Consideration.
- The project title begins with "CCEP-II: "
- The 1-page Proposal Summary provides the project title, lists the key partners and their institutions, and has separate, labeled sections that address the Intellectual Merit and Broader Impacts of the proposed work.
- The **20-page Project Description** describes: the vision, goals, and anticipated outcomes; the key members of the Partnership and their contributions to the effort; a summary of the strategic planning process; and, the research and implementation plans, with justification for specific strategies being used and a timeline for implementation. In addition, the Project Description includes a Management Plan, Evaluation Plan, Dissemination Plan, and Sustainability Plan.
- The required References and Facilities and Other Resources forms have text in them. (Do not leave these sections blank; if there is no relevant information to include, enter "Not Applicable".)
- Biographical Sketches have been provided for ALL Senior Personnel identified in the budget, in the 2-page format specified in the NSF Grant Proposal Guide.
- A Current and Pending Support form has been entered for every Senior Personnel identified in the budget. The CCEP-II proposal should be included in the list as Pending Support.
- The Supplemental Documents section **only** includes the following items: a Postdoctoral mentoring plan, as needed; the Data Management Plan; a list of the Advisory Board members; a 2-page biographical sketch for the external evaluator (in NSF GPG format); letters of commitment from all major collaborators; a 1-page diagram depicting the evaluation conceptual framework; and, documentation related to IRB review of Human Subjects Research activities.
- The Single Copy Documents section includes a compiled list of potential conflicts of interest (advisors/collaborators) for all Senior Personnel on the project (excluding Advisory Board members).
- The budget includes travel funding for attendance at annual PI meetings and annual CCEP Alliance meetings.

B. Budgetary Information

Cost Sharing: Inclusion of voluntary committed cost sharing is prohibited

Other Budgetary Limitations: CCEP-II proposals may request up to $6.25 million in total funding and up to 5 years of support. It is expected that the average size of awards will be ~$5.0 million in total funding.

Budget Preparation Instructions: CCEP-II proposal budgets should include a request to support the participation of up to 4 senior project personnel (PI, Co-PIs, evaluator) in required annual Principal Investigator meetings. The proposal budget should also include a request to support participation of the PI at annual meetings of the CCEP Alliance. Eligible costs include travel, lodging, registration fees (expected to be $150 per person per annual PI meeting), and per diem.

C. Due Dates

- **Letter of Intent Due Date(s)** *(required)* (due by 5 p.m. proposer's local time)**:**

    January 24, 2012

        Letter of Intent (Required) Due Date

- **Full Proposal Deadline(s)** (due by 5 p.m. proposer's local time):

    March 21, 2012

        Full Proposal Submission Deadline

D. FastLane/Grants.gov Requirements

- **For Proposals Submitted Via FastLane:**

Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: https://www.fastlane.nsf.gov/fastlane.jsp.

- **For Proposals Submitted Via Grants.gov:**

  Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: http://www07.grants.gov/applicants/app_help_reso.jsp. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

  Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program where they will be reviewed if they meet NSF proposal preparation requirements. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal.

A. NSF Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgements.

What is the intellectual merit of the proposed activity?
How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?
How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

Mentoring activities provided to postdoctoral researchers supported on the project, as described in a one-page supplementary document, will be evaluated under the Broader Impacts criterion.

Additional Solicitation Specific Review Criteria

In addition to the standard NSF review criteria of Intellectual Merit and Broader Impacts identified in the Grant Proposal Guide, proposals submitted in response to this solicitation will be evaluated on the following additional criteria:

- *Potential for Impact*: What is the potential impact of the proposed Partnership? In what ways can the proposed activities have catalytic or transformative impact on climate change education related to the region or theme chosen? Is the scope of audience of the proposed Partnership substantial? What is the potential for widespread adoption of materials and resources?
- *The Partnership:* How well does the proposal address the Key Features for CCEP Partnerships outlined in the solicitation? Are all three types of core expertise represented in the membership? How well, and in what ways, are the three types of expertise integrated? How do the membership, structure, and processes of the Partnership reflect an understanding of best practices?

Are the roles and contributions of the individual partners clearly articulated and justified? In what ways will the representatives of the core areas of expertise contribute to, and benefit from, their participation in the project?

