



**Department of Energy**  
Washington, DC 20585

**ASSISTANT SECRETARY OF ENERGY  
FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY**

**MEMORANDUM OF DECISION**

**SUBJECT: Determination of inapplicability (waiver) of section 1605 of the American Reinvestment and Recovery Act of 2009 (Recovery Act Buy American provisions) to EERE-funded projects for (1) 2-10 horsepower, self contained, sensorless, variable speed pumps; (2) bi-directional bicycle counters; (3) 28W, 30W, and 60W 360 degree LED bulbs for retrofits of HPS streetlights; (4) bathroom ventilation fans with built in occupancy sensors; (5) solar thermosiphon water heating systems certified by FSEC; (6) 40 Ton, factory-assembled, indirect-fired absorption chillers; (7) premium efficiency electric drive submersible pump motors (motors only, not pumps themselves); and (8) flush-to-handrail LED lighting systems**

Under the authority of American Recovery and Reinvestment Act of 2009 (Recovery Act), Pub. L. 111-5, section 1605(b)(2), the head of a Federal department or agency may issue a "determination of inapplicability" (a waiver of the Buy American provision) if the iron, steel, or relevant manufactured good is not produced or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality ("nonavailability"). The authority of the Secretary of Energy to make all inapplicability determinations was re-delegated to the Assistant Secretary for Energy Efficiency and Renewable Energy (EERE), for EERE projects under the Recovery Act, in Redelegation Order No. 00-002.01E, dated April 25, 2011. Pursuant to this delegation the Acting Assistant Secretary, EERE, has concluded that: (1) 2-10 horsepower, self contained, sensorless, variable speed pumps; (2) bi-directional bicycle counters; (3) 28W, 30W, and 60W 360 degree LED bulbs for retrofits of HPS streetlights; (4) bathroom ventilation fans with built in occupancy sensors; (5) solar thermosiphon water heating systems certified by FSEC; (6) 40 Ton, factory-assembled, indirect-fired absorption chillers; (7) premium efficiency electric drive submersible pump motors (motors only, not pumps themselves); and (8) flush-to-handrail LED lighting systems are not produced or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality. The above items, when used on eligible EERE Recovery Act-funded projects, qualify for the "nonavailability" waiver determination.

EERE has developed a robust process to ascertain in a systematic and expedient manner whether or not there is domestic manufacturing capacity for the items submitted for a waiver of the Recovery Act Buy American provision. This process involves a close collaboration with the United States Department of Commerce National Institute of

Standards and Technology (NIST) Manufacturing Extension Partnership (MEP), in order to scour the domestic manufacturing landscape in search of producers before making any nonavailability determinations.

The MEP has 59 regional centers with substantial knowledge of, and connections to, the domestic manufacturing sector. MEP uses their regional centers to 'scout' for current or potential manufacturers of the product(s) submitted in a waiver request. In the course of this interagency collaboration, MEP has been able to find exact or partial matches for manufactured goods that EERE grantees had been unable to locate. As a result, in those cases, EERE was able to work with the grantees to procure American-made products rather than granting a waiver.

Upon receipt of completed waiver requests for the eight products in the current waiver, EERE reviewed the information provided and submitted the relevant technical information to the MEP. The MEP then used their network of nationwide centers to scout for domestic manufacturers. The MEP reported that their scouting process did not locate any domestic manufacturers for these exact or equivalent items.

In addition to the MEP collaboration outlined above, the EERE Buy American Coordinator worked with other manufacturing stakeholders to scout for domestic manufacturing capacity or an equivalent product for each item contained in this waiver. EERE also conducted significant amounts of independent research to supplement MEP's scouting efforts, including utilizing the solar experts employed by the Department of Energy's National Renewable Energy Laboratory. EERE's research efforts confirmed the MEP findings that the goods included in this waiver are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.

The nonavailability determination is also informed by the inquiries and petitions to EERE from recipients of EERE Recovery Act funds, and from suppliers, distributors, retailers and trade associations—all stating that their individual efforts to locate domestic manufacturers for these items have been unsuccessful.

Specific technical information for the manufactured goods included in this non-availability determination is detailed below:

1) 2-10 horsepower, self contained, sensorless, variable speed pumps

This pump does not require costly pressure and flow transmitters to maintain a constant pressure in a city water system at flow rates from almost zero to about 60 gpm. The pump to be used in the requesting project is a low horsepower (5 hp), sensorless, constant pressure pump with an integrated variable speed motor controller. Extensive contacts with pump distributors and web research did not result in the identification of an American producer of this type pump technology, nor was the National Energy Technology Laboratory (NETL) or MEP able to locate a pump of this type manufactured in the United States.

