

Dr. Steven Chu
Secretary of Energy
U.S. Department of Energy
1000 Independence Ave. SW
Washington, D.C. 20585

Dr. Chu:

Along with everyone else in the advanced bioenergy community, I was excited by Congress's creation of ARPA-E. This seemed like a great opportunity for DOE to unleash the creativity of our country's scientists, engineers, and entrepreneurs that would lead to innovative energy solutions we haven't even thought could exist.

Because of the importance of ARPA-E to the future of our nation, I am therefore, extremely concerned about the course of action that the Department of Energy is following with the first ARPA-E solicitation, DE-FOA-0000065. I am especially concerned since this solicitation, being funded by the Recovery Act at a level of \$150 million, could, if properly deployed, provide the scientific and technological breakthroughs needed to achieve energy security. However, if this solicitation continues to use the very same bureaucratic rules and procedures ARPA-E was designed to overcome, I am afraid that not only will scientific innovation be stifled, but the ensuing waste of money would also cause Congress to look very closely before appropriating any more money for ARPA-E or related DOE programs. From a review of the proposal and from discussions with small R&D business owners, I have the following specific concerns.

First, there is an important disconnect between the goals of ARPA-E included in the executive summary and the project requirements included in the body of the proposal. This is especially evident in the key area of cost sharing. In the executive summary of the solicitation, the following statement on cost sharing is made.

As rules of thumb, when the project risk is very high, the cost sharing should be lower. When the technology is closer to market or the future market is large and potentially very profitable, the cost share should be higher².

However, on page 10 of the solicitation, the following rules on cost sharing are listed.

B. Cost Sharing (or Matching)

The recipient must provide cost share of at least 20% of the total allowable costs for R&D projects of an applied nature (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project). For awards where

ARPA-E determines that use of a TIA is appropriate, recipients are required to provide at least 50% of the total project costs, where practicable.

Second, the scope and size of the projects to be funded by this solicitation are so broad that they seem to include the possibility of several types of awards.

ARPA-E anticipates that most awards will be for total project costs in the range of \$2 million to \$5 million. Some may be as low as \$500,000 or as high as \$10 million. In extremely exceptional cases, ARPA-E may choose to accept efforts up to \$20 million.

I think we would agree that awards in the \$500,000 range are very good for high-risk early-stage endeavors and are well suited for small businesses. On the other hand, \$10 million dollar projects would most likely require consortiums of businesses, universities, and as stated in this solicitation, Federal labs. From my understanding, DARPA has had good success with separate programs for small proof-of-concept projects and larger system integration projects such as the recent BioJP-8 program. I would suggest that ARPA-E consider a similar approach.

Finally, the intent of ARPA-E is that it would work directly with individual researchers and companies. This is amply stated in the executive summary of the proposal.

ARPA-E has the flexibilities to work with companies who do not traditionally work with the Federal Government.

Once the R&D project begins, ARPA-E Program Managers will interact frequently with performers, helping to identify problems as early as possible and seeking solutions to keep the R&D on track. ARPA-E's role is more than simply providing R&D funds; ARPA-E will actively work to make your R&D succeed.

Meeting these important objectives will require open two-way communications. However, since this solicitation was released on 27 April, DOE has not provided any meaningful communication channels for prospective applicants. At a minimum I would think ARPA-E would use the following DARPA procedures. These include: 1) workshops for prospective applicants, 2) proactive, readily accessible program managers, and 3) online team-building websites. In addition, such DOE/EERE solicitations as DE-FOA-0000096 have on-line systems for submitting questions and receiving answers from the program manager. This should be available as well.

Mr. Secretary, given the importance of this solicitation for the future of energy research in our country, I think you would agree that getting it right is more important than getting it done fast. I see that your Department has recently cancelled DE-PS36-09GO99038, Demonstration of Integrated Biorefinery Operations and has been replaced it with DE-FOA-0000096, Recovery

Act - Demonstration of Integrated Biorefinery Operations even though awards would be delayed at least thirty days. I would hope that you consider a similar rethinking of the current ARPA-E solicitation so that it would not only implement the goals established for this new agency, but more important would put our country on the road to energy independence. I stand ready to help you in this important task.

Regards,

Robert Kozak
President
Atlantic Biomass Conversions, Inc.
An SBA Certified HubZone Company