- *Strategic Plan:* How well-developed is the strategic plan? What is the evidence that the strategic planning process has engaged essential relevant stakeholders? Does the strategic plan have well-defined and realistic goals and objectives?
- *Phase II Activities*: Do project activities address the goals and objectives of the strategic plan? In what ways is the proposed work strategic and innovative, and informed by current research on learning? Is the timeline of proposed activities appropriate with regard to the balance between development and testing versus implementation? To what extent will the Partnership leverage other NSF or Federal investments related to climate change research and STEM education?
- *Management Plan*: Is there an appropriate and robust management plan? Does the proposal provide sufficient detail regarding the roles and responsibilities of individual partners and mechanisms to coordinate these efforts?
- *Evaluation Plan*: Is the evaluation plan comprehensive and well-conceived? To what extent does it link to project goals and outcomes? Are the anticipated outcomes measurable? What are the qualifications of the external evaluator and are they sufficient for implementing the evaluation plan for this type of project?
- *Dissemination Plan*: What mechanisms have been identified for communicating the results of research conducted through the Partnership to appropriate audiences within the climate science, learning science, and education sectors? To what extent has the proposal articulated realistic and effective plan for disseminating and/or marketing valuable resources and programs? If appropriate, how have barriers to adoption or adaptation elsewhere been considered and addressed?
- *Sustainability Plan*: What is the potential for the activities of the Partnership to be sustained beyond the 5-year Phase II award?

NSF staff also will give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Panel Review and/or Virtual Site Visit.

CCEP-II proposals will be reviewed on the basis of the standard NSF Intellectual Merit and Broader Impacts criteria, as well as Additional Review identified in the CCEP-II program solicitation. All proposals will be peer reviewed by an interdisciplinary panel of experts comprised of climate scientists, learning scientists, and formal and informal educators. The top ten highest ranked proposals identified by the review panel will be further assessed through a virtual site visit conducted by NSF program officers and the PI team.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered

amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (GC-1); * or Research Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

Special Award Conditions:

Each Partnership is required to have an external Advisory Board composed of representatives of its core communities.

Each Partnership is required to have an external Partnership evaluator for Phase II activities. The evaluator(s) and their qualifications must be identified in the Phase II proposal.

Representatives from each CCEP-II Partnership are required to attend annual Principal Investigator (PI) meetings during the Phase II awards. It is anticipated that these annual PI meetings will be held in the Washington, DC area. The Lead PI is required to serve as a member of the CCEP Alliance (CCEPA) and participate in regularly scheduled conference calls of CCEPA. In-person CCEPA meetings will be held every six months, with one of these meetings held during the annual CCEP PI meeting.

Every CCEP-II Partnership will be reviewed by NSF personnel during a required site visit during the second or third year of the award.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational), publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

Annual reports submitted through the NSF FastLane system should include copies of reports submitted by the external evaluator to the project team during the current budget period.

Copies of minutes or reports that result from external Advisory Board meetings should be provided to the cognizant NSF Program Officer in a timely manner.

All funded projects will be expected to cooperate with third-party monitoring and formative program evaluation and respond to inquiries that could include requests to participate in surveys, interviews and other approaches for collecting data needed to monitor and evaluate the CCEP-II or the CCE Program.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- David B. Campbell, EHR/DRL, telephone: (703) 292-5093, email: dcampbel@nsf.gov

- Jill L. Karsten, GEO/OAD, telephone: (703) 292-8500, email: jkarsten@nsf.gov

- Peter Lea, EHR/DUE, telephone: (703) 292-8670, email: plea@nsf.gov

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

- Melissa Lane, telephone: (703) 292-5079, email: mlane@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message

from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

Available Soon: Frequently Asked Questions (FAQs) for the CCEP-II solicitation

For additional information in these program areas, please contact one of the following Program Officers:

Education and Human Resources

David B. Campbell	dcampbel@nsf.gov	(703) 292-5093
Peter Lea	plea@nsf.gov	(703) 292-8670
Edward Geary	egeary@nsf.gov	(703) 292-4960

Biological Sciences

Sally O'Connor	soconnor@nsf.gov	(703) 292-8470
Elizabeth Friar	efriar@nsf.gov	(703) 292-7135

Geosciences

Jill L. Karsten	jkarsten@nsf.gov	(703) 292-8500
Lina Patino	lpatino@nsf.gov	(703) 292-5047

Office of Polar Programs

Peter West	pwest@nsf.gov	(703) 292-7530

IX. OTHER INFORMATION

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, National Science Foundation Update is a free e-mail subscription service designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail when new publications are issued that match their identified interests. Users can subscribe to this service by clicking the "Get NSF Updates by Email" link on the NSF web site.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at http://www.grants.gov.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov

- **Location:**   4201 Wilson Blvd. Arlington, VA 22230

- **For General Information**
  (NSF Information Center)**:**   (703) 292-5111

- **TDD (for the hearing-impaired):**   (703) 292-5090

- **To Order Publications or Forms:**

    Send an e-mail to: nsfpubs@nsf.gov

        or telephone: (703) 292-7827

- **To Locate NSF Employees:**   (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Division of Administrative Services
National Science Foundation
Arlington, VA 22230

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11/07/06
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