



August 27, 2019
Federal Motor Carrier Safety Administration
1200 New Jersey Ave SE West Building
Washington, DC 20590-0001

Re: Docket No. FMCSA–2018–0037

Local Motors, LLC. submits this comment to the Federal Motor Carrier Safety Administration (FMCSA) in response to the advanced notice of proposed rulemaking (ANPRM) Safe Integration of Automated Driving Systems-Equipped Commercial Motor Vehicles.

The potential for low speed shuttles to become a transportation resource for currently underserved populations is tremendous. Local Motor manufacturers the Olli an electric low speed autonomous shuttle that operates in very specific and limited operational design domains (ODDs).

Low Speed Shuttles for all intent and purposes are low speed vehicles that are heavier than what is allowed in the definition of a low speed vehicle.

"Recent years have seen a rise in manufacturers focusing exclusively on the development of a largely new category of vehicles and associated services--low-speed automated shuttles. To better understand this emerging area, the USDOT developed a new report exploring the current state of the practice for low-speed automated shuttles--Low-Speed Automated Shuttles: State of the Practice.

Low-speed automated shuttles have a lot in common with other automated vehicles, but there are a few distinct differences. The shuttles, for instance, are



intended for fully automated driving--that is, they are completely driverless--within protected and less-complicated environments. They also are designed to go slower than other road vehicles, with speeds limited to 25 miles per hour. In addition, the automated shuttles are intended for shared-service use (i.e., carrying multiple passengers, including unrestrained and standing passengers).

This innovative form of shared public transportation will provide an alternative to current modes of travel across short distances. Potential uses are similar to how airports employ shuttles between terminals or large venues utilize parking lot shuttles. This new class of automated vehicle is not yet well defined, however, and manufacturers plan to increase the complexity of these automated shuttles in the future."¹

Local Motors would like to address:

Question 1.1 How should FMCSA ensure that an ADS-equipped CMV only operates consistent with the ODD for the ADS equipped on the vehicle?

Transparency is the key to building trust for riders, local and federal agencies and manufacturers. Currently pilot deployments conducted under the Local Motors Olli fleet challenge include the following:

- Defined and well mapped ODDs that are approved by local and state authorities
- Trained safety stewards who serve as a failsafe that can take over the driving duties when necessary.

¹ https://www.its.dot.gov/press/2018/automated_shuttles.htm



- Reports on ridership, deviations from ODD, average speed, incidents, and takeovers

For the state in which Local Motors has received a permit to operate, a monthly report is provided that includes specific information requested by the state. When the time comes to remove the safety steward from low speed autonomous shuttles this type of reporting may require additional data.

For low speed shuttles, changes to ODDs are mapped and then approved by state and local authorities.

In the case of the Olli the low speed, limited ODD and reporting requirements along with monitoring by state and local entities of the Olli in action provide several checks to verify the Olli is staying in the predetermined and approved ODD. On a federal or national level FMCSA could employ reporting or other strategies for ensuring autonomous commercial vehicles are remaining within their specified and approved ODDs.

Local Motors understands the significance of providing the public with the opportunity to experience autonomous shuttles in the safest settings possible. Transparency from manufacturers and government agencies will help establish the trust necessary for autonomous vehicles to be accepted and utilized.

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