

# BUY AMERICA

*What's New?*

*What's Next?*

# A Short Primer



- FTA version
- 49 USC 5323(j)
- FTA responsible to promulgate, interpret, and enforce provisions
- 49 CFR Parts 661 and 663



# Three Levels of Manufacturing in FTA's World

- **End product** – The vehicle, building, or product
- **Components** – Everything directly incorporated into the end product
- **Sub-components** – Things manufactured into components
- Everything below the subcomponent level is ignored

# End Product § 661.3

- “End product means:
  - any vehicle, structure, product, article, material, supply, or system,
  - which directly incorporates constituent component at the final assembly location,
  - that is acquired for public use under a federally-funded third-party contract, and
  - which is ready to provide its intended end function or use without any further manufacturing or assembly change(s).
- A list of representative end products is included at **Appendix A** to this section.”



# List of End Products

## Appendix A

The following is a list of representative end products that are subject to the requirements of Buy America. This list is representative, not exhaustive.

- (1) Rolling stock end products:** All individual items identified as rolling stock in § 661.3 (e.g., **buses, vans, cars, railcars, locomotives, trolley cars and buses, ferry boats, as well as vehicles used for support services**); **train control, communication, and traction power equipment** that meets the definition of end product at § 661.3 (e.g., a communication or traction power system, including manufactured bimetallic power rail).





# List of End Products

## Appendix A

- (2) **Steel and iron end products:** Items made primarily of steel or iron such as **structures, bridges, and track work**, including running rail, contact rail, and turnouts.
- (3) **Manufactured end products:** Infrastructure projects not made primarily of steel or iron, including **structures** (terminals, depots, garages, and bus shelters), **ties and ballast; contact rail** not made primarily of steel or iron; **fare collection systems; computers; information systems; security systems; data processing systems; and mobile lifts, hoists, and elevators.**

