

Before the  
**FEDERAL HIGHWAY ADMINISTRATION**  
Washington, DC 20590

In the Matter of

**Notice and Request for Comment on FHWA's  
Review of its General Applicability Waiver of  
Buy America Requirements for Manufactured  
Products**

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Docket No. FHWA-2022-0027

**I. INTRODUCTION**

The Telecommunications Industry Association (“TIA”) appreciates the opportunity to provide input regarding the Federal Highway Administration (“FHWA”) review of its general applicability waiver of Buy America requirements for manufactured products. TIA is a U.S.-based trade association that represents more than 400 trusted, global manufacturers of telecommunications equipment and services. From fiber optic systems in the ground, to wireless in the air, to satellites in orbit – TIA members design, produce, market, and manage the information communications technology (“ICT”) equipment and services that connect Americans across the nation with high-speed broadband networks. TIA members employ tens of thousands of people in the United States, including in manufacturing, R&D, deployment, sales, and software development.

TIA appreciates the need for federal funding to support domestic manufacturing. At the same time, we also recognize the urgent need to deploy this infrastructure in a timely and cost-effective fashion. This means that any plan to deploy infrastructure – particularly connected infrastructure – must engage with the realities of global supply chains. Where practical, such as for fiber optic cable, metal products used in the construction of telecommunications towers, and

certain enclosures, TIA supports robust implementation of Build America, Buy America (“BABA”) requirements. However, most other products – in particular electronics – do not meet the BABA standards and cannot be made to do so within the timeline of Infrastructure Investment and Jobs Act (“IIJA”) implementation. With this in mind, **TIA recommends the following:**

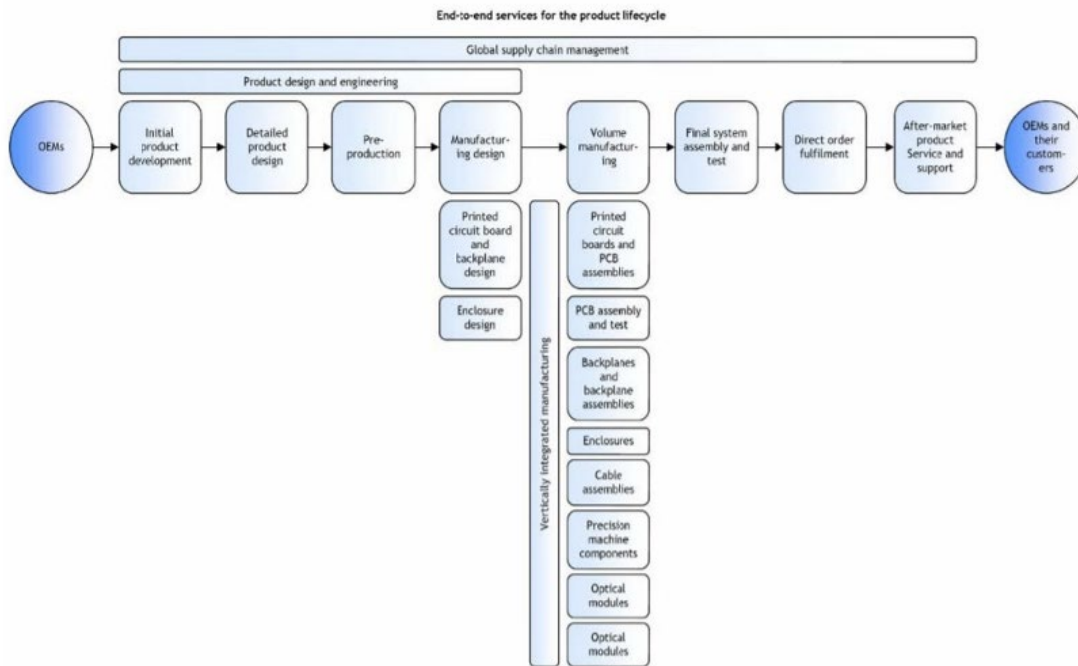
- 1. FHWA should leverage existing waivers for communications equipment developed by the National Telecommunications and Information Administration (“NTIA”), and**
- 2. FHWA should avoid imposing BABA requirements where it shifts and/or intersects with existing broadband infrastructure.**

TIA believes this approach will simultaneously support infrastructure deployment and U.S. jobs.

