Regional Transportation Council

The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)

January 10, 2020

The Honorable Elaine L. Chao
Secretary of Transportation
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Secretary Chao:

On behalf of the Regional Transportation Council (RTC) and the North Central Texas Council of Governments (NCTCOG), the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Area, we would like to submit comments on the United States Department of Transportation's (USDOT) notice published in the November 26, 2019, Federal Register, Non-Traditional and Emerging Transportation Technology (NETT) Council, **Docket Number DOT-OST-2019-0165**.

As the MPO for the North Texas region, the RTC and NCTCOG are responsible for transportation planning in a 12-county area with a current population estimate greater than 7.5 million. In such a large and fast-growing region, it is imperative to "think outside the box" to consider ways people can safely travel in the future without increasing traffic congestion or decreasing air quality. Accordingly, the MPO has been making a concerted effort in the past several years to pursue innovation in transportation and air quality planning. Private-sector investors have sought the region's partnership on proposed hyperloop and high-speed rail facilities, and the MPO has embraced alternative fuel vehicle technologies as a key part of its successful plan to reduce ozone emissions. As the Office of the Secretary explores opportunities to support and implement emerging transportation technologies, please consider the following comments to help identify areas for new or revised Federal regulations.

Hyperloop

Hyperloop is one of the most innovative emerging transportation technologies, but its newness means there is little regulatory clarity available to investors and planning agencies. Without regulatory clarity, the industry is unlikely to make significant investments in developing this technology and deploying it for either commercial or passenger uses. For example, although hyperloop could serve a role similar to rail's, it is not clear whether the federal government will regulate hyperloop as rail through the Federal Railroad Administration (FRA) and Federal Transit Administration (FTA), or possibly another regulatory agency. Short routes could even be regulated as transit. Prompt action from the federal government to provide this clarity will help focus efforts to design equipment and systems for hyperloop technology as well as attract additional private investment, thus reducing government costs and speeding implementation.

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More specifically, North Texas is one of many regions in the United States interested in partnering with private industry to help develop and eventually deploy hyperloop technology for either short or long routes, and for both persons and goods. NCTCOG, along with other regions, is currently working with Virgin Hyperloop One to determine whether there is a site within the region suitable for hosting a Hyperloop Certification Center. The environmental study required to host a technology Certification Center could take several years, possibly stymying further innovation. It appears Environmental Impact Statement requirements for new technologies still in the research and development phase could be made more flexible to better match the smaller footprint of these projects. By scaling back EIS requirements for hyperloop, certification efforts can proceed more quickly and hyperloop technology will be able to keep pace with other transportation innovations. The accelerated timeline for the Certification Center would make the project more attractive to private investors and government agencies.

Given the possible safety and air quality benefits of hyperloop, which does not require at-grade crossings and has no known direct emissions, the public stands to benefit immediately from successful deployment. For this reason, at this early stage of development, regulation of hyperloop should be based on performance rather than prescriptive rulemakings. Allowing researchers to develop the best equipment and operational practices for hyperloop as it evolves will ensure this technology realizes its full potential as a transportation mode more quickly, with the attendant public benefits. The need for public oversight and safety must be balanced with the likely public benefits for safety, air quality, and economic growth; too much regulation too soon threatens to negate the benefits of hyperloop before the technology matures.

Finally, federal funding for emerging transportation technologies in the research and development phase would incentivize bold thinking from both the private and public sectors. As the nation celebrates the 50th anniversary of the moon landing, it is worth noting the incredible success of private enterprise in building upon the federal government's early investment in researching and developing the technologies that initiated the revolution in computing and telecommunications, and advances in numerous other fields.

High-Speed Rail

The above comments regarding the need for an accelerated environmental process and federal funding support apply equally to high-speed rail technologies. In the current regulatory environment, it simply takes too long to certify potential high-speed rail projects, especially given these technologies have been rigorously tested and successfully implemented in Japan, China, and Europe. The long environmental process is a significant barrier for private investors and thus inhibits implementation of high-speed rail in the United States, and specifically in Texas from Dallas to Houston.

Even after the environmental process is complete, significant regulatory obstacles remain for high-speed rail projects due to their novelty in the United States. However, this need not be the case. Trusted public agencies in other nations developed design, safety and operational standards for high-speed rail decades ago. Consulting with these nations to build upon their successes will hasten the technology's deployment across the country. For example, the Japanese Shinkansen technology being considered for a planned Dallas to Houston high-speed

rail route has not experienced a single fatality in over 50 years – a remarkable achievement by any measure. Therefore, rather than draft new rulemakings governing crashworthiness from scratch, the federal government could adopt (and adapt, where needed) the Japanese regulations. There is no need for the FRA to repeat work already accomplished internationally when that work is the global industry standard. A fresh look at risk assessment is needed.

Over the years, public officials and industry leaders have dreamed of establishing a state-of-the-art high-speed rail network that crisscrosses America. Although the political and funding challenges presented by such an admirable vision are numerous, the blueprint for this dream already exists in Japan, China, and Europe. Given these challenges, it is not prudent to further complicate efforts by creating a new system of regulations. Nationwide network standards can be easily borrowed from international partners, freeing up officials to focus on finding funding solutions through the next surface transportation reauthorization bill.

Buy America

Many non-traditional and emerging transportation technologies are manufactured goods or products rather than conventional infrastructure materials. When USDOT Buy America requirements were originally enacted, the variety of funded projects was narrower, largely focused on iron and steel for highway infrastructure projects. As the variety of projects being implemented has expanded, the lack of statutory and regulatory language addressing manufactured goods or projects has caused impacts to project implementation. This is true for the simplest of safety initiatives that reduce fatal accidents.

