

***Advanced Research Projects Agency – Energy Act (ARPA-E)***

**H.R. 4435**

**Sponsored by Rep. Bart Gordon (D-TN)**

**Introduced December 6, 2005**

**Summary**

The bill establishes an Advanced Research Projects Agency - Energy within the U.S. Department of Energy. Modeled after the Department of Defense's Defense Advanced Research Projects Agency, the goal of ARPA-E is to reduce U.S. foreign energy dependence by 20% over a 10-year period. The bill is intended to implement the recommendation of the National Academy of Sciences' (NAS) report *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*.

**Section-by-Section**

**Section 1. Findings**

**Section 2. Advanced Research Projects Agency - Energy**

Establishes the Advanced Research Projects Agency – Energy (ARPA-E) within the Department of Energy. This new agency is modeled after the Department of Defense's Defense successful Advanced Research Projects Agency (DARPA). This new organization structure will be better positioned to support revolutionary and transformational energy research where risk and pay-offs are high.

The goal of ARPA-E is to reduce the dependence of the U.S. on foreign energy sources by 20% over the next 10 years. ARPA-E should support high-risk, high pay-off research to accelerate the innovation cycle for both traditional and alternative energy sources and energy efficiency. ARPA-E shall be headed by a Director appointed by the Secretary. The Director shall designate program managers to manage individual projects. In addition, the Director shall ensure that ARPA-E's activities are coordinated with other Federal research agencies and that ARPA-E may carry out projects jointly with other agencies.

The project managers shall have flexibility in establishing R&D goals for the program. Program managers will also be responsible for selecting projects for support as well as monitoring their progress. The ARPA-E will have authority to hire specialized science and engineering personnel to be program managers. (This is similar to DARPA and HS-ARPA.)

Participation in the program will be limited to institutions of higher education, companies or consortia of universities and companies and these consortia may also include federally funded research and development centers.

### **Section 3. Energy Independence Acceleration Fund**

Establishes the Energy Independence Acceleration Fund administered by the Director of ARPA-E. This is created as an independent fund in order to allow it to accept non-federal contributions. Funding is authorized from FY 2007 thru 2012, ramping up from an initial authorization of \$300 million to \$915 million.

### **Section 4. Recoupment**

This provision is based upon current DOE clean coal recoupment provisions. If a project is successful the Federal Government can recoup some of its original investment. The provision allows the Secretary complete flexibility in developing recoupment provisions and he may waive them entirely if necessary for the commercial viability of the project. All recouped funds will be returned to the Energy Independence Acceleration Fund.

### **Section 5. Advisory Committee**

The ARPA-E Advisory Committee may seek advice either from an existing DOE advisory committee or may establish a new advisory committee. If the Director needs industry advice, a panel to advise on a specific technology area, or to hire a consultant, these provisions provide him with the appropriate authorities.

### **Section 6. ARPA-E Evaluation**

At the end of five and a half years, the President's Council of Advisors on Science and Technology (PCAST) shall evaluate how well ARPA-E has performed in achieving its goals and mission. The Committee is required to recommend whether ARPA-E should be continued or terminated as well as lessons learned from its operation. This will provide an objective evaluation of ARPA-E.