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ORGANIZATIONAL DESIGN FOR ROAD USAGE CHARGING

 **WA RUC**



Organizational Design for Road Usage Charging |

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PREFACE

The purpose of this report is to provide information for the Washington Road Usage Charge Steering Committee's consideration as they begin to deliberate whether or how the State of Washington could transition to a per-mile fee system as a future replacement for the state's motor vehicle fuel tax (gas tax).

The information contained in this report examines the functional needs and possible organizational arrangements for state agencies to administer a legislatively-adopted road usage charge program. Should the state decide to enact a road usage charge, there will be implications on existing state agencies, including resource requirements, new or updated functions, and new collaboration requirements. This paper examines the impacts and possibilities for structuring the agencies involved to deliver a road usage charge program effectively. The paper concludes with recommended elements to consider in road usage charge legislation that address organizational issues.

This report is being presented to the Steering Committee as a draft version for review and discussion at its upcoming meeting on June 27, 2019.

For this report, all footnotes and citations appear at the bottom of the page to improve readability.

1 INTRODUCTION

If the Washington legislature opts to enact a road usage charge (RUC) policy, it must, among other things, direct an agency or agencies to administer the program and collect the charge. Two high-level alternatives exist for organizing the delivery of a RUC program: (1) create a new state agency devoted entirely to RUC, or (2) deliver the necessary RUC functions within existing agencies. RUC Steering Committee-adopted principles and derived organizational design principles dictate the latter as a preferred approach for cost-effective delivery of a RUC system.

The purpose of this organizational assessment is to identify the agencies that could – based on their current roles and capabilities – support new RUC functions; determine the resources and inter-agency collaboration needed for RUC delivery; and indicate how enabling legislation can address organizational aspects of RUC.

To help provide accurate, useful inputs to this research, the Transportation Commission (WSTC) invited participation and input from partner agencies, including the Department of Transportation (WSDOT), Department of Licensing (DOL), Office of State Treasurer (OST), and Utilities and Transportation Commission (UTC). The purpose of the research was to collect input on organizational principles and RUC functional elements from agencies with experience conducting similar activities. Specifically, by identifying existing capabilities within state agencies, the Steering Committee and WSTC can explore options and make recommendations to the Legislature regarding “how” to begin the implementation of RUC in the most effective way for end users and the state while considering the views, constraints, and preferences of state agencies.

Based on review of existing agency roles and interviews with key staff, this report provides draft organizational principles and recommends assignment of functions to existing agencies. From that assignment of functions, a high level organizational structure for RUC emerges. The paper concludes with high-level recommendations for consideration in enabling RUC legislation as follows:

- ▶ Authorize the Department of Licensing to implement and operate a RUC program.

- ▶ Direct the Department of Transportation and Office of State Treasurer to provide specified technical and operational support functions for the successful integration of a RUC program into state transportation revenue collection.
- ▶ Direct the Transportation Commission to serve in a coordination and policy oversight capacity during the setup and early evolution of a RUC program.

The remaining sections of this paper cover organizational principles; RUC functional elements, including a summary of existing agency capabilities and recommended roles in a RUC system; and recommendations for the Steering Committee's consideration.

2 PROPOSED PRINCIPLES FOR RUC ORGANIZATIONAL DESIGN

The principles below are the starting point for the RUC organizational analysis. This list began as a draft put forth by the WA RUC project team and has been refined following input from partner agencies.

The organizational design for a RUC system should:

1. Consider all organizational and functional aspects needed for a RUC program, including those not covered in the WA RUC pilot;
2. Reflect the identified functional areas, specific functions, and tasks needed to carry out the program (i.e., “form follows function”);
3. Consider the privacy and data security implications of handling drivers’ road usage charge data;
4. Identify incremental resources required to successfully execute a RUC program;
5. Leverage existing agencies, systems and expertise as much as possible, to contain marginal costs and avoid enlarging bureaucracy;
6. Build from existing state agency relationships and processes in policy, revenue forecasting, revenue collection, and customer interaction to minimize impacts on existing agency workforce;
7. Build on lean principles when adding functions and processes to minimize addition of new resources and impacts on existing agency workforce;
8. Group customer-facing functions logically to minimize interdependencies between agencies and to deliver a cohesive end-user experience;
9. Indicate the essential information sharing, coordination, and interactions among or between agencies and vendors for maximum operational effectiveness and minimal disruption to the end user experience.

The above principles informed the analysis and recommendations presented in the remaining sections of this paper. Specifically, two high-level alternatives exist for organizing the delivery of a RUC program: (1) create a new state agency devoted entirely to RUC, or (2) deliver the necessary RUC functions within existing agencies. RUC Steering Committee-adopted principles, and the organizational design principles derived above, suggest the latter as the preferred approach for cost-effective delivery of a RUC

system. Therefore, a premise for the remainder of this analysis is that a RUC system be delivered within an existing agency or agencies, building RUC functions into existing roles and capabilities, both to minimize enlargement of bureaucracy and to optimize the end customer experience.

Candidate agencies with existing functions that logically lend themselves to support for collection of transportation revenue such as RUC include the Department of Transportation (WSDOT), Department of Licensing (DOL), Transportation Commission (WSTC), and Office of State Treasurer (OST).¹ Each agency was interviewed and capabilities assessed as an input to this analysis. Following a best-fit assessment in line with the above principles, this paper offers recommendations regarding assignment of functions to one or more agencies. An overall organizational structure, in turn, emerges from the assignment of functions to agencies.

