



# Appendix-18.2

## Assessing Road Charge on Out-of-State Visitors

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# California Road Charge Pilot Program – Assessing Road Charge on Out-of-State Visitors to California

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**Assessing Road Charge on Out-of-State Visitors to California**

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## **Assessing Road Charge on Out-of-State Visitors to California**

### **Preface**

At its April meeting, the Road Charge Technical Advisory Committee (TAC) recommended inclusion of out-of-state motorists in California's road charge pilot test and also recommended testing or, at minimum, simulating interoperability of road charging with another jurisdiction. The purpose of this policy memorandum is to lay out the policy options for addressing out-of-state motorists under a road charge program, review the corresponding operational approaches, and make recommendations for the specific approaches to be followed by Caltrans and the pilot project team in delivering a pilot program in line with TAC recommendations.



## Assessing Road Charge on Out-of-State Visitors to California

### Executive Summary

The objective of this technical memorandum was to identify and analyze approaches that California can consider for charging motorists from other jurisdictions (“visitors”) for road usage during the Road Charge Pilot Program and in any future implementation of road charging. Further, the memo touches briefly on mechanisms that would allow road charge revenues collected from drivers. The results include identification of a range of policy alternatives and implementation strategies for charging out-of-state visitors for road use while they are in California.

The policy alternatives presented for use in California’s Road Charge Pilot Program include:

- ▶ Charge based on fuel purchased – California would continue to charge fuel tax. California residents participating in the road charge would receive a rebate of fuel tax paid. Visitors would not.
- ▶ Charge based on time – California would sell time permits of varying durations (day/week/month) to visitors. The permit would allow visitors unlimited mileage during its period of validity.
- ▶ Charge based on distance – California would impose the road charge on visitors based on the number of miles they drove while in the state.
- ▶ Charge using a combination of time-based and distance-based methods – Under this method, visitors equipped with a location-based reporting device that is compatible with California’s road charge system would pay for road use based on miles driven. All other visitors would purchase a time permit.

Following the discussion of policy alternatives, the memo provides a high-level overview of the operational concepts and strategies California could use to implement the chosen policy option(s). This includes a review of the methods available for recording and reporting road use, as well as how visitors might pay their charges. The operational concepts and strategies presented were designed to leverage the various operational concepts and technologies currently under consideration for California’s road charge pilot.

Finally, the memo discusses how each of the policy/strategy combinations might function under a unilateral charging scenario, where California is the only state with a road charge, as well as under bilateral and multilateral charging scenarios.

The report concludes with a recommendation to adopt a combination of time-based and distance-based charging for the pilot program utilizing the time-permit and automated distance reporting (with location) operational concepts. It further recommends entering into a bilateral revenue collection/distribution agreement with Oregon, to include the Commercial Account Managers that are participating in the OreGo program.

Recognizing that California’s road charge program has both short-term needs (focused primarily on the pilot program) as well as longer-term needs for an operational program, additional policy options and implementation scenarios that may be suited to a future operational system are presented in Appendix A.



## Assessing Road Charge on Out-of-State Visitors to California

# 1. Introduction

## 1.1. Objective

The objective of this technical memorandum (memo) is to identify and analyze approaches that California can consider for charging motorists from other jurisdictions (“visitors”) for road usage during the Road Charge Pilot Program and in any future implementation of road charging. Further, the memo touches briefly on mechanisms that would allow road charge revenues collected from drivers who undertake interstate travel to be distributed in cooperation with other jurisdictions in a multi-state road charge scenario.

This document is intended to inform strategies that might be tested during the road charge pilot, and lays out a range of options for assessment and collection of road charges on out-of-state drivers in a future operational system.

## 1.2. Context

The California Road Charge Technical Advisory Committee (TAC) was established in 2014 by Senate Bill 1077 (Chapter 835, Statutes of 2014). Among its duties is recommend the design of a road charge pilot program to the California State Transportation Agency (CalSTA). At its April 2015 meeting, the TAC recommended that California’s road charge pilot program should:

- ▶ Test methods of assessing charges on out-of-state drivers using California roads, and
- ▶ Test interoperability of California’s road charge system with that of other jurisdictions.

In addition, the TAC identified five operational concepts for California’s road charge system and recommended the use of Commercial Account Managers (CAMs) during the pilot. These latter two points inform the revenue collection, reconciliation, and distribution mechanisms presented in Section 4 (Strategies for charging visitors and reconciling revenues).

In 2014, the Western Road Usage Charge Consortium (WRUCC) sponsored a research study of multi-jurisdictional policy and operational alternatives for road charging. Caltrans was a co-sponsor of that research. The policy and operational alternatives presented in this memo are derived largely from that earlier work, but have been adapted so they fit specifically within the unique geographic, legal, and policy framework of California, and they have been enhanced specifically to address a pilot test of operational concepts.

## 1.3. Organization

Section 2 of this memo summarizes background and context. Next, Section 3 discusses two key policy questions that arise from the TAC’s pilot design recommendations:

- ▶ How should road usage by visitors from out of state be assessed under California’s road charge pilot program?
- ▶ In a future multi-jurisdictional road charge environment, what are the various methods of allocating funds (regardless of whether they originate as gas tax, mileage-based charge, time permit, etc.) to the correct jurisdiction when motorists undertake travel across more than one?



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To answer these questions, various policy alternatives under which non-California residents might be assessed a fee for travel on California public roads are considered.

Section 4 presents strategies the state might adopt to recover road charges from out-of-state motorists, as well as strategies the state might adopt to ensure revenues due to (and from) one or more other states are appropriately reconciled, both in a pilot and in a live operational system.

Section 5 summarizes enforcement options associated with out-of-state motorists.

Section 6 includes our conclusions and proposed next steps.

### 1.4. Short-term vs. Long-term Program Needs

The policies and strategies in this memo are developed and presented with an understanding that California's road charge program has both short-term and long-term needs. In the short-term, there is a need to test the viability of charging out-of-state motorists using the pilot program as a test-bed. In the longer term, there is a strong possibility that an operational system in California would need to form relationships with several other jurisdictions that have adopted a road charge – each of which will have adopted its own operational concepts, rates, charging methods, and administrative structures – to facilitate revenue collection and create a rational tax environment for motorists.

This technical memorandum addresses policies, strategies, and enforcement both in terms of the short-term and long-term needs of the program as follows:

- ▶ Short term (pilot program) needs:
  - > Determine if charging out-of-state drivers is possible
  - > Test different methods of charging to assess effectiveness
  - > Test a bilateral revenue reconciliation system with Oregon (although it will be a unidirectional system in that Oregon has chosen not to assess a road charge on visitors)
  - > Test the capabilities of Commercial Account Managers to measure and assign mileage in more than one jurisdiction.
- ▶ Long term (future operational program with possibility of many road-charge states and multilateral revenue collection/distribution agreements) needs:
  - > Identify indirect methods of assigning revenues among participating states
  - > Identify structures for multilateral agreements.





## Assessing Road Charge on Out-of-State Visitors to California

### 2. Background

The California Road Charge Pilot Program will test the feasibility of implementing a mileage-based system of assessing and collecting revenues for maintaining and improving California's roadway network. Under such a system, some or all vehicles registered in the state would be subject to a per-mile fee for using California roads. The question remains whether visitors would likewise be subject to such a fee.

Because visiting motorists are by definition ephemeral, requiring visitors to pay road charges could require special systems that may add to the cost of California's road charge system implementation and operation. This technical memorandum presents a range of policy and operational approaches California could adopt to assess, collect, and reconcile any road charges collected from visitors.

