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Availability of Department of Energy- Quadrennial Technology Review Framing Document and Request for Public Comment

Comment On: DOE-HQ-2011-0023-0001
Quadrennial Technology Review Framing Document; Availability

Document: DOE-HQ-2011-0023-DRAFT-0001
Comment on FR Doc # 2011-05794

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General Comment

See attached file(s)

Attachments

DOE-HQ-2011-0023-DRAFT-0001.1:	Comment on FR Doc # 2011-05794

To quote from the DoE Energy Technology Mission discussion in the Federal Registry "By meaningful technologies, we mean that we pursue technologies that could have a material impact when deployed. Accordingly, scale, economics, and timeliness are important criteria. By enable options, we mean that we do not pick winners and losers; the markets make those choices. By scaling by the private sector, we mean that we support commercialization as an essential part of what we do." These various policy statements are in direct conflict with one another. You can not support commercialization with meaningful technologies and not pick winners and losers!

DoE's present approach is not selective enough when it comes to technologies that will stand the test of market viability. As an example of what I mean, the 2010 ARPA-E funding has spent multiple tens of millions of dollars on "mineralization" as a means to sequester carbon dioxide from fossil fuel fired power plants. Back of the envelop calculations on these ideas show that several of these technologies do not provide a solution that can meet the scale of the problem nationally, others that have 60 to 95% parasitic load on the power plant when a full cycle analysis is considered and others that are to make a very low value product – a substitute for aggregated in Portland cement – but require expensive chemical processing including large-scale CO2 absorption towers, crystallization, filtration and drying units which will dictate that the price of the product be similar to bulk chemicals which is well above that of aggregate dug from the ground in a gravel pit. I use "mineralization" as only an example of the problem but there are others which are equally unattuned to market realities, e.g. chemical looping.

This lack of a test of market viability before funding is a broad problem at DoE and the problem stems from a lack of performing detailed analysis on the projects that are to be funded because DoE does not have this analytical capability in house. As a result, it is suggested that when research funding exceeds $3 million over 3 years that a full economic analysis be required as part of the research and development proposal. In addition, DoE needs to hire a team of economic energy experts that can vet the accuracy of these full economic analyses and assure that they are full cycle and relevant to the scale and scope of the problem. In addition, this team of economic energy experts should provide metrics associated with return on investment or payback period and projected number of jobs created, so that different projects can be evaluated on these bases. This in house vetting and analysis should be done before the reviewer team is even allowed to see the proposals eliminating those which just do not make any sense in the market place. Only in this way will DoE assure that it is doing research that has the potential to be adapted by the market. Not choosing winners and losers as a stated policy only assures that a portion of money is always being spent badly on things that will not be adopted by the market and not create jobs for the nation and this nation needs jobs badly these days. With significant (up to 40%) budget cuts coming in the future to balance the budget, the US does not have the luxury to waste tax payers' money on anything that does not lead to market adoption. Certainly our international competitors are picking winners and only investing in them. It is time for DoE to get is head out of the sand on this policy of "not picking winners and losers."