¹ The Utilities and Transportation Commission (UTC) was also interviewed for this paper, primarily to assess the agency's expertise regarding rate setting and regulation. Rate setting was addressed in a separate RUC Steering Committee paper, with the responsibility assumed to remain with the Legislature. The Department of Revenue (DOR) was not interviewed for this paper; in an earlier assessment in 2013 DOR was determined not to conduct existing functions useful to a RUC system.

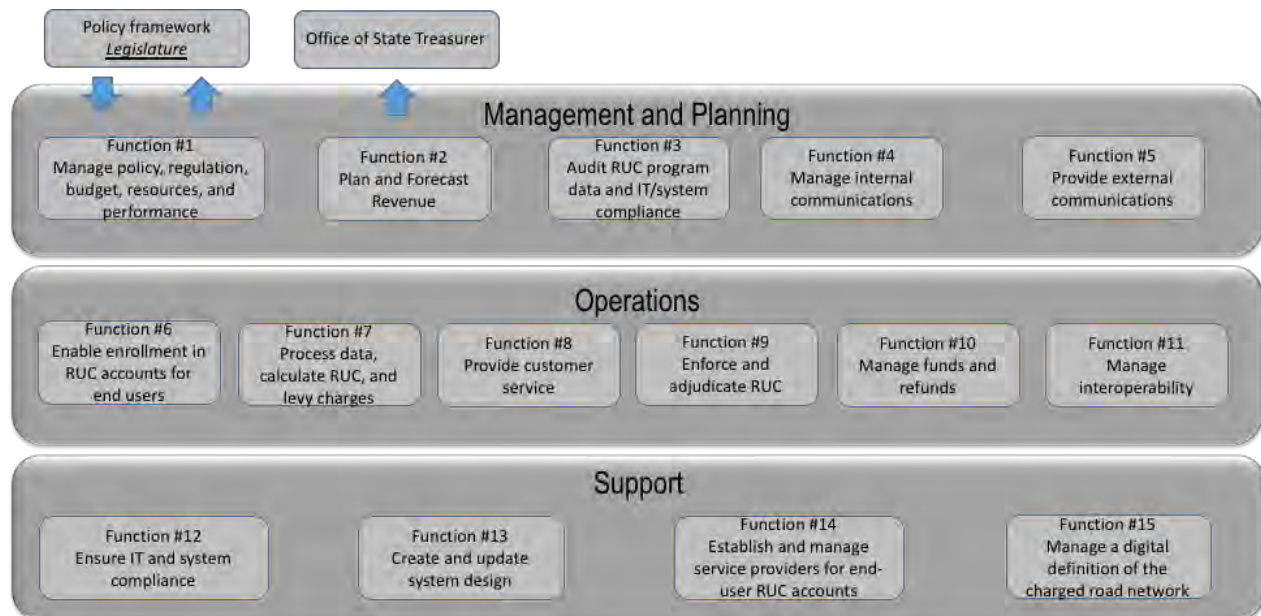
3 FUNCTIONS IN A RUC SYSTEM

The sections of this chapter summarize each of the 15 functions needed for a RUC system. Each section briefly describes each function and identifies the agencies that have the capabilities to deliver the function and highlights risks and opportunities involved, along with recommendations. Throughout these descriptions, the term “RUC Authority” refers to a hypothetical agency or agencies with the collective responsibility for carrying out RUC functions.

Each function is tied to one of three activity categories as follows:

- ▶ **Management and planning** includes functions that involve implementation and oversight of the policy established by the legislature.
- ▶ **Operations** comprises functions that directly deliver core RUC services to the end user, including enforcement and adjudication.
- ▶ **Support** includes functions that are not involved in direct delivery of RUC, but enable operations through the provision of necessary operational systems and resources.

Figure 1: Categorization of functions



While management and planning activities can be distributed across multiple agencies with minimal tradeoffs to operational efficiency and end user experience, grouping customer-facing functions (operations) within a single agency helps reduce interagency dependencies and encourages a cohesive and timely RUC service delivery. This aligns with the principle to focus on end user experience. Similarly, building strong connections between support functions and operations functions helps ensure consistent delivery of RUC services.

3.1 Manage policy, regulation, budget, resources, and performance

Description. This governance and oversight function represents the overall management of RUC. It includes responsibility for implementing policy (including awareness and responsiveness to changes in policy) established by the Legislature; writing administrative rules and standard operating procedures in collaboration with partner agencies to enable the translation of enabling law into an operational program; requesting and allocating budgets to functions within the RUC Authority; overseeing and providing support to the staff working within the RUC Authority; and monitoring and evaluating performance of the RUC program for continuous improvement. In addition, this function covers future planning and anticipating changes as the RUC program evolves organically or in response to changes in law. This function also covers work with other

agencies across government to foster a cohesive and low-impact delivery of the RUC program. This function includes overall structuring and management of staff within the RUC Authority at various levels, including unit managers as necessary.

Existing capabilities. All agencies have existing governance and oversight capabilities for their existing programs and functions. However, governance and oversight for a RUC system specifically requires specialized knowledge and familiarity with RUC statute and operational systems. In addition, WSTC is the agency with the most policy planning capability in general (and planning for evolution of a RUC program in particular), including analysis of scenarios and offering recommendations to policymakers on future direction.

Recommendations. Given the importance of governance and oversight, a low risk approach is to ensure the agency with operating responsibility for RUC also carry out this function. As discussed in later sections, DOL is the leading choice for RUC operations.

