

Summary of Responses to Questions on Buy America Provisions Relative to Passenger Rail Equipment Procured Under the Passenger Rail Investment and Improvement Act

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a	<p>What is your organization's current ability to achieve high levels of US content in the rolling stock you would build in the US?</p>
	<p>Carbuilders with existing manufacturing facilities in the U.S. are currently able to produce rolling stock with U.S. content in the range of 60% to 85%.</p>
b	<p>What are your plans or approach for increasing that level of content, now and over the next 5 years?</p>
	<p>Level of U.S. content is determined to a large extent on the availability of U.S. produced components and subsystems. The typical approach to increasing the level of content involves an incremental localization over a number of years as suppliers see consistency of orders and are induced to transfer technology and/or establish U.S. manufacturing facilities. Carbuilders' plans for localization, therefore, depend on the market size and require a consistent level of adequate funding.</p> <p>The maximum level of U.S. content that respondents felt could realistically be obtained ranged from 80% to 90%.</p>
c	<p>Assuming appropriately sustained demand for rail rolling stock in the US market, please provide an estimate of the design and production engineering your firm would perform in each of the following ways: (1) At your facilities in the US? (2) At your facilities outside the United States and (3) By your sub-suppliers.</p>
	<p>Typically, 20% to 30% of a carbuilder's new vehicle design engineering is done in U.S. The balance is done in their facilities outside the U.S. Production engineering and car overhaul engineering has much higher U.S. content, typically about 90%. Again, these levels of U.S. content would be expected to increase gradually if sustained demand for rolling stock continued to exist for many years.</p> <p>Information regarding engineering content provided by sub-suppliers was not offered by most of the carbuilders surveyed. Those that did respond estimated that approximately one third of the total design and engineering was attributable to sub-suppliers (with the balance attributable to the carbuilder). Reliance on the engineering expertise of major system suppliers was a common theme.</p> <p>After fully amortizing the capital costs of establishing manufacturing facilities in the U.S., the manufacturing and assembly costs account for approximately 1/3 of the total car cost, with about 2/3 going to suppliers for purchased parts and equipment.</p>
d	<p>What level of sustained demand for rolling stock do you believe will be needed to re-establish a US supply chain and why?</p>
	<p>There is quite a lot of variation in the responses to this question. Some responders considered just cars or just locomotives. Others included all types of passenger rolling stock (including inter-city, commuter, metro and light-rail). Required annual production for an individual carbuilder ranged from 50 to 200 vehicles; with estimates of 200 to 1000 vehicles per year needed to re-establish a U.S. supply chain and sustain the entire industry.</p>
e	<p>Can combining manufacturing, overhaul and maintenance and focusing or concentrating these activities at just a few centers nationwide help sustain the design and production capability?</p>

