

**SUPPORTING STATEMENT
U.S. DEPARTMENT OF COMMERCE
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
ADVANCED TECHNOLOGY PROGRAM
OMB CONTROL NO. 0693-0009**

A. JUSTIFICATION

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

The Advanced Technology Program (ATP) began in 1990 to provide cost-shared funding to industry to accelerate the development and broad dissemination of challenging, high-risk technologies with the potential for significant commercial payoffs and widespread benefits for the Nation. This unique government-industry partnership aids companies in accelerating the development of emerging or enabling technologies which lead to revolutionary new products, and industrial processes and services that can compete in rapidly changing world markets. The ATP challenges the research and development (R&D) community to take on higher technical risk projects with commensurately higher potential payoff to the nation than they would otherwise. The ATP statutory authority is 15 U.S.C. 278n (Attachment A) and ATP RULE—15 C.F.R. PART 295 (Attachment B).

To receive ATP funding, U.S. businesses and industry-led joint ventures/consortia must submit proposals in response to NIST/ATP competition announcements/request for proposals (RFPs), which are published in the *Federal Register* and Grants.gov. Joint ventures may include universities, governmental laboratories, independent research organizations, and non-profit organizations. The two types of applicants, i.e., single company and joint ventures have different funding amounts, performance periods, and cost sharing requirements. Single companies may receive up to \$2 million dollars for up to 3 years and joint ventures may receive funding for up to 5 years with no funding limitation other than the announced availability of funds. Small and medium size single companies are only required to cost share all of their indirect costs, while large business single companies must cost share at least 60 percent of the total project costs (direct plus all of their indirect costs). Joint ventures must cost share more than 50 percent of the total project costs.

This request is for the information collection requirements associated with applying for funding and completing project surveys once an award is granted. The intent of the collection is to meet statutory requirements for ATP, as well as compliance with 15 C.F.R. Part 14 and the Government Performance and Results Act.

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.

ATP issues competition announcements/RFPs in the *Federal Register* and on Grants.gov after funding becomes available in the annual appropriations. Additionally, ATP provides an *ATP Proposal Preparation Kit* on its website to coincide with the competition announcement. The information collected consists of the:

- Proposal format and required forms and project narrative (**see Attachment C**);
- SF-424 (R&R) Application for Federal Assistance (**see Attachment D**);
- Research and Related Other Project Information (**see Attachment E**);
- Form NIST-1262 for single company applicants (**see Attachment F**);
- Form NIST-1263 for joint ventures (**see Attachment G**);
- Budget Narrative (**see Attachment H**);
- Foreign-Owned Company Questionnaire (**see Attachment I**);
- R&D Work Performed Outside the United States Questionnaire (**see Attachment J**);
- *ATP Program Guidelines and Documentation Requirements for Research Involving Human and/or Animal Subjects* (**see Attachment K**).

The information is first used by reviewers (Federal employees and consultants) and later by a Source Evaluation Board (SEB) to evaluate the merits of a project. The SEB is comprised of technical experts and business specialists/economists who determine whether the proposals meet the ATP selection criteria. Multiple SEBs may be established for various functional areas, e.g., electronics and photonics, information technology, biotechnology, chemistry and materials, but may be more general with several disciplines represented.

The intent is for ATP to fund “technically” advanced projects. ATP looks for (1) projects that have clearly identified the technical risks and innovation and propose a credible approach to solving the problems; (2) projects where the applicants have a clear vision of the marketplace and a commercialization plan for the proposed technology; and (3) the need for ATP funding. The information collected is essential for NIST to perform the appropriate technical and business reviews of a proposal to determine if an award should be granted.

Since 1990, approximately 6,924 proposals have been submitted to ATP of which 768 have been funded totaling \$4,371 million (ATP share \$2,269 million and industry share \$2,102 million).

