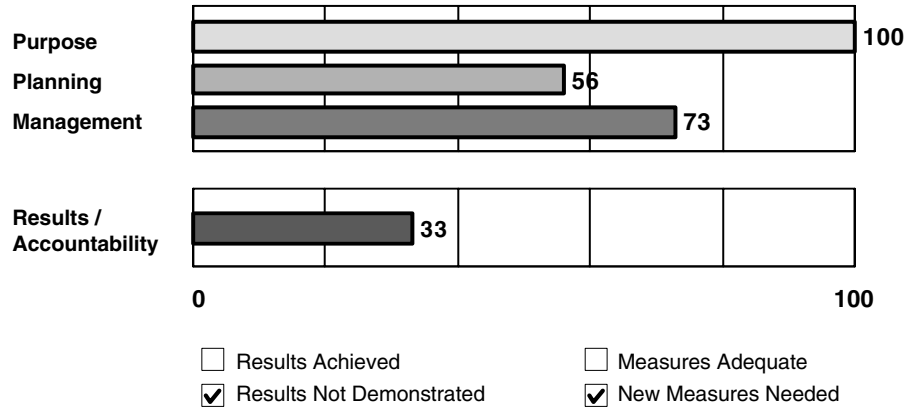


Program: Fusion Energy Sciences

Agency: Department of Energy

Bureau: Office of Science



Key Performance Measures

Year Target Actual

Key Performance Measure	Year	Target	Actual
Long-term Measure: Measures under development			
Annual Measure: Measures under development			

Rating: Results Not Demonstrated

Program Type: Research and Development

Program Summary:

The Office of Science's Fusion Energy Sciences (FES) program supports facilities and research in plasma science, fusion science, and fusion technology aimed at providing the intellectual basis for a future fusion energy source of commercial power.

The program received a perfect score in the purpose section and a fairly high score in the management section, mainly as a result of standard management practices within the Office of Science that lead the FES program to have a well defined mission, merit-based reviews for awarding contracts and grants, and highly-regarded large project management practices. The primary cause for the lower scores for planning and results is the program's current lack of adequate long-term and annual performance measures. Nevertheless, the program has made significant strides toward developing such measures despite the problems inherent in predicting and then measuring scientific progress. Other findings include:

1. The program delivers projects on cost and schedule; including its most recent construction project, the National Spherical Torus Experimental Facility, and its current decontamination and decommissioning project for the Tokamak Fusion Test Reactor.
2. The program receives a significant amount of external expert assessments of its research and program management strategies.
3. The program budget is not sufficiently aligned with program goals so that the impact of funding changes on performance is readily known, and so that basic research elements are distinguished from applied research elements.

To address these findings:

1. The 2004 Budget provides funds to operate the program's user facilities at 84 percent of maximum capacity (the same as in 2003 and 39 percent more than in 2002).
2. The Administration will work to reform its performance measures and goals, understanding the difficulties that basic research programs face in attempting to predict future scientific progress.
3. The Department will work to further clarify the relationship between the program goals and budget.

(For more information on this program, please see the Department of Energy chapter in the Budget volume.)

Program Funding Level (in millions of dollars)

<u>2002 Actual</u>	<u>2003 Estimate</u>	<u>2004 Estimate</u>
247	257	257