

ELECTRONIC APPLICATION INSTRUCTIONS for 2012-NIST-POST-CMOS-01

Required Proposal Forms and Documents

Proposals must contain the following:

- (1) **SF-424, Application for Federal Assistance.** The SF-424 must be signed by an authorized representative of the proposer organization. The FFO number 2012-NIST-POST-CMOS-01 must be identified in item 12 of the SF-424. The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B.
- (2) **SF-424A, Budget Information - Non-Construction Programs.** (The budget should reflect anticipated expenses for each year of the project of no more than five (5) years, considering all potential cost increases, including cost of living adjustments.)
- (3) **SF-424B, Assurances - Non-Construction Programs**
- (4) **CD-511, Certification Regarding Lobbying**
- (5) **SF-LLL, Disclosure of Lobbying Activities (if applicable)**
- (6) **Technical Proposal.** The Technical Proposal is a word-processed document of no more than fifteen (15) pages responsive to the program description (*see* Section I. of the FFO document/Full Announcement) and the evaluation criteria (*see* Section V.1. of the FFO document/Full Announcement). It should contain the following information:
 - (a) **Executive Summary.** An executive summary of the proposed consortium-based research program, consistent with the evaluation criteria (*see* Section V.1. of the FFO document/Full Announcement). The executive summary should not exceed one (1) single-sided page.
 - (b) **Statement of Work.** A statement of work that discusses the specific tasks proposed to be performed, including a schedule of measurable events and milestones.

This section should be the primary, but not only, means by which the proposal will be evaluated according to the *Rationality* and *Technical Merit of Contribution* evaluation criteria (*see* Section V.1. of the FFO document/Full Announcement).

- (c) **Experience (Qualifications) and Past Performance, Resource Availability, and Involvement of Industry.** A description of the qualifications and proposed operational or management activities of key personnel who will be assigned to work on the proposed project must be provided, including examples of past experience working with

state government representatives, industry, academia, independent research organizations, and/or related organizations.

Proposals should also describe how the consortium will manage the funds to support R&D in the area of post-CMOS nanoelectronics. Specifically, proposals must:

- i. Describe the membership of the consortium and give evidence of past performance in managing consortium-based research;
- ii. show that the consortium has a shared technological vision and will address the long-term (10-15 years) basic research needs of industry;
- iii. describe the mechanism used by the consortium to determine research focus areas, select awardees, and disburse funding (including: scopes of work and budgets for each proposed project year, a willingness to fund research on multiple alternative approaches in working with various state, industry, and other sources, how availability of funds will be announced, who will be eligible to receive funding, what evaluation criteria will be applied to proposals in terms of merit and relevance to industry needs, description of the selection process, and mechanisms for avoiding conflict of interest);
- iv. describe the amount and type of industry support available for university-based research in terms of funds, personnel, and equipment available,
- v. describe plans and metrics for evaluating the outputs of the funded proposals,
- vi. describe plans for industry involvement with university researchers that demonstrate meaningful impact on industry;
- vii. describe plans for management and evaluation of its activities, including an intellectual property plan (which should address members of the consortium and potential subtier agreements), potential geographic aspects of the program, such as working with regional innovation clusters; the role of small and mid-sized firms, which is encouraged; and any potential effects upon competition of the activities proposed; and
- viii. describe the proposer's consideration of the following issues: the continuing participation, advice, financial support, and other contributions from the private sector; the potential contribution of the activities proposed to productivity, employment, and economic competitiveness of the United States; and a means to place the activities proposed, to the maximum extent feasible, on a self-sustaining basis.

The breadth of the consortium in terms of the involvement of multiple consortium members will be evaluated. The proposal must illustrate

the technical expertise of the consortium members relevant to the application of nanoscale electronics towards the development of fundamentally new approaches to circumvent the inherent thermal limitations for switches based on charge transfer to research on nanoscale electronics.

If the proposed consortium contains university members, a university consortium member may not be involved in selecting itself for a subaward. If the consortium contains university members and non-consortium-member universities that are eligible for subawards, the proposal must describe how the consortium will fairly evaluate research proposals from university researchers outside the original membership of the consortium.

This section should be the primary, but not only, means by which the proposal will be evaluated according to the *Experience and past performance in managing consortium-based research*, *Resource Availability*, and *Involvement of Industry* evaluation criteria (see Section V.1. of the FFO document/Full Announcement).

- (7) **Budget Narrative.** There is no set format for the Budget Narrative; however, it should provide a detailed breakdown of each of the object class categories as reflected on the SF-424A. Identify the source, type (i.e., cash or third party in-kind contribution), and amount for each source of the non-Federal cost sharing below:
- (8) **Letters of Commitment for Non-Federal Cost Sharing.** Letters of commitment from all sources of the non-Federal cost sharing are required. Letters of commitment do not count toward the page limit. General “letters of support” are not required and will be counted toward the page limit for the Technical Proposal if included in the proposal. A summary listing of this support is allowed but will count toward the page limit. It is inappropriate for any Federal employee to provide critique or feedback on project ideas, etc., and it is also inappropriate to ask Federal employees for a letter of support.
- (9) **Indirect Cost Rate Agreement.** If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. Successful proposers will be required to obtain such a rate.

If submitting the proposal electronically via Grants.gov, items (1) through (5) above are part of the standard application package in Grants.gov and can be completed through the download application process. **Items (6) through (9) must be completed and attached by clicking on “Add Attachments” found in item 15 of the SF-424, Application for Federal Assistance.**

This will create a zip file that allows for transmittal of the documents electronically via Grants.gov.

Proposers should carefully follow specific Grants.gov instructions at www.grants.gov to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating a proposal is received does not provide information about whether attachments have been received.