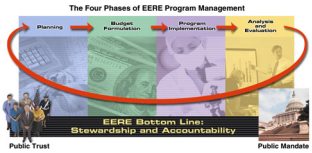
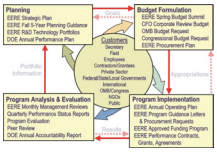
Appendix D-2
EERE Peer Review Guide





Click here to access the *EERE Peer Review Guide* in its entirety at http://ee-intranet/sops/pdfs/Peer_Review_Guide.pdf.

Background and Purpose

Objective review and advice from peers -Peer Review- is one of the standard mechanisms for effective management of highly complex and/or technically challenging projects and programs and is widely used in industry, government, and academia. Experience has demonstrated that peer review is a powerful and effective tool for enhancing the relevance, effectiveness, and productivity of the Office of Energy Efficiency and Renewable Energy (EERE) research, development, demonstration, and deployment programs and business administration activities because it taps the experiences and insights of experts in the field. This can provide a competitive advantage to those programs that undergo regular, systematic peer review over those that do not.

Peer review is based on the premise that the people best qualified to judge a program or project are experts in that or related fields of knowledge. Seeking advice from experts is useful in all aspects of managing a program to add to the perspective and broad knowledge of a program manager.

Peer review is essential in providing robust, documented feedback to EERE program planning. Knowledge about the quality and effectiveness of current projects and programs is absolutely essential in designing future programs and/or enhancing existing efforts.

Peer review also provides management with independent confirmation of the effectiveness and impact of its programs. For these and other reasons, peer reviews are used, for example, as part of the evidence accepted by the Office of Management and Budget (OMB) Program Assessment Rating Tool1 (PART).

Each review will be tailored to the specific program's characteristics. This includes such considerations as budget, output generated, management structure and complexity, type of program, stakeholder participation, and information needed to support

management decisions. Thus, a "one-size-fitsall" approach to peer review would not be appropriate.

Knowing that no "one size fits all", EERE formed a Peer Review Task Force of staff experienced in peer review from across the EERE programs, with representatives from Technology Development programs, the Board of Directors, Planning, Budget Formulation and Analysis staff and two external evaluation experts.2 Over a period of ten months the Task Force met, listened to experts, surveyed and identified best practices in peer review in EERE, the U.S. Department of Energy (DOE), and other Federal agencies, and drafted these guidelines.

The guide has been developed to raise the overall consistency and quality of the peer review process within EERE, and to reduce the burden on program managers and staff in implementing them. It lays out core evaluation criteria and consistent review processes, while retaining the necessary flexibility to conduct peer review that fits the characteristics of the program and addresses the program's need for particular information at different times for different stakeholders. Multiple examples demonstrate a variety of review processes. It provides information and examples useful for planning, conducting, and utilizing peer reviews based on best practices found in EERE, other parts of DOE, and other Federal agencies. Best practices are those that are (1) utilized with success by EERE's own programs, and (2) suggested by multiple widely recognized experts outside of EERE, including the U.S. General Accounting Office (GAO) and OMB. Best practices improve the quality and credibility of both the peers and the process in order to produce effective and useful peer review products.

All parts of EERE programs will implement peer reviews of their program and key projects. Program reviews necessarily encompass projects and portfolios of projects. This guide focuses on in-progress program activities and projects and does not cover expert merit review of proposals, which is already covered by other management procedures in EERE. The guide also does not consider peer reviews that look across the entire, and highly diverse, EERE portfolio of programs, such as EERE Multi-program Reviews.

Research, development, demonstration, and analysis programs and projects are knowledge-based and can be reviewed in a short period by experts in the field, as conventionally done by the scientific and engineering communities. Many Business Adminis-

tration programs and projects tend to be process-based, requiring more detailed, longer-term reviews for external experts to sufficiently understand the processes used and to identify ways to improve them. Expert review of Business Administration and EERE deployment programs is less common and thus the Task Force recommends that the guidelines provided here be tested in these areas in practice to determine what modifications to this Guide may be needed. Deployment, communication, and other such outreach activities are customer-based, often requiring detailed external surveys and analyses as well as evaluations by experts of their broader strategies and techniques. Just as occurs with R&D programs, expert review for business administration and deployment programs may serve as a capstone that brings together data from several sources.

The guide reflects the need for flexibility in peer reviews. For example, there are situations where the best peer review process may seek to minimize the audience to ensure frank exchanges. There are other situations where a program may wish to have the review open to the public. The decision is left to the program to weigh the advantages and disadvantages and determine the best process for the particular situation. Although the guide is based on best practices within and outside of EERE, lessons learned through application of the guidelines will be assessed. The guide will be revised to reflect these lessons over time. A mechanism will be developed that includes

- Gathering data on the implementation and use of peer reviews in EERE and lessons learned from that experience, and

- Establishing a forum where program and office managers can share peer review experiences and lessons learned.

[1] U.S. Office of Management and Budget, May 5, 2003

[2] Members of the Peer Review Task Force have included Sam Baldwin, Jim Daley, Jeffery Dowd, Ken Friedman, John Ryan, Alan Schroeder, Ed Wall, Frank (Tex) Wilkins, and Amit Ronen of EERE, David Howell (ORNL), and Gretchen Jordan (SNL).