

STATEMENT OF CONSIDERATIONS

REQUEST BY CLIPPER WINDPOWER LLC ET AL. FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER DOE AWARD NO. DE-EE0005141; W(A) 2012-020, AND AN IDENTIFIED WAIVER OF CERTAIN INVENTIONS ALREADY IDENTIFIED

Clipper Windpower, LLC (“Clipper”) has requested a waiver of domestic and foreign patent rights of the United States of America in all subject inventions arising from its participation under the above referenced grant entitled “Novel Low Cost, High Reliability Wind Turbine Drivetrain.”

Clipper has further requested a waiver of domestic and foreign patents of the United States of America in all subject inventions arising from the participation of its subcontractors United Technologies Research Center (“UTRC”) and Hamilton Sundstrand. Each of Clipper, UTRC, and Hamilton Sundstrand is wholly owned or a part of the United Technologies Corporation (“UTC”).¹

The waiver includes the four following subject inventions already identified and disclosed by Clipper to DOE as subject inventions under DOE Award No. DE-EE0005141:

Clipper Docket No.	Invention Disclosure Title	Brief Description
2012-0005	Chain Sprocket Design with Tension Spokes	Sprocket for chain drivetrain with tensioned spokes instead of a cast or plate fabricated sprocket
2012-0006	Layout for Compact Chain Drive Wind Turbine Drivetrain	Preferred, optimized configurations for sprockets and outputs
2012-0007	Load Balancing Multi Strand Chain Drive Sprocket	Several concepts for sprockets with resilient components to permit better load sharing among chain links and strands
2012-0014	Real Time Condition and Life Monitoring for Chain in a Wind Turbine Drivetrain	Concepts for measuring chain elongation indicative or needed maintenance/replacement of chain

As described in the petition, the grant is funding research of “a novel drivetrain design for utility scale wind turbines involving a speed increasing, torque reducing gearbox that does not utilize typical gear stages in its design (although it does not utilize gear stages, the concept is still referred to herein as a ‘gearbox’ for convenience and for lack of better terminology). Instead of gear stages, the gearbox will utilize another torque and rotational speed transfer mechanism that is not as sensitive to gearbox structural deflections. Gearbox structural deflections may cause misalignments in gear meshes in a traditional wind turbine gearbox. The industry believes that gear mesh misalignments are a major factor in reducing the effective life of a wind turbine

¹ UTC recently announced it plans on selling Clipper and parts of Hamilton Sundstrand

gearbox. The present technology and research is aimed at reducing and minimizing the impact that structural deflections can have through this novel wind turbine gearbox design.”

This project supports the objective of the DOE’s Wind and Water Program, under the U.S. Wind Power: Next Generation Drivetrain Development Funding Opportunity Announcement (DE-FOA-0000439), to support the development of a next generation wind turbine drivetrain through industry partnerships and help lower the cost of wind power. Advances in drivetrain technologies are expected to have a direct effect on capital costs, operation and maintenance costs, replacement costs, and/or lifetime energy production.

The grant has two phases. The total anticipated cost of the grant is \$593,063 with Clipper, UTRC and Hamilton Sundstrand providing \$124,613 as cost share for a cost share percentage of 21%. The waiver will be conditioned on Clipper, UTRC and Hamilton Sundstrand maintaining at least a 20% cost share throughout the grant.

The period of performance is up to twenty four (24) months and started on September 30, 2011. The grant is broken into two budget periods with each period being twelve (12) months. The first budget has been completed. Clipper and DOE are currently negotiating the second period.

Clipper has a proven record in the field of wind turbines including designing, marketing, and manufacturing its Liberty model wind turbine. Clipper’s Liberty model wind turbine contains an innovative distributed gearbox configuration which drives multiple separate gearboxes in the wind turbine’s nacelle. Seven hundred and thirty-nine (739) Liberty wind turbines have been installed and are operating in the U.S. and Mexico.

In addition to the 20% cost share referenced above, Clipper, UTRC and Hamilton Sundstrand, prior to the grant, conducted preliminary analysis into feasibility and commercial desirability of the novel gearbox technology that is subject of the grant. This pre-grant activity, made at private expense, is an indication of Clipper’s intent to thoroughly explore this technology and bring it to market if it is proven successful.

Referring to item 10 of the waiver petition, Clipper does not expect that the granting of the waiver will have an anti-competitive effect. There are other competing technologies available that are offered by several other companies. These competing technologies should be unaffected by the granting of this waiver.

Clipper has agreed that this waiver, including as it is applied to UTRC and Hamilton Sundstrand, 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, Clipper has agreed to the U.S. competitiveness provision as attached to this Statement. In brief, Clipper has agreed that products embodying any waived invention or made through the use of any waived invention shall be substantially manufactured in the United States, and that Clipper will not license, assign, or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements. The waiver as it is applied to UTRC and Hamilton Sundstrand shall have the same requirements.

Considering the foregoing, it is believed that granting this waiver will provide Clipper with the necessary incentive to invest its resources in commercializing the results of the grant in a manner that will make the above technology available to the public in the shortest 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.



Glen R. Drysdale
Patent Attorney
Golden Field Office

Date: 4/3/2013

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 determined 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 agreement has been substantially altered.

CONCURRENCE:

APPROVAL:






Jose Layas
Program Manager
Wind and Water Program


John T. Lucas
Assistant General Counsel for Technology
Transfer and Intellectual Property

Date: 3/2/2013

Date: 4/3/2013

U.S. COMPETITIVENESS

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, *e.g.*, recoupment of the Government's investment, etc. The Contractor further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in any waived invention is suspended until approved in writing by DOE.