# What is a US End Product?

## 1) Rolling Stock

### Rolling stock waiver

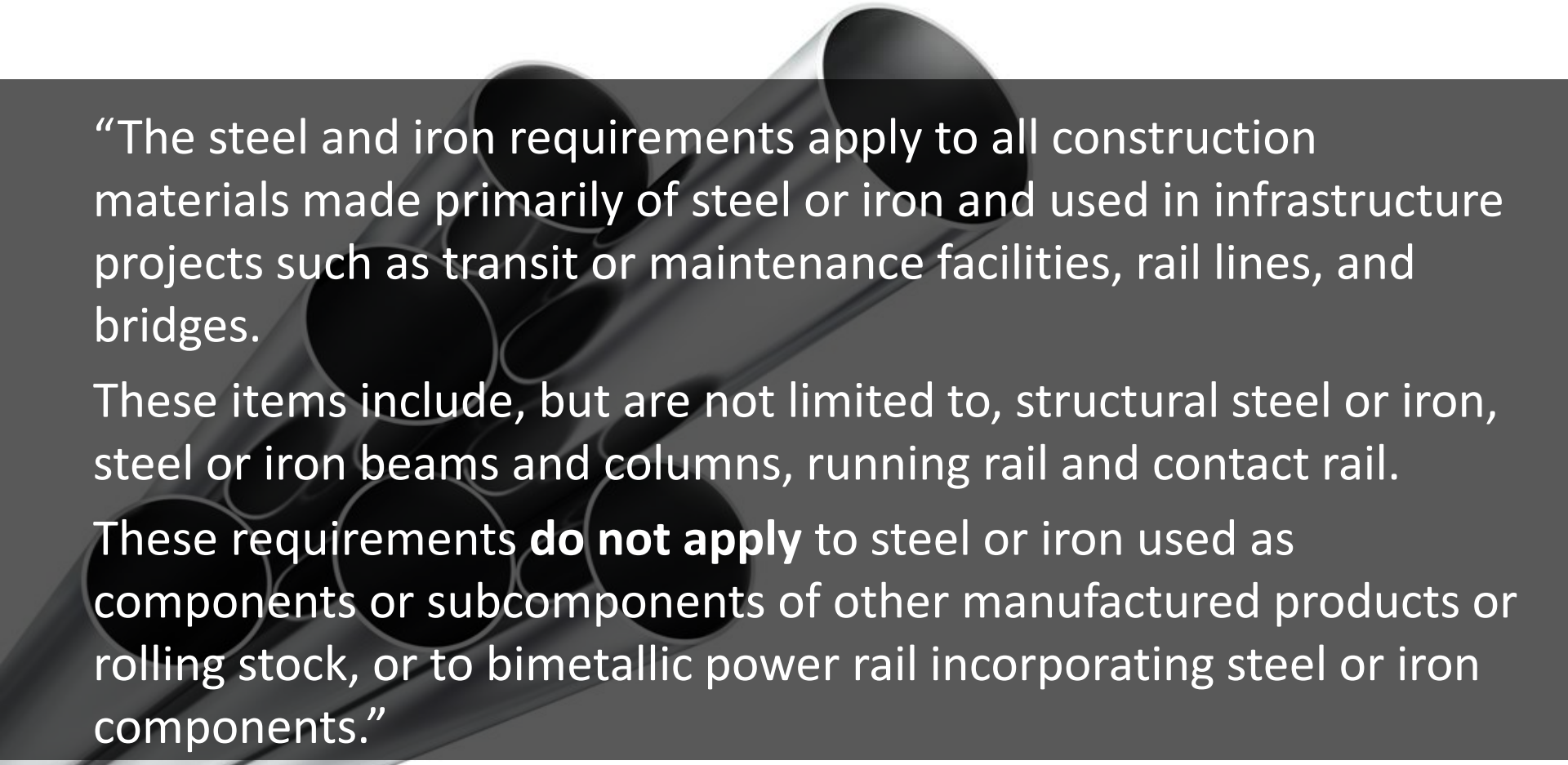
- **Rolling stock (end product):**
  - “Final assembly” in US, and
  - More than 60/65/70% of component material content of US origin
- **Components :**
  - “Manufactured” in the US“, and
  - More than 60/65/70% of subcomponent material content of US origin
- **Sub-components :**
  - “Manufactured” in the US“
- **Sub-sub-components :**
  - No requirement





# What is a US End Product?

## 2) Iron and Steel



“The steel and iron requirements apply to all construction materials made primarily of steel or iron and used in infrastructure projects such as transit or maintenance facilities, rail lines, and bridges.

These items include, but are not limited to, structural steel or iron, steel or iron beams and columns, running rail and contact rail.

These requirements **do not apply** to steel or iron used as components or subcomponents of other manufactured products or rolling stock, or to bimetallic power rail incorporating steel or iron components.”



# What is a US End Product?

## 3) Manufactured Products

- **Manufactured products** = “manufactured” in the US + all US components
- **US components** = “manufactured” in the US
- **Subcomponent** sources are not considered





# “Manufactured”

“**Manufacturing process** means the application of processes to alter the form or function of materials or of elements of the product in a manner adding value and transforming those materials or elements so that they represent a new end product functionally different from that which would result from mere assembly of the elements or materials.” 49 CFR 661.3



# “Manufactured”

“A **component** is considered to be manufactured if there are sufficient activities taking place to advance the value or improve the condition of the subcomponents of that component; that is, if the subcomponents have been substantially transformed or merged into a new and functionally different article.” 49 CFR 661.11(e)





# Components and Subcomponents

A **component** is any article, material, or supply, whether manufactured or unmanufactured, that is directly incorporated into an end product at the final assembly location. 49 CFR 661.3

