Additional comment in support of short narrow track vehicle as non-traditional and emerging transportation technology to mitigate congestion, pollution, and collisions.

Commuter Cars Tango short narrow track vehicle innovation is developing excellent commuting options for super commuters and commuters stuck in transit deserts. Short narrow track vehicles offer the option to maximize efficiently transporting people in crowded cities and highways. www.commutercars.com.

Please see attachment for Commuter Cars EDC-5 Call for Ideas 2019-2020 Submission: Narrow Track Vehicle Fleets with Optional Support Lane Markings & Signage.

Commuter Cars Tango short narrow track vehicle specifications: Width: 39", Length: 8'6", Height 61" Ground Clearance 4", Weight: 3,326 lbs. Distribution: 43/57 (percent front/rear) Battery: Lithium Ion Seating: tandem Top Speed: 150 mph http://commutercars.com/specs.html

1. ***Are there existing Federal transportation laws or regulations that inhibit innovation by creating barriers to testing, certifying or verifying compliance, or operating non-traditional and emerging transportation technologies?***

   A. Yes. Current FMVSS regulations make it very difficult to create safe four-wheeled vehicles without hundreds of millions to billions of dollars. There are two huge dangers to this.

      1. Almost any innovator designing a thinner vehicle is forced to build on a three-wheeled platform, falling under the motorcycle category, and having virtually no safety regulations, at least for crash protection. Three-wheeled vehicles are more dangerous than four-wheeled side-seated cars or two-wheeled motorcycles since they lack stability in turning when braking or accelerating, depending on the three-wheel configuration.

      2. Thin four-wheeled vehicles can currently only be registered as kit cars, and only in certain states. Commuter Cars successfully lobbied the State of Washington legislature to change the law to allow kit car certification.

   B. Congestion Mitigation and Air Quality Improvement Program (CMAQ) stated goal includes reducing traffic congestion and improving air quality, but also "encourages alternatives to driving alone".

      Please provide specific examples, explain why the requirement imposes a barrier, and identify the specific law or regulation that you believe should be changed and describe how it should be changed.

      Congestion Mitigation and Air Quality Improvement (CMAQ) expressed mission to provide alternatives to single occupant travel creates a barrier to federal and state funding to mitigate congestion and pollution via short narrow vehicle commuting.

Please identify all associated regulations that should be changed, including specific citations to the Code of Federal Regulations and explain the need for the change.

Current CMAQ Regulation:

23 USC Sec 149

© Special Rules

3. HOV Facilities – No funds may be provided under this section for a project which will result in the construction of new capacity available to single occupant vehicles unless the project consists of a high occupancy vehicle facility available to single occupant vehicles only at other than peak travel times

Suggested CMAQ Regulation Change

23 USC Sec 149

© Special Rules

3. HOV Facilities – No funds may be provided under this section for a project which will result in the construction of new capacity available to single occupant vehicles unless the project consists of a high occupancy vehicle facility available to single occupant vehicles only at other than peak travel times. **Funds may also be provided for short narrow track vehicle development, short narrow track vehicle pilot programs, short narrow track vehicle manufacturing, short narrow track vehicle lanes, and short narrow track vehicle parking spaces.**

2. ***Are there existing design or performance requirements that may contribute to a reduced safety purpose or impose more cost or restriction on the design of non-traditional and emerging transportation technologies than is warranted?***

   A. Yes. Expensive airbag requirements make it difficult to develop short narrow track vehicles. Like a typical racing car, current short narrow track vehicles don't have air bags but have four or five point harnesses which are not currently allowed under FMVSS regulations.

   B. Further, federal safety manufacturing regulations restrict current short narrow track vehicle certification to kit car certification status which exempts it from many local, state, and federal support and funding programs.

      For example, the City of Chicago rejected a proposed short narrow track vehicle CMAQ demonstration program with the following response:

"The City of Chicago has been a regional leader for over 20 years in supporting clean vehicle technologies that reduce emissions and petroleum use. CDOT encourages the adoption of commercialized, federally certified alternative fuel vehicles and verified emissions reduction technologies. This means the vehicles have to be approved by the National Highway Traffic Safety Administration for their weight class, top-speed and application. Additionally, the vehicles have to have a Certificate of Conformity from the US Environmental Protection Agency when applicable. We defer to these federal agencies to certify new vehicle technologies that are entering the market"

3. ***If you identified a barrier to innovation in response to Question 1 or 2, above, can this barrier be removed or mitigated without resorting to additional rulemaking? If rulemaking is necessary, please identify all associated regulations that should be changed, including specific citations to the Code of Federal Regulations and explain the need for the change and how safety will not adversely be impacted***

   CMAQ funding selection metrics differ from state to state, so the City of Chicago's response would not necessarily be the same as another state's entities' request for short narrow track vehicle CMAQ sponsorship requests. For CMAQ funding, short narrow track vehicle exceptions are warranted.

