

SUPPORTING STATEMENT
U.S. Department of Commerce
National Institute of Standards and Technology
Technology Innovation Program Application Requirements
OMB CONTROL NO. 0693-XXXX

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

The Technology Innovation Program (TIP) is a new competitive cost-sharing program designed to assist U.S. businesses and institutions of higher education or other organizations, such as national laboratories and nonprofit research institutions, to support, promote, and accelerate innovation in the United States through high-risk, high-reward research in areas of critical national need. High-risk, high-reward research is research that:

- a. has the potential for yielding transformational results with far-ranging or wide-ranging implications;
- b. addresses areas of critical national need that support, promote, and accelerate innovation in the United States and is within NIST's areas of technical competence; and is too novel or spans too diverse a range of disciplines to fare well in the traditional peer-review process.

The TIP statutory authority is 15 U.S.C. § 278n (**see Attachment A**). The TIP proposed regulations were published in the *Federal Register* on March 7, 2008 (**see Attachment B**). NIST is analyzing the comments received from the public and will be publishing a notice of final rulemaking upon clearance from OMB.

To receive TIP funding, two types of entities/proposers, i.e., a single company and a joint venture, must submit proposals in response to NIST/TIP competition announcements/request for proposals (RFPs), which are published in the *Federal Register* and Grants.gov. Joint ventures may include companies, institutions of higher education, national laboratories, and nonprofit research organizations. The two types of proposers have different funding amounts and performance periods. Single companies may receive up to \$3 million dollars for up to 3 years and joint ventures may receive up to \$9 million dollars for up to 5 years. TIP funds may only be used to pay direct costs. Single company recipients and joint ventures are responsible for funding all of their indirect/overhead costs. In addition, single company recipients and joint ventures must cost share at least 50 percent of the yearly total project costs (direct plus all of the indirect costs).

This request is for expedited review of the information collection requirements associated with applying for funding. The intent of the collection is to meet TIP statutory requirements, as well as compliance with 15 C.F.R. Part 14.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with applicable NIST Information Quality Guidelines.

TIP issues competition announcements/RFPs after funding becomes available in the annual appropriations. Additionally, TIP issues a *TIP Proposal Preparation Kit* to coincide with the competition announcement. The information collected consists of the:

- a. Proposal project narrative and other proposal submission requirements (**see Attachment C**);
- b. TIP Program Guidelines and Documentation Requirements for Research Involving Human and/or Animal Subjects (**see Attachment D**).
- c. Form NIST-1022 (**see Attachment E**) (*Note: The NIST-1022 consists of the following:*
 - *NIST-1022 TIP Proposal Information Sheet*
 - *NIST-1022A Joint Venture Members*
 - *NIST-1022B Contractors*
 - *NIST-1022C Budget Narrative*
 - *NIST-1022D Third Party In-Kind Contributions*
 - *NIST-1022E Estimated Multi-Year Budget – Single Company*
 - *NIST-1022F Estimated Multi-Year Budget – Joint Venture*
 - *NIST-1022G Foreign-Owned Company Questionnaire*
 - *NIST-1022H R&D Work Performed Outside the United States By The Recipient or Contractor Questionnaire*

The NIST-1022 family of forms is available as a dynamic, interactive set of Adobe PDF forms where answers supplied on the 1022 cover page are used to present the specific forms needed to meet proposal submission needs. Data entered in the family of forms propagates through the entire set of forms to minimize duplicative data entry.);

The information is first used by reviewers (Federal employees) and later by an Evaluation Panel (EP) to evaluate the merits of a project. The EP is comprised of technical experts who determine whether the proposals meet the TIP evaluation and award criteria. Multiple EPs may be established based on the scope of the competition solicitation.

NIST must determine that a proposal successfully meets the following award criteria for the proposal to receive funding under the Program:

- a. The proposal explains why TIP support is necessary, including evidence that the research will not be conducted within a reasonable time period in the absence of financial assistance from TIP;
- b. The proposal demonstrates that reasonable and thorough efforts have been made to secure funding from alternative funding sources and no other alternative funding sources are reasonably available to support the proposal;

- c. The proposal explains the novelty of the research (technology) and demonstrates that other entities have not already developed, commercialized, marketed, distributed, or sold similar research results (technologies);
- d. The proposal has scientific and technical merit and may result in intellectual property vesting in a United States entity that can commercialize the technology in a timely manner; and
- e. The proposal establishes that the research has strong potential for advancing the state-of-the-art and contributing significantly to the United States science and technology knowledge base; and
- f. The proposal establishes that the proposed transformational research (technology) has strong potential to address areas of critical national need through transforming the Nation's capacity to deal with major societal challenges that are not currently being addressed, and generate substantial benefits to the Nation that extend significantly beyond the direct return to the proposer.

The information collected is essential for NIST to perform the appropriate review of a proposal to determine if an award should be granted.