To effectively support RUC across agencies and encourage lean practices, the governance and oversight function should strive for transparency in resource allocation. This implies clear definition of roles and responsibilities between agencies and within each function; identification of processes implemented specifically for RUC; and identification of incremental resources used to deliver RUC functions. This can be accomplished through processes and standard operating procedures that are approved, shared, and implemented by agencies involved. Visibility on resources and processes will help isolate costs directly attributable to RUC, which will in turn allow a RUC cost structure to be built from the bottom up. A clearly defined cost structure can naturally inform the budget allocation decisions and allow financial performance metrics to be attached to RUC activities. It will also provide some insight into how day-to-day RUC operations can be scaled depending on evolving needs.

Performance monitoring and evaluation for continuous improvement rely on the definition of targeted outcomes, and control and performance metrics. Control metrics ensure that risks relating to operations are managed and functions comply with basic requirements – in the RUC context, control metrics would typically relate to and would be measured against data privacy, security, vendor service level requirements, and financial audit requirements. The role of performance metrics is to drive agencies to achieve the targeted outcomes – examples for RUC include end user satisfaction, user compliance,

and meeting operating budgets (with costs as a fraction of revenue collected declining over time).

As the operating agency (DOL) focuses on delivery and management of RUC, including *operational* oversight, WSTC can continue to serve in a *policy* oversight role. This includes exploration, analysis, and advice of policy opportunities, specifically, identifying opportunities for the RUC system to meet policy objectives, analysis of such opportunities, and reporting back to the Legislature. WSTC is equipped for this role as the RUC program evolves given its history and capability in RUC policy analysis and advice as well as its orientation for large-scale public outreach for policy and planning. For example, ongoing growth of the RUC program (should it evolve from a small program focused on a narrow subset of vehicles over time to a larger program impacting a large segment of the vehicle fleet) can be analyzed by WSTC as an independent, policy-focused activity.

3.2 Plan and forecast revenue

Description. The ability to forecast revenue supports a variety of core government functions, including budgeting and planning. The importance of RUC revenue forecasting increases with the state's reliance on RUC revenue.

Existing capabilities. The building blocks for forecasting activities already exist within state agencies. DOL and WSDOT currently forecast vehicle registration and licensing fees and fuel taxes. The skills and tools to forecast revenue and the mechanisms to report revenue to OST are already in place within DOL and WSDOT. In particular, revenue estimates are developed and reported to OST via the multi-agency Transportation Revenue Forecasting Council (TRFC). In addition, WSDOT forecasts statewide vehicle miles of travel (VMT) annually.

Recommendations. RUC revenue forecasting fits within existing agencies, particularly WSDOT, which devotes resources to this activity for fees that depend on VMT (namely, fuel taxes). Organizationally, little or nothing must change to address the need to plan and forecast RUC revenue; at most, for example, this function may benefit from formal inclusion of the RUC Authority as a provider of input data to and recipient of outputs from TRFC. Although the state enjoys mature vehicle and fuel-related revenue forecasting and reporting capabilities, RUC will require some enhancements, including: forecasting VMT by vehicle characteristics (should the state enact RUC for subsets of vehicles); accurate

incorporation of measured RUC revenue from prior years; and accurate observation and incorporation of leakage into revenue forecasts.

3.3 Audit RUC program data and IT/systems compliance

Description. The RUC Authority will collect large quantities of data from end users and/or service providers on a regular basis. This function covers the handling of the data. This includes:

- ▶ Monitoring incoming data to ensure compliance with system requirements.
- ▶ Analysis of data to ensure that the systems are functioning in an internally consistent manner (e.g., reconciling number of miles reported with amount of RUC reported due and amount paid).
- ▶ Answering ongoing policy and system questions such as revenue trends and compliance rates.
- ▶ Conducting audits of service providers or agency divisions responsible for data to ensure compliance with content, privacy, and security requirements.

Existing capabilities. DOL currently utilizes four positions to audit subagents and maintains a License Integrity Unit to handle investigations and fraud across the agency. Although the audit function for RUC will differ from these existing capabilities, they perform similar types of functions, particularly given subagents as an analog to RUC service providers. Given this function also serves a check on the integrity of data collected by the RUC Authority, it impacts the quality and reliability of revenue forecasts.

Recommendations. Given the existing capability within DOL, and the likelihood that RUC operations will fall within DOL, this function likewise makes sense to place with that agency. WSTC may continue to act as a consumer of data and operational reports generated by DOL (including, e.g., revenue and compliance trends) to support the fulfillment of a policy oversight role.

3.4 Manage internal communication

Description. The RUC Authority must manage internal communication among its own divisions, to outside contractors, across partner agencies, and with the Legislature. This function includes the responsibility for timing, content, and delivery of communication among all entities who play a role in RUC enactment. Internal communication includes the efficient routing of information and directives, including policy. This includes

communication from the Legislature or the agency director, to ensure they are acted upon by the appropriate division or individual, as well as communication from within the RUC Authority back to the agency director or Legislature. This two-way communication ensures policy makers receive timely feedback from operational entities for potential policy adjustments.

Internal communications also include the routing of organizational information and training. Communicating the specific distribution of roles and responsibilities within agencies will improve inter-agency coordination for minimal disruption to operations and therefore the end user. Regular training of staff to understand policy implications and to implement standard operating procedures will directly influence the extent to which RUC policies are effectively diffused within different agencies involved in RUC and relayed to external entities and end users. Internal communications will also naturally impact effectiveness of external communications addressed in the next section.

Existing capabilities. Agencies possess and rely on internal communication capabilities to operate existing programs. For RUC, the WSTC has served as the central point for all internal communication to date, coordinating input and participation by agencies including DOL, WSDOT, and OTC through a formal Steering Committee process and also through informal efforts related to the RUC research and assessment.

