

## STATEMENT OF CONSIDERATIONS

PETITION FOR ADVANCE WAIVER OF PATENT RIGHTS BY  
ABENGOA BIOENERGY BIOMASS OF KANSAS, LLC ("ABENGOA  
KANSAS") UNDER COOPERATIVE AGREEMENT NO. DE-FC36-  
07O17028 BETWEEN ABENGOA KANSAS AND DOE; W(A)-08-022; CH-  
1449

The Petitioner, ABENGOA KANSAS, has requested a waiver of domestic and certain foreign patent rights for itself and its technology affiliate Abengoa New Technologies, Inc. (ABNT), all subject inventions that may be conceived or first actually reduced to practice under the above-identified agreement, and subcontracts thereof. The agreement is entitled "Integrated Biorefinery for Conversion of Biomass to Ethanol, Synthesis Gas, and Heat."

The objective of the current project is the development and operation of an integrated biorefinery facility in southwestern Kansas, having a lignocellulosic biomass input of at least 700 dry metric tons per day. Petitioner will manage the performance of preliminary engineering and project development activities leading up to the final design, financing, construction, and operation of the facility. The project is divided into two phases. Significant Phase I tasks are directed to site planning, permitting, and NEPA review, feedstock supply development and design, process and detail engineering, business analysis and financial planning, and project management. The scope of Phase II comprises final design, financing, construction, and start-up of the facility.

The total cost of Phase I is approximately \$37.5 million with the Petitioner and its subcontractors providing about 60% cost sharing. Petitioner anticipates that the cost of Phase II will be approximately \$92 million, premised on the same cost sharing structure as Phase I. This waiver is contingent upon the Petitioner and its subcontractors maintaining, in aggregate, the above cost sharing percentages over the course of the cooperative agreement.

As noted in its waiver petition, Petitioner's parent company Abengoa Bioenergy Corporation (ABC) and its affiliates are one the world's leading ethanol producers, producing approximately 200 million gallons of bioethanol annually. Petitioner and its affiliates have extensive experience operating and developing bioethanol facilities including the start-up of a state-of-the-art biomass pilot facility in York, Nebraska. ABC and its affiliates also invest significant amounts of their profits each year into research and development of technologies related to cellulosic ethanol production.

It should be noted that ABC is developing, constructing and operating another bioethanol production facility under DOE Cooperative Agreement DE-FC36-03GO13142 for "Advanced Biorefining of Distiller's Grain Corn Stover Blends." Under the prior award ABNT has been responsible for all tasks culminating in the start-up of its state-of-the-art biomass plant near York, Nebraska. For the present award ABNT is contributing its cumulative know-how from previous projects to the current project as a

sub-awardee and will operate ABNT's biomass pilot plant in support of this project as necessary to validate the commercial scale designs for Phase I.

Petitioner plans to assign its interest in all patents and patent applications for subject inventions made in performance of this award to its corporate affiliate ABNT for the purpose of centralizing intellectual property to simplify licensing of ABC and affiliate technologies, facilitate development of new projects incorporating biomass technology, and/or collaborate to improve state-of-the-art technologies.

Considering Petitioner's technical expertise and significant investment in this technology including sizable cost sharing in this cooperative agreement, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the technology and products which may arise from this cooperative agreement.

As set out in the attached waiver petition, Petitioner has also requested a waiver of patent rights in the subject inventions of its lower tier subcontractors, provided that they agree to the same terms and conditions by which Petitioner will be granted the advance waiver. It is believed that this approach will facilitate timely commercialization of the technology by furthering the establishment of business and technical relationships between the parties and providing a mechanism for obtaining meaningful cost sharing between the parties. This waiver contemplates that the parties will allocate title or other rights to inventions among themselves as they deem appropriate during the course of their association consistent with the terms of this waiver. Accordingly, title will be waived directly to a subcontractor upon mutual agreement of the Petitioner and the subcontractor. However, this waiver will only apply to such subcontractor(s) who provide a letter to DOE acknowledging their right to ask for a waiver and agreeing to the terms of this waiver. This waiver shall not impact the rights of those parties subject to Public Law 96-517, as amended, nor shall it grant any rights in inventions made by employees of the National Laboratories.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision paragraph (t). In brief, Petitioner has agreed that a substantial portion, as determined by DOE, of any feedstock grown in the United States and processed using any waived invention will be processed in the United States unless the Petitioner can show to the satisfaction of the DOE that is not commercially feasible to do so.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. If anything, the technology forming the subject matter of the collaboration can be expected to stimulate competition. The majority of current ethanol producers utilize wet mill technologies. The current project will help make dry mill ethanol production more competitive with the dominant wet mill production facilities, thereby increasing competition. Furthermore, the development of bio-based fuels such as cellulosic ethanol provide competition with petroleum based fuels.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the cooperative agreement in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

[Redacted]

Assistant Chief Counsel  
Intellectual Property Law Division  
DOE Chicago Office

Date: March 18, 2010

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the cooperative agreement, where through such modification or extension, the purpose, scope or cost of the cooperative agreement has been substantially altered.

CONCURRENCE:

*[Handwritten signature]*  
[Redacted]

Valri Lightner  
Acting Program Manager  
Office of Biomass Program  
EE-2E

Date: 5/17/2010

*Manager*

APPROVAL:

*[Handwritten signature]*  
[Redacted]

Paul A. Gottlieb  
Assistant General Counsel  
for Technology Transfer and  
Intellectual Property

Date: 5/17/2010

**WAIVER ACTION – ABSTRACT**  
**W(A)-08-022**

REQUESTOR  
ABENGOA  
KANSAS

CONTRACT SCOPE  
The objective of the current project is the development and operation of an integrated biorefinery facility in southwestern Kansas, having a lignocellulosic biomass input of at least 700 dry metric tons per day.

RATIONALE FOR DECISION  
Approximately 60% Cost  
Sharing

**(t) U.S. Competitiveness**

The Petitioner agrees that a substantial portion, as determined by DOE, of any feedstock grown in the United States and processed using any waived invention will be processed in the United States. The Petitioner agrees that it and any licensee, sub-licensee or assignee thereof will not license, sub-license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to the foregoing requirement. DOE agrees that Petitioner has an expanding presence in the U.S., and that it is committed to carrying out business in the U.S. The Petitioner agrees that it, or a licensee, sub-licensee or assignee of rights to waived inventions, will commercialize the technology of the waived inventions in the United States, unless the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. DOE agrees that the ability of Petitioner to implement plants in the U.S. embodying any waived inventions will be accelerated if it has the ability to license the waived inventions for the development of plants outside the U.S. Provided that the Petitioner proceeds in accordance with the foregoing requirements, DOE agrees that Petitioner has the right to license the technology of the waived inventions for plants outside the U.S. Should the Petitioner undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived invention is suspended until approved in writing by the DOE.