

**SECTION I:
SCIENCE AND TECHNOLOGY PROGRAMS**

MEASURE 1: QUALITY OF RESEARCH

Reviewers will evaluate the overall quality of the research performed. Depending on the nature of the program, reviewers will consider the following:

SCIENCE: Success in producing original creative scientific output that advances fundamental science and opens important new areas of inquiry;

- Success in achieving sustained progress and impact on the field; and
- recognition from the scientific community, including awards, peer-reviewed publications, citations, and invited talks.

TECHNOLOGY: Whether there is a solid technical base for the work;

- the intrinsic technical innovativeness of the research;
- the importance of contributions made to the scientific and engineering knowledge base underpinning the technology program; and
- recognition from the technical community.

MEASURE 2: RELEVANCE TO DOE MISSIONS AND NATIONAL NEEDS

Reviewers will consider:

- whether the research fits within and advances the missions of DOE;
- contributions to U.S. leadership in the international scientific and technical communities;
- contributions to the goals and objectives of the strategic plans of DOE and other national programs; and
- the extent of productive interaction with other science and technology programs.

Depending on the nature of the program, reviewers will consider the following:

SCIENCE: The program's track record of success in making scientific discoveries of technological importance to DOE missions and U.S. industry;

- the degree of industrial interest in follow-on development of current research results; and
- the effective use of national research facilities that serve the needs of a wide variety of scientific users from industry, academia, and government laboratories.

TECHNOLOGY: The value of successfully developing precommercial technology, to DOE, other federal agencies, and the national economy;

- the extent to which expected benefits justify the program's risks and costs; and
- where appropriate, the degree of industrial interest, participation, and support.

MEASURE 3: EFFECTIVENESS AND EFFICIENCY OF RESEARCH PROGRAM MANAGEMENT

Reviewers will consider:

- the quality of research plans;
- whether technical risks are adequately considered;
- whether use of personnel, facilities, and equipment is optimized;
- success in meeting budget projections and milestones;
- the effectiveness of decision-making in managing and redirecting projects;
- success in identifying and in avoiding or overcoming technical problems;
- the effectiveness with which technical results are communicated to maximize the value of the research results and to gain appropriate recognition for DOE and the Laboratory;
- effectiveness in developing, managing, and transferring to industry intellectual property and technical know-how associated with research discoveries;

- the degree to which customer and stakeholder expectations are consistently met; and
- the cost-competitiveness of the scientific and technical workforce, as measured by the cost of direct workforce FTEs and by the ratio of direct cost to nondirect costs.