Recommendations. The first step in the internal communication function is to formalize the relationships among agencies with a role in RUC, which likely include DOL, WSDOT, OST, and WSTC. At least for a transitional period, WSTC could continue to serve a convening role building off the existing relationships and mechanisms deployed for the RUC assessment. In the longer term, DOL could formally lead and coordinate internal communication as it likely takes charge of most operating activities and implementation of the policy framework (rules and procedures).

3.5 Provide external communication

Description. RUC invites public scrutiny, including questions and concerns. We expect, even should a system be enacted, such questions to continue. To maintain public trust and understanding, the RUC Authority can continue to provide a venue for taking in questions about RUC and addressing them appropriately. This function could include web features with program descriptions and FAQ, telephone and email support lines, and a press liaison including occasional press releases about program activities, milestones,

or changes. Note that external communication is distinct from customer service, which directly relates to RUC operations and is covered later.

Existing capabilities. WSTC is the primary agency with experience and capability providing external communication about RUC policy and pilot operations. WSDOT and DOL have similar experience for other transportation revenue programs with substantial user interfaces (tolling and vehicle registration, respectively). DOL provides a range of external communication activities, including community outreach for new fees; special communication relationships with subagents and licensing offices for training; activation of specialized programs such as “impacted stakeholders’ program” for new initiatives. DOL does not have specialized communications delivery for outward communication and relies on the Communications and Outreach office for these services - recent examples of specialized communications include Real ID (TV and messaging to subagents) and Sound Transit RTA.

Recommendations. The agency that will support RUC operations will be well positioned to lead external communications. As discussed in the sections that cover functions related to operations, DOL is likely to bear the larger share of operational responsibilities and will be the natural point of contact for end users.

Despite the separation between RUC and tolling operations, end users may conflate the two concepts and direct questions and requests to WSDOT. We recommend WSDOT to play a coordinating role in external communication to ensure harmony of state agency responses to customers (e.g., by working across agencies to develop clear, efficient response protocols when news media or the public address questions to the wrong agency).

3.6 Enable enrollment in RUC accounts for end users

Description. Legally subjecting any vehicle to RUC requires the ability to enroll the vehicle or otherwise indicate its status as subject to RUC. This function covers all DOL vehicle registry interface tasks and activities as relates to vehicle enrollment for end users. This includes establishing and maintaining the following:

- ▶ The ability to identify eligible vehicles through vehicle registry and clear instructions to the service provider, agency division, and/or customers themselves who are responsible for enrolling end users.

- ▶ Ability to indicate and update RUC enrollment status in vehicle registry.
- ▶ Ability to share RUC enrollment status of any vehicle in real time or near-real time with end users (through one or more service providers and/or agency divisions).

Existing capabilities. No capabilities exist to enroll vehicles for a RUC program. DOL manages the vehicle registry, which can identify vehicles by a variety of characteristics, including whether they are electric vehicles (EVs) or plug-in hybrid electric vehicles (PHEVs).

Recommendations. The DOL vehicle registry is the logical platform to use for indicating enrollment status of vehicles in a RUC program. Vehicle owners can enroll either directly with DOL and/or with a private service provider, depending on the policy chosen for managing user accounts. The DOL system would need to be revised to accommodate two-way system communication (i.e., the ability to write vehicle status to the system from an input by a customer made directly with DOL via web, subagent or service provider; and the ability to read vehicle status in real time).

3.7 Process data, calculate RUC, and levy charges

Description. Outsourced RUC service providers may handle this function. In this case, the RUC Authority would be responsible for procuring service providers, providing and enforcing the RUC policy framework (including rate setting information, system requirements, and data handling policies and procedures), and overseeing them. Otherwise, the RUC Authority must build and maintain the ability to accomplish the following under this function:

- ▶ Measure mileage according to the system design requirements, using any technology consistent with the requirements and allowable under law.
- ▶ Calculate RUC charges according to requirements.
- ▶ Communicate and present amounts due to end users according to the requirements, for example through an invoice or billing statement.
- ▶ Process transactions, including collection of fees and updating of end user accounts to reflect amounts paid and new balances due.
- ▶ Process refunds including settling of fees with end users, for any number of reasons including overbilling, overpayment, or policy reasons such as credits for miles driven off road or fuel tax paid.

Existing capabilities. The WA RUC pilot demonstrated a limited capability to collect RUC charges using subagents, in which customers visited select vehicle licensing offices and used a purpose-built application on a smartphone from the subagent to capture a vehicle odometer photo. Beyond that limited demonstration, no capabilities exist to collect mileage measurements using any technology. Both WSDOT and DOL calculate charges and collect fees (for tolling and vehicle registration, respectively), including transaction processing and refunds.

For DOL, specifically, the “vehicle” is the customer, and this is an important logic that will likely apply to RUC, including the caveat that payment plans present a special challenge because of the implication that DOL could be seen to finance charges. That said, DOL enforces tolling and parking for other jurisdictions and agencies; it is conceivable an outside entity could likewise offer periodic payments to RUC customers. pre-payment of RUC would be more labor intensive than post-payment; cheapest/easiest/fastest way to implement would be self-report mileage at annual tab renewal (with some sort of ability to check or audit ideally), and this could be accomplished almost entirely in-house at low cost of collection

Recommendations. The organizational structure of mileage reporting and associated calculation and collection depends largely on the methods of mileage reporting envisioned for Washington. The most flexible approach is to invite the market to offer multiple reporting methods, as the WA RUC pilot demonstrated, then relying on DOL to serve in a procurement and oversight role, with minimal impact on existing agency operations. Perhaps the most narrow approach would be to prescribe a single mileage reporting method (e.g., self-reporting with odometer images), tied to the DOL vehicle record, with the calculation and collection of fees done by DOL similar to annual tab renewal. Regardless of the approach taken, DOL plays the critical agency role, either as overseer of private partners (similar to subagents), or as the agency conducting the function, or both.