This information collection and dissemination will comply with the NIST CIO Information Quality Guidelines and Standards.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

TIP proposals may be submitted electronic via Grants.gov (www.grants.gov).

4. Describe efforts to identify duplication.

The uniqueness of TIP is that it is designed to support, promote, and accelerate innovation in the United States through high-risk, high-reward research in areas of critical national need.

Other agencies are focused on mission specific projects or basic research. Their assistance programs do not lend themselves to the specific needs of TIP. Because TIP proposals are unique and submitted generally once, the proposals submitted by the various businesses do not duplicate each other. Each proposal is unique with regard to the technical issues, resources, and capabilities of the proposer and therefore do not duplicate others.

The NIST-1022 family of forms are designed to capture specific information needed for TIP purposes to meet program and statutory requirements. For example:

- Organization type (small-, medium-, large-sized companies; foreign-owned U.S.-located company;
- Other joint venture members;
- Does company have a parent company outside the United States;
- Is the company majority-owned by non-U.S. citizens;
- Is the company subject to control by non-U.S. citizens;
- Will any R&D work be performed outside the United States;
- Estimated yearly multi-year budget;
- Sources of funding per year;
- Third party in-kind contributions;
- “Non-proprietary” proposal abstract used to identify appropriate technical reviewers for the proposal.

5. If the collection of information impacts small businesses or other small entities, describe the methods used to minimize burden.

Every effort has been made to streamline the information collection requirement for ease of all proposers, especially small businesses. Consideration was given to the expense involved in preparing proposals. The type of information being collected is essential for NIST to be able to perform the appropriate technical and budget reviews so that the most meritorious proposals are selected. The information collected is readily available to the potential proposer and, thus, does not impose an unnecessary or additional burden. The *TIP Proposal Preparation Kit (Kit)* provides guidelines for proposal preparation and submission. It has gone through numerous technical, administrative, and legal revisions to provide greater clarification to the public on how to prepare competitive TIP proposals and reflects TIP’s efforts to provide clear and concise information to explain the evaluation and award criteria.

Notices announcing the availability of funds and RFPs will be published in the *Federal Register* and *Grants.gov*. These notices will provide the public with the specific information on TIP funding availability, guidelines for proposal submission, proposal deadlines, etc. Additionally, the competition notices and *Kit* will be available on the Internet. TIP believes the burden on potential small business proposers is small in comparison to the benefits that would accrue if their proposals were funded.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If the collection is not conducted, TIP will be unable to obtain the information required to evaluate the merits of a proposal. A proposal is essential to collect the required technical and budgetary information for reviewers to determine the worthiness of a proposal. TIP would not

be able to accomplish its mission without soliciting proposals, evaluating them, and making funding decisions in accordance with TIP legislation.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

If a proposer elects to submit their proposal electronically, there are no special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines. Since TIP accepts proposals submitted electronically, the need for paper submission of multiple copies is eliminated, should the proposer choose this option.

If, however, a proposer elects to submit their proposal in paper form, special circumstances require them to submit more than an original and two copies of any proposal. An original and 15 copies of the proposals are necessary under TIP due to multiple reviews of the proposals containing proprietary/confidential information on business operations and trade secrets possessed by the proposers.

Proposals received under a competition receive extensive review by technical experts, including the EP. The EP will typically be comprised of a minimum of five and a maximum of a dozen technical experts. The EP is supplemented with additional technical reviewers who serve as technical consultants to the EP, as well as grants officials who review proposals and provide financial assistance-related guidance. Furthermore, many proposers elect to include color graphics depicting the specifics of their technology.

These features do not lend themselves to the limited authorized copying capabilities of TIP. To contract out the reproduction of these proposals increases the risk of exposing proprietary information and introduces a significant time delay in reviewing, evaluating, and funding proposals. Multiple reviews of proposals are essential in TIP meeting its objectives of fair and adequate competition.

8. Provide a copy of the PRA *Federal Register* Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and record keeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A *Federal Register* Notice will be published soliciting public comment by June 20, 2008. In the notice the public is instructed to submit comments to the Office of Management and Budget Desk Officer.

A final rulemaking (RIN 0693-AB59) is scheduled for publication and any comments received will be summarized in this rulemaking.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts are provided to the respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

The government will protect confidential/proprietary information on business operations and trade secrets possessed by any company or participant to the full extent of the law. Such information will be withheld from disclosure pursuant to the following statutes:

- a. Trade Secrets Act - 18 U.S.C. § 1905
(<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=usc&docid=Cite:+18USC1905>).
- b. Freedom of Information Act (FOIA) - 5 U.S.C. § 552(b)
(<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=usc&docid=Cite:+5USC552>).
- c. Economic Espionage Act – 18 U.S.C. § 1832
(<http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=usc&docid=Cite:+18USC1832>).

