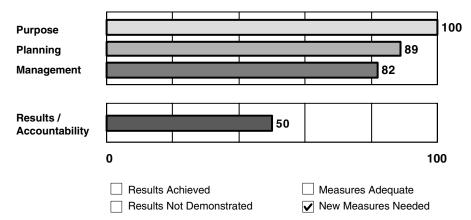
# **Program:** Wind Energy

Agency: Department of Energy

Bureau: Energy Efficiency and Renewable Energy



#### **Key Performance Measures**

#### Year Target Actual

| Long-term Measure (new): Cost of power in medium wind speed areas (Class 4, or about 12 mph at 30 feet above ground level) Measured as cents per kilowatt-hour.                                  | 2002 | No Data | 5.5 |
|--|------|---------|-----|
|  | 2010 | 3       |     |
|  |      |         |     |
|  |      |         |     |
| Long-term Measure: Cost of power from small (< 100 kW) wind turbine systems in low wind speed areas (Class 3, or about 10 mph at 30 feet above ground level) Measured as cents per kilowatt-hour | 2002 |         |     |
|  | 2007 | 10-15   |     |
|  |      |         |     |
|  |      |         |     |
| Annual Measure:<br>Measures under development  |      |         |     |
|  |      |         |     |
|  |      |         |     |
|  |      |         |     |

## **Rating:** Moderately Effective

Program Type: Research and Development

### Program Summary:

The Wind Energy program conducts research and development (R&D) on wind energy systems to reduce their cost and expand their use.

The program has a very clear purpose and strong planning and management. However, it needs to develop and apply a consistent methodology for estimating the public benefits of its activities in order to establish priorities within the program and among other applied energy R&D programs. Other findings include:

- 1. In 2000, the National Research Council (NRC) reported that "the Wind Energy program, combined with temporary substantial federal and state renewable energy subsidies, have been responsible for the U.S. lead in technology development."
- 2. The growing commercial success of wind energy systems in high wind-speed areas (15 mph or more) obviates the need for further Federal support of R&D in this area. The President's 2003 Budget reflected this finding by redirecting the program's funding to R&D aimed at reducing costs and improving efficiency of wind energy systems in lower wind-speed areas (10 to 12 mph).
- 3. Congress earmarked nearly \$4 million of program funding in 2002. Most of the earmarked funding was used to install wind energy systems in certain geographic areas and will not contribute to the long-term goals of the program.
- 4. The program has difficulty developing meaningful annual performance measures, a challenge for many R&D programs. Without meaningful annual measures, the program cannot demonstrate short-term results.
- 5. The program is part of a division that completed a major reorganization in 2002, which should improve program planning and management.

In response to these findings and an assessment of the program's activities using the R&D Investment Criteria developed as part of the President's Management Agenda, the Budget proposes to:

- 1. Continue emphasis on wind technology development for low wind-speed areas;
- 2. Redirect funding from earmarked activities to R&D that contributes to the program's goals; and
- ${\it 3. Develop\ practical\ but\ meaningful\ annual\ performance\ measures.}$

### Program Funding Level (in millions of dollars)

| 2002 Actual | 2003 Estimate | 2004 Estimate |
|-------------|---------------|---------------|
| 39          | 44            | 42            |