



U.S. Department of Justice

Antitrust Division

---

*Liberty Place Building  
325 Seventh Street NW  
Washington, DC 20530*

August 23, 2007

Rufus W. Oliver III, Esq.  
Counsel for the University of Texas at Austin  
Baker Botts LLP  
One Shell Plaza  
910 Louisiana  
Houston, Texas  
77002-4995

Re: Request for Expedited Business Review Letter Concerning Advanced Energy Consortium

Dear Mr. Oliver:

This letter responds to your request on behalf of the Advanced Energy Consortium ("AEC") for a business review letter pursuant to the Department of Justice's Business Review Procedure, 28 C.F.R. § 50.6. Your letter of February 12, 2007, advises that the AEC is a group of five petroleum producing companies and two oilfield service companies (BP America Inc., ConocoPhillips Company, Marathon Oil Company, Occidental Oil & Gas Corporation, Shell International E & P Inc, Schlumberger Technology Corporation and Halliburton Energy Services, Inc., referred to collectively as the "Member Companies") who propose to fund and conduct research and development activities under the management of the Bureau of Economic Geology of The University of Texas at Austin ("the University"). The research will relate to nanotechnology as applied to oil and gas exploration and production. Your request for a Business Review letter was submitted on behalf of the Member Companies and the University. You have requested a statement of the Department of Justice's Antitrust Division's enforcement intentions with respect to the proposed conduct of the AEC.

Your letter relates the following facts:

1. The AEC is not a legal entity and there is no ownership structure as such. It will be governed by a Board of Management composed of one representative of each Member Company, each of whom will have one vote. The Director of the University's Bureau of Economic Geology will serve on the Board of Management *ex officio* but will not have a vote. The objective of the venture is to develop subsurface microsensors and nanosensors and associated nanomaterials that will allow for collection of more accurate information

regarding the physical characteristics of hydrocarbon reservoirs than it is possible to obtain through existing technology.

2. Additional qualified companies may become participants in the AEC upon approval of two-thirds of the Board of Management and concurrence of the University, subject to the numerical limit on the total number of participants as set from time to time by the Board (currently limited to ten members). Companies who can demonstrate likely business viability during the period for which they would commit to support research financially, are prepared to pay for access to research results achieved prior to their becoming participants, and are, in the judgment of the Board, likely to bring value to the venture, are eligible to become participants
3. Commercializing the results of the proposed research is beyond the scope of the venture. The AEC does not propose to produce, market, or distribute anything. Production, sale or other commercial exploitation of products incorporating the resulting technology are matters to be addressed by individual Member Companies as they see fit.
4. In 2004, according to estimates prepared by Lux Research, \$8.6 billion was spent on nanotechnology research worldwide, including \$1.7 billion in the United States. Notwithstanding, neither the Member Companies nor the University have been able to identify any nanotechnology research projects that are focused on achieving the results sought by the AEC. The AEC's anticipated research effort will have an annual budget of approximately \$7 million. The Member Companies will each contribute \$1 million for each of the initial three years of the research program and thereafter will provide funding as determined by the Board.
5. There are no restrictions on the ability of the AEC participants to compete with the venture, either individually or through other entities. With regard to restrictions on the flow of information to Member Companies, apart from a general confidentiality obligation, there is a requirement that (a) no information be shared except insofar as it is reasonably related and necessary to the accomplishment of the research program and (b) access to confidential information be limited to individuals who need it in order to carry out the research program.
6. The University will own all inventions made by the University or jointly by the University and one or more venture participants during the course of the program, including all patents. With respect to inventions resulting from the research program, each Member Company will receive a royalty-free, nonexclusive, irrevocable, worldwide, perpetual license (a) to use such inventions for noncommercial, internal purposes and (b) subject to payment of patenting costs, to make, use and sell any such patented inventions. The University contemplates licensing its rights to results of the research program to third parties on a royalty-bearing basis, subject to the approval of the Board of Management, which shall not be unreasonably withheld.

On the basis of the information that you have provided, the proposed venture does not appear to be designed to restrict price or output for any product, or limit research competition among the Member Companies, nor does it appear likely that the proposed venture would have any such effects. To begin with, commercialization of the results of the proposed research is beyond the scope of the venture. The joint venture does not propose to produce, market, or distribute anything. Production, sale or other commercial exploitation of products incorporating the resulting technology are matters to be addressed by individual Member Companies as they choose. Although the University will own the intellectual property rights to any jointly-developed technology, all Member Companies who contribute to the cost of developing any specific technology will be entitled to a royalty-free, nonexclusive, irrevocable, worldwide, perpetual license to use the technology.

The operation of the venture should not adversely affect research in nanotechnology. All venture participants will retain the right to engage in independent research and to obtain any intellectual property rights derived from such independent research. Moreover, the existence of a substantial number of other entities engaged in nanotechnology research, both in the United States and abroad, indicates that the formation and operation of the AEC is not likely to reduce the amount or variety of such research.

There is little likelihood of anticompetitive information sharing among the Member Companies. The Agreement limits information sharing only to information reasonably related and necessary to the accomplishment of the research program. It also requires that access to confidential information be limited to individuals who need it only to carry out the research program.

In sum, the AEC appears to be structured so that its proposed business conduct will not create any risks to competition. To the extent that the AEC engages in research efforts that would not be undertaken by individual firms, the venture may have the procompetitive effect of promoting innovation.

The Department has no present intention to take antitrust enforcement action against the conduct you have described. This letter expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. § 50.6 Pursuant to its terms, your business review request and this letter will be made publicly available immediately, and any supporting data you submitted will be made publicly available within thirty days of the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10 (c) of the Business Review Procedure.

Yours sincerely,

A handwritten signature in black ink that reads "Thomas O. Barnett". The signature is written in a cursive style with a long horizontal line extending to the right.

Thomas O. Barnett