Once an award is made, the ATP Business Reporting System (BRS) is used to monitor project performance against ATP’s mission. The survey information collected is intended for use in ATP project management, as well as by researchers performing evaluation research. Over time, the data are expected to support comprehensive analyses of the behavior of firms and organizations conducting advanced R&D and developing new technologies, following business progress and diffusion of economic benefits from ATP projects.

There are five components of the ATP BRS as follows:

- The Baseline Report is provided at the beginning of the project. In this report, ATP participants address characteristics of their R&D project, characteristics of their company, characteristics of the project team, potential areas of commercial application of the technology, strategies for commercialization, strategies for protecting intellectual property. The method of reporting is a web survey (**see Attachment L**).
- The Quarterly Report updates project contact person information and describes significant business developments related to the ATP project for the quarter. The method of reporting is a web survey (**see Attachment M**).
- The Anniversary Report is provided annually during the course of the project. This report follows the progress of research on the project, progress towards implementing commercialization strategies, early economic impacts of the ATP projects, experience in research collaboration, new knowledge and intellectual property created, dissemination of information through publications and other mechanisms. The method of reporting is a web survey (**see Attachment N**).
- The Closeout Report is provided at the conclusion of the project. This report summarizes research and business status of the project, identifies remaining technical and business issues in progress toward commercialization of the technology, and indicates anticipated economic impacts of the ATP project in future years. The method of reporting is a web survey (**see Attachment O**).
- The Post-Project Survey Reports are provided two, four, and six years after the end of ATP funding. The purpose of the reports is to determine actual progress in commercializing the technology and economic impacts inside and outside the organization. Major impacts of ATP projects occur subsequent to the end of ATP funding, as technologies developed with ATP funds become embodied in new products, services, and processes, enter the marketplace, and contribute to the nation's industrial productivity economic growth, and quality of life. The primary method of reporting is responding to a telephone survey. Additionally, supplemental information is obtained by a web survey (**see Attachment P**).

The information reporting framework discussed above is organized around defining project goals and measuring accomplishments against these goals. The system aims to provide a consistent and fair basis of reporting across all projects and facilitates data analysis for program evaluation purposes. The reporting system provides a consistent standard for evaluating the short-term to long-term performance of ATP's entire portfolio of funded projects. The BRS is a key part of ATP's program evaluation effort. Without the information collected from the recipients, ATP would be unable to monitor project performance against ATP's mission. The survey information collected is essential for ATP to perform comprehensive analyses of the behavior of firms and organizations conducting advanced R&D and the benefits derived from ATP projects.

The intent of the collection is to meet statutory requirements for ATP, as well as compliance with 15 C.F.R. Part 14 and the Government Performance and Results Act.

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.

ATP proposals may be submitted electronically via Grants.gov (www.grants.gov).

4. Describe efforts to identify duplication.

In developing the overall ATP proposal review and the selection process, NIST coordinated with other Federal agencies, e.g., National Science Foundation and National Institutes of Health (NIH) to ensure that there was no duplication of information collection. The ATP proposal procedures are consistent with those used by other Federal agencies in selecting technical proposals for funding. The uniqueness of ATP is that it is designed to assist U. S. industry/businesses pursue high-risk, enabling technologies with the potential for significant commercial payments and widespread benefits for the nation. Other agencies such as the Defense Advanced Research Program and the National Aeronautics and Space Administration are focused on mission-specific projects or basic research. Their assistance programs do not lend themselves to the specific needs of the ATP. Because ATP 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-1262 and NIST-1263, are designed to capture specific information needed for ATP purposes to meet program and statutory requirements. For example:

- Organization type (small, medium, large businesses; foreign-owned U.S.-located company, public company, including ticker symbol);
- “Non-proprietary” proposal abstract used to identify appropriate technical reviewers for the proposal;
- Is the proposal requesting funding for existing or planned research projects that would be conducted in the same time period in the absence of financial assistance under ATP?;
- Was proposal or similar proposal submitted to another agency?;
- Names, addresses, and phone numbers of business and grant/contract managers;

- Does company have a parent company outside the United States?;
- Is the company majority-owned by U.S. citizens?;
- Is the company subject to control by non-U.S. citizens?;
- Description of why the project needs federal funds and efforts to obtain other funding;
- Estimated multi-year budget;
- Sources of funding per year;
- Other joint venture participants' information.