3.8 Provide customer service

Description. Customer support is the main touchpoint for end users. The quality of services offered plays an important role in determining public acceptance. This function also gathers important feedback and data from end users, and relays this information

back to operations functions and management and planning functions for monitoring and continuous improvement based on the type and quantity of feedback received.

Customer service differs from external communication in that it refers more narrowly to support for owners or lessees of vehicles enrolled in the RUC program. Under an outsourcing scenario, most customer support will be provided by a private service provider. This includes fielding questions about enrollment and account setup, invoices and payments, technology and technical support, disputes, and general questions. Even in an outsourced scenario, the RUC Authority may provide a layer of customer support beyond the service provider to handle disputes and address general questions including policy questions that the service providers cannot or should not address.

Existing capabilities. WSDOT, like most tolling agencies, outsources customer support (e.g., call centers) because of the level of competency and efficiency that exists in the private sector for this function. WSDOT's role is to publish and enforce performance indicators, provide oversight, and serve as an escalation point.

DOL maintains an in-house call center for vehicles/drivers. All agents are in the same building and cross trained across the range of services provided by DOL. The agency tracks performance indicators internally.

Recommendations. For a consistent end user experience, the agency that supports most of the RUC operational functions should serve as the primary user interface. In this respect, DOL would be a natural candidate to play such a role. In a hybrid scenario where customer service is shared between the RUC Authority and one or more private service providers, full coordination between the customer service teams to offer a smooth end user interface is needed. This means that roles and responsibilities, and processes should be defined and agreed on between all entities supporting this function either directly or indirectly.

Customer support teams should be trained to provide general information to end users and transfer them efficiently and seamlessly to the relevant support. This function should aim to achieve a high level of consistency between customer support teams in order to avoid frustrating end users. Efficiency should also be a key objective when delivering this function especially as end users have to manage an additional administrative task.

Sources of operational efficiency include shared standard operating procedures between customer support teams, increased accessibility through an official website comprising Frequently Asked Questions (FAQs), and provision of online account management services.

Implementation of performance and control metrics helps underscore the importance of providing a seamless end user experience with minimal friction. Control metrics should be set up and monitored to ensure that customer support teams meet minimum service level requirements and respect data privacy and security policies. Performance metrics should also be set up to incentivize customer support teams to achieve high customer service satisfaction levels.

WSDOT's outsourced customer service center for tolling plays an indirect support role given the need to coordinate and redirect end users who mistakenly inquire with the tolling division about their RUC account (or vice versa).

3.9 Enforce and adjudicate RUC

Description. RUC enforcement approaches would be prescribed in some combination of enabling law and in regulation, with system design requirements specifying how they should work in greater detail. This function covers the day-to-day activities related to RUC enforcement and adjudication of offenses and disputes, which would include working with an existing or new administrative court. Enforcement functions of the RUC Authority include:

- ▶ Determining and verifying reporting infractions against law or rules, including non-payment
- ▶ Imposing fines and penalties in accordance with law and regulations
- ▶ Seeking recovery of unpaid RUC, fines, and penalties from service providers and/or end users through a collections process
- ▶ Handling appeals through an administrative process
- ▶ Identifying and reporting new and recurring infractions to the "Manage Policy and Regulation" function so that enforcement procedures can be adjusted in collaboration with partner agencies

Existing capabilities. DOL enforces charges, although no such capabilities exist for RUC.

Recommendations. As with other operational functions, DOL is the logical choice to enforce and adjudicate RUC disputes.

3.10 Manage funds and refunds

Description. Given the RUC Authority's fundamental purpose to collect funds, this function covers the actual handling of funds collected. The RUC Authority must ensure that any payments made by the service provider and/or end users are handling appropriately according to state law and deposited in the appropriate accounts in a timely and secure manner. In addition, this function covers refunds, including proper handling of payments to end users and service providers according to the enabling legislation and system requirements.

Existing capabilities. Funds collected on behalf of the state are deposited into accounts managed by OST. Although all public funds must be swept into an OST account within 24 hours of collection, OST had broad authority to issue waivers when convenient and frequently does so, including for subagents. For example, if a customer pays a subagent via credit card for a vehicle registration, the state funds are transferred from the merchant bank to the subagent's private account, then reported in a roll-up of transactions from the subagent to DOL in a periodic basis, which in turn is then provided to OST. OST then sweeps the subagent account every 3-7 days based on the DOL report. The process is largely automated, with some opportunities for manual verification.

Recommendations. Given the experience between DOL and OST, operating a similar system for handling RUC funds between the two agencies (including outside service providers, if used) should be straightforward. The largest expenditure will be to set up new accounts.

3.11 Manage interoperability

Description. This function covers the RUC Authority's interactions with other agencies within and beyond Washington related for interoperability of Washington RUC with other regulations and/or services. Depending on the enabling legislation, this function may be unperformed at the outset but could grow in time. The function includes coordination with other divisions of state and local government, the private sector, and other states to collaboratively design, implement, and operate interoperability features, similar to

Washington's participation in the International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA).

Existing capabilities. DOL manages Washington's participation in IRP and IFTA. WSTC has managed Washington's research into RUC interoperability, including collaboration with neighboring jurisdictions.