4. ***If you identified a barrier to innovation in response to Question 1 or 2, above, is legislation necessary to remove or mitigate that innovation barrier? Please identify the barrier with specificity, explain why it is a barrier, and identify the specific law that you believe should be changed. Please describe how it should be changed and why there will be no adverse impact to safety.***

   Yes. According to https://www.fhwa.dot.gov/environment/bicycle_pedestrian/legislation/ "Federal legislation in Title 23 of the United States Code Section 217 provides the funding mechanisms, planning requirements, and policy tools necessary to create more walkable and bicycle-friendly communities. More importantly, it enhances the ability of communities to invest in projects that can improve the safety and practicality of bicycling and walking for everyday travel." Similar legislation could be passed providing funding mechanisms, planning requirements, and policy tools necessary to create more short narrow track vehicle driving opportunities to mitigate congestion, pollution, and collisions.

5. ***Do you believe that there are international bodies or organizations (at any level) that the Department should be working with to develop standards or best practices for potential application to non-traditional and emerging transportation technologies in the United States?***

   A. In the United Kingdom, a car can be sold and registered with a minimum amount of regulation, hence many innovative "Individually Certified Vehicles". New Zealand and Australia also have such regulations.

B. The California Highway Patrol is an excellent organization to query regarding the viability of short narrow track vehicles for safer lane-splitting option than current exposed police motorcycles.

C. Transportation PhD and University of Sydney Professor David Levinson is an excellent resource for short narrow track vehicles' congestion and collision mitigation abilities. See #8. Gauge: https://transportist.org/2016/04/19/21-strategies-to-solve-congestion/

6. ***Does the current landscape of State/local/Tribal regulation for non-traditional and emerging transportation technologies hinder or support innovation? More specifically***:

   a. What laws or regulations do State, local, or Tribal governments rely upon, other than Federal transportation laws and regulations, to regulate the safe design, construction, and operational safety of non-traditional or emerging transportation technologies (e.g., hyperloop and non-traditional tunneling)? In what ways do these laws or regulations hinder or support innovation? (Please be specific in your response.)

   Commuter Cars proposed a $116,000,000 Tango Ultra-narrow Commuter Car Sharing Project of Regional and National Significance: https://www.cmap.illinois.gov/documents/10180/452175/RSP+Projects+Submitted+for+Consideration/9e1d9568-efbb-4f3c-b4aa-5e5eedb36989 CMAP staff rejected the proposal stating "The Tango Ultra-Narrow Commuter Car project is a vehicle purchase for a new car sharing program, not a highway or transit capacity project.https://www.cmap.illinois.gov/documents/10180/595578/RSP+memo+Nov+2016+v3.pdf/939595f5-e552-4189-824d-6b2d13222072. Mitigating traffic through a short narrow track vehicle lease program could certainly be interpreted as a highway capacity project.

   b. Are there ***State/local/Tribal occupational license regimes that govern the safe conduct of operators of non-traditional or emerging transportation technologies? Do they hinder or support innovation?***

   An operator can legally drive the Tango short narrow track vehicle with a standard drivers' license. That greatly supports short narrow track vehicle innovation.

   c. Are there State/local/Tribal laws that assist innovators in developing safe prototypes, road testing, deploying, or commercializing new transportation technologies? (Comments on regulatory gaps or feasibility studies and analyses are encouraged.)

No State/local/tribal laws have directly assisted innovating and developing safe short narrow track vehicle prototypes, road testing, deployment, or commercializing new transportation technologies.

7. ***Would intermodal or cross-sector regulations support or inhibit innovation and ensure safety of transportation infrastructure, as well as the safe movement of goods, services, capital and the traveling public? Please explain why or why not. Include specific examples, studies, or other data if available..***

   Like current highway capable cars and motorcycles, short narrow track vehicles safely work in intermodal or cross-sector environments. Safety advantages over side-seated car design include 50% less chance of collision and superior ability to move out of the way of hazards. Safety advantages over motorcycles include floor, roof, doors, steel bars in doors, roll cage, standard windshield, seats, harnesses, steering wheel, and locks.