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 applicants, especially small businesses. Consideration was given to the expense involved in preparing proposals. The type of information being collected is essential for NIST to perform the appropriate technical and business 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 *ATP Proposal Preparation Kit* provides guidelines for proposal preparation and submission. It has gone through numerous updates and revisions to provide greater clarification to the public on how to prepare competitive ATP proposals. The *ATP Proposal Preparation Kit* reflects ATP's efforts to provide clear and concise information to explain the ATP selection criteria. Additionally, it includes detailed information on the most common reasons for non-selection of an ATP proposal for funding. Although the proposal requirements are essentially the same as far as technical and business merit, the *ATP Proposal Preparation Kit* has been revised for ease of use by applicants.

Notices announcing the availability of funds and RFPs are published in the *Federal Register* and on Grants.gov. These notices provide the public with the specific information on ATP funding availability, guidelines for proposal submission, proposal deadlines, etc. Additionally competition notices and the *ATP Proposal Preparation Kit* are available on the Internet and copies are mailed to all those on the ATP mailing list immediately after competitions are announced. ATP believes the burden on potential small business applicants 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, the ATP will be unable to obtain the information required to evaluate the merits of a proposal. A proposal is essential to collect the required technical,

business, and budgetary information for technical and business reviewers to determine the worthiness of a proposal. The ATP would not be able to accomplish its mission without soliciting proposals, evaluating them, and making funding decisions in accordance with the ATP legislation.

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

There are no special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines. 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. The original and 15 copies of the proposals are necessary under the ATP due to multiple reviews of the proposals containing proprietary/confidential information on business operations and trade secrets possessed by the applicants. Proposals received under a competition receive extensive review by technical and business experts, including the SEB. The SEB is typically comprised of a dozen or more technical and business experts. The SEB is supplemented with additional technical and business reviewers who serve as technical consultants to the SEB, as well as Grants officials who review proposals and provide financial assistance-related guidance. Furthermore, many applicants elect to include color graphics depicting the specifics of their technology. These features do not lend themselves to the limited authorized copying capabilities of ATP. 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 ATP meeting its objectives of fair and adequate competition.

Since ATP accepts proposals submitted electronically, the need for paper submission of multiple copies is eliminated, should the proposer choose this option.

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 soliciting public comment was published on June 6, 2006. No comments received.

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

The respondents who submit ATP proposals in response to a solicited competition and who are selected for an award are funded using the cooperative agreement financial assistance-funding instrument. No other 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. ATP Statute - 15 U.S.C. 278n(d)(5) (<http://www4.law.cornell.edu/uscode/15/278n.html>).
- b. Trade Secrets Act - 18 U.S.C. § 1905 (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+18USC1905).
- c. Freedom of Information Act (FOIA) - 5 U.S.C. §52(b) (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+5USC552).
- d. Economic Espionage Act – 18 U.S.C. § 1832 (http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=browse_usc&docid=Cite:+18USC1832).

These assurances are stated in the *ATP Proposal Preparation Kit*. In the collection, review, and handling of information in proposals, ATP presumes that all of the proposals contain confidential/proprietary information, whether or not so identified by the proposer. All individuals who have access to ATP proposals must sign non-disclosure agreements and must certify that they have no conflicts of interest.

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 ATP. The ATP operations staff maintain strict sign out/in log entries. To the extent possible, proposal handling is conducted behind secured doors. All but three copies 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.