Recommendations. Although DOL possesses agency experience with transportation interoperability through IRP and IFTA, it is unclear whether this experience would translate directly to the needs and features of a RUC system with multi-state interoperability or interoperability across other types of transportation payments. Nonetheless, given DOL's importance in operating a RUC system, a key role for the agency is advisable. As with the internal communication function, WSTC can play a role to convene stakeholders and provide advisory technical and design inputs on the development of interoperability for RUC.

3.12 Ensure IT and system compliance

Description. Whatever data the state collects, whether it directly manages end-user accounts or does so through outsourced service providers, must be managed on an information technology platform owned or leased by the RUC Authority. At minimum, the state will collect periodic reports from service providers regarding aggregate miles driven, RUC due, and account status for each eligible and enrolled vehicle. Should the state undertake account management functions, it may also collect more detailed data such as miles driven by date.² This function covers the compliance of the RUC IT and systems with data security and privacy policies. IT and systems include hosting equipment or services, software programs to collect and analyze data, equipment to display data to necessary staff, the maintenance of all equipment, applications, and/or contracts for these goods and services, and the corresponding operating procedures that describe RUC data collection and handling.

It will fall on the RUC Authority to specify security and data privacy requirements, and set up mechanisms to control compliance of outsourced system and service providers with those requirements. Control mechanisms may include regular compliance audits or

² The state could theoretically collect location data, but such a policy was not tested in Washington, and driver and public reaction this approach is negative.

certifications by a state agency or through a third party. Compliance expectations are addressed upfront with vendors during contracting phases and are enforced on an ongoing basis during the lifetime of the contract. Audit and compliance activities are covered by function 3, Audit RUC Program Data and IT/systems compliance.

Existing capabilities. The agencies interviewed for this research indicated their ownership of IT and system security requirements either through in-house teams or oversight of outsourced vendors. WSTC is the only agency with experience ensuring system compliance for vendors operating a RUC system (albeit on a pilot basis).

Recommendations. Given the importance expressed by Washington drivers of protecting privacy and securing data, it is advisable that this function be shared between the operating agency (likely DOL) and, at least during a transition period while the operating agency builds the internal capabilities and systems for RUC, WSTC.

3.13 Create and update system design

Description. Enactment of RUC may specify high-level policy requirements, but will not be sufficient for detailed design and execution of a RUC system. This responsibility will fall to the RUC Authority. The function of system design includes creation of system design documents including specifications, requirements and, interfaces. The RUC Authority may take on this function itself or outsource it. Regardless, the RUC Authority should own the design, including proper maintenance of all design documentation, and providing periodic updates to them, both to be consistent with best practices and to respond to policy changes such as updated legislative or agency directives.

Existing capabilities. WSDOT has experience with this function as applied to the state's tolling system. By contrast, DOL has less deep experience in system design as it relies largely on purchasing commercial-off-the-shelf systems. WSTC has the deepest experience with RUC system design given the need to develop sophisticated design documents for the RUC pilot.

Recommendations. Given WSTC's role in designing the RUC pilot systems and DOL's likely role in operating a live system, the two agencies should collaborate in the specification of RUC system design documents. This collaboration should include: knowledge transfer from WSTC to the appropriate staff at DOL (building on existing collaboration points used for the pilot); co-development of RUC system design

documents starting from the pilot documents as a baseline; and consultation with WSTC regarding execution.

3.14 Establish and manage service providers for end-user RUC accounts

Description. The WA RUC pilot tested the concept of using outsourced service providers to deliver the functions and services to end users for collection of RUC. The services provided correspond with functions 6, 7, and 8 of this paper. Depending on the authorizing legislation, the RUC Authority may or may not be required to utilize outside service providers; if not, the functions of a service provider would need to be developed and delivered internally. This function covers the activities only in the event of outsourcing. They include:

- ▶ Procurement of one or more outside service provider consistent with statute, system design (see item 13), and any state procurement guidelines.
- ▶ Ongoing management of the outside service provider(s) contract(s), including measuring milestones and progress, monitoring service level agreements, invoicing, handling change orders, and dealing with contract renewals or re-bids.
- ▶ Ongoing evaluation of the contracts, including performance monitoring (consistent with item 1) to ensure contract terms are being met.

Existing capabilities. DOL is well versed with the approach of relying on outside service providers for customer-facing functions. Statewide, 181 subagencies provide core customer service, fee assessment, fee collection and remittance, and licensing functions on behalf of DOL. Any additional 39 county auditors provide similar services.

Conceptually, the difference between a subagent model for vehicle transactions and an outsourced service provider model for RUC transactions is modest, with the particulars of the technology and transactions forming the primary points of distinction. That said, DOL is uncertain regarding its procurement authority for a fully open system with freedom for qualified RUC service providers to enter the market.

Recommendations. Should the Legislature pursue RUC with any form of technology-based reporting as an option, it is advisable to provide legislative authority to the operating agency (DOL) to procure service providers, including ideally through an open market procurement. An open market procurement allows the agency to certify any qualified service provider who can prove they meet the specifications to collect RUC to

offer accounts to vehicle owners in the state at market rates. This approach gives the agency flexibility on procurement methodology.