#### 2.1. The Current Fuel Tax System

Under the current fuel tax collection system, passenger and commercial vehicles using gasoline or diesel fuel for roadway travel pay federal motor fuel tax on gasoline and diesel purchased in the U.S. In addition, all states levy state fuel taxes, and some jurisdictions also levy regional and local fuel taxes. Tax is generally collected at the supplier level ("terminal rack"), and in the case of state fuel taxes, funds are retained in the state where the fuel was distributed.<sup>1</sup> The entities charged with collecting fuel taxes have been relatively unconcerned with whether the fuel purchased is consumed within their boundaries, and for passenger cars, make no attempt to balance revenue generated with miles driven across jurisdictional boundaries.

For example, a driver of a passenger car that refuels in Zephyr Cove, Nevada (a town near the Nevada/California border) who then travels to Sacramento, California and back will have driven about 215 miles—all but 8 of those on California state highways—but will have paid fuel taxes only to the state of Nevada and to the federal government, and none to California. Even though California receives no portion of the fuel taxes collected by Nevada, this tax system has been deemed generally acceptable on grounds that the system works both ways: drivers refueling in California may similarly drive many miles on Nevada roadways without contributing to the Nevada highway fund. Except in a few extreme cases (such as towns along state or international borders where visitors may travel with the exclusive objective of purchasing fuel across the border at lower prices, then return to their homes), the general public does not perceive or complain of any inequities in this roadway funding system. Whether this is due to perceived equity (e.g. "it goes both ways") or a more fundamental lack of awareness that any fuel taxes are even being paid, most people and by extension policy makers seem to be comfortable with the status quo.

By contrast, both elected officials and the general public have indicated concern that under a road charge system visitors may not be charged for use of a host state's roadways. Some members of the public have expressed questions about the fairness, or lack thereof, of only California residents contributing to road maintenance funding, even when out-of-state visitors are using the roads, while others perceive (correctly or

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<sup>1</sup> Fuel purchased for use by interstate commercial vehicles is treated somewhat differently. Since 1986, when the International Fuel Tax Agreement (IFTA) was launched, interstate commercial vehicles report fuel purchased and consumed, and distance traveled state by state (and in ten Canadian provinces) to the IFTA administrators of their home jurisdictions. This reporting occurs on a quarterly basis. Fuel taxes owed (or refunds due) are calculated using the differential fuel tax rates for each of the jurisdictions in which travel was undertaken and fuel purchased. A national clearinghouse operated by IFTA, Inc. then reconciles fuel taxes due/owed by each participating jurisdiction.



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not) that a very large share of the cars on California roads are from out of state, and not including them in a road charging system amounts to the state voluntarily foregoing an important revenue stream.

The “visitors drive free” scenario may or may not materialize in a road charging system, depending upon the policies, tax systems, and reciprocity agreements established within and between various jurisdictions. The provisions made to address the issue will influence public acceptance of the road charge system as well as the balance of highway maintenance funding in surrounding states. Indeed, the opportunity for visitors to California to buy tax-free fuel and pay no additional fees to use a roadway could potentially entice tax evasion in both California and their home jurisdictions. While certainly an unintended consequence, it also has the potential to encourage additional tourism: tax-free gas certainly reduces costs for visitors of traveling throughout the state.

### 2.2. Terminology

This technical memorandum uses the following terms and definitions:

- ▶ *Clearinghouse*: an entity that calculates reconciliation and, optionally, handles reconciliation payments among two or more jurisdictions.
- ▶ *Home jurisdiction*: the jurisdiction in which a vehicle is registered. Jurisdictions can adopt bilateral or multilateral approaches for data reporting, road charge collection, and revenue reconciliation.
- ▶ *Host jurisdiction*: jurisdiction in which a visitor travels. Jurisdictions can adopt bilateral or multilateral approaches for data reporting, charge collection, and revenue reconciliation. In this technical memorandum, California is the host jurisdiction.
- ▶ *Visitor*: registered owner or lessee of vehicle(s) traveling outside their home jurisdiction.
- ▶ *Reconcile*: process of balancing two accounts, including calculation and payment of charges or refunds. We discuss two types of reconciliation:
  - > *Individuals* reconcile the amount of charges paid with the amount of charges owed to all jurisdictions (home and hosts). Home jurisdictions or private account managers handle payments and refunds.
  - > *Jurisdictions* reconcile the amount of charges collected from motorists with the amount owed by motorists. Additional payments or refunds are handled directly with other jurisdictions or through a clearinghouse.
- ▶ *Undifferentiated*: method of distance measurement that does not allocate distance by location but rather records all distance traveled.
- ▶ *Shadow charge*: a charge on one entity that is paid by another entity.

### 2.3. Analytical Framework

The background information about California presented below informs our thinking about charging visitors for using roads in the state, and Section 3 outlines the various policy alternatives for charging visitors to California in both single- and multi-state road charge scenarios. These alternatives for charging visitors are focused on people who are driving their personal vehicles into the state, not on rental cars procured inside California. We assume that California-registered rental cars, while driven by visitors, are already participants in California’s road charge program.

In considering the policy alternatives and concepts presented in this report, it should be remembered that this document discusses *tax policy*. Specific details related to implementation of the policy can be decided after the policy goals are established, and are expected to evolve as the road charge program develops. The goal of the



## Assessing Road Charge on Out-of-State Visitors to California

discussion that follows is to offer the various policy options available to California during the Road Charge Pilot Program and beyond, and to identify the strengths and weaknesses of each option. The alternatives are offered in the context of nine characteristics of good policy, which are outlined in table 2.1.

**Table 2-1: Characteristics of Good Tax Policy**

Characteristic	Description
Simple	The policy should be simple so that visitors can understand the rules and comply with them
Cost Effective	The cost to collect the tax <i>including any enforcement efforts</i> (by the state)
Equitable and Fair	Similarly situated taxpayers should be taxed similarly
Convenient	The tax should be due at a time and in a manner that is convenient for the
Location Neutral	The effect of the policy on visitors' (and residents') decisions about where to purchase fuel should be minimized
Transparent and Visible	The visitor should know that the road charge exists, and how and when it is
Technological Capability	The policy adopted should be fully supported by existing technologies
Personal Privacy	The policy adopted should maximize the protection of personal privacy
Complies with "user-pays" principle	The policy adopted ties revenues to miles driven

Source: Smith, Adam. *Wealth of Nations* (originally published 1776), edited by C. J. Bullock. Vol. X. *The Harvard Classics*. New York: P.F. Collier & Son, 1909–14; Bartleby.com, 2001. [www.bartleby.com/10/](http://www.bartleby.com/10/) and California Vehicle code Division 2, Chapter 7, Section 3090-3093).

In addition, any tax imposed on motorists visiting one U.S. state from another must be carefully fashioned so as to ensure accordance with the Commerce Clause of the U.S. Constitution.

The nine characteristics of good policy listed above are revisited at the end of the discussion of each policy basis in Section 3 with a high-level evaluation of how well that policy conforms to them.

## 2.4. Summary of TAC-Recommended Operational Concepts and Technologies.

To date, the TAC has recommended the following Operational Concepts and supporting technologies for use in the Road Charge Pilot Program.

