

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF TRAFFIC OPERATIONS

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December 16, 2016

Ms. Irena Asmundson  
Chief Economist  
California Department of Finance  
915 L Street  
Sacramento, CA 95814

Dear Ms. Asmundson:

Thank you for your letter dated December 5, 2016, providing comments on the Standardized Regulatory Impact Assessment (SRIA) for the proposed changes to the State's electronic toll collection protocol. The following are your comments concerning three areas where more analysis was requested, and the California Department of Transportation's (Caltrans) responses.

**DOF Comment 1.** "First, the inclusion of a "no change" alternative is not informative for the public. A separate alternative that provided a genuine contract to the proposed regulations should have been used instead. One possibility could be the examination of other technologies that can generate similar or higher savings for toll agencies."

**Caltrans Response to DOF Comment 1.** The "no change" alternative was intended to serve as a baseline to compare against the change to the 6C technology. A "no build" alternative is a common practice in the project development process at Caltrans, and this was in keeping with that practice. As for the examination of other technologies, there are three other electronic toll collection protocols used in the United States. Of those three protocols, two are considered "open standard," the 6C protocol, and the Time-Division Multi-Plexing (TDM) protocol, which is used for the EZPass system within the northeastern United States. State law requires that the protocol used in California be an open standard, therefore, only these two options were available for consideration. The toll agencies did consider the TDM protocol, but found that the TDM transponders are only slightly less expensive than the Title 21 transponders, whereas 6C transponders are significantly less expensive than Title 21 transponders. Furthermore, there are only two manufacturers of TDM transponders, whereas there are currently four manufacturers of 6C transponders. The greater number of manufacturers is expected to help further reduce purchasing costs due to increased competition. Since cost savings is the primary factor for moving away from the Title 21 protocol, the lower cost savings with the TDM protocol indicates that it is not a feasible alternative. Information on the costs of the two protocols may be found on pages 7 and 9 of the "California Toll Operators Committee (CTOC) Plan for Transitioning

from the Title 21 protocol to the 6C protocol,” which is available for review on Caltrans' Title 21 support web page at: <http://www.dot.ca.gov/trafficops/tech/title21.html>.

**DOF Comment 2.** “[It] is surprising that despite the improvements in transport efficiency (less congestion and better roads), the transport sector is the only sector that consistently reports a yearly \$1 million decrease in output. As reported, the estimated output decrease of the transport sector is not taking into account the positive effect on messenger demand of the improvement of transport efficiency. The benefits would thus be understated.”

**Caltrans Response to DOF Comment 2.** The results listed in the table, “T21 – 6C Annual Differences for California Industry Outputs” (located on page 10 of the SRIA), are summary of direct, indirect, and induced output expectations for industries due to changes in the way the State’s toll operators reinvest their monetary resources into the transportation network. Any travel (transport) efficiency gains are excluded from this analysis. Financially, a net loss in revenue for the shipping industry (NAICS 492) is expected because toll agencies would pay couriers \$2.00 less per unit to distribute 6C transponders even though the demand for courier service would increase. This is due to less packaging and postage required to ship the new transponder technology. Thus, an annual loss of revenue was inputted into the Regional Economic Models, Incorporated (REMI) economic analysis model for this sector. Solely looking from a financial aspect, the REMI model predicted that the loss in revenue for the shipping industry would negatively impact the output for transportation and warehousing industry (NAICS 48-49). As mentioned in the “Benefits to California Industries” section of the SRIA (located on page 4), accounting for travel (transport) efficiency gains is beyond the scope of this analysis due to the lack of research and ability to quantify this likely positive outcome.

The reinvestment into the transportation network would likely have some positive benefits that are not captured in the reported industry output table. Improvements to the transportation infrastructure or vehicle load capacity for couriers could yield efficiency gains through better travel speeds, throughput, or trip efficiency. Thus, these unaccounted benefits could reduce the negative output that is predicted for the transportation and warehousing industry by REMI. However, these unaccounted gains may not be significant enough to offset the overall negative output for these industries due to a loss in revenue for the shipping industry.

**DOF comment 3.** “[The] SRIA does not discuss whether the adoption of this technology posed privacy and security concerns to its users. It is possible that unauthorized individuals could read the tags’ information without the owner’s knowledge or consent, resulting in the possibility of people being tracked without their knowledge or consent. There are separate regulations addressing privacy, and this is an issue with existing technology as well. However, the expected large-scale adoption of transponders facilitated by the new technology, greater privacy risks are an impact that should be discussed in the SRIA.”

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**Caltrans Response to DOF Comment 3.** While the number of transponders issued is expected to increase due to the transition to 6C protocol, Caltrans does not believe this will pose additional privacy or security issues. The 6C protocol has been used for many years in several states without any privacy or security issues. No personal information is stored on the transponder. The information shared by reader and transponder communications is a string of numbers that identify the toll agency that issued the transponder, and those numbers do not correlate to any individual. A 6C transponder may have the capability of having information written to it, but this information would only show the last location where the tag was read, and it is overwritten every time the transponder passes underneath a reader. Therefore, an unauthorized person cannot tie the information to the transponder's owner for tracking purposes. The information exchange covered by this regulation for the toll agencies is in compliance with California Streets and Highway Code section 31490, which defines personally identifiable information and the requirements that toll agencies must follow when sharing information. The proposed regulation emphasizes the need for toll agencies to comply with this statute. If any privacy concerns are raised during the rulemaking process, including the public comment period and hearing, Caltrans will address them accordingly.

Thank you again for your comments. If you have any questions, please do not hesitate to contact me at (916) 654-6007, or by email at [steve.hancock@dot.ca.gov](mailto:steve.hancock@dot.ca.gov).

Sincerely,



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