

## STATEMENT OF CONSIDERATIONS

### ADVANCE WAIVER OF PATENT RIGHTS FOR INEOS NEW PLANET ENERGY FOR “RECOVERY ACT: INP BIOENERGY INDIAN RIVER COUNTY FACILITY, PHASE I” DE-EE0002883, W(A) 2010-026

The Petitioner, INEOS New Planet Energy (“Ineos”), has requested a waiver of domestic and foreign patent rights for all subject inventions arising from its participation under DOE Award No. DE-EE00002883.

This Award falls under the Recovery Act: Demonstration of Integrated Biorefineries Operations, DE-FOA-00000096, for which there is a granted class waiver, W(C) 2009-016. The class waiver contains the standard U.S. Competitiveness clause. Ineos desires a modification to this clause, and therefore submits a petition for an advance waiver, rather than accept the class waiver with the standard terms and conditions.

The objective of the award is to construct and operate a commercial-scale integrated demonstration biorefinery. The facility will be designed to produce bioethanol, as well as associated renewable electric power. The facility will be located on a brownfield site near Vero Beach, Florida, adjacent to the Indian River County landfill. Feedstock will comprise locally-available renewable biomass, including vegetative waste and the wood portion of construction and demolition debris, which would otherwise be disposed of at nearby landfills. The biogenic fraction of post-recycling municipal solid waste is being considered as an additional secondary renewable biomass feedstock.

The facility will gasify feedstock to produce syngas (composed primarily of carbon monoxide and hydrogen), clean and recover energy from the hot syngas, after which cooled syngas will be fed to a fermenter where a proprietary microorganism converts the carbon monoxide and hydrogen to ethanol in an anaerobic, aqueous process. Ethanol will be recovered by means of distillation and dehydration and blended with denaturant to produce motor grade fuel. Waste heat and vent gas streams will be used to generate steam and electric power in sufficient quantities that the facility will be energy self-sufficient during stable operation with any excess renewable electricity available for sale to the electric power grid.

Ineos is a joint venture of INEOS Bio USA LLC and NPE Florida LLC. Ineos will build a facility to demonstrate on a commercial scale the INEOS Bio ethanol technology. Ineos acquired the right to practice this technology via a license granted to it by Bioengineering Resources Inc. (BRI). BRI had over 15 years of experiences in researching and developing this technology, and several years of operating a pilot plant practicing this technology. The BRI experience has been retained within Ineos, as key employees at BRI are employees or consultants of Ineos. Ineos holds six U.S. patents and seven filed patent applications relating to the INEOS Bio ethanol technology. As

such, Ineos possesses considerable pilot plant experience, know-how, and patents related to this technology. If this demonstration facility proves successful, Ineos plans to invest in this area by expanding the facility, building other facilities, and licensing the technology to others.

Referring to item 10 of the waiver petition, granting this waiver is not anticipated to create an anticompetitive environment. It is believed that the opposite is correct, i.e., the granting of waiver would assist in developing a more competitive bioethanol production process. A waiver would help to foster an additional competitor, Ineos, into the industry. Furthermore, Ineos does not possess a comparable or complementary technology that would place it in a preferred or advantageous position when compared to others in this industry.

The total anticipated cost of the award is \$100,000,000, with Ineos contributing at least 50% cost share, or \$50,000,000. This waiver is contingent upon the above cost share percentage being maintained over the course of the award.

Ineos 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.

Ineos proposes the following U.S. Competitiveness Clause language, as attached in paragraph (t):


The Contractor agrees that any equipment embodying any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. The Contractor also agrees that any waived invention shall be first incorporated into the Contractor's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States; and such subject invention, when implemented outside the United States, shall not result in the reduction of the use of the waived invention within the United States. The Contractor agrees that it will not license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention 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 DOE. For avoidance of doubt, as long as Contractor remains at least 50% owned or controlled by INEOS Bio USA LLC, then Contractor shall not be deemed to have undergone "a change of ownership amounting to a controlling interest."

Ineos is concerned that the standard language in the U.S. Competitiveness clause would preclude it from licensing outside the United States any waived invention relating to a process technology for the production of ethanol. It is anticipated that any subject inventions will likely be process inventions, rather than products themselves. Ineos's proposed revision would require it to substantially manufacture any equipment-related

subject inventions in the United States, unless it can show to DOE's satisfaction that it is not commercially feasible to do so, and requires it to implement process inventions first in the United States, and to implement outside the United States only if such implementation does not result in a lessening of the demand for the waived invention in the United States. Ineos believes such a lessening of demand would be unlikely, given that the process, feedstock, and consumption of bioethanol will all be in geographic proximity due to transportation costs. As such, use of the waived invention abroad would not impact its use in the United States.

Ineos requests the addition of the language regarding change in ownership because of the nature of the joint venture that comprises Ineos. Ineos wishes to clarify the change in ownership language to cover a situation where NPE Florida LLC's ownership percentage decreases below 50%. Even if NPE's ownership decreased, INEOS Bio USA LLC's percentage would be at least 50%.

Considering the foregoing, and in view of the statutory objectives to be obtained and the factors to be considered under DOE's statutory waiver policy, all of which have been considered, it has been determined that this class waiver as set forth above will best serve the interest of the United States and the general public. It is recommended that the waiver be granted.

  
Julia Cook Moody  
Patent Counsel  
Golden Field Office

Date: 3 June 2010

Based upon the foregoing Statement of Considerations, it is determined that the interests of the United States and the general public will best be served by a waiver of the United States and foreign patent rights as set forth herein, and, therefore, the waiver is granted. This waiver shall not affect any waiver previously granted.

CONCURRENCE:

APPROVAL:

---

Valri Lightner  
Acting Program Manager  
Office of the Biomass Program

---

John T. Lucas  
Acting Assistant General Counsel for  
Technology, Transfer, and  
Intellectual Property, GC-62

Date: \_\_\_\_\_

Date: \_\_\_\_\_

(t) U.S. COMPETITIVENESS

The Contractor agrees that any equipment embodying any waived invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of the DOE that it is not commercially feasible to do so. The Contractor also agrees that any waived invention shall be first incorporated into the Contractor's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States; and such subject invention, when implemented outside the United States, shall not result in the reduction of the use of the waived invention within the United States. The Contractor agrees that it will not license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention 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 DOE. For avoidance of doubt, as long as Contractor remains at least 50% owned or controlled by INEOS Bio USA LLC, then Contractor shall not be deemed to have undergone "a change of ownership amounting to a controlling interest."