### 2.4.1. Manual Reporting Methods

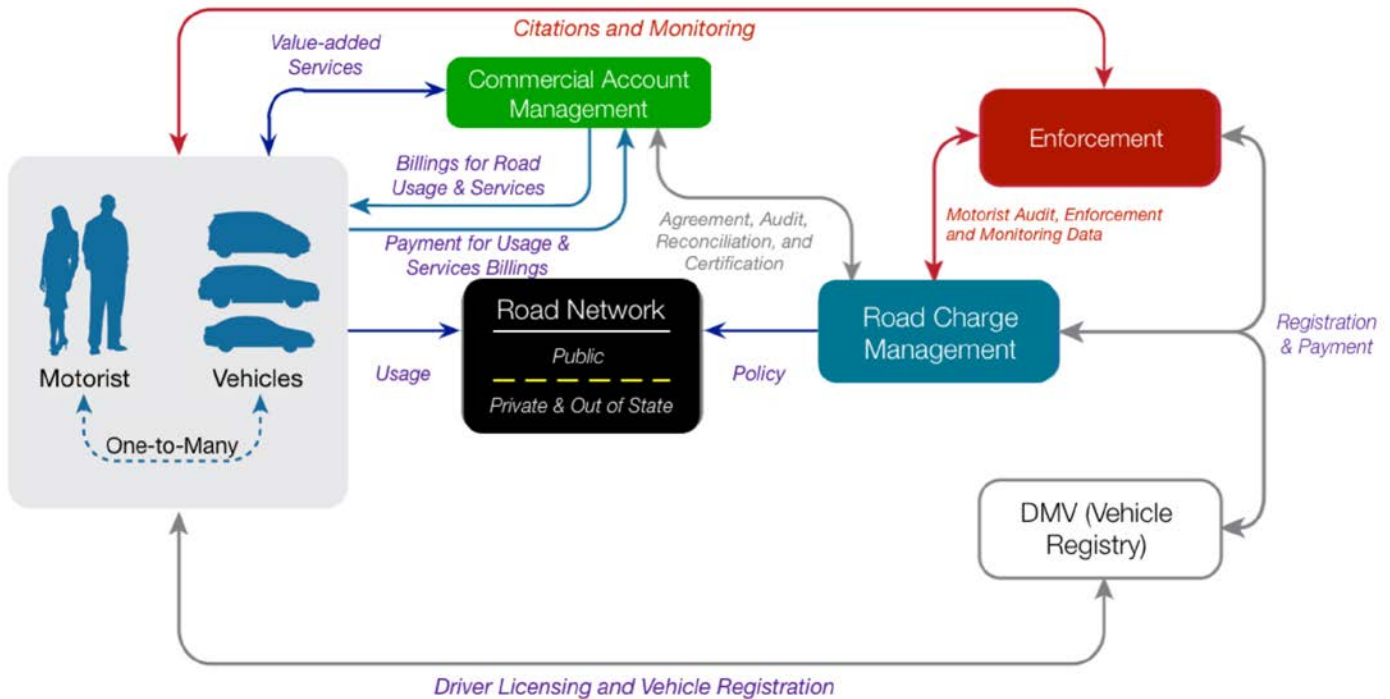
- ▶ **Time Permit:** California motorist purchases a permit to drive an unlimited amount of miles for a given time period (e.g., week, month, year, or multi-year).
- ▶ **Mileage Permit:** California motorist purchases a permit to drive a specified number of miles (e.g., 1,000 miles, 6,000 miles, 12,000 miles).



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- ▶ **Odometer Charge (both pre- and post-pay):** Roadway use is measured by the vehicle’s odometer. Motorist or an authorized agent (e.g., auto repair shop, certified DMV agent) reports odometer reading. Alternatively, reporting odometer readings could be self-reported and done via Internet, smartphone app, or mail-in post card.

**Figure 2-1: Illustration of Operational Concepts**



**2.4.2. Electronic Reporting Methods**

- ▶ **Automated Distance Charging (no location data):** An in-vehicle device or vehicle telematics measures the vehicle distance driven and reports it to an account manager – either public or private sector.
- ▶ **Automated Distance Charging (general location only):** An in-vehicle device or vehicle telematics measures the vehicle distance driven on taxable roadways and reports the taxable mileage to a private account manager.

Each operational concept has been described in detail in previously delivered materials<sup>2</sup>.

The TAC-recommended operational concepts are re-presented here because they form the core of the strategies recommended below for charging visitors to California for using the roads. The policy alternatives for assessing road charges on visitors to California are constructed more broadly than the operational concepts recommended for the pilot project, but the specific strategies suggested for implementing those policy

<sup>2</sup> Briefing Book for the California Road Charge Technical Advisory Committee, April 24, 2015. Pages 16-53.



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alternatives are designed to be harmonious with the technologies and organization of the pilot. In other words, the policy alternatives are generally applicable to any implementation of a road charge system, but the strategies recommended are specific to California’s program and are intended to (1) obviate any need for duplicate systems and (2) minimize the likelihood that tools, methods, and procedures for visitors diverge from those that apply to residents.

**2.5. Characteristics of Inter-jurisdictional Travel in California**

**2.5.1. Roads Crossing Jurisdictional Boundaries**

California shares borders with three states (Arizona, Nevada, and Oregon) in addition to the international border with Mexico. Based on data received from Caltrans, there are nearly 200 roads that pass from California into a neighboring jurisdiction. The table below provides a summary of the number and types of roads crossing into Arizona, Nevada, Oregon, and Mexico.

**Table 2-2: Boundary-crossing roadways**

State	Interstate	Other Highways	Other Roads And	Total
California	6 (1 int'l)	26 (5 int'l)	156	188

The vast majority of visiting motorists enter the state on one of the interstate highways or international border crossings. California has substantial daily cross-border travel at locations like San Diego, CA – Tijuana, Mexico and Lake Tahoe, CA-NV. While a small portion of the cross-border traffic in those areas is generated by short-term tourism, and a substantial amount of freight destined for California and points beyond enters the U.S. along California’s southern border, a significant portion of the personal vehicle traffic is intra-region travel such as commuting to work or shopping.



**Figure 2-2: San Ysidro Port of Entry**

Table 2-2 details the number of vehicles, by type, crossing the U.S.-Mexico border through one of the six land ports of entry in California from 2012 to 2014. Northbound traffic at the San Ysidro Port of Entry (connecting San Diego with Tijuana) is frequently as high as 50,000 passenger cars per day. By comparison, in-bound traffic on Interstate 10 is only about 12,000-13,000 vehicles per day, and many of these are trucks. A majority of vehicles crossing into San Diego do not travel beyond the metropolitan area and return to Mexico that day; and they form a group of visitors distinct from “road trippers” who may only enter the state once but drive a large number of miles over the course of one or two weeks. Designing a policy that effectively and efficiently accounts for the miles driven in California by these, and similar, commuters is an important element in the public acceptance and future viability of California’s road charge program.



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**Table 2-3: International Border Crossings, 2012-2014<sup>3</sup>**

Point of Entry	Year	Trucks	Buses	Personal Vehicles
Andrade	2012	279	-	415,615
	2013	-	-	394,548
	2014	-	-	453,079
Calexico	2012	-	-	4,070,090
	2013	-	-	4,112,348
	2014	-	-	4,071,666
Calexico East	2012	322,424	2,564	3,016,974
	2013	325,690	2,571	3,198,849
	2014	325,243	2,785	3,399,697
Otay Mesa	2012	778,929	37,799	5,346,210
	2013	769,886	42,145	6,235,300
	2014	810,193	41,222	6,910,219
San Ysidro	2012	-	68,194	11,481,951
	2013	-	60,173	11,346,966
	2014	-	57,171	11,946,060
Tecate	2012	43,245	110	773,647
	2013	47,762	111	745,541
	2014	52,239	237	812,540

### 2.6. Current Visitor Registration and Inspection Requirements

This section describes policies, programs, and regulations in place that could serve as a springboard for future policy for charging visitors for road usage in California. The intent of this review is to determine whether there are existing policies or organizational infrastructures that could be adopted or adapted to charge for road usage by visitors in the future.

#### 2.6.1. Current Fuel Tax Collection

Under the current fuel tax system, California collects fuel taxes at the terminal rack level, “upstream” from retail customers. This method, whereby fuel importers, wholesalers, and refiners pay the tax, allows the state to collect taxes from a smaller number of taxpayers and causes the fuel tax to be nearly invisible to most drivers. Indeed, most participants in focus groups conducted throughout California during the summer of 2015 were unable to state the current state fuel tax, and some were unaware that a state fuel tax is even charged.

<sup>3</sup> U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, based on data from the Department of Homeland Security, U.S. Customs and Border Protection, Office of Field Operations.



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### 2.6.2. Nonresident Vehicle Registration Requirements

In the U.S., all states require that residents register their motor vehicles within the state where they reside. In addition, California requires that non-residents employed within the state register their vehicles with the state.

