



FY 2011 Funding for the U.S. DEPARTMENT OF ENERGY Advanced Research Projects Agency – Energy (ARPA-E) April 2010

Position: The Council for Chemical Research (CCR) supports the President's proposed \$300 million budget for ARPA-E. Because ARPA-E supports endeavors critical to US economic and energy security, we support **continued growth** of the ARPA-E budget over the next several years.

Who We Are: CCR is a non-profit organization dedicated to advancing multi-sector, multi-disciplinary research in the chemical sciences and engineering. Its member organizations – companies, universities and government laboratories – are represented in CCR by their research leaders.

We recognize the budget constraints faced by Congress but strongly urge that funding for physical sciences research be strengthened as an investment in our Nation's future. Our studies (<http://www.ccrhq.org/publications>) and those of others demonstrate that Federal investments in chemical science research yield significant payback for the US economy. **Every dollar of Federal investment is leveraged by \$5 of private investment; this investment generates ten dollars of operating income for industry (a 17% annual after tax return), the economy gains roughly \$40 in GDP, \$8 in increased tax revenues, and creates 600,000 new jobs over the ensuing 20 year period.**

Rationale

The United States faces numerous economic and technological challenges related to energy independence and energy security. ARPA-E has a unique role that is crucial in developing the Nation's energy resources to achieve independence and maintain security. Programs supported by ARPA-E will reduce our dependence on foreign oil, increase our efficiency of energy consumption, and decrease energy related emissions. Consistent, growing support will allow ARPA-E to:

- **Develop new sources of energy and new technologies to improve our energy efficiency.** By investing in cutting edge new technologies, we will have long term economic gains, an increased tax-base, and future energy independence.
- **Foster translation of basic research into implementation of technology.** Through its funding and stewardship, ARPA-E stimulates translation of early research discoveries into viable, commercialized technologies that will be implemented across the country.
- **Guide new technologies to market** through its commercialization team that helps new ventures find longer term funding and private sector partners. This process leverages the Federal investment with private funds.
- **Provide a mechanism for high risk, high reward projects to be completed in a timely manner.** ARPA-E funds projects that no other Federal agency will fund due to their higher risk nature. However, the agency utilizes close oversight of these projects to maximize effectiveness of the Federal investment and mitigate risk.
- **Establish long term energy independence for our nation** through development of key technologies that would not be developed without the support of ARPA-E.
- **Create new jobs** through development of new technologies and new energy and energy-related industries.