

**AMENDMENT IN THE NATURE OF A SUBSTITUTE
TO H.R. 364
OFFERED BY MRS. BIGGERT OF ILLINOIS**

Strike all after the enacting clause and insert the following:

1 SECTION 1. ARPA-E STUDY.

2 (a) **IN GENERAL.**—The Secretary of Energy shall
3 enter into an arrangement with the National Academy of
4 Sciences to conduct a detailed study of, and make further
5 recommendations on, the October 2005 National Academy
6 of Sciences recommendation to establish an Advanced Re-
7 search Projects Agency—Energy (in this section referred
8 to as ARPA-E).

9 (b) **REPORT.**—Not later than 12 months after the
10 date of enactment of this Act, the Secretary shall transmit
11 to Congress the study described in subsection (a) and the
12 Secretary's response to the findings, conclusions, and rec-
13 ommendations of that study.

14 (c) **TERMS OF REFERENCE.**—The Secretary shall en-
15 sure that the study described in subsection (a) addresses
16 at a minimum the following questions:

17 (1) What basic research related to new energy
18 technologies is occurring now, what entities are

1 funding it, and what is preventing the results of that
2 research from reaching the market?

3 (2) What economic evidence indicates that the
4 limiting factor in the market penetration of new en-
5 ergy technologies is a lack of basic research on path-
6 breaking new technologies? What barriers do those
7 trying to develop new energy technologies face dur-
8 ing later stages of research and development?

9 (3) To what extent is the Defense Advanced
10 Research Projects Agency an appropriate model for
11 an energy research agency, given that the Federal
12 Government would not be the primary customer for
13 its technology and where cost is an important con-
14 cern?

15 (4) How would research and development spon-
16 sored by ARPA-E differ from research and develop-
17 ment conducted by the National Laboratories or
18 sponsored by the Department of Energy through the
19 Office of Science, the Office of Energy Efficiency
20 and Renewable Energy, the Office of Fossil Energy,
21 the Office of Electricity Delivery and Energy Reli-
22 ability, and the Office of Nuclear Energy?

23 (5) Should industry or National Laboratories be
24 recipients of ARPA-E grants? What institutional or
25 organizational arrangements would be required to

1 ensure that ARPA-E sponsors transformational,
2 rather than incremental, research and development?