

Effective Date: January 10, 2025

Expires: December 31, 2025

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Build America Buy America Act Final Nonavailability Waiver Domestically Assembled Solar Modules

1. Summary

Agency: United States Department of Agriculture (USDA)

Waiver: The United States Department of Agriculture is issuing a temporary, limited nonavailability partial waiver of the manufactured product requirements of Section 70914 of the Build America, Buy America Act (BABA) included in the Infrastructure Investment and Jobs Act (Pub. L. 117- 58) for domestically assembled solar modules used in federal financial assistance awarded for infrastructure projects by USDA to specifically named entities. This waiver combines for efficiency multiple project specific non-availability waivers into one waiver document to reduce paperwork and reduce administrative burdens for project recipients and the U.S. Government.

Applicability: This waiver action applies on or after the Effective Date of January 10, 2025, until December 31, 2025, for all new solar modules with final assembly in the United States, for the specific entities named in the Appendix. Solar modules where final assembly occurred outside the United States are not eligible for coverage under this waiver. "Final Assembly" means all operations involved in the transformation of individual solar cells and all other module components into a fully functional encapsulated module. For recipient or borrower expenditures to be covered by this waiver, the solar modules will need to be installed by June 30, 2026. "Installed by" means modules being permanently fastened to an outdoor support structure at the project site. This requirement only applies to solar modules covered by this waiver and has no bearing on compliance determinations for other products nor for solar modules not covered by this waiver. For awards and amendments that otherwise meet the criteria of the waiver but were obligated prior to the Effective Date, the waiver will apply to eligible expenditures incurred on or after the Effective Date of the final waiver for the period that the waiver is active.

Waiver Type: Nonavailability waiver of the BABA manufactured product requirements for domestically assembled solar modules.

Summary of Items Covered in Waiver: domestically assembled solar modules

Waiver Justification Summary: USDA's waiver requires domestic assembly versus a waiver of the full manufactured product requirements, which allows assembly to occur outside the United States. This waiver will provide time needed for domestic solar module manufacturing capability to meet demand for BABA-compliant solar modules by supporting and encouraging continued investments while bringing the benefits of solar to the U.S. Department of Agriculture's financial assistance recipients and borrowers.

Length of the Waiver: This waiver will be in effect upon approval and will remain in effect until December 31, 2025, for all new solar modules with final assembly in the United States. For recipient or borrower expenditures to be covered by this waiver, the solar modules will need to be installed by June 30, 2026.

2. Background

The Buy America Preference set forth in section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), requires all iron, steel, manufactured products, and construction materials used for infrastructure projects under Federal financial assistance awards be produced in the United States.

Under section 70914(b), the Agency may waive the application of the Buy America Preference, in any case in which it finds that: applying the domestic content procurement preference would be inconsistent with the public interest; types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25%. All waivers must have a written explanation for the proposed determination; provide a period of not less than 15 days for public comment on the waiver; and submit the waiver to the Office of Management and Budget Made in America Office for review to determine if the waiver is consistent with policy.

In accordance with Section 70914(c) of the BABA, USDA is providing notice that it is seeking a limited, partial nonavailability waiver of the BABA manufactured product requirements for domestically assembled solar modules used in federal financial assistance awards for infrastructure projects due to the determination that compliant solar modules are not available in sufficient quality or quantity for use in USDA-funded infrastructure projects. The Agency conducted market research to determine availability of BABA compliant solar modules which included subject matter expert analysis of domestic solar production based on announcements and non-public manufacturing plans disclosed by manufacturers. Based on this market research, the Agency finds that BABA-compliant solar modules are not produced in the United States in sufficient and reasonably

available quantities for use in USDA assisted solar projects and will not become available in sufficient and reasonably available quantities until December 2025 or later. This waiver will ensure recipients and borrowers can effectively carry out the activities of their award in a timely manner while promoting domestic solar module manufacturing. The USDA is issuing this waiver on the basis of nonavailability in accordance with Section 70914(b)(2) of the BABA.

