Program: *Methane Hydrates*

Agency: *Department of Energy*

Bureau: *Fossil Energy*

☐ Results Achieved	☐ Measures Adequate
☑ Results Not Demonstrated	☑ New Measures Needed

Key Performance Measures
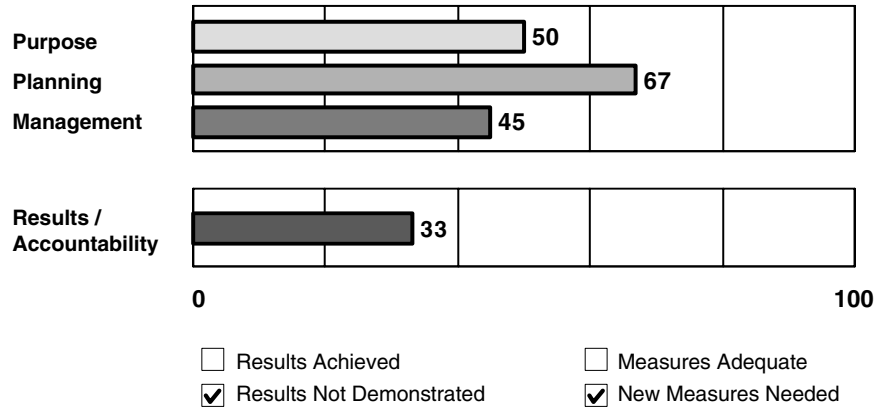
Key Performance Measures	Year	Target	Actual
Long-term Measure: Economically producible methane hydrate reserves (trillion cubic feet of methane)	2003		0
	2015	1400	
Annual Measure: Measures under development			

Rating: *Results Not Demonstrated*

Program Type: *Research and Development*

Program Summary:

The Methane Hydrate Program focuses on improving the potential to recover natural gas from naturally occurring mineral formations (a combination of water and methane) in the deepwater continental shelf and arctic permafrost. The program also works to improve the safety of offshore drilling by better defining the role of these formations in seafloor stability.

The application of the PART found:
1. Scientific questions regarding methane hydrates are better addressed by other agencies such as the National Oceanic and Atmospheric Administration (e.g. ecology and geology of seafloor methane hyrates) and the National Science Foundation (e.g. role of hydrates in the carbon system), and safety questions are most appropriately addressed by the industry;
2. DOE's Office of Fossil Energy estimates the volume of economically recoverable domestic natural gas to be 740 trillion cubic feet (assuming a price of $2 per thousand cubic feet [cf], or a much larger 920 trillion cf if the price is $3.50). This supply of standard natural gas will last over 30 years at current rates of consumption, meaning this resource may not be needed for many years;
4. While long-term measures are adequate, the results scores reflect the fact that the Department has not completed development of annual performance measures; and
5. Applied energy programs are expected to be able to show benefits from research efforts. To date, this program cannot demonstrate benefits beyond anecdotal information. The program hopes to complete a benefits model by 2004.

As a result of these findings, the Administration will:
1. Continue performance measurement improvements, including development of annual measures tied to long-term goals; and
2. Support improvements in benefits modeling.

Program Funding Level (in millions of dollars)

2002 Actual	2003 Estimate	2004 Estimate
10	4	4