For example, individuals living in Arizona but working in California may be required to have dual registration, and registration taxes and fees must be paid in both states and two sets of license plates must be carried. However, only one set of license plates must be displayed, and the plates do not need to be changed as the vehicle crosses between states.

California does offer a reduced fee registration for “nonresident daily commuters.” Employees from a contiguous state can obtain a small decal for a nominal fee in lieu of full vehicle registration, if the vehicle is not brought more than 35 miles past the border. Note that this program does not require an agreement between states.

Administration and enforcement of these programs presents many challenges. First, many nonresidents may be unaware that they must register their vehicles in a second state. Second, the programs that afford nonresidents an opportunity to avoid paying full registration costs are poorly publicized. Lastly, it is almost impossible for enforcement officials to differentiate between those who must register, those not required to register, and those who are simply avoiding their obligation. Aside from a comprehensive investigation by law enforcement, enforcement is limited. California has led the charge in targeting registration violators by creating a “Cheaters” program, which solicits voluntary tips from citizens when they become aware of residents and nonresidents alike violating one of the registration laws.

These examples of existing policies, program administration, and enforcement are a few examples that could form both a policy and organizational basis for a multi-jurisdictional road charge program.

### 2.6.3. Border Crossing Agricultural Inspection Points

California has agriculture inspection points near major border crossings. The purpose of these inspections is to ensure compliance with quarantine and agriculture policies. Depending on the policy adopted and strategies implemented, these inspection points could serve as points of distribution for road charge devices (such as time or mileage permits), additional travel data collection, or enforcement activities.



**Figure 2-3: California Agricultural Inspection Station**



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### 3. Policy Alternatives for Charging Visitors

Given the interconnectedness of California and neighboring states, as well as the international border with Mexico, new policies and operations are likely to be required to assess road charges on drivers from outside California. This section outlines several policy alternatives for charging visitors in single-jurisdiction or two-jurisdiction settings (current scenario) and multi-jurisdiction road charge environments (future scenario). Some of these policies can be used alone; several of them can be used in combination.

The first four policy alternatives presented are appropriate for use during the road charge pilot. The remaining alternatives are offered as additional possibilities for consideration in a future scenario in which several states have an active road charge program but may be overly complex or otherwise inappropriate for use during the road charge pilot program.

#### 3.1. Policy Alternative 1: Charge Based on Fuel Purchased

California currently collects state fuel taxes on gasoline and diesel sold for highway use. One way to capture revenue from visitors is to continue collection of fuel taxes, providing refunds of fuel tax paid to residents who participate in the road charge system and retaining taxes paid by visitors.

##### Advantages:

- (1) This option requires no action on the part of the visitor.
- (2) With respect to collecting fuel tax from visitors, this option places no new policy or administration requirements on the state. California already has a fuel tax collection, compliance, and accounting infrastructure in place.
- (3) The marginal cost associated with continuing to collect revenue from visitors via the existing fuels tax structure is nearly zero.
- (4) This option can be exercised unilaterally and requires no reconciliation with neighboring states.

##### Disadvantages:

- (1) This option only captures revenues from fuel purchased in California. In a scenario where a visitor purchases fuel in a neighboring state but undertakes most of their travel in California, no revenues would be collected by California. As such, for as long as neighboring states continue to charge fuel tax, this option maintains the status quo.
- (2) This option does not capture revenues from visitors whose vehicles do not use gasoline or diesel (such as electric cars).
- (3) This option does not base tax assessed (or revenues collected) on road use, and so deviates from the user-pays basis of road charging.
- (4) Maintaining fuel taxes “at the pump” in parallel with road charging, even with a rebate to road charge participants, could be misconstrued as double taxation by Californians.
- (5) This option does not address the TAC recommendation to assess a road charge on visitors.



**Figure 3-1: Gas Pump in California with Fuel Tax Sticker**





## Assessing Road Charge on Out-of-State Visitors to California

**Table 3-1: Summary Review of Characteristics of Good Tax Policy – Charge Based on Fuel Purchased**

Characteristic	Assessment
Simple	Good
Cost Effective	Good
Equitable and Fair	Moderate
Convenient	Good
Location Neutral	Poor
Transparent and Visible	Poor
Technological Capability	Good
Personal Privacy	Good
Complies with “user-pays” principle	Poor

### 3.2. Policy Alternative 2: Charge Based on Time

In place of retaining the fuel tax, California might consider a time-based charge for visitors. Such a charge would require any visitor to pay for time spent in California in exchange for unlimited travel during a defined time period. There are numerous ways to implement this policy and for varying lengths of time (e.g., 1 day, 1 week), but the fundamental concept is to charge visitors for entry on a time basis rather than based on distance traveled or fuel consumed. This has become a preferred policy option for several European countries as a means to charge visitors a fee for using designated roads.

#### Advantages:

- (1) Time-based charges are relatively cost-effective to administer and do not necessarily require any technology for the visitor.
- (2) Precedent for such charges exists in California in the current requirement that non-resident employees purchase a visitor registration permit in order to commute into the state to work.
- (3) The TAC has recommended a Time Permit as an operational concept option for California residents, so offering a time-based option to visitors is consistent with that recommendation.

#### Disadvantages:

- (1) California would need to create and operate some form of time permitting system. The system could be operated unilaterally, or cooperatively with other states if, in the future, multiple states adopt a mileage-based revenue system.
- (2) Evasion opportunities would be numerous, so enforcement would need to be carefully planned and implemented for maximum effectiveness. Requiring a physical sticker may discourage evasion attempts but could also raise costs.
- (3) Time-based charges generally do not reflect actual costs imposed by visitors.



## Assessing Road Charge on Out-of-State Visitors to California

**Table 3-2: Summary Review of Characteristics of Good Tax Policy -- Charge Based on Time**

Characteristic	Assessment
Simple	Good
Cost Effective	Good
Equitable and Fair	Moderate
Convenient	Good
Location Neutral	Good
Transparent and Visible	Good
Technological Capability	Good
Personal Privacy	Good
Complies with "user-pays" principle	Poor

### 3.3. Policy Alternative 3: Charge Based on Distance

Under this option, California would require all visitors to either report distance traveled as the basis for paying a tax or to purchase blocks of miles to use while in the state. There is precedent for requiring visitors to submit trip reports. Heavy vehicles effectively pay for road usage based on distance through IFTA, which redistributes the fuel taxes collected across two or more jurisdictions based on miles traveled in each.

Under this policy option, the methods visitors use to report miles traveled may vary from those used by California residents, but the fundamental policy of charging based on distance traveled rather than time spent in the state or fuel purchased is the same.

#### Advantages:

- (1) If California ultimately adopts road charging for residents as the primary mechanism for generating transportation revenues, this option resolves the constitutional issue of dissimilar treatment of visitors and residents.
- (2) This policy alternative eliminates the revenue distortions associated with fuel taxes and time-based charges. In other words, it links revenue to road use rather than fuel consumption or time.
- (3) Collecting distance-based charges from visitors equipped with location-based distance reporting is straightforward.

#### Disadvantages:

- (1) Because California will not mandate GPS for road charging, any distance-based charge on visitors must provide alternatives for unequipped vehicles. Manual methods of reporting mileage may be expensive to administer and may present an undue burden for frequent commuters and those who live in metro areas that span the state border.



**Assessing Road Charge on Out-of-State Visitors to California**

- (2) It is highly unlikely that California could require visitors without location-based mileage metering to report every trip made into the state. For instance, residents of the Nevada side of Lake Tahoe who make frequent, very short trips (e.g., less than 2 miles) into California, may not be able to effectively track that mileage.
- (3) Enforcement and evasion become a major issue for visitors without location-based distance measurement devices. Enforcement costs could render non-location-based mileage reporting options infeasible.