## **II. OVERVIEW OF THE ICT SUPPLY CHAIN**

There are fundamental differences between the products that are used to construct our bridges and railways and those that support the information superhighways that connect people, vehicles, and infrastructure together. Whether leveraging fiber optic systems, fixed wireless access, satellite internet, or mobile wireless connectivity; ICT products contain a number of manufactured products and construction materials including but not limited to: fiber optic cable, wireless radios, cell towers, customer premises equipment, switches, routers, user terminals and other products. These general categories include dozens of products, which themselves include hundreds of discrete components. Production is often delegated to Original Equipment Manufacturers who source components from subcontractors. For instance, semiconductors – a single component of the final manufactured good – cross borders 70 or more times during their

production.<sup>1</sup> As these components are assembled into a finished product, they are further transformed across a complex global value chain where software – not hardware – often provides the most significant source of value.



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In short – ICT is not cement or steel, and the challenges raised by the imposition of Buy America requirements are orders of magnitude more complex than those posed by those industries.

TIA conducted our own study of the ICT supply chain to determine what products are and are not made in the United States, and how the bill of materials documenting the value of various physical components breaks down. Using general categories of products set out in 2009

<sup>1</sup> AT Kearney, Why a resilient supply chain is imperative – and how to create one, May 11, 2021. Available at: <https://www.kenarney.com/technology/article/-/insights/why-a-resilient-semiconductor-supply-chain-is-imperativeand-how-to-create-one>

<sup>2</sup> Esther de Haan and Irene Schipper, “CSR Issues in the ICT Hardware Manufacturing Sector”, Centre for Research on Multinational Corporations (SOMO), September 1, 2005, <https://www.somo.nl/csr-issues-in-the-ict-hardware-manufacturingsector/>.

in the American Rescue and Recovery Act waivers of Buy America requirements for telecommunications products,<sup>3</sup> TIA surveyed our members in 2022 and found that no product category meets BABA requirements.

Product Categories	Chips		PC Boards (w/o chips)		Power Supplies/Fans		Connectors/Cables		Enclosures		F. Assembly/Test	
	% of Total	Y/N US Mfg	% of Total	Y/N US Mfg	% of Total	Y/N US Mfg	% of Total	Y/N US Mfg	% of Total	Y/N US Mfg	% of Total	Y/N US Mfg
1. Broadband Switching Equipment	62	N	11	N	4	N	7	N	6	N	10	Mixed
2. Broadband Routing Equipment												
3. Broadband Transport Equipment	52	N	7	N	3	N	8	N	10	N	20	Mixed
4. Broadband Access Equipment	54	N	7	N	8	N	7	N	5	N	19	Mixed
5. Broadband Customer Premises Equipment	59	N	6	N	8	N	6	N	6	N	15	N
6. Operations Systems												

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The primary reason no category meets the 55% value threshold established in the Build America, Buy America Act is the lack of U.S.-origin semiconductors. These are integral to the operation of broadband products, but TIA member companies do not – for the most part – control where they are manufactured. Independent estimates note that it takes between 2 – 4 years to build a semiconductor fabrication facility anywhere in the world, and industry estimates that it will take 3-5 years to set up such facilities in the United States.<sup>5</sup> As a result, it is simply not possible for connected products to be deployed without a waiver of BABA requirements. As TIA and six ICT industry groups told Secretary Buttigieg and other cabinet officials in a 2022

<sup>3</sup> Notice of Limited Waiver of Section 1605 (Buy American Requirement) of the American Recovery and Reinvestment Act of 2009 (ARRA) for the Broadband Initiatives Program; 74 FR 31402 (July 1, 2009). <https://www.federalregister.gov/documents/2009/07/01/E9-15511/notice-of-limited-waiver-of-section-1605-buyamerican-requirement-of-the-american-recovery-and>

<sup>4</sup> Product of a 2022 survey of TIA member companies including manufacturers and internet service providers. Note that fiber optic cable is specifically excepted from this analysis, as it is manufactured in sufficient quantities in the United States and was not covered under the 2009 ARRA waiver.

<sup>5</sup> John VerWey, *No Permits, No Fabs The Importance of Regulatory Reform for Semiconductor Manufacturing*, Georgetown University Center for Security and Emerging Technology (October 2021), <https://cset.georgetown.edu/publication/no-permits-no-fabs/>

letter, “no combination of network products would meet the IJJA’s content requirements from end-to-end.”<sup>6</sup>

### III. EXISTING LANDSCAPE OF WAIVERS

Since a waiver is a necessary pre-condition to deploy end-to-end connected ICT products, every federal broadband program must either issue a waiver, rely on separate statutory guidance regarding domestic content preferences, or clarify that BABA does not apply to them.