3.15 Manage a digital definition of the charged road network

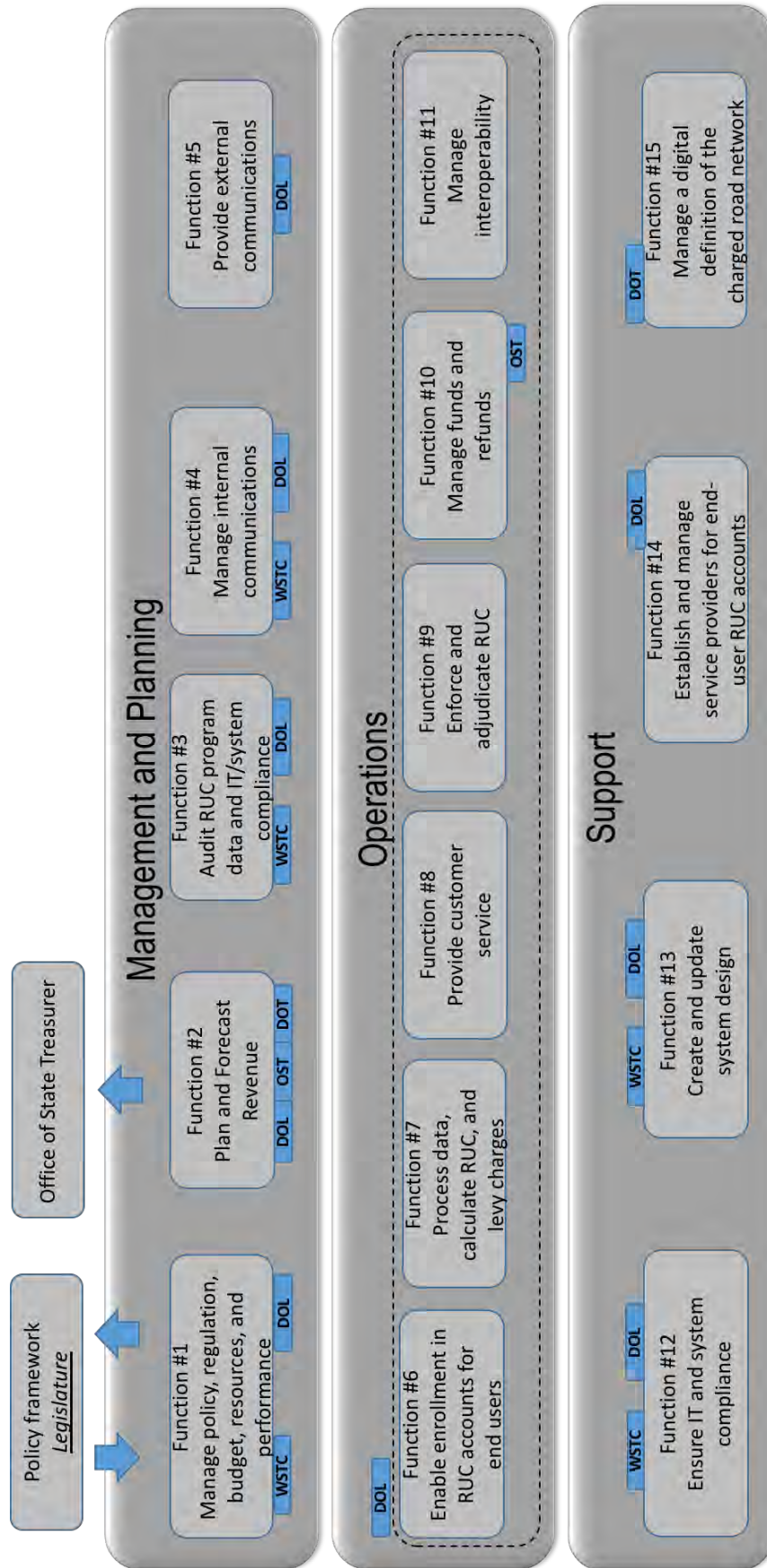
Description. Should the state apply RUC only to driving on public roads, then it must be able to define what constitutes a public road. This means the state must either provide or certify a digital definition of the state's road network, including whatever characteristics are necessary to carry out the authorizing RUC legislation. For example, the state must certify the digital maps used by service providers that the map service defines public roads to the state's satisfaction. Although digital maps themselves change constantly as data are added to enrich their coverage, this function may require only periodic updates.

Existing capabilities. WSDOT currently maintains a digital map of the public road network of the state.

Recommendations. The Legislature should direct DOL and WSDOT to collaborate on the definition of the state public road network for purposes of RUC (if off-network driving is considered exempt from RUC), including sharing of digital assets for purposes of certifying service provider maps.

3.16 Summary

The overall organization of the RUC functions is presented below with the nominated agency or agencies for each function indicated.