**Table 3-3: Summary Review of Characteristics of Good Tax Policy -- Charge Based on Distance**

Characteristic	Assessment
Simple	Moderate
Cost Effective	Good
Equitable and Fair	Good
Convenient	Good
Location Neutral	Good
Transparent and Visible	Good
Technological Capability	Moderate
Personal Privacy	Good
Complies with “user-pays” principle	Good

**3.4. Policy Alternative 4: Combination of Distance-Based and Time-Based –  
\*\*Recommended Alternative**

Under this combination, visitors equipped with location-based road charge measurement devices are required to report to California’s road charge system and pay for actual miles traveled. Those without location-based devices would be required to pay a time-based charge. This alternative requires the state to allow non-residents to register with the road charge system.

This combination of distance-based and time-based options constitutes the consulting team’s recommended alternative for the road charge pilot.

**Advantages:**

- (1) This approach does not allow visitors to “game the system”, assuming time-based charges are set at a level high enough to exceed equivalent distance-based charges (e.g., the cost of a one-day time permit equals the cost of roughly 500 miles).
- (2) Under a multi-state road charge scenario, there are no funds to reconcile with other states because miles traveled in California are paid directly to California by Commercial Account Managers who effectively act as a clearinghouse for multiple jurisdictions.
- (3) This approach easily supports interoperability.



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**Disadvantages:**

(1) If non-residents are not allowed to register directly with California’s road charge system, two separate road charge payment systems would have to be administered (the primary database for California residents and a secondary “visitor” database). However, if the road charge system is designed in a manner that allows non-residents to register in the primary road charge database, only one registration and payment system would be required.

**Table 3-4: Summary Review of Characteristics of Good Tax Policy -- Combination of Distance-Based and Time-Based Charging**

Characteristic	Assessment
Simple	Moderate
Cost Effective	Good
Equitable and Fair	Good
Convenient	Moderate
Location Neutral	Moderate
Transparent and Visible	Good
Technological Capability	Good
Personal Privacy	Good
Complies with “user-pays” principle	Moderate



## Assessing Road Charge on Out-of-State Visitors to California

### 4. Strategies for Charging Visitors and Reconciling Revenues

This section describes the charging strategies that apply to each of the policy alternatives described in Section 3. It includes high-level descriptions of the reporting and payment options available to individual motorists and provides some suggestions for harmonizing the systems used to assess road charges on visitors with those used to assess road charges on residents. For the purposes of California's road charge pilot, unilateral and bilateral reporting and collection alternatives are described. In anticipation of a future scenario in which many states have adopted road charging, multilateral jurisdiction reporting and reconciliation alternatives for each policy alternative are described in Section 5.

#### 4.1. Summary of Multi-Jurisdictional Testing Options during California's Road Charge Pilot Program

As part of California's Road Charge Pilot Program design process, the TAC has recommended that the pilot test methods of charging out of state drivers for use of California roads. At the present time, only one other state in the US – Oregon – has an operational road charging program. There are two paths California can follow to directly test inter-jurisdictional charging during the pilot: unilateral charging or bilateral charging. Multilateral road charge agreements (discussed in Section 4.2) would have to be simulated in the pilot.

##### Unilateral road charging

The first option open to California is to function unilaterally, and require all visiting motorists to register (if applicable) with the California road charge database, report mileage directly to the state (if applicable), and make payment to California. Under this scenario, frequent visitors who opt to could sign up with one of California's Commercial Account Managers (CAMs) and select a location-based automated reporting method to simplify the process of reporting miles driven in California and paying their road charge. This is the default model for visitors from jurisdictions without either an operational road charging system or a bilateral agreement with California.

##### Bilateral road charging

Another option available during the pilot program is to enter into a cooperative agreement with OReGO (Oregon's road charging system) to capture and reconcile inter-jurisdictional travel between California and Oregon. This provides an opportunity to test a number of concepts and functions, including reconciliation of mileage and payment between jurisdictions, and testing the ability of CAMs to perform inter-jurisdictional account management. Bilateral agreements also provide a framework in which to test interoperability between California's system and those of other states.

The reporting and charging strategies outlined below for each of the policy options described in Section 3 contain a brief discussion of how they would function under a unilateral or bilateral structure, as well as a conceptual overview of how they might function in a possible multijurisdictional future, which is described next.

#### 4.2. Summary of possible multijurisdictional future

It is possible that in the mid-term future (10-15 years), a number of U.S. states, and possibly even the federal government, will have adopted a distance-based road charge system to replace some or all of their fuel taxes. In an environment where many jurisdictions are levying road charges, and presumably assessing their own



## Assessing Road Charge on Out-of-State Visitors to California

rates on non-resident drivers, the concept of interoperability of reporting, reconciliation, and financial clearing comes into play.

### Multilateral road charging

There are two general methods for such multilateral reporting, reconciliation, and financial clearing. The first is for more than two jurisdictions to report and reconcile distance charges in multiple bilateral agreements. This is the “mesh” approach used in some interoperability tolling environments for light vehicles like E-ZPass in the Northeast United States and Liber-t in France. This approach requires many<sup>4</sup> links among agencies. This is illustrated in the image above at right, which depicts 5 agencies comprising 10 links, 4 for each agency.



As the number of states entering into road charge agreements grows, it becomes more efficient to adopt a “star” approach whereby there is a single agreement among multiple jurisdictions and a single clearinghouse that handles multilateral reporting, reconciliation, and financial clearing. This approach reduces the number of links for each agency to 1 and the total number of links in the network to N. The star approach is illustrated at left, depicting 5 agencies, each with 1 link, for a total of 5 links. This is similar to the arrangement IFTA uses.



### 4.3. Reporting, Charging, and Reconciliation Strategies

This section provides an outline of alternatives available to visitors for reporting the miles driven in California. It also suggests ways road use

charges would be levied by the state and paid by the visitor. Finally, for those strategies where bilateral reporting or revenue reconciliation agreements make sense (and possibly multilateral agreements in the future), they are discussed.

For purposes of this report, we focus on operationalizing the two policy bases recommended for the California pilot: time-based and distance-based.

#### 4.3.1. Policy Alternative 2: Charge Based on Time

Time permits could be issued in either electronic or paper formats. Either choice for the time permit would require implementation of associated enforcement policies and procedures.

**Figure 4-1: Pairwise and central clearinghouse approaches to multilateral agreements.**

<sup>4</sup> The calculation of how many links is  $N!/(2*(N-2)!)$  among agencies and N-1 links for each agency.



## **Assessing Road Charge on Out-of-State Visitors to California**

### **Unilateral management of time permits**

California, or a designated account manager, would issue time permits of various durations (e.g., day, week, month, year) and collect payment directly from visitors. The mechanisms used to distribute the time permits are the same for visitors as for California residents (e.g. they could be made available in gas stations, convenience stores, or on-line). In addition, California could locate kiosks at a small number of border crossings or safety rest areas convenient to visitors as they enter the state. The permits could be electronic if a visitor is willing to register their license plate with a California road charge database, or paper decal based, which does not require any registration. It would be possible to support both options in the road charge system.

### **Bilateral and Multilateral management of time permits**

Since each jurisdiction would collect the road charge time permit directly from visitors, there is no need for reconciliation between or among jurisdictions.