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 32,000 based on approximately 800 proposals at 40 hours per proposal. A breakdown of burden hours for the proposal submission is as follows:

Read instructions	2 hours
Plan activities and gather information	4 hours
Prepare project narrative addressing the ATP selection criterion	14 hours
Clerical preparations (data input, assembly, text editing, photocopying, etc.)	5 hours
Budget Narrative	3 hours
Professional Review of Proposal	3 hours
Prepare Joint Venture Agreement, if applicable	2 hour
Prepare human/animal subjects documentation, if applicable	5 hours
Complete Foreign-Owned Company Questionnaires, if applicable	1 hour
Complete R&D Work Performed Outside United States by the Recipient or Subcontractor Questionnaire, if applicable	<u>1 hour</u>
	40 hours

This action was part of the earlier submission, there is actually no change in burden hours in the NIST inventory (Each of the 150 respondents to the BRS spends an average of 4 hours annually responding to the survey. As a result, the total annual burden hours for the BRS are 600--150 respondents x 4 hours = 600).

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).

Applicants who submit their proposals electronically (approximately 25 percent out of 800 proposals for a total of 200) will not incur any duplicating costs; those that elect to submit by paper (approximately 75 percent out of 800 proposals for a total of 600), however, may incur some duplicating costs if done outside their company. It is expected that out of the 600 applicants that submit by paper, approximately 50 percent or 300 applicants will not incur any duplicating costs as they will be included in the organization's overhead pool. For the remaining 50 percent or 300 applicants that may use outside duplicating services, it is estimated that the cost would be approximately \$30,000 (300 proposals x \$100 for duplicating services).

Of the 800 proposals submitted approximately 10 percent or 80 may be selected as semifinalists and may need to travel to NIST to participate in an oral review. While the expenses will vary greatly depending on the location of applicants, ATP 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 review. The travel expenses will average about \$80,000 (80 proposals x \$1,000).

In summary, the estimate of the total annual cost burden to the respondents is \$110,000 (\$30,000 for duplicating costs plus \$80,000 for travel costs).

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

An average of approximately 16 professional hours and 2 clerical hours are needed for proposal review. Using loaded wage rates of \$110 per hour for professional time and \$40 per hour for clerical time, each proposal costs the government approximately \$1,840 [(\$110 x 16 = \$1,760) + (\$40 x 2 = \$80)]. For approximately 800 proposals, the review process cost is \$1,472,000 (\$1,840 x 800). The total professional cost is \$1,408,000 and the total clerical cost is \$64,000 for a total of **\$1,472,000**.

For each of the 80 proposals that are selected as semifinalists, an additional 10 professional hours may be required for review, yielding a cost of \$1,100 per proposal (\$110 x 10). For approximately 80 semifinalist proposals the total professional cost is **\$88,000** (\$1,100 x 80).

If approximately all of the semifinalist proposals are selected for funding, an additional ½ clerical hour is required for final processing, yielding a cost of \$20 per proposal (½ x \$40 per hour). For approximately 80 semifinalist proposals that may be selected for funding, the total clerical cost is **\$1,600** (\$20 x 80).

ATP estimates that the total annualized cost to the Federal government for data collection and processing of 150 BRS survey responses is **\$5,250** (1/2 hour per survey x 150 survey responses at \$70 per professional hour). The information requested is essential for evaluating the value of ATP-funded projects in order to assess their long-term benefits

In summary, the estimate of annualized cost to the Federal government for the proposal review process is \$1,561,850 (\$1,472,000 + \$88,000 + \$1,600 + \$5,250).

Note that not every proposal will receive the same number of reviews as some will drop out during pre-screening. 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 ATP.

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

Not Applicable.

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

The proposal information collected will not be published for statistical use.

Much of the data collected as part of the BRS are published as aggregate statistics biannually in ATP's publication, "Measurement ATP Impact: Report on Economic Progress." The data are

used as input for the annual budget reporting of performance, and to provide an assessment of whether ATP is meeting its mission to fund high risk and innovative technologies that have broad economic benefits.

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 (Internet and paper).

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.