Information on many of these broadband programs is available below:

AGENCY	PROGRAM	WAIVER	Funding	Link(s)
Federal Communications Commission	USF and other programs	BABA does not apply as the FCC as an independent agency	\$7.4 bn <sup>7</sup> (2023)	See IJJA, § 70912(3) and OMB M-22-11 guidance <sup>8</sup> .
USDA Rural Utilities Service	ReConnect	Relies on more flexible Rural Electrification Act "Buy American" statute	\$5.13 bn (2019 - 2023) <sup>9</sup>	<a href="https://www.rd.usda.gov/sites/default/files/usda-reconnect-buy-american-act-handout-06222023.pdf">https://www.rd.usda.gov/sites/default/files/usda-reconnect-buy-american-act-handout-06222023.pdf</a>
National Telecommunications and Information Administration	Broadband Equity Access and Deployment (BEAD)	Limited nonavailability waiver	\$42.5 bn	<a href="https://www.commerce.gov/sites/default/files/2024-02/BABA%20Waiver%20Signed.pdf">https://www.commerce.gov/sites/default/files/2024-02/BABA%20Waiver%20Signed.pdf</a>
U.S. Department of Treasury	Capital Projects Fund	Grant process precedes IJJA and	\$10 bn	See table 3-1: <a href="https://www.federalregist">https://www.federalregist</a>

<sup>6</sup> Telecommunications Industry Association, U.S. Telecom, CTIA, et. al., *Letter to Secretary Raimondo, Buttigieg, and Vilsack*. (January 31, 2022) <https://tiaonline.org/wp-content/uploads/2022/01/Industry-Letter-on-IJJA-and-Buy-American-v7.4-FINAL-1.pdf>.

<sup>7</sup> USA Spending, *Federal Account Profile: Federal Account Symbol: 027-5183* (Accessed at 4/10/2024) [https://www.usaspending.gov/federal\\_account/027-5183#:~:text=For%20this%20current%20fiscal%20year,%240%20of%20other%20budgetary%20resources.](https://www.usaspending.gov/federal_account/027-5183#:~:text=For%20this%20current%20fiscal%20year,%240%20of%20other%20budgetary%20resources.)

<sup>8</sup> OMB, M-22-11, Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure (Apr. 18, 2022), available at <https://www.whitehouse.gov/wpcontent/uploads/2022/04/M-22-11.pdf>.

<sup>9</sup> U.S. Department of Agriculture, *ReConnect Loan and Grant Program*, <https://www.usda.gov/reconnect>

		BABA is not applied to grantees.		<a href="https://www.commerce.gov/documents/2022/01/21/2022-01169/federal-financial-assistance-infrastructure-programs-subject-to-the-build-america-buy-america">er.gov/documents/2022/01/21/2022-01169/federal-financial-assistance-infrastructure-programs-subject-to-the-build-america-buy-america</a>
National Telecommunications and Information Administration	Middle Mile Grant Program	Limited Applicability Nonavailability Waiver	\$1 bn	<a href="https://www.commerce.gov/sites/default/files/2023-04/NTIA%20Middle%20Mile%20Final%20Waiver.pdf">https://www.commerce.gov/sites/default/files/2023-04/NTIA%20Middle%20Mile%20Final%20Waiver.pdf</a>
National Telecommunications and Information Administration	Connecting Minority Communities	General Applicability Public Interest	\$268 m	<a href="https://www.commerce.gov/sites/default/files/2022-11/NTIA%20Part%202%20Fiber%20Optic%20Glass%20and%20Cable%20BABA.pdf">https://www.commerce.gov/sites/default/files/2022-11/NTIA%20Part%202%20Fiber%20Optic%20Glass%20and%20Cable%20BABA.pdf</a>

In general, TIA believes that the waiver for the Broadband Equity Access and Deployment (“BEAD”) program is the most appropriate one for FHWA to adopt since it covers electronics generally with the exception of a subgroup of electronics including certain OLTs and rOLTs, OLT Line Cards, Optic Pluggables, and Standalone Optical Network Terminals and Optical Network Units.<sup>10</sup> By adopting this waiver, the FHWA can reinforce the investments in U.S. ICT infrastructure manufacturing which the Department of Commerce negotiated over the course of several years in developing this waiver. To the extent that FHWA projects impact Middle Mile networks, it may be more appropriate to apply the Middle Mile Grant Program waiver.