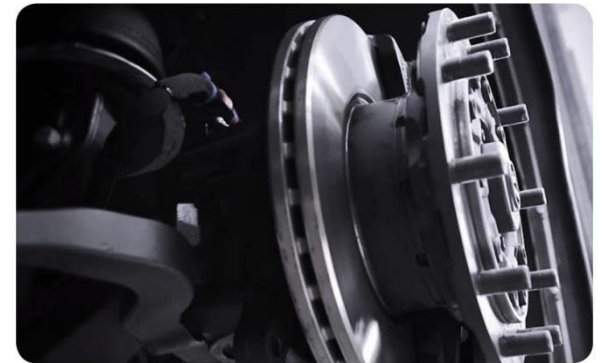
Ex. of components for bus: body shells, engines, transmissions, front /rear axle assemblies, drive shaft assemblies, front /rear suspension assemblies, generator/alternator and electrical systems, steering system assemblies, front / rear air brake assemblies, air conditioning compressor assemblies, air conditioning evaporator/condenser assemblies, heating systems, passenger seats, driver's seat assemblies, window assemblies, entrance and exit door assemblies, aluminum, steel or fiberglass exterior panels, flooring, and floor coverings...



# Components and Subcomponents

- A **subcomponent** is any article, material, or supply, whether manufactured or unmanufactured, that is one step removed from a component in the manufacturing process and that is incorporated directly into a component.

49 CFR 661.11(f)





# Content Matters!

- When a component is manufactured in the US and contains more than the minimum US subcomponent content, 100% of the cost counts toward the overall US content
- When that same component falls below the minimum, the value is limited to the cost of US subcomponents and the manufacturing costs
  - No credit for the rest of the component
- When the component is manufactured outside the US, the value is limited to the value of subcomponents that retain their US identity under 19 CFR 10.11, et seq
- The cost of a subcomponent is considered domestic if it is manufactured in the US no matter of the origin of its subcomponents





# Old “New” Stuff

- Iron and Steel – exported, processed, and re-imported as a component
- Stepped increases to 70%
  - Transition rules
- Updated Handbook

# Topic of the Day

- New products and systems, price competition, and continuing FTA/DOT scrutiny have caused auditors, agencies, and oversight consultants to be wary of the hierarchy of components and subcomponents
- Extreme amounts of foreign sourced content have brought renewed emphasis on manufacturing processes

# Is it Manufactured Enough?

- "forming, extruding, material removal, welding, soldering, etching, plating, material deposition, pressing, permanent adhesive joining, shot blasting, brushing, grinding, lapping, finishing, vacuum impregnating, and, in electrical and electronic pneumatic, or mechanical products, the collection, interconnection, and testing of various elements." 56 Fed. Reg. 926, 929 (Jan. 9, 1991)





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# Is it Manufactured Enough?

- Substantial transformation
  - *Trade Agreements Act*
  - FAR Part 25
  - Customs and Border Protection rulings
  - Court of International Trade decisions
  - US Comptroller General decisions
  - US Department of Energy Recovery Act guidance



# Is it Manufactured Enough?

- Adequate manufacturing
  - FTA guidance, KONE, Inc. April 9, 2012
  - FTA guidance, Otis Elevator, August 23, 2013



# Is it Manufactured Enough?

- Indicia of manufacturing
  - Labor hours required
  - Skill levels required
  - Special tooling
  - Plant investment
  - Complexity of the work
  - Value added



