STATE OF CALIFORNIA — DEPARTMENT OF FINANCE
MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY
DF-121 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

<table>
<thead>
<tr>
<th>Agency (Department) Name</th>
<th>Contact Person</th>
<th>Mailing Address</th>
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</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>Steve Hancock</td>
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<tr>
<td></td>
<td></td>
<td>Sacramento, CA 95814</td>
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1. Statement of the need for the proposed major regulation.

State law mandates that Caltrans work with the state’s toll facility operators to select and implement a standard for electronic toll collection (ETC). The technical specifications for the standard are found in Title 21 of the California Code of Regulations, Division 2, Chapter 16. In recent years, the toll facility operators in California have discussed the idea of transitioning away from the current standard, known as Title 21. The standard is used primarily in California and British Columbia. Because there is such a small market for Title 21 transponders, only two manufacturers supply these transponders and readers, which limits competition, resulting in higher procurement costs. In addition, the Title 21 standard include features that make the transponders more expensive than those for other ETC standards. The state’s toll facility operators have identified a new standard, known as 6C, which will reduce costs because 6C transponders are less expensive and there are more companies that manufacture 6C transponders and readers.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

Toll facility operators benefit from this proposed regulation because of cost savings for them to procure less expensive and more modern transponder technology. The primary benefits to California businesses would be seen in the semiconductor industry because one of the firms that manufactures 6C transponders operates in California. Title 21 transponders are produced out-of-state. Secondary impacts to businesses would be seen in the shipping and waste disposal industries because these industries would have a slight increase in transponder handling during regulatory implementation. Other industries that might be affected as a result of allocating savings back into the tol facility include the primary industries of construction, manufacturing, wholesale trade, retail trade, transportation, and warehousing. Assuming that the toll facility operators would reinvest the cost savings back to the transportation system, consumers would benefit with lower vehicle operating costs because of smoother roads. There would also be reduced vehicle emissions. The regulations also contain provisions that protect both personally identifiable information and intellectual property.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

Costs: The proposed regulation does not impose any direct costs to individuals and businesses because all costs are incurred by the tol facility operators. Toll facility operators are expected to spend $4.5 million for the first two years to retrofit ETC systems. They are also expected to spend just under $1 million to collect and dispose existing Title 21 transponders.

Benefits: The realized average annual net savings from the proposed regulation is about $20.4 million to the tolling agencies, which would then recirculate back to the economy through increased construction activity. The overall economic impact is magnified and benefits increased at least two-fold once the indirect and induced effects are taken into account.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed $50 million.

The proposed regulation (Alternative #1) would result in an economic impact OUTPUT greater than $50 million over a 12-month period in year 2022 and in year 2024, one year after the major regulation is estimated to be fully implemented.

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
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<tbody>
<tr>
<td>Economic Impact ($1,000)</td>
<td>34,483</td>
<td>40,017</td>
<td>45,455</td>
<td>50,406</td>
<td>32,388</td>
<td>63,775</td>
</tr>
<tr>
<td>Jobs</td>
<td>217</td>
<td>247</td>
<td>276</td>
<td>303</td>
<td>166</td>
<td>375</td>
</tr>
<tr>
<td>Gross Domestic Product ($1,000)</td>
<td>20,600</td>
<td>23,900</td>
<td>27,300</td>
<td>30,300</td>
<td>20,400</td>
<td>38,300</td>
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5. Description of the agency’s baseline:
Under the existing regulation, toll facility operators are required to employ the Title 21 standard for ETC. There are an estimated 4.5 million Title 21 transponders deployed in the state through accounts established by drivers. Some of these transponders may have a switch which allows users to declare the number of occupants in the vehicle. Estimates of costs, including transponders, shipping and disposal, and projections for future demand, were provided by the toll facility operators. Drivers bear no cost for obtaining or maintaining of transponders paying only the tolls they incur. The California Toll Operators Commission (CTOC) incurs the approximate costs:

- Title 21 Transponders: $20.00 ea. per switchable and $15.00 ea. per non-switchable
- $3.00 ea. shipping
- $0.28 ea. disposal

The assumed annual transponder volume growth rate is 12 percent.
The assumed annual transponder replacement rate is 13 percent.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:
   a. All costs and all benefits of the alternative
   b. The reason for rejecting alternative

Alternative 1: Continue under the current technological requirements. This alternative would result in approximately $117 million in additional costs incurred by toll facility operators from higher purchase, shipping and disposal costs of new and retired Title 21 transponders over the analysis period compared with the proposed change to the 6C standard. Since this is an aging technology the number of vendors participating in this market is shrinking which raises the risk of price increases from market manipulation.

Alternative 2: Shorten the regulation implementation horizon to two years (2019 to 2021). This alternative would impose additional upfront costs to toll facility operators necessary to switch from Title 21 transponders to the proposed 6C transponders. Shortening the implementation period would result in several thousand to millions of Title 21 transponders being taken out of service several years ahead of their useful life of 5 to 8.8 years. This would be an inefficient use of resources by the toll facility operators because they would be spending resources on transponders that would be disposed of after only a short period of time.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).
   Caltrans conducted two pre notice public discussion workshops. Agencies that utilize the Title 21 standard were notified of the workshops. The first workshop was held on July 8, 2015, in Oakland, California. The second workshop was held on July 22, 2015, in Fontana, California.
   Caltrans also conducted meetings with internal and external stakeholders to gather input on developing the proposed regulations.

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).
   The economic impacts of the proposed regulation and alternatives are modeled using the Regional Economic Models, Inc. Policy Insight Plus (REMI, PH). The REMI model is a "general equilibrium" model that traces the total effects over time of changing economic conditions in a study area. It includes all of the functions of input/output models plus additional functions to forecast effects of future changes in business costs, prices, wages, taxes, productivity, and other aspects of business competitiveness, as well as shifts in population, employment, and housing values. Direct cost (savings) estimates were calculated using transponder demand estimates (new and replacement) and purchase, shipping, and disposal costs provided by the toll facility operators. Since the regulation would result in costs savings to the toll facility operators, the analysis assumed full reinvestment of the savings in the expansion and maintenance of the toll facilities as well as costs associated with the 6C technology. The cost (savings) estimates were assigned to affected industries for input into the REMI Model.

Agency Signature: [Signature]
Agency Head (Printed): [Name]
Date: 10/24/2016