These assurances are stated in the *TIP Proposal Preparation Kit*. In the collection, review, and handling of information in proposals, TIP presumes that all of the proposals contain confidential/proprietary information, whether or not so identified by the proposer. All individuals who have access to TIP proposals must sign a TIP Conflict of Interest and Confidentiality Agreement.

If an award is issued, the original proposal is maintained in the NIST official award file. The remaining copies are maintained under strict security (cipher locked file room) at TIP. The TIP operations staff maintain strict sign out/in log entries. To the extent possible, proposal handling is conducted behind secured doors. All but one copy of unsuccessful proposals are shredded.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

Not applicable. The information collected does not include questions of a sensitive nature.

12. Provide an estimate in hours of the burden of the collection of information.

The burden hours for the collection of information are estimated at 11,100 based on approximately 300 proposals at 37 hours per proposal. A breakdown of burden hours for proposal submission is as follows:

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|--|----------------|
| Read instructions, plan activities, and gather information | 6 hours |
| Prepare project narrative | 14 hours |
| Prepare NIST-1022C Budget Narrative | 3 hours |
| Professional Review of Proposal | 3 hours |
| Clerical preparations (data input, assembly, text editing, photocopying, etc.) | 4 hours |
| Complete NIST-1022B TIP Contractors, if applicable | ½ hour |
| Complete NIST-1022D Third Party In-Kind Contributions, if applicable | ½ hour |
| Complete NIST-1022G Foreign-Owned Company Questionnaire, if applicable | 1 hour |
| Complete NIST-1022H R&D Work Performed Outside United States by the Recipient or Contractor Questionnaire, if applicable | 1 hour |
| Prepare Joint Venture Agreement, if applicable | 2 hour |
| Prepare human/animal subjects documentation, if applicable | <u>2 hours</u> |
| | 37 hours |

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection of information (excluding the value of the burden hours in #12 above).

Proposers who submit their proposals electronically (approximately 50 percent anticipated out of 300 proposals for a total of 150) will not incur any duplicating costs; those that elect to submit by paper (approximately 50 percent out of 300 proposals for a total of 150), however, may incur some duplicating costs if done outside their company. It is expected that out of the 150 proposers that submit by paper, approximately 50 percent or 75 proposers will not incur any duplicating costs as they will be included in the organization’s overhead pool. For the remaining 50 percent or 75 proposers that may use outside duplicating services, it is estimated that the cost would be approximately \$7,500 (75 proposals x \$100 for duplicating services).

Of the 300 proposals submitted approximately 10 percent or 30 may need to travel to NIST to participate in an oral review. While the expenses will vary greatly depending on the location of proposers, TIP estimates that on average a company may incur about \$1,000 for travel to NIST. This includes the expenses for transportation and subsistence for the one-day trip. The travel expenses will average about \$30,000 (30 proposals x \$1,000).

In summary, the estimate of the total annual cost burden to the respondents is **\$37,500** (\$7,500 for duplicating costs plus \$30,000 for travel costs).

14. Provide estimates of annualized cost to the Federal government.

An estimated 13 professional hours and 1 clerical hour are needed for proposal review. Using loaded wage rates of \$114 per hour for professional time and \$41 per hour for clerical time, each proposal costs the government approximately \$1,523 [(\$114 x 13 = \$1,482) + (\$41 x 1 = \$41)].

For approximately 300 proposals, the review process cost is \$456,900 (\$1,523 x 300). The total professional cost is \$444,600 and the total clerical cost is \$12,300 for a total of **\$456,900**.

For each of the approximate 30 proposals that may participate in an oral review, an additional 5 professional hours may be required for review, yielding a cost of \$570 per proposal (\$114 x 5). For approximately 30 proposals the total professional cost is \$17,100 (\$570 x 30).

If approximately all of the 30 proposals are selected for funding, an additional ½ clerical hour is required for final processing, yielding a cost of \$20.50 per proposal (½ x \$41 per hour). For approximately 30 proposals that may be selected for funding, the total clerical cost is \$615 (\$20.50 x 30).

In summary, the estimate of annualized cost to the Federal government for the proposal review process is \$474,615.50, (\$456,900 + \$17,100 + \$615). The total professional cost is \$461,700 and the clerical cost is \$12,915.

Note that not every proposal will receive the same number of reviews as some will drop out during prescreening. The above calculations are based on estimates. Grants administration costs are not included because they are a normal and customary part of the functions of TIP.

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB 83-I.

This is a new collection of information; no programs changes or adjustments.

16. For collections of information whose results will be published, outline the plans for tabulation and publication.

Not applicable. The information collected will not be published for statistical use.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

The expiration date will be displayed on forms.

18. Explain each exception to the certification statement identified in Item 19 of the OMB 83-I.

No exception to the certification statement is requested.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

This collection of information does not employ statistical methods.