# The Dilemma

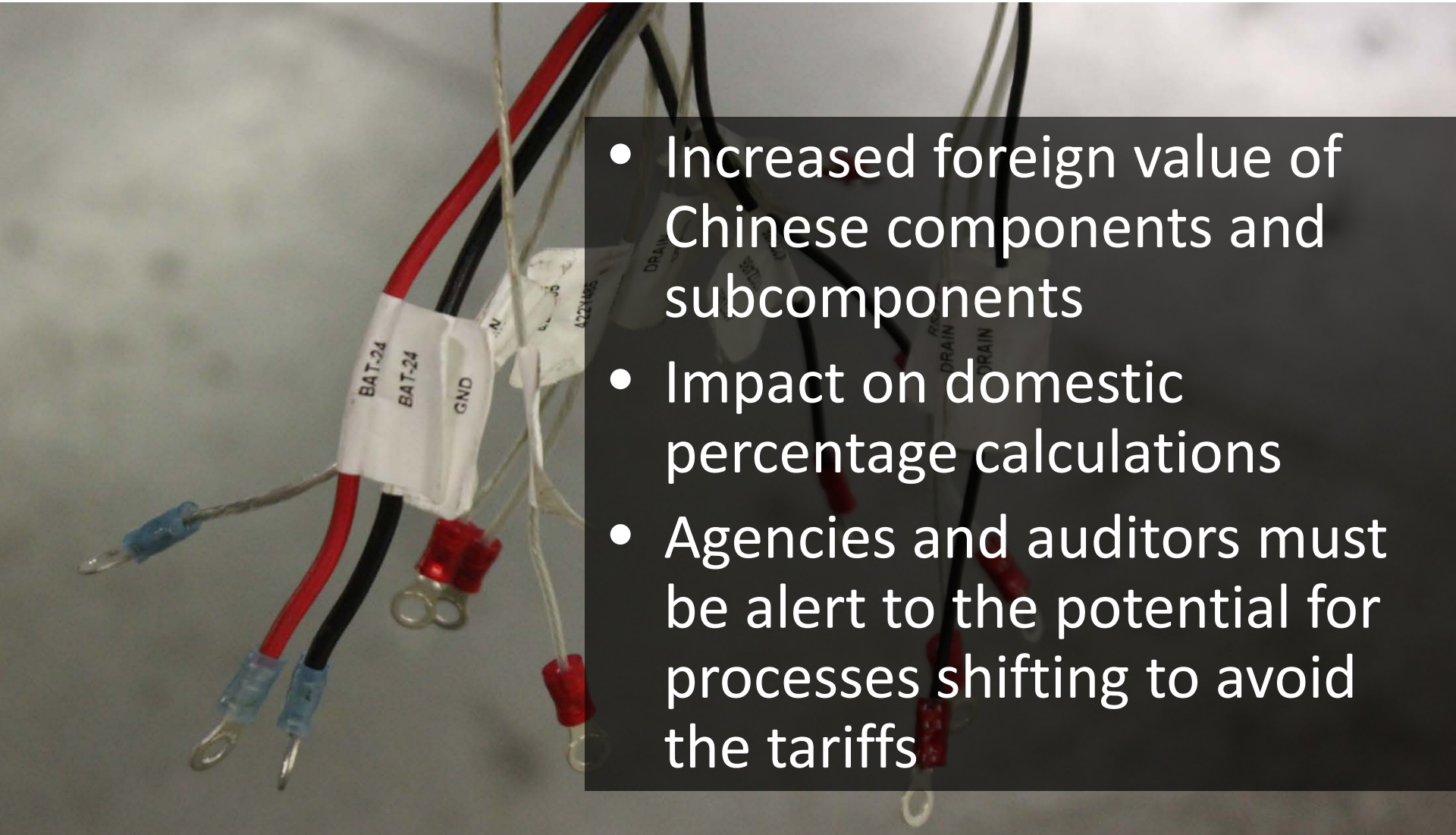
- May be 90%+ foreign materials imported to US
- Questions of adequate manufacturing and end item/component/subcomponent hierarchy
- When does <10% equal 70% or 100%?



# It is All Connected

- Fallout of the trade war
- Ad valorem duties on Chinese goods
  - Normal tariff rates PLUS 25% of value
  - Announced April 6, 2018
  - Partial determination June 15, 2018
  - Determination on additional goods August 16, 2018
- Avoiding the duty by assembling outside of China?
  - See Thomson Reuters article in materials

# It is All Connected

- 
- Increased foreign value of Chinese components and subcomponents
  - Impact on domestic percentage calculations
  - Agencies and auditors must be alert to the potential for processes shifting to avoid the tariffs

# It is All Connected

- In the FY2019 Transportation appropriations bills, the House and Senate have each passed slightly different restrictions that would for one year prohibit FTA funding for rail cars or buses subsidized by the Chinese government.