With funding from H.R. 5376- Inflation Reduction Act of 2022 (“IRA”), the USDA operates assistance programs to deploy clean energy in rural communities. USDA provides loan and grant funding to multiple recipients, subrecipients, borrowers, and program participants with individual projects that utilize solar modules. Nationwide demand includes use by other federal agencies, state, local, and tribal governments, nonprofit organizations in addition to private consumers. The EPA, in collaboration with the U.S. Department of Energy (DOE) and the United States Department of Agriculture (USDA), analyzed anticipated demand for projects that may include demand for BABA-compliant solar modules. The EPA requirement is estimated to be approximately 3,300 MW_{dc} for BABA-compliant modules through 2028. For the DOE, the estimate is approximately 75 MW_{dc} to 150 MW_{dc} through 2026. For the USDA, the estimate is \$80 million through 2025, corresponding to a nameplate capacity of 300 MW_{dc}. During this same timeframe the expected total capacity of overall U.S. installations is 66 GW_{dc}, of which USDA’s BABA-compliant demand is less than 0.1% of total domestic demand in this timeframe. The major driver for domestic solar supply-chain growth is the IRA tax credits, including the IRC §§48 and 45 clean energy investment and production tax credits and the IRC §§48E and 45Y “technology neutral” clean electricity investment and production tax credits, and the IRC §45X advanced manufacturing production tax credit, which provides per-unit tax credits for the domestic production of polysilicon, wafers, cells, modules, backsheet, tracker components, and inverters, with rates of \$0.07 per W_{dc} for modules and \$0.04 per W_{dc} for cells. Moreover, the 10% domestic content bonus in IRA tax credits will increase competition for domestically produced modules from private developers, which could further impact grant recipients’ and borrowers’ ability to procure BABA-compliant modules.

Solar modules are manufactured products. Per BABA sections 70912(6)(A) and (B), manufactured products are considered to be produced in the United States if (i) the manufactured product was manufactured in the United States; and (ii) the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

Solar module components were analyzed by the DOE. Market research included subject matter expert analysis of domestic solar production based on announcements and non-public manufacturing plans disclosed by manufacturers. The cost of the cell is estimated to constitute the majority (67%) of the cost of a module. DOE subject matter experts concluded cells will not likely be available from U.S. manufacturers in sufficient quantities until December 2025 or later. The next highest estimated module cost component is the metal frame, at 10%. Metal frames for c-Si modules are expected to be unavailable at a significant quantity from anywhere other than China for several years. The cost of the front glass and backsheet are each estimated at 7%, of the encapsulant at 4%, of the junction box at 3%, and all other components less than 1% each.

To support BABA compliance verification, the USDA is considering step-certification following the expiration of this waiver, which is a type of certification process under which each handler (supplier, fabricator, manufacturer, processor, etc.) of the subject products and materials certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. This process is common practice for verifying Buy America requirements for iron and steel.

3. Waiver Justification

The USDA is issuing a temporary, limited partial nonavailability waiver of BABA manufactured product requirements for solar modules to apply to the use of domestically assembled modules that may incorporate foreign components. The United States is the second largest market for solar hardware, representing about 10%-15% of global solar demand. Developing and enhancing United States solar manufacturing will mitigate global supply chain challenges and meet decarbonization goals as well as benefit United States' workers, employers, and the economy. To reestablish domestic solar manufacturing in the United States, entities that produce and sell solar components will require a holistic industrial strategy to offset the 30-40% higher cost of domestic solar production relative to imported components. This narrowly tailored BABA waiver will meet immediate solar demands while the domestic solar industry expands supply through the operation of market forces.

Domestically, the United States currently has 10,600 MWdc/year nameplate production capacity for CdTe modules and 47,000 MWdc/yr nameplate production capacity for c-Si modules. Market research indicates c-Si module production capacity was historically underutilized for a variety of reasons including foreign competition, workforce shortages, and obsolete production equipment, with about 3,700 MWdc actually produced and sold in 2023

compared to a nameplate capacity of 15,000 MWdc/yr at the end of 2023. Capacity for c-Si modules has continued growing significantly in 2024 and as production is ramping, utilization rates are expected to grow. As of November 2024, domestic c-Si cell production in the United States has just restarted and production is also anticipated to grow.

In addition to current production capacity, future domestic manufacturing indicates growth will result in substantially more BABA-compliant module supply. As of November 2024, over \$20 billion in planned solar investments have been announced at over 148 new and expanded manufacturing plants for modules, module parts and other hardware. DOE subject matter experts performed a probabilistic analysis of these announcements to identify a date when full BABA compliance may be achievable. Subject matter expert review identified technical delays from announced dates due to site readiness as well as likelihood of project success and considered the time required to ramp to full production capacities as well as announced offtake agreements. Overall analysis concludes that domestic manufactures will likely be capable of producing fully BABA-compliant modules in sufficient quantities for USDA financial assistance recipients, subrecipients, borrowers, and program participants no sooner than December 2025. Thus, the USDA finds that BABA-compliant solar modules are not produced in the United States in sufficient and reasonably available quantities for use in USDA-assisted solar projects and will not become available in sufficient and reasonably available quantities until December 2025 or later.