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<sup>10</sup> U.S. Department of Commerce, *National Telecommunications and Information Administration Limited General Applicability Nonavailability Waiver of the Buy America Domestic Content Procurement Preference as Applied to Recipients of Broadband Equity, Access, and Deployment Program* (February, 2024) <https://www.commerce.gov/sites/default/files/2024-02/BABA%20Waiver%20Signed.pdf>.

#### **IV. RELEVANCE AND APPLICATION TO DEPARTMENT OF TRANSPORTATION AND FHWA PROGRAMS**

TIA understands that FHWA programs are not usually focused on building broadband networks. Nonetheless, there are several ways that FHWA programs intersect with existing broadband infrastructure or leverage ICT products, including but not limited to:

1. The purchase of ICT equipment including connected infrastructure, surveillance, wireless radios, internet connectivity, servers, routers, or other products; and
2. The relocation of existing broadband infrastructure pursuant to new highway construction, for example because of a need to dig up and replace existing fiber optic cables and related infrastructure products.

As previously stated, TIA recommends that FHWA should adopt the NTIA BEAD waiver with respect to the purchase of ICT equipment by grantees. This is a necessary precondition to effective investment in connected infrastructure given the global nature of the ICT supply chain discussed earlier. Some FHWA grant programs covered by the IIJA include: the Advanced Transportation and Congestion Management Technologies Deployment (“ATCMTD”) Program, the Advanced Transportation Technologies and Innovative Mobility Development (ATTIMD)/Advanced Transportation Technology and Innovation (“ATTAIN”), and Surface Transportation System Funding Alternatives (“STSFA”) Program.<sup>11</sup> In general, much direct federal procurement by agencies falls under “Buy American” rules, which include a broad waiver for commercial off-the-shelf IT products, as well as provisions allowing for the

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<sup>11</sup> U.S. Department of Transportation Federal Highway Administration, *Grant Programs*, <https://highways.dot.gov/research/technology-innovation-deployment/grant-programs> (last visited 5/8/2024).

procurement of products from Trade Agreements Act countries. These rules should continue to apply to federal purchasers.

Regarding the relocation of existing broadband infrastructure, the IIJA provides that “[i]f a State pays for the cost of relocation of a utility facility necessitated by the construction of a transportation project, Federal funds may be used to reimburse the State for the cost of relocation in the same proportion as Federal funds are expended on the transportation project.”<sup>12</sup> In these cases, FHWA should not apply a BABA requirement. A utility relocation is not an “infrastructure project” funded by FHWA, rather it is incidental to the project. Additionally, a BABA requirement may introduce interoperability issues because network equipment is not always interchangeable between vendors. Requiring that one part of a network be replaced with BABA-compliant products may cause a need to rip out and replace other existing broadband infrastructure at a high cost to the federal government, state government, internet service providers, and ultimately consumers.

Additionally, in a recent report surveying broadband programs across the federal government, the Government Accountability Office noted several other broadband-related programs within the Department of Transportation:

<i>Department of Transportation</i>				
<b>Program's Name</b>	<b>Program's Purpose Related to Broadband</b>	<b>Eligible Recipients</b>	<b>Type of Funding</b>	<b>Example of How Used for Broadband</b>
Infrastructure for Rebuilding America	<b>Deployment</b> Help fund highway and freight projects of national or regional significance; projects that deploy expanded access to broadband are encouraged	States, metropolitan planning organizations, local governments, political subdivisions, tribal governments, transportation authorities, among others	Grant	North Carolina DOT is installing hundreds of miles of fiber optic cable to expand broadband access in eastern North Carolina as part of a highway improvement project on I-95 and U.S. 70.

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<sup>12</sup> Infrastructure Investment and Jobs Act, § 11315(b)(1).



Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	<b>Deployment</b> Help fund highway and freight projects of national or regional significance; projects that deploy expanded access to broadband as part of a transportation project are encouraged	States, metropolitan planning organizations, local governments, political subdivisions, tribal governments, transportation authorities, among others	Grant	During the construction of a highway interchange in Lapwai, ID, Broadband conduit will be installed under the roads as part of the construction effort.
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## V. CONCLUSION

TIA appreciates the opportunity to comment in this docket, as well as the work that the FHWA and its staff have done on the manufactured products waiver to this point. While our comments are narrowly focused on ICT products, we nonetheless believe that they are important to the success of the IIJA. If you have any questions, please feel free to reach out. TIA and our members look forward to partnering with FHWA to support the success of the IIJA.

Signed,

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<sup>13</sup> Government Accountability Office, *Broadband: National Strategy Need to Guide Federal Efforts to Reduce Digital Divide* (May 8, 2024) <https://www.gao.gov/assets/gao-22-104611.pdf>