# It is All Connected

- “Anti-China” legislative proposals
- HR 6072, Section 165 - *None of the funds appropriated or otherwise made available to the Federal Transit Administration under this Act may be used in awarding any contract or subcontract for the procurement of an asset within the mass transit and passenger rail or freight rail subsectors included within the transportation systems sector defined by President Policy Directive 21 (Critical Infrastructure Security and Resilience)...*

# It is All Connected

- “Anti-China” legislative proposals
- *...including rolling stock, and the ensuing regulations if the entity is owned, directed, or subsidized by a country identified as a priority watch list country by the United States Trade Representative in the most recent report required under section 182 of the Trade Act of 1974 (19 U.S.C. 2242) and is subject to monitoring by the Trade Representative under section 306 of the Trade Act of 1974 (19 U.S.C. 2416).*

# It is All Connected

- “Anti-China” legislative proposals
- HR 6147, Section 196 - *(a) None of the funds appropriated or otherwise made available to the Federal Transit Administration under this title to carry out sections 5307, 5311, 5337, and 5339 of title 49, United States Code, may be used in awarding a contract or subcontract to an entity on or after the date of enactment of this Act for the procurement of rolling stock for use in public transportation if the manufacturer of the rolling stock is incorporated in or has manufacturing facilities in the United States and receives support from the government of a country that—...*

# It is All Connected

- “Anti-China” legislative proposals

*...(1) is identified as a nonmarket economy country (as defined in section 771(18) of the Tariff Act of 1930 (19 U.S.C. 1677(18))) as of the date of enactment of this Act;*

*(2) was identified by the United States Trade Representative in the most recent report required by section 182 of the Trade Act of 1974 (19 U.S.C. 2242) as a priority foreign country under subsection (a)(2) of that section; and*

*(3) is subject to monitoring by the Trade Representative under section 306 of the Trade Act of 1974 (19 U.S.C. 2416).*

*(b) This section shall be applied in a manner consistent with the obligations of the United States under international agreements.*



# It is All Connected

- “Anti-China” legislative proposals

*...(c)(1) This section shall not apply to the award of a contract or subcontract made by a public transportation agency with a rail rolling stock manufacturer described in subsection (a) if the manufacturer produces rail rolling stock for an eligible public transportation agency through a contract executed prior to the date of enactment of this Act.*

*(2) A rail rolling stock manufacturer described in subsection (a) may not use funds provided under a contract or subcontract described in paragraph (1) to expand the manufacturer’s production of rail rolling stock within the United States to an amount of rolling stock vehicles or rail cars that is greater than the amount required under contractual obligations of the manufacturer as of the date of enactment of this Act including all options for additional rolling stock.*

*(d) Nothing in this section shall be construed to apply to funds that are not appropriated or otherwise made available to the Federal Transit Administration under this title.*