Anticipated Impact if No Waiver is Issued: Without a waiver, USDA anticipates most recipients and borrowers with solar projects subject to BABA will develop, implement, and submit unavailability waiver packages for solar modules. This conclusion is based upon known well-established domestic sourcing challenges for BABA-compliant solar modules. The corresponding administrative burden will impact the cost and schedule of recipients and borrowers, and in some cases diminish the use of solar projects, or, in extreme cases, deter overall participation. For those that participate and propose solar projects, recipient and borrower resources will be required to perform market research and submit unavailability packages. Project schedules will need to be extended to account for waiver development and waiver processing through final approval. These anticipated delays adversely impact numerous agency goals of these projects, including climate action and energy justice.

The absence of this narrowly tailored BABA waiver will result in missed strategic opportunities to advance goals such as those within EO 14017 *American's Strategy to Secure the Supply Chain for a Robust Clean Energy Transition* and EO 14057 *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, in addition to the goals of EO 14005.

This narrowly tailored BABA waiver will support the establishment of a domestic solar supply chain. Fundamentally, the domestic content provisions in the IRA clean energy production and investment tax credits, including relating to IRC §§ 45, 45X, 45Y, 48, and 48E, including the domestic content bonus credit, constitute the significant driver for increasing the overall demand for domestic solar modules. Requiring full BABA compliance for federal financial assistance projects, as opposed to the narrowly tailored BABA compliance proposed in this waiver, would produce limited benefits for domestic solar manufacturing while potentially placing projects targeting vulnerable populations at risk.

Assessment of Cost Advantage of a Foreign-Sourced Product: Under OMB Memorandum M-24-02, agencies are expected to assess “whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products” as appropriate before granting a waiver. The USDA’s analysis has concluded that this assessment is not applicable to this waiver, because this waiver is not based on cost advantage of foreign sourced products.

Solicitation for Comments: On December 13, 2024, the USDA issued a notice proposing to issue this waiver and the comment period was open until December 28, 2024. The USDA received 10 comments during the public comment period from a variety of stakeholders. Eight of the 10 comments supported the waiver.

There were requests to extend the duration of the waiver, including the installation date. Commentors suggested removal of the installation date altogether or the establishment of longer durations based on geographic environmental challenges. After review and given the projected timelines for domestic cell makers to come online, the current durations and installation date requirement in the waiver are adequate.

There were also requests to expand the waiver to include other solar-related manufactured products such as inverters and batteries. While these products are outside the scope of this waiver, the USDA, in collaboration with other agencies, actively monitors the growth of these industries and remains confident that there is sufficient BABA-compliant capacity available for these products.

Two commenters challenged the need for the waiver. The USDA acknowledges that there are companies making strides to develop cell manufacturing capacity in the United States. Given the USDA’s analysis and other comments received, it is believed that the volume, quality, and availability of domestically produced modules made using domestically produced cells over the duration of the waiver will be inadequate to meet the needs of projects receiving federal financial assistance. The same two commenters suggested adding Foreign Entity of

Concern restrictions to the waiver, which the USDA notes are addressed where appropriate in individual project terms and conditions.

Accordingly, no substantive changes were made to the content of the waiver following the public comment period. Changes were made in the formatting of this waiver.

Appendix

Rural Energy for America Program (REAP)	North West Arctic Borough
Rural Energy for America Program (REAP)	Cooperatives for a Better World
Rural Energy for America Program (REAP)	Brisas del Torito I Inc.
Rural Energy for America Program (REAP)	Tejon Indian Tribe
Rural Energy for America Program (REAP)	Pawnee Nation of Oklahoma
Powering Affordable Clean Energy (PACE)	Village of Emerson
Powering Affordable Clean Energy (PACE)	Village of Pioneer
Powering Affordable Clean Energy (PACE)	Town of Stowe
Powering Affordable Clean Energy (PACE)	Kansas Municipal Energy Agency
Powering Affordable Clean Energy (PACE)	Phelps County Development Corporation, Inc.
Powering Affordable Clean Energy (PACE)	Loup Valley Rural Public Power District
Powering Affordable Clean Energy (PACE)	Cow Creek Band of Umpqua Tribe of Indians
Powering Affordable Clean Energy (PACE)	Coushatta Tribe of Louisiana
Powering Affordable Clean Energy (PACE)	Navajo Tribal Utility Authority
Powering Affordable Clean Energy (PACE)	Valley Electric Association Inc.
Powering Affordable Clean Energy (PACE)	Yakama Power