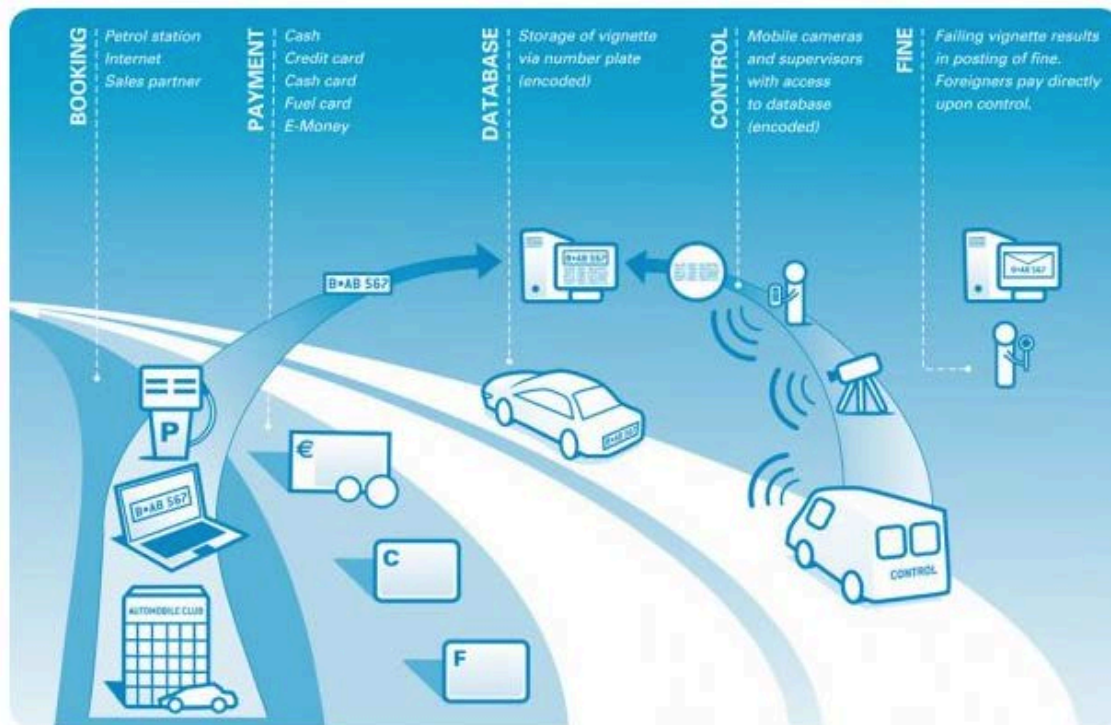
At some time in the future, as the number of states adopting a road charge grows, it may be desirable to adopt a national or regional clearinghouse model for distributing time permits to visitors (a one-stop-shop). Under such a model there would be a single clearinghouse operator of a time permit program for all participating road charge jurisdictions. The clearinghouse could provide time permits for multiple jurisdictions so that motorists visiting jurisdictions could make a single transaction for trips involving multiple jurisdictions. This works best via electronic permits, which can be issued virtually, rather than paper permits which would have to be mailed to visitors or issued in person by each jurisdiction.

An example of such an arrangement exists in Europe. A private company called AGES serves multiple jurisdictions by providing automated time permit services to heavy and light vehicles in Europe. The diagram below captures the key steps involved in booking a multi-jurisdictional time permit, known as an e-vignette, through AGES: booking by visitor, payment by visitor, database entry by visitor of license plate number, control by law enforcement, and fine by law enforcement if found non-compliant. More information about AGES's e-vignette system is available at: <http://www.ages.de/en/e-vignette.html>.



## Assessing Road Charge on Out-of-State Visitors to California

Figure 4-2: Example of multilateral management of time permits



### 4.3.2. Charge Based on Distance

For road charge based on distance traveled, mileage can be measured and reported using either manual methods such as odometer readings submitted via trip reports and pre-paid mileage permits, or using location-aware automated methods. The range of distance-based options available to California residents are theoretically available to visitors, depending on the state's management strategy and the visitors' willingness to register with the road charge database.

#### Manual reporting methods

**Trip report** – the trip report is analogous to the manual odometer reading option available to California residents. However, because these motorists do not register their vehicles in California, or participate in bi-annual smog checks, they will not have a “start” odometer reading on-file with the state. To use this option, visitors would need to record their odometer reading upon entering the state, as well as the reading when they leave, and submit a report to California. The submission could occur on either a paper form or via a website, with calculation of charge and payment to the state occurring at the time of submission. This option does require some additional administrative infrastructure for the state and has high compliance costs for both the state and the visitor.

**Mileage Permit** – visitors could be offered the option of purchasing a pre-paid mileage permit, much the same as residents are. Visitors would be able to purchase a block of miles near the state border, perhaps in a gas station, convenience store, or at a special kiosk, and activate their permit by either (1) calling a toll-free telephone number and entering their current odometer reading and an ID code found on the permit or (2)





## **Assessing Road Charge on Out-of-State Visitors to California**

providing start odometer and permit ID code through a website. Any unused miles would be forfeited by the visitor at the end of their trip.

### **Automated reporting methods – \*\*recommended approach for pilot**

Location-based mileage reporting device – only visitors whose vehicles are equipped with location-based mileage recording and reporting devices (OBD-II dongle, telematics, etc.) can leverage the ability of the device to determine how many miles are driven in California versus some other jurisdiction. This is the recommended approach for addressing distance-based charges on visitors (already equipped with location-based mileage reporting devices) during the pilot.

### **Unilateral management of distance charges**

Trip report – Visiting motorists would document their odometer reading upon entering California, and again upon exit. The beginning and ending readings would be submitted directly to the state on either a paper form (not preferred) or via a website. Additional information such as dates of travel, point of entry, and destination might support enforcement efforts but would also likely be perceived by visitors as an invasion of privacy.

Mileage permit – Visiting motorists would purchase a block of miles to consume while driving in the state. A beginning odometer reading would be required to activate the permit. The mileage permit could be paper-based (again, not preferred) or electronic. To activate an electronic mileage permit, visitors would need to register their license plate and starting odometer reading with a California road charge database.

Automated reporting methods (recommended approach) – visitors who travel with a location-based mileage recording and reporting device would register their vehicle with the California road charge database, report all mileage to California or a California-approved CAM, and pay all fees to either the state or the CAM. Note that this option requires California to either accept non-residents into the primary road charge program or establish a second road charge database specifically for visitors.

### **Bilateral and Multilateral management of distance charges**

Visitors who select a manual or non-location reporting option in their home state must select a time-based option to visit California.

Those visiting motorists who are residents of a state that has entered into a reconciliation agreement with California and who opt to use an automated reporting method and travel with a location-based recording and reporting device would report all mileage to their home jurisdiction or account manager, and pay all fees to that home jurisdiction. The home jurisdiction would determine fees due based on the per-mile rate in place in each of the jurisdictions where travel occurred. Periodically, the parties to the reconciliation agreement would transfer payment collected for distance traveled in each state to the appropriate state.

Because California has elected to use private commercial account managers (CAMs) in its pilot, for the duration of the pilot those CAMs that operate in both California and Oregon can perform the functions that state would under either a bilateral or multilateral agreement.



## Assessing Road Charge on Out-of-State Visitors to California

### 5. Enforcement

Enforcement is an important component of a road charge system. Because visitors to the state are not automatically registered in the state's road charge database, they present some unique enforcement challenges.

There are two primary components of enforcement for visitors to California. The first component is to minimize opportunities for visitors avoid their tax obligations, ideally by making compliance simple. The second is to detect non-compliance.

This section provides an overview of key enforcement aspects related to individual motorists for each of the five unique policy alternatives as outlined in Section 3 above.

#### 5.1. General Considerations

The encouragement of compliance is a key element of enforcement. Regardless of any other enforcement activities that may be undertaken, unless the policy option(s) selected are to charge based on fuel purchase, implement a shadow charge, or simply not charge visitors at all, it is incumbent upon California to clearly inform all visitors of their responsibility to pay their road charge. This may be accomplished through a number of channels, among them:

- ▶ Provide information about the road charge and payment options available to visitors in the *Official California Visitor's Guide* and *Official State Map*, both available at [visitcalifornia.com](http://visitcalifornia.com).
- ▶ Post informational roadside signage near key points of entry.
- ▶ Post information about the road charge and payment options available to visitors at land ports of entry, key border crossings (e.g. on Interstate 10), agricultural inspection stations, gas stations, and safety rest areas.
- ▶ Work with major hotel chains, tourist destinations, and travel booking internet sites to distribute relevant information to potential visitors.