	<p>There may be some possibility for synergy by combining new car manufacturing with major overhaul or remanufacturing activities. Routine maintenance, however, must be performed locally at operator’s property to avoid taking equipment out of service. Some responders expressed reservations about combining maintenance with production at all, citing different labor expertise requirements, differences in facility layout and work flow patterns, and restrictive union agreements.</p>
f	<p>What components does your company typically outsource?</p>
	<p>All carbuilders surveyed are primarily integrators and assemblers and, hence, outsource most of the components they use. Car shells and truck frames are typically built in-house.</p>
g	<p>Who are your major sub-suppliers and what level of responsibility have they had for design and engineering- ie- were they given detailed design and assembly drawings for parts to be fabricated or simply interface and performance requirements?</p>
	<p>Respondents provided extensive lists of sub-suppliers, covering a wide range of components. All respondents emphasized that suppliers of major sub-systems (such as brakes or HVAC) were responsible for the design and engineering of their own products according to the performance and interface specifications provided by the carbuilder. Many respondents also described a lower tier of suppliers that manufacture parts based on detailed design and assembly drawings provided by the carbuilder.</p>
h	<p>What is your view on the potential use of the FTA Buy America definition of “Components,” “Subcomponents” and “Substantial Transformation” for acquisition of intercity passenger rail rolling stock? Is it appropriate? Would it facilitate your organization’s ability to respond? Should it be modified in some way to have better applicability to intercity passenger rail rolling stock?</p>
	<p>All respondents were well acquainted with the FTA Buy America terms and conditions. In general, they felt these rules to be appropriate to intercity passenger rolling stock and favored the adoption of these rules by the FRA because the rules have been established for a long time, and are well known throughout the industry. The complexity of a new and different set of rules would be an increased burden and may cause confusion among some suppliers. Having said that, a few modifications to the current implementation of FTA rules were suggested:</p> <ul style="list-style-type: none"> • Increase the consistency and accuracy of Buy America audits by having FRA administer them rather than the agencies. • Revisit the division of components vs. sub-components to reflect the state of modern equipment design. • Allow neutral content (testing, training, manuals, assembly) to be included as U.S. content. • Revise rules to avoid situations where unnecessary expense is incurred simply to comply with Buy America rules (for example, prototype car is disassembled after testing outside the U.S. and then reassembled in the U.S.).
i	<p>How does your organization view the current capacity for production of passenger rail rolling stock nationwide? Is it about right? Is there excess production capacity? Is there insufficient production capacity to meet projected demand?</p>
	<p>All respondents felt that there was significant excess of production capacity for passenger rail rolling stock in the U.S. Projected demand was seen as low and uncertain, especially given the contentious political climate here recently. In addition, localization without sufficient demand leads to cyclical excess capacity as orders are completed and then plants forced to close due to lack of further orders.</p>

j	What are the primary barriers to higher levels of US content in passenger rolling stock production?
	The primary barrier to higher levels of U.S. content is the lack of a consistent level of assured, adequate demand by U.S. agencies for passenger rolling stock.
k	What components or materials are currently difficult to source in the United States and why?
	Stainless steel and aluminum suitable for body shells, and electronic components were most often cited as unavailable in the U.S. Specialty castings, forged wheels, propulsion systems, transmissions, and fabricated truck frames were also mentioned as difficult to obtain in the U.S. The requirements for these products are quite stringent and unique to the passenger rail market, and the market in the U.S. is much smaller than in other areas worldwide (particularly Europe and Asia), so incentive to invest in U.S. production facilities does not exist.
l	In your view, what can or should be done by the US government and state governments, to enable rolling stock manufacturers to achieve the highest possible US content at the earliest possible time? What components, subcomponents or materials, if any, do you believe are unlikely to ever be available in the US and why?
	Federal and state governments should make long-term commitments to support the passenger rail industry with a dedicated level of funding. The FRA should be realistic in setting goals for U.S. content so as not to discourage localization or the adoption of innovative, state-of-the-art technologies. And the FRA should provide clear and consistent rules to administer the Buy America requirements. Components identified in item (k) are unlikely to be available in the U.S. in the current economic climate.
m	What investments has your organization made in US based production capabilities and what are your plans for the future?
	Most respondents have built or acquired at least one manufacturing and assembly plant in the U.S. Future plans for investment in production capability are dependent on the market demand.
n	What volumes may be necessary to justify establishing and/or expanding US based production and design capabilities?
	This question was interpreted and answered similarly to question (d) with regard to establishing production capability. Establishing design capability in the U.S. would require substantially higher volumes.
o	Does your organization believe there is any potential to build rolling stock for export from the United States? Could it be useful to allow these exports to balance the net total of imported components and subcomponents?

With very few exceptions (notably regarding exports to other North American countries), respondents were generally very negative regarding the prospect of exporting passenger rolling stock from the U.S. Many reasons were given, including:

- Lack of experience in high speed development
- U.S. standards, dimensions and safety requirements are unique to U.S.
- Sufficient to excess production capacity already exists in other markets.
- Lack of reciprocity – all markets demand high levels of localization, but must also tolerate a reasonable level of imported technology.

Respondents seemed intrigued with the notion of allowing exports to offset lack of U.S. content, but they expressed uncertainty about how it would work in practice.