The following are some of the organizations and entities supporting ARPA-E:

- America Public Power Association
- American Iron and Steel Institute
- American Petroleum Institute
- American Society of Mechanical Engineers
- Federal of American Scientists
- Edison Electric Institute
- Gas Technology Institute
- Independent Petroleum Association of America
- Information and Innovation Foundation
- Massachusetts Institute of Technology
- National Association of Manufacturers
- National Hydrogen Association
- National Association of Rural Electric Cooperatives
- Texas A&M
- University of Michigan
- Climate Policy Center
- National Commission on Energy Policy