#### 5.2. Enforcement of charge based on time

A policy of assessing road charges based on time could be enforced by a number of methods.

For electronic permits (permit is tied to license plate numbers in a road charge database), roadside cameras or license-plate scanners could be used to confirm compliance. It is important to note that, if non-electronic permit options (those based entirely on the presence of a physical permit) are offered, scanning license plates cannot be used to determine non-compliance.

A second enforcement activity that applies to both electronic and paper-based time permits is *point-of-entry roadside enforcement*. Such enforcement activities would be carried out at land ports of entry or agriculture inspection stations.

Roadside enforcement is most efficient under an electronic time permit system with verification done via entry of license plate into a database that is then checked by an enforcement system, but it can also be accomplished with a paper-based system.



## Assessing Road Charge on Out-of-State Visitors to California

Enforcement-related considerations for a paper-permit system include:

- ▶ Permit sticker location in the windshield. The location where stickers must be displayed should be carefully considered to ensure that drivers maintain a clear field of view, enforcement officers can easily see the sticker, and the sticker location is not in conflict with other stickers required in the visitor's home jurisdiction.
- ▶ Easy (for enforcement officers) fraud detection is critical. Many of the fraud detection technologies used for longer-term (e.g. annual) permits may be prohibitively expensive for daily or weekly permits.
- ▶ Both roadside and mobile enforcement could be deployed, however it is unlikely that visitors would be pulled over unless for another traffic violation.

### 5.3. Enforcement of charge based on distance

The enforcement activities for charges based on distance roughly mirror those for charges based on time. Visitors who use a location-based reporting device and who are registered with California, or a state with which California has a bilateral/multilateral agreement will have their license plates registered in a road charge database identifying them as a "compliant" visitor. License plate scanners, either near the state border or at roadside locations elsewhere in the state, could be used to identify those compliant visitors. Further, those visitors who are registered with the California database would be subject to the same automated enforcement activities (e.g. examining mileage meter data for suspicious signals) as California residents.

Those visitors who choose the trip report (odometer reading) option pose a unique enforcement challenge. Their vehicles are not registered in any road charge database, so there is no official record indicating the reporting option they have chosen, nor is there any documented history of payment (or non-payment). Without a significant surveillance effort, compliance with this road charge option would be difficult to confirm.

The third strategy presented above for allowing visitors to pay based on distance is the mileage permit. In the case of a manual mileage permit, visitors would be required to display their valid permit. In the model presented, visitors would have to activate a permit by telephone or on a website, by providing their license plate number and initial odometer reading. While visual inspection of the permit, or license plate scanning/comparison to a database are sufficient to confirm that a visitor is in possession of a mileage permit, it is impossible to know whether they are operating within the mileage limits of the purchased permit. Such certainty would require a visual inspection of the odometer, and it is very unlikely that visitors would be stopped for such an inspection in the absence of other traffic violations.



## Assessing Road Charge on Out-of-State Visitors to California

### 6. Conclusions and Next Steps

A wide variety of policy alternatives are available to California for charging visitors under a road charge system, both in the short-term (during the pilot program) and in a longer-term multi-jurisdictional road charge environment. Regardless of which policy alternative is selected for the pilot and beyond, its implementation should maintain focus on simplicity, equity, privacy protection, cost effectiveness, and convenience.

Immediate next steps include selection of one or more policy bases and corresponding implementation scenarios for the road charge pilot program, as well as a decision about whether to operate visitor road charging in the pilot as a unilateral or bilateral arrangement. We recommend the following:

- ▶ Policy basis: Combination of time-based and distance-based charging for out-of-state visitors during the pilot program.
  - > This allows user choice for visitors
  - > This allows visitors to choose from two of the operational concepts also available to California-registered vehicles
- ▶ Strategy: Time Permit and Automated Distance Charge (with general location data) for out-of-state visitors during the pilot program.
- ▶ Simulated bi-lateral interoperability with Oregon during the pilot program.

Longer-term, there are several key questions that remain and which must be addressed in order to select the best road charge policy for visitors. Some of these, such as the costs associated with setting up and operating a road charge for visitors, can be addressed through the pilot. These questions include:

- ▶ How far do daily commuters into California typically travel in a day/week/month?
- ▶ What is the distance and duration of a typical “road-trip” undertaken by tourists?
- ▶ What are the revenue implications of assessing road charge on visitors to California, i.e., how much revenue does the state stand to gain or lose if it does not charge visitors?
- ▶ What costs are associated with setting up and operating any of the strategies for assessing road charge on visitors to California?
- ▶ What costs are associated with entering into bilateral and multilateral road charge agreements with other jurisdictions?
- ▶ How effective are enforcement activities?
- ▶ What are the best channels for informing visitors of their obligation to pay road charges, and the methods available to them for doing so?
- ▶ Which strategies best capture road charges from daily commuters to the state?



## Assessing Road Charge on Out-of-State Visitors to California

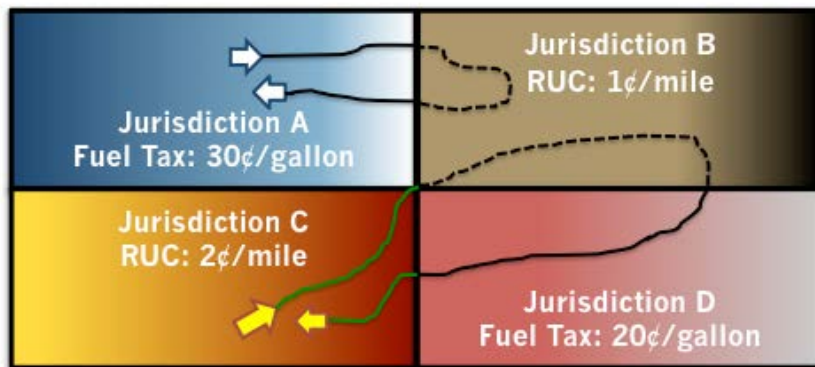
### Appendix A: Policy Bases Not Considered for California Road Charge Pilot

The four policy options below are not recommended for consideration during the pilot program. However, in a future scenario where multiple states have adopted road charging, these additional options may provide additional flexibility in assessing fees on visitors to California, as well as accounting for Californians' use of other states' roads.

#### Policy Alternative 5: Shadow Charge

A shadow charge is a concept that requires at least two states to enter into a revenue reconciliation agreement. Under a Shadow Charge policy, the visitor makes no mileage reports or payment (and incurs no administrative burden on themselves or the state) but California nonetheless attempts to measure or

approximate travel by visitors and perform a reconciliation with neighboring states on the basis of that measured or approximated travel data. In the example illustrated at left, jurisdictions A and B would attempt to reconcile based on the measured or estimated travel of the traveler between those two jurisdictions. Suppose the trip by the resident from jurisdiction A in jurisdiction B was 100 miles. At \$0.01 per mile, jurisdiction A owes jurisdiction B \$1.00. The amount of miles would either be estimated or measured approximately by monitoring the roadways—in either case using a methodology mutually agreed by the states. The motorist herself would not have to



report any miles or make any payment. This policy option can be coupled with other policies, in particular for visitors who opt for distance-based charges in their home state but do not differentiate miles driven by jurisdiction.

#### Advantages:

- (1) This approach addresses some of the flaws of the “no charge” policy (discussed later)—namely, when there is an imbalance of flows between jurisdictions (i.e., the case where tax is paid to the “wrong” jurisdiction). For example, if California and Nevada can identify and use reliable, mutually-agreeable data and metrics to calculate miles traveled by visitors from one state to the other, while also accounting for any differential in the road charge or fuel tax rates between the two states, they could theoretically calculate the approximate amount of the imbalance and settle it between jurisdictions without requiring any interaction with individual motorists.
- (2) From the visitor’s perspective, this policy is the same as not charging at all.