The Federal Highway Administration's (FHWA) Buy America program, including statutory provisions at 23 U.S.C. 313 and regulatory provisions at 23 CFR 635.410, have an admirable purpose: to boost the economy by ensuring use of 100 percent domestic iron and steel in transportation infrastructure projects. However, following the April 18, 2017, Presidential Executive Order, its sweeping requirements are negatively affecting implementation of other federal transportation programs that were not the intended object of these regulations. For example, emissions reduction technology projects are eligible for funding through the Congestion Mitigation and Air Quality Improvement Program (CMAQ), but in practice these projects need a Buy America waiver to be eligible for implementation because they cannot comply with a 100 percent domestic content and manufacturing process. Unfortunately, FHWA has largely suspended the necessary waiver process. FHWA standard guidance does not address the realities of the global supply chain and real-world feasibility of purchases of manufactured goods and commercial off-the-shelf products. The process to apply for a waiver is cumbersome, and waivers have not been approved according to a regular schedule, which has jeopardized both innovative vehicle projects and progress toward air quality program goals. Most notable is the fact that clean vehicle projects using alternative fuel vehicles (including electric vehicles) and technology to retrofit diesel vehicles, which are intended to be priority uses of CMAQ funds, can no longer be implemented.

Metropolitan planning organizations located in ozone nonattainment areas are particularly affected by the waiver process. FHWA has found that diesel retrofits are among the most cost-effective emissions reduction projects, but Buy America program requirements have essentially

halted federally-funded clean vehicle programs, such as diesel replacements or alternative fuel vehicle purchases, due to the unavailability of 100 percent domestic iron and steel vehicles. FHWA has stopped approving or collecting waiver requests for these projects, despite FHWA having clearly documented through previous waiver approvals that no commercially available vehicle on the market meets the 100 percent domestic content standards set by the agency. As a result, despite having been awarded funds by MPOs, local governments, private contractors and fleet owners are unable to proceed with clean vehicle purchases and retrofits—a costly delay that many business managers are unable to accommodate. In this instance, the true cost of Buy America requirements is thus borne by the public, who do not receive easily attainable air quality benefits from widespread adoption of alternative fuel vehicles and vehicles equipped with emissions reduction technology.

Congress is aware of the problem. The FY2020 appropriations bill passed in December requires FHWA to approve all clean vehicle projects submitted prior to April 17, 2018, using the previous criteria of final vehicle assembly in the United States. This is a welcome start toward addressing the slow approval process, but the fact remains that waiver applications submitted subsequent to April 2018 remain at risk.

NCTCOG requests FHWA to revisit its Buy America standards and clarify that these standards are not intended to be applied to manufactured goods or commercial off-the-shelf products, such as vehicles. FHWA previously attempted to provide this clarity via a memo dated December 21, 2012, but this memo was canceled in 2015 due to challenges. Thus, language that specifies that manufactured goods are not subject to Buy America must be added to 23 U.S.C. 313 (b) to provide certainty. This exemption would balance the intended principle of the Buy America provision with CMAQ goals to fund the most cost-effective projects and support technologies that help reduce emissions and reinstate previous FHWA interpretation.

Additionally, the Buy America regulations of USDOT agencies such as the FHWA and the Federal Transit Administration (FTA) vary greatly. The FTA has adopted lower thresholds for Buy America standards that could serve as a starting point for providing necessary flexibility for implementation of non-traditional and emerging technology projects. FHWA's current Buy America regulations can present difficulties in identifying eligible funding streams and may result in unintended compliance challenges. Establishing lower thresholds for domestic iron or steel, restoring the requirement for final vehicle assembly in the United States, and considering issuance of public interest waivers for certain products and/or for new and emerging technologies may be possible solutions to ensure alignment with the Presidential Executive Order while encouraging advancement and innovation.

Finally, beyond revising existing regulations, there are ways the Non-Traditional and Emerging Transportation Technology (NETT) Council could support state and local agencies. As technology continues to advance at an ever-increasing speed, it can be overwhelming to local agencies to sort out "snake oil" proposals from legitimate technology developments. The NETT Council could establish an information hub for agencies that compiles the ever-growing universe of available technologies so agencies can determine the scope of services and technologies. A web-based information clearinghouse that helps direct agencies to available resources or assists in sorting out key information, such as emerging technology types, could be valuable.

Another option could be an online discussion forum where participation is limited to MPOs, Departments of Transportation, and other specific types of agencies, where agencies could easily seek feedback from one another. The Department of Energy Clean Cities program provides a similar discussion board often used by Clean Cities coalitions to seek peer recommendations on a variety of topics.

Freeway Design

The widespread deployment of autonomous vehicles will provide opportunities for rethinking traditional infrastructure design. In particular, USDOT should view the environmental impact review process through a new lens that considers the benefits of autonomous and connected vehicles. With new technology-based freeway design, will freeways eventually shift from functioning as an infrastructure investment to a service investment? Among possible features, could freeways have 5G integrated as a service, technology preventing wrong way driving, geofencing capabilities preventing distracted driving, 5G within the vehicle and induction loops in the pavement for recharging electric vehicles? The possible incorporation of these technologies into freeway design merits a consideration of the implications for the traditional environmental review process.

We appreciate the opportunity to provide these comments and look forward to working with the Office of the Secretary as regulations are drafted or revised. If you have any questions, please feel free to contact me at (817) 695-9241 or mmorris@nctcog.org.

Sincerely,

Michael Morris, P.E.
Director or Transportation

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