



Road Usage Charging

Policy, planning and implementation

For decades, the per-gallon motor fuel tax served as a stable and sustainable user fee for transportation funding. However, the rise of alternative fuel and highly fuel-efficient vehicles have yielded an uncertain financial future, with state agencies left struggling to keep up with growing demands of maintenance, operations and mobility improvement. Road usage charging (RUC) provides a more equitable, sustainable transportation funding model compared to the current approach; and it is now seen as the best hope for resolving this problem.

RUC has gained exponential momentum over the past several years. Initially talked about only behind closed doors and in research papers, it has evolved into a mainstream consideration for states to improve transportation funding models.

WSP USA has been actively engaged in RUC programs since the early days of the federal Congestion Pricing Pilot Program in 1994. We continue to support clients in the planning and analysis of distance-based pricing and RUC applications. These efforts have led to wider state consideration and enhanced regional interest in RUC as a transportation funding source. Benefits of RUC over traditional funding programs include:

- Better, more equitable connection between distance traveled and costs incurred by the customer
- Treats roads like a utility, where motorists pay for their use as opposed to their fuel consumption
- Captures lost revenues from electric and hybrid vehicles
- Leverages innovation by using commercially available technology with very little need for infrastructure enhancement
- Supports more urban/rural equity, including differentiation of road types and variable road pricing
- Provides increased planning capabilities through enhanced data traffic

Our services

Specific services and client projects WSP has supported include:

- Policy and planning
- Business case development
- Grant research and writing
- Concepts of operation, design, and specifications development
- Pilot planning
- Deployment and administration

In addition, we have a robust team of travel demand forecasting, revenue modeling and financial planning expertise to support RUC-related studies, plans and pilot programs.

Our experience

Colorado Mileage-Based User Fee Study and Road Usage Charging Business Models

WSP evaluated the application of RUC as a transportation revenue strategy for the Colorado Department of Transportation's Research Division in 2013. This involved developing information on RUC technology and application, both domestically and internationally. The team also developed potential RUC business models, as well as public and political feasibility, and then tested it using market research data collected in Denver and the Eastern Plains. We also evaluated the application of the mileage-based user fee (MBUF), developing information on the state of the practice in MBUF technology and application.

The team also undertook significant stakeholder outreach activities, including one-on-one interviews with staff and elected officials from governmental agencies, representatives of citizen groups, and members of the state's business community.

Washington State Road Usage Charging Policy and Feasibility Analysis

WSP is providing policy and organizational alignment support for this RUC initiative that represents a multi-year effort by the Washington State Transportation Commission (WSTC) to assess the feasibility, policy considerations and operational framework for the possibility of replacing the gas tax for a more sustainable user fee.

Working with a 27-member steering committee, our team developed the financial business case for the replacement of fuel taxes with RUC and assessed policy issues deemed necessary to advance a RUC pilot project. We also monitored and reported on RUC advancements in the U.S. and abroad as well as national FAST Act (Fixing America's Surface Transportation Act) provisions for an alternative funding grant program.

A key product was the creation of a roadmap for the advancement of RUC-related work completed to date and the identification of a strategic policy path forward for the concept. This strategic plan included a future RUC pilot project and consideration of a long-term RUC system implementation in Washington. This effort also identified performance indicators to be used in a pilot project and included a recommendation to the 2016 legislature and governor that led to the WSTC/Washington State Department of Transportation's successful application for a federal RUC pilot project that will commence in 2018.

RUC West Regional Road Usage Charging System Definition and Pilot Planning

RUC West, a voluntary coalition of 14 western state departments of transportation, selected WSP to provide system definition, design and planning services in advance of a future RUC pilot in the western U.S. This project will lay the foundation for a regional pilot that could, in turn, serve as a platform for a national RUC system. As part of this effort, we will lead the development of a concept of common operations, which will be based on an open system architecture and reliance on the private sector.

The project team will also outline system needs and related policy directives; identify RUC marketplace needs and associated goals and objectives; provide operational approaches and strategies for attaining system goals; promote interoperability of state-based systems; and provide long-range operations planning and guidance for RUC system deployment.

Caltrans Enhancing the California Road Usage Charging Pilot Program

WSP, as a leading subconsultant partner, was recently awarded a contract to assist the California Department of Transportation (Caltrans) and the Federal Highway Administration as part of the Surface Transportation System Funding Alternative (STSFA) grant program. The purpose of the STSFA grant program is to provide grants to states to demonstrate user-based alternative revenue mechanisms that utilize a user fee structure to maintain the long-term solvency of the Highway Trust Fund.

California's grant award will be enhancing the recently completed California Road Charge Pilot Program by incorporating the following research: (1) define and design a path for organizational structure; (2) examine and refine cash flow models; (3) investigate enforcement and compliance strategies; and (4) identify a pay-at-the-pump and charging station solution to road charge.

The final report will summarize the background research, road charge objectives, research methods, and evaluation and demonstration plan, including prioritized and recommended solutions.



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