# It is All Connected

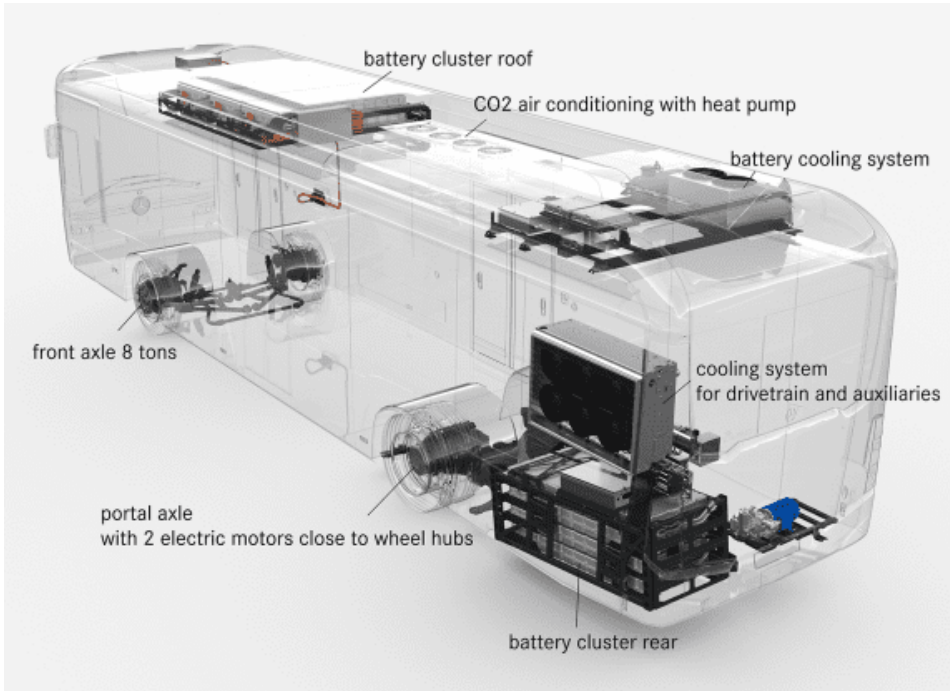
- “Anti-China” legislative proposals
- Neither provision is in the most recent legislative proposal – HR 21.



# Electric buses

- In 2017, electric buses counted for 0,5% of the 65 000 buses in public transit agencies' fleets (300 buses in operation)
- Forecast shows an increase interest for Zero Emission Buses (ZEB)
- In December 2018, CARB approved a new regulation setting a statewide goal for public transit agencies to gradually transition to 100 % zero-emission bus fleets by 2040
- The 2 largest US transit agencies, NYCT and LA Metro, announced their intention to have ZEB fleet by 2040 and 2030

# Electric buses



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- Buy America Regulations were drafted for conventional buses that have engines and transmissions
- Unlike conventional buses (propulsions such as diesel, CNG or hybrid), battery electric buses do not have engines or transmissions
- They use an electric motor and batteries for propulsion



# Electric buses

- The battery includes several parts, such as:



- Lithium ion cells/modules
- Battery box, carrier (metal sheets, screws, brackets...)
- Cooling plate & connections
- Electrical components, (BMU-battery module unit, connectors, sensors, contactors)

Those parts are combined into modules and then wired into battery packs

Many bus and battery manufacturers import lithium ion cells to manufacture batteries in the US

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# Electric buses

- Battery packs count for >25% of the cost of an electric bus
- Is the use of imported cells contrary to Buy America rules?
- Imported cells may be considered sub-subcomponents that are substantially transformed into packs with modules, coolants, and sensors in U.S. manufacturing plants.

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# Electric buses

- In March 2018, 4 Senate Democrats sent a letter to Transportation Secretary Chao, arguing and requesting that:
  - Some electric bus OEMs are not sourcing their battery modules/cells in the U.S. ;
  - Considering that 25% of the value of an electric bus can come from the battery cells and modules, then they should be classified as subcomponents but are currently not;
  - DOT clarify the classification of battery modules and individual batteries cells
- In August 2018, 6 House members — 5 Republicans and 1 Democrat — called on the Trump administration to consider applying Buy America standards to advanced battery technology used in electric buses.

# Electric buses

- Secretary Chao's answered in May that the FTA would do a compliance reviews with all electric bus manufacturers (pre-award and post-delivery audits) to determine whether there are inconsistencies in how auditors are classifying these components/subcomponents
- The FTA conducted during the fall of 2018 a Buy America compliance review of each battery-electric bus manufacturer with manufacturing facilities in the US to examine the determination of components, subcomponents, and manufacturing processes in the production of battery electric buses



# Electric buses

- Should the FTA revise the Buy America regulations to take account of newer technologies such as those used in battery electric buses?
- Or should the Buy America regulations be amended to make it more likely that cells and other parts are manufactured in the US to discourage importation of bus battery cells and support domestic battery manufacturing?
- By doing so, would it limit the availability of battery technologies?
- Would it lead to higher price for battery electric buses?

# Questions, et cetera...

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