8. ***Would cross-sector or cross-modal transportation safety regulations support or inhibit investments in non-traditional and emerging transportation technologies? Please explain why or why not. Include specific examples, studies, or other data if available.***

   Safety regulations could inhibit the development of short narrow track vehicles given extra design, planning, and manufacturing costs.

9. ***How can Federal policies, regulations, or legislation be used to foster mobility service providers, remove barriers to new non-traditional and emerging transport operations, or promote safe, efficient, environmentally sound and user-friendly mobility systems? Please explain, using specific examples where feasible.***

   No response at this time.

10. ***Technology Companies/Innovators: What standards or code of conduct are relevant to ensuring a balance between supporting innovation and ensuring the safety of transportation infrastructure and the traveling public?***

    Applying current motorcycle standards and codes of conducts to short narrow track vehicles will ensure a balance between supporting innovation and ensuring the safety of transportation infrastructure and the traveling public.

11. ***Technology Companies/Innovators: What actions can the NETT Council take to support your work, while maintaining its safety focus?***

    Provide opportunities to make presentations and provide test rides for Council members.

    a. ***At what point in the development of the technology or operation would it be ideal to interface with the NETT Council?***

Commuter Cars is currently prepared and eager to interface with the NETT Council.

b. Considering the resource constraints and the potential cross modal nature of non-traditional and emerging transportation technologies, would an on-going relationship with the NETT Council during the development and construction of your project be helpful to assess potential safety risks and unintended consequences be helpful? If so, how often should engagements occur?

An on-going relationship with the NETT Council during the development and construction of our project would be helpful. Determination of how often engagement should occur could be made after initial presentations and test rides.

Thank you for the opportunity to respond to the questions.

EDC-5 Call for Ideas 2019-2020[1] Submission:
Narrow Track Vehicle Fleets with Optional Supporting Lane Markings & Signage

1. Innovation category or name:	Narrow Track Vehicle Fleets with Optional Supporting Lane Markings and Signage https://www.youtube.com/watch?v=5CAnq5DyNG0
2. Name, Point(s) of contact, e-mail address	Michael Weiser, mickeysimple@comcast.net (773) 577-7617
3. Brief description of the proven innovation or process:	Single-width, tandem-seated, 100% electric car fleets. Lane markings to promote availability and safety.
4. Brief description of how the innovation addresses the following areas:	
• *National Impact*: How will it benefit the transportation system nationally	Commuter traffic congestion wastes millions of citizens' hours and billions of dollars. Regions are desperate for efficient land-use fix. Offering single-width cars and lanes would mitigate congestion by allowing right-sized, width-efficient, single and duo occupant driving.
• *Game Changing*: How is it transformative in saving time, money, or improving quality	Driving & parking in 40" width spaces reliably decreases commute times by 50%. Fleets with supporting lane markings far less costly than road widening.
• *Urgency and Scale*: How will it shorten project delivery and positively impact the environment, safety, congestion, freight movement, construction techniques, contracting methods, projects costs, maintenance, preservation, or emergency response?	Thin cars fleets allow faster delivery of people and goods. When powered by renewables they are much cleaner for the environment. With weather and road protection, narrow track vehicles provide much safer travel than traditional motorcycles. Lane markings far less costly to build and preserve than road widening and maintenance. Thin lane-splitting police cars safer for highway patrol compared with motorcycles.
5. Provide example(s), including location & date when the innovation was successfully applied in a transportation application & a description of the quantifiable performance benefits of the innovation in those applications.	Automotive X Prize Alternative Tandem Competition April 26, 2010 through August, 2010, Michigan International Speedway, Brooklyn, Michigan Result: Narrow track vehicle fastest "moose" entry: https://www.youtube.com/watch?v=8VPz38Xkgsc
6. List of any supporting specifications, guidelines, and/or procedures available to support technology transfer and national deployment. Do not include copies of the documents.	Commuting by Motorcycle: Impact Analysis http://www.tmleuven.be/project/motorcyclesandcommuting/20110921_Motorfietsen_eindrapport_Eng.pdf Motorcycle Lane-splitting and Safety in California http://www.ots.ca.gov/pdf/Publications/Motorcycle-Lane-Splitting-and-Safety-2015.pdf
7. List of agencies or entities that are "champions" for or regularly use the innovation.	Narrow Track Vehicle Association. IBM People for Smarter Cities: New solutions to traffic congestion: https://www.youtube.com/watch?v=rXCycmCVqD0

[1] https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/

Submitted 1/18/2018