2) Bidirectional bicycle counters

There are no products made in the United States that meet the basic criteria needed for the requesting project. The basic needs for a bicycle counter are: weatherproofing, battery operation, capability to detect and store time in a 24 hour period, store one year of data and store data on the counter after retrieval, provision of directional data, modem connectivity and download, no speed restrictions on capturing data. Traffic counters made in the USA are designed for automobile counting – not for bicycle counting. In addition to MEP DOE reached out to a number of bicycle advocacy organizations, trade groups and communities with extensive bike lane and trail systems. No US products were identified as a result of this search.

3) 28W, 30W, and 60W 360 degree LED bulbs for retrofits of HPS streetlights

These bulbs provide 360 degrees of illumination, and are used in the retrofit of 360 illuminating street, walkway, carriage and parking lot fixtures. This waiver does not include the retrofit of cobrahead streetlights, for which there are domestic manufacturers. This waiver is as a result of multiple waiver applications from separate grantees. Although several companies have demonstrated interest in manufacturing these bulbs, none are yet manufacturing domestically.

4) Bathroom ventilation fans with built in occupancy sensors

These fans provide continual low discharge exhaust ventilation, and upon occupancy or motion in the bathroom area, the discharge exhaust ventilation increases automatically, returning to continuous low exhaust when motion is no longer present, nor are there domestically-manufactured fans available that meet the specifications and requirements of the Rhode Island building code requirements for multi-family public housing and the requirements included in RI WAP ECM pages 12-13.

5) Solar thermosiphon water heating systems certified by FSEC

Under Florida Statutes 377.705, all solar thermal systems sold and installed within the state of Florida must have the certification of the Florida Solar Energy Center (FSEC). FSEC is the recognized testing, rating and certification agency in the US for solar thermal and solar photovoltaic systems. At this time, no domestic manufacturers of solar thermosiphon systems have been certified through FSEC. The certification process is too lengthy for any US manufacturer to become certified within the remainder of the Recovery Act spending period. This waiver for solar thermosiphon water heaters applies only to projects in the State of Florida, and is specifically for a demonstration project that will analyze the advantages and dis-advantages of both direct circulation and thermosiphon systems for this type of application in Florida going forward. This comparison will

assist US manufacturers in analyzing the market for both technologies in the state.

6) 40 ton, factory-assembled, indirect-fired absorption chillers

In addition to MEP, DOE worked with the ENERGY STAR program and reached out to a number of trade organizations, including ASHRAE. No US products were identified as a result of these search efforts.

7) Premium efficiency electric drive submersible pump motors (15-30hp)

EERE and MEP identified a number of US manufacturers producing the pumps needed for the requesting project. However, the motors that operate the pumps are not available domestically. These pumps must be heavy duty wet wound of NEMA design, capable of continuous operation under water at the conditions specified in the project design and suitable for use on a three phase, 60 cycle electrical service.

8) Flush-to-handrail electric LED lighting systems

Extensive effort was expended by the grantee, MEP and DOE to find a similar product manufactured in the US. In addition, alternative solutions to this type of system that would provide lighting of the area were considered. No domestic options were found. The handrail LED lighting system is unique to one manufacturer, and there is nothing comparable that is manufactured in the US.

In light of the foregoing, and under the authority of section 1605(b)(2) of Public Law 111-5 and Redesignation Order 00-002-01E, with respect to Recovery Act projects funded by EERE, I hereby issue a "determination of inapplicability" (a waiver under the Recovery Act Buy American provision) for: (1) 2-10 horsepower, self contained, sensorless, variable speed pumps; (2) bi-directional bicycle counters; (3) 28W, 30W, and 60W 360 degree LED bulbs for retrofits of HPS streetlights; (4) bathroom ventilation fans with built in occupancy sensors; (5) solar thermosiphon water heating systems certified by FSEC; (6) 40 Ton, factory-assembled, indirect-fired absorption chillers; (7) premium efficiency electric drive submersible pump motors (motors only, not pumps themselves); and (8) flush-to-handrail LED lighting systems.

This waiver determination is pursuant to the delegation of authority by the Secretary of Energy to the Assistant Secretary for Energy Efficiency and Renewable Energy with respect to expenditures within the purview of his responsibility. Consequently, this waiver applies only to EERE projects carried out under the Recovery Act.

Furthermore, I reserve the right to revisit and amend this determination based on new developments or changes in the domestic manufacturing capacity for these eight product types.



Henry Kelly

Acting Assistant Secretary  
Energy Efficiency and Renewable Energy  
U.S. Department of Energy

Date:

7/8/2011