**Assessing Road Charge on Out-of-State Visitors to California**

**Disadvantages**

- (1) Visitors do not contribute revenues despite imposing costs. This could create a constitutional issue due to the disparate tax treatment between residents and visitors.
- (2) Funds for the reconciliation of shadow charges must come from another source. In the example above, jurisdiction A must pay jurisdiction B out of fuel tax, general funds, or using some other mechanism. The result is that residents of A subsidize visitors going to B.
- (3) There may be an imbalance between states with road charge systems to the extent they have varying per-mile rates, and any jurisdictions that agree to using shadow charges will need to consider this difference in their reconciliation agreements.
- (4) The data required to reasonably assign visitor travel to participating jurisdictions may be prohibitively expensive to collect.
- (5) This alternative creates additional administrative responsibilities, accounting, and reconciliation of funds owed on a recurrent basis for the state.

**Table A-1: Summary Review of Characteristics of Good Tax Policy – Shadow Charging**

Characteristic	Assessment
Simple	Poor
Cost Effective	Moderate
Equitable and Fair	Moderate
Convenient	Good
Location Neutral	Moderate
Transparent and Visible	Poor
Technological Capability	Good
Personal Privacy	Good
Complies with “user-pays” principle	Poor

**Policy Alternative 6: Combination of Distance-Based and Shadow Charges (no fuel tax collected by California)**

Under this policy, which assumes no fuel tax is in place in California, visitors equipped with the ability to differentiate distance by location would report and pay for road usage based on distance traveled. Those without differentiated distance would continue paying either undifferentiated road charge or fuel taxes to their home jurisdiction. These undifferentiated road charge payments could be reconciled using shadow charges, based on approximated aggregate mileage traveled in each jurisdiction, using an estimation methodology or model agreed mutually by participating states.



**Assessing Road Charge on Out-of-State Visitors to California**

**Advantages:**

(1) This option has the advantage that it does not impose road charge reporting requirements, beyond those of their home state, for any visitors.

**Disadvantages:**

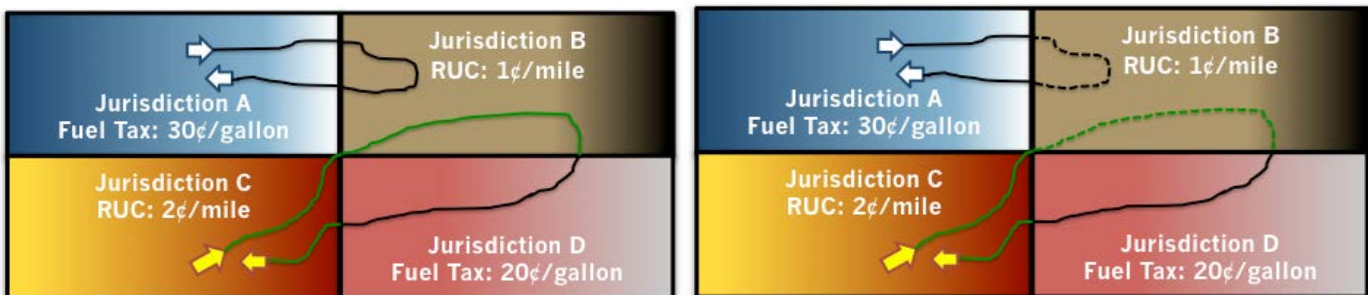
- (1) This alternative could allow some residents to engage in arbitrage, for example by choosing an undifferentiated reporting method for their home state, knowing that neighboring states have higher road charge rates. In effect, such individuals would be underpaying to neighboring states.
- (2) This alternative requires California to participate in two revenue reconciliation systems: it would have to have either bilateral or multilateral agreements in place for both the differentiated mileage (e.g. California mileage revenue collected by another state would have to be transferred back to California) and the shadow charge.

**Table A-2: Summary Review of Characteristics of Good Tax Policy – Combination of Distance-Based and shadow Charges (no fuel tax collected by California)**

Characteristic	Assessment
Simple	Poor
Cost Effective	Moderate
Equitable and Fair	Moderate
Convenient	Good
Location Neutral	Poor
Transparent and Visible	Poor
Technological Capability	Good
Personal Privacy	Good
Complies with “user-pays” principle	Moderate

**Policy Alternative 7: Combination of Distance-Based and Fuel-Based, With or Without Shadow Charges.**

Under this policy alternative, which assumes multiple states have adopted road charging while also maintaining the fuel tax, visitors with location-based road charge measurement devices would report and pay





**Assessing Road Charge on Out-of-State Visitors to California**

for usage based on distance traveled, while receiving fuel tax rebates. All other visitors would continue paying fuel taxes. In this scenario, states could optionally include shadow charges to allocate fuel receipts to miles traveled, using an agreed methodology or model for reconciliation. The images below depict distance-based charges for the visitor from jurisdiction C and fuel-based charges for the visitor from A. Shadow charges for these trips are illustrated on the right side.

**Advantages:**

(1) This option provides a simple mechanism for collecting revenue from visitors who are not equipped to report jurisdiction-specific distance.

**Disadvantages:**

(1) This option will not work in a state that no longer collects fuel tax.

**Table A-3: Summary Review of Characteristics of Good Tax Policy – Combination of Distance-Based and Fuel-Based, With or Without Shadow Charges**

Characteristic	Assessment
Simple	Poor
Cost Effective	Poor
Equitable and Fair	Poor
Convenient	Moderate
Location Neutral	Moderate
Transparent and Visible	Poor
Technological Capability	Moderate
Personal Privacy	Moderate
Complies with “user-pays” principle	Poor

**Policy Alternative 8: No Charge**

Under this alternative, California would simply not charge visitors to the state. This policy alternative is mutually exclusive with all other alternatives.

Under its road charging system, California could simply choose to ignore any miles traveled by visitors. Based on TAC direction, this option is not available for consideration during the pilot program. However, a full analysis of costs and actual revenues may show that there are advantages to this alternative under an operational system.





**Assessing Road Charge on Out-of-State Visitors to California**

**Advantages:**

- (1) There is no administrative or enforcement cost to the state.
- (2) There is no burden or cost placed on visitors to comply.

**Disadvantages:**

- (1) Visitors do not contribute revenues despite imposing costs on the highway system.
- (2) The imbalance in tax treatment between visitors and residents could be a constitutional (Commerce Clause) issue.
- (3) This policy could exacerbate fuel tax arbitrage, a strategy by which motorists aim to purchase most of their fuel in low-cost (in this case, no-tax) jurisdictions, despite driving elsewhere. For example, motorists fueling up in California but driving in Arizona are not paying any tax to any jurisdiction.
- (4) This policy alternative has the potential to cause taxes to be paid to the “wrong” jurisdiction. For example, those fueling up in Arizona while traveling in California are paying tax to the wrong jurisdiction, assuming Arizona continues to collect fuel taxes and California does not (i.e., tax paid to Arizona on fuel used to drive in California).
- (5) A visitor from a jurisdiction who pays undifferentiated road charge would be “double taxed” if purchasing any fuel in a state that has a fuel tax and then driving in their home state (fuel tax paid to state where fuel was purchased and road charge paid to home state for the miles driven with that fuel).

If administering a multi-state reporting and monitoring system proves too costly, if the volume of cars moving between two jurisdictions is very small, or if the balance of traffic between any two jurisdictions is relatively even, there may be a compelling case not to charge visitors. However, when these conditions are not met, it is important to consider other alternatives such as the alternatives presented elsewhere in this section.

**Table A-4: Summary Review of Characteristics of Good Tax Policy – No Charge**

Characteristic	Assessment
Simple	Good
Cost Effective	Good
Equitable and Fair	Poor
Convenient	Good
Location Neutral	Poor
Transparent and Visible	Poor*
Technological Capability	Good
Personal Privacy	Good
Complies with “user-pays” principle	Poor