



Department of Energy
Washington, DC 20585

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

MEMORANDUM OF DECISION

SUBJECT: Determination of inapplicability (nationwide limited waiver in the public interest) of section 1605 of the Recovery Act of 2009 (the Buy American provision) to EERE-funded projects for incidental and/or ancillary solar Photovoltaic (PV) equipment, when this equipment is utilized in solar installations containing domestically manufactured PV cells or modules (panels).

Under the authority of the Recovery Act, section 1605(b)(1), the head of a Federal department or agency may issue a “determination of inapplicability” (a waiver of the Buy American provisions) if the application of section 1605 would be inconsistent with the public interest. On April 25, 2011, the Secretary of Energy delegated the authority to make all inapplicability determinations to the Assistant Secretary for Energy Efficiency and Renewable Energy, for EERE Recovery Act projects.

Pursuant to this delegation, the Assistant Secretary has determined that application of section 1605 restrictions would be inconsistent with the public interest for incidental and/or ancillary solar Photovoltaic (PV) equipment, when this equipment is utilized in solar installations containing domestically manufactured PV cells or modules (panels).

This determination replaces and supersedes the Solar Public Interest Waiver issued August 6, 2010, amended September 30, 2010 and extended February 4, 2011. Although the waiver extension issued February 4, 2011 was intended to be a one-time extension coinciding with the ramp-down of EERE Recovery Act-funded projects, EERE has determined that enough projects remain active to justify a new public interest waiver determination. This determination is valid until such time as the Assistant Secretary chooses to modify or revoke the waiver.

This determination waives the Buy American requirements in EERE-funded Recovery Act projects for the purchase of the following solar PV equipment: 1) Domestically-manufactured modules containing foreign-manufactured cells, 2) Foreign-manufactured

modules, when completely comprised of domestically-manufactured cells, and 3) Any ancillary items and equipment (including, but not limited to, charge controllers, combiners and disconnect boxes, breakers and fuses, racks, trackers, lugs, wires, cables and all otherwise incidental equipment with the exception of inverters and batteries) when utilized in a solar installation involving a U.S. manufactured PV module, or a module manufactured abroad but comprised exclusively of domestically-manufactured cells.

Definitions - Solar *cells* are the basic building block of PV technologies. The cells are functional semiconductors, made by processing and treating crystalline silicon or other photo-sensitive materials to create a layered product that generates electricity by absorbing light photons. The individual cells are cut and/or assembled into larger groups known as *panels* or *modules*. These two terms are synonymous and used interchangeably in this memorandum. The panel is the end product, and consists of a series of solar cells, a backing surface, and a covering to protect the cells from weather and other types of damage. A solar *array* is created by installing multiple modules in the same location to increase the electrical generating capacity. Operational solar PV modules and arrays use cells to capture and transfer solar-generated electricity. The solar modules and cells represent the highest intellectual content and dollar-value items associated with solar PV energy generation.

The Buy American provisions contain no requirement with regard to the origin of components or subcomponents in manufactured goods used in a project, as long as the manufacturing occurs in the United States [(2 CFR 176.70(a)(2)(ii)]. However, determining where final manufacturing occurs in the context of the solar production chain is complicated. Under a plain reading of the Recovery Act Buy American provisions, only the PV modules would need to be manufactured in the United States, but the source of the other “substantially-transformed” manufactured good – the high-value and high-intellectual content cells – would not be relevant to complying with the Buy American requirements.

EERE and the National Renewable Energy Laboratory have conducted extensive research into the nature of the domestic solar manufacturing industry to determine the best way to apply the Buy American requirements to solar PV projects. EERE considered three basic options: (1) follow the current interpretation of the Buy American provisions and require that only the modules be produced in the United States, irrespective of the origin of the cells contained in the modules; (2) apply the interpretation that the modules and cells are distinct manufactured goods and thus both must be produced in the United States; and (3) choose a more inclusive approach that allows a solar installation to comply if either the cells *or* the modules are manufactured in the United States.

Of the options considered, only option (3) recognizes EERE’s determination that the manufacturing process for cells and the final PV module production represent distinct

instances of “substantial transformation” in the solar PV manufacturing chain. Conducting either of these discrete activities in the United States creates roughly equal numbers of American jobs. Furthermore, the design and manufacture of the cells captures the largest portion of the intellectual property present in a solar installation.

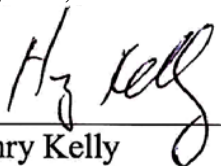
For all the reasons outlined above, EERE believes it is therefore in the public interest to issue a waiver of the Recovery Act Buy American provisions that allows grantees to purchase foreign modules made with domestically-manufactured cells, in addition to domestic modules with foreign-produced cells. This reflects EERE’s commitment to strengthen the entire domestic PV manufacturing supply chain in the United States.

This public interest waiver determination also resolves questions regarding the applicability of the Buy American provisions to numerous individual manufactured goods that are incidental in cost and technological significance but are ultimately incorporated into the final solar installation. These items, including, but not limited to, charge controllers, combiners and disconnect boxes, breakers and fuses, racks, trackers, lugs, wires, and cables—but excluding inverters and batteries—are generally low-cost incidental items that are incorporated into the installation of PV modules and arrays on public buildings and public works. This public interest waiver for all incidental and ancillary items eliminates potential questions and ambiguities concerning whether the incidental items are final manufactured goods or merely components of a larger solar module, installation or array. Issuance of this nationwide public interest waiver recognizes EERE’s commitment to expeditious costing of Recovery Act dollars by enabling grantees and vendors to easily ascertain whether a given solar installation complies with the Buy American provision.

In light of the foregoing, and under the authority of section 1605(b)(1) of Public Law 111–5 and the Redesignation Order of April 25, 2011, with respect to Recovery Act projects funded by EERE, the Assistant Secretary hereby issues a new “determination of inapplicability” (a waiver under the Recovery Act Buy American provisions) for the following items: 1) Domestically-manufactured modules containing foreign-manufactured cells, 2) Foreign-manufactured modules, when completely comprised of domestically-manufactured cells, and 3) Any ancillary items and equipment (including, but not limited to, charge controllers, combiners and disconnect boxes, breakers and fuses, racks, trackers, lugs, wires, cables and all otherwise incidental equipment with the exception of inverters and batteries when utilized in a solar installation involving a U.S. manufactured PV module, or a module manufactured abroad but comprised exclusively of domestically manufactured cells.

The Assistant Secretary reserves the right to revisit and amend this determination based on new information or new developments.

August 5, 2011


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