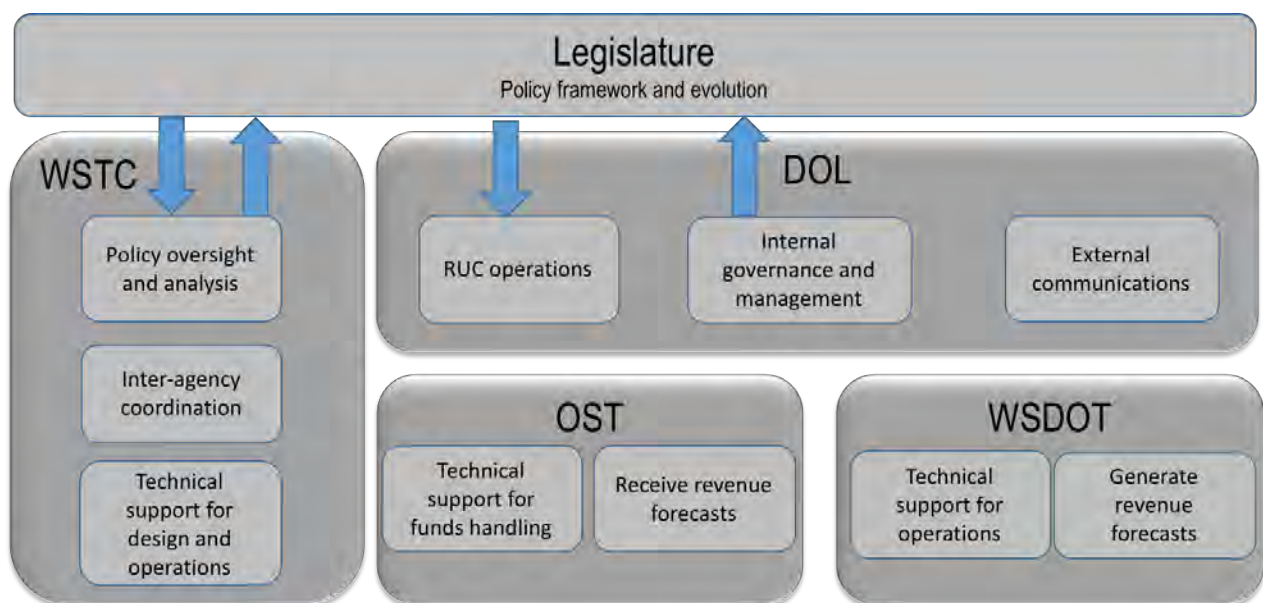


4 ORGANIZATIONAL STRUCTURE

Given the assignment of functions to existing agencies contemplated by Section 3, this section presents an overarching emergent organizational structure for consideration.

The overall role of each of the four key agencies is summarized as follows:

- ▶ DOL serves as the agency responsible for implementing and operating RUC, with authority and funding to design, procure, and build the necessary systems; oversee operations; manage the RUC program against policy requirements; and collect and deposit funds in the Treasury.
- ▶ DOT provides technical support to DOL for specialized functions including digital mapping, revenue forecasting, and tolling and interstate interoperability.
- ▶ OST provides the necessary technical support to facilitate deposit of funds into the Treasury by DOL or third party agents in the appropriate manner and also receives revenue forecasts related to RUC.
- ▶ WSTC provides a policy oversight and coordination layer as RUC evolves from a nascent program to a mature system. In addition to serving as a coordinating entity to facilitate effective delivery in line with policy expectations, the agency offers technical expertise and knowledge transfer of RUC system design and operations. It also offers policy recommendations to the Legislature based on analysis of existing operations relative to opportunities for RUC program expansion or change.



5 RECOMMENDATIONS

This report offers principles for organizational design, reviews the functions necessary to implement a RUC system, makes recommendations on how best to carry out each function for Washington, and offers an emergent organizational structure for consideration.

The organizational design principles reflect legislative guidance and Steering Committee preferences expressed about RUC over the past seven years. These include minimizing cost and bureaucracy by building on existing features, emphasizing points of coordination across agencies, considering the need to protect privacy and secure user data, and optimizing end user experiences.

From those principles, we offer organizational design recommendations for RUC in Washington as follows:

- ▶ Enabling legislation should authorize an agency to implement and operate RUC. Operations functions should be provided by the same agency and/or service provider to the extent feasible to optimize the end user experience, consistent with the principles of organizational design. The most likely candidate for implementing and operating a RUC system in Washington is the Department of Licensing.
- ▶ There are several key points of coordination between the operating agency and other agencies that enabling legislation should anticipate and recognize by authorizing or directing other agencies to serve in support roles as follows:
 - > OST should build on existing systems and collaborative partnerships with DOL handling RUC funds and forecasting RUC revenue.
 - > WSDOT should work within the TRFC construct to ensure the RUC program supports and is supported by accurate VMT and revenue forecasting; moreover WSDOT should provide technical support as appropriate such as digital mapping, collaboration with tolling operations, and insights regarding interstate interoperability.
 - > WSTC should serve in a coordinating role for the other agencies during at least a transitional period by facilitating RUC (e.g., through the RUC Steering Committee or a similar, successor entity more operationally focused), including to transfer knowledge of RUC systems to DOL. In

addition, in its policy oversight role, WSTC can analyze policy choices and make recommendations to the Legislature relating to the evolution of the RUC program.

APPENDIX: INTERVIEW GUIDE USED WITH PARTNER AGENCIES

In the interview, we will ask about your views and experiences on a range of the functions that could be required for a RUC system

Following introductions, we will ask you to lead an open-ended discussion about and description of your organization, its responsibilities, functions, staffing, organizational charts, and interfaces with other agencies and outside entities.

In the second part of the interview, we will walk through the draft principles and ask your feedback on each one.

Next, we will review the functions for a RUC system and ask your feedback on each one, focusing our discussion on those functions those most relevant to your organization.

Below are example questions to think about that we may discuss related to each function:

- ▶ How is this this function or category currently handled within your division, if at all?
- ▶ If this function or category is outsourced, how is oversight handled?
- ▶ How many FTEs are or would be required to handle this function, and how does that requirement scale with program size?
- ▶ Aside from staff, what costs are associated with this function?
- ▶ What is your assessment of your division's fitness to perform these functions for a RUC?
- ▶ What competency gaps would need to be filled to provide greater comfort or assurance in your agency's ability to handle the function?
- ▶ What statutory prescriptions related to this function would be helpful to your agency?
- ▶ What partner agencies would you work with in delivering this function, and how?
- ▶ What partner agencies would you recommend exploring to lead this function?

Finally, some general questions:

- ▶ What RUC functions are missing?

- ▶ Are any of the RUC functions identified unnecessary or overly elaborate?
- ▶ Are any of the RUC functions unnecessarily overlapping or duplicative of other RUC functions or other existing functions within your agency?
- ▶ Do you believe RUC functions should be consolidated into a standalone RUC entity, or should they be distributed across existing functions of one or more agencies? What policy or program information would influence your answer?