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# **ROAD USER FEES AND PUBLIC-PRIVATE PARTNERSHIPS IN OREGON**

**Addressing the Challenge of Financing  
Infrastructure in the 21<sup>st</sup> Century**

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### **The Context: Large Needs and Inadequate Revenue**

Oregon has turned to alternative finance out of necessity. In Oregon, as in so many other states around the nation, there is a massive gap between the needs of the transportation system and our ability to meet these needs with existing resources.

Oregon is growing rapidly, with a population that has swelled by nearly 40% in the last two decades. As more and more people have moved into places like the Portland metropolitan area, formerly free-flowing highways have become clogged with significant congestion. As the suburbs have continued their continuous outward march, turning quiet towns into cities, new routes and additional capacity on existing highways are needed to bring people from where they live to where they work and to move goods quickly and efficiently. The Portland metropolitan area will add another million people in the next 25 years, and the movement of freight by truck in Oregon is expected to double over the same period. Both of these factors will further increase congestion and impose significant additional costs on businesses that face difficulty getting goods to their destination quickly and cheaply. What's more, aging infrastructure—particularly bridges that have reached the end of their design life—requires us to devote a larger share of resources to taking care of what we already have, which squeezes out funding to expand capacity.

Unfortunately, current revenues are not even close to sufficient to meet the needs to expand the system's capacity and preserve aging infrastructure. Oregon needs \$1.3 billion in additional revenue each year to properly maintain and expand the state's transportation system. Oregon's gas tax has remained flat since 1993—the same year the federal gas tax was last raised—and over time inflation has taken a significant bite out of both of these revenue sources.

Over the last several years the Oregon Legislature has provided the Oregon Department of Transportation (ODOT) several funding packages by raising fees on drivers and vehicle owners and bonding these revenue streams for years to come. While these packages provided ODOT a significant amount of funding to increase capacity on the highway system, most of the additional funding has been focused on preserving or rebuilding aging infrastructure. Consequently, even these significant investments have left many needs unmet.

### **Road User Fees**

This large gap between transportation system improvement needs and our ability to pay for them has led Oregon to look at innovative financing sources as a way to pay for operating, maintaining, and building highways. As they say, necessity is the mother of invention, and in our state of need we are being quite inventive. In 1919 Oregon was

the first state to enact a gas tax to pay for highways, and with our Road User Fee Pilot Program underway we are the first to take a serious look at moving toward a per-mile tax.

Our testing of road user fees arose from concerns over the impact fuel efficiency increases will have on gas tax revenues. While the overall fuel efficiency of cars in the U.S. has stayed essentially flat for years, the long-term rise in gas prices as well as likely federal mandates to improve fuel efficiency will almost certainly increase mileage substantially in the next several decades. A recent report from the Transportation Research Board noted that regulations and sustained gas price increases could prompt a 20 percent reduction in average fuel consumption per vehicle mile traveled by 2025. As vehicles become more fuel efficient, gas tax revenue per vehicle mile traveled will decline, eroding the ability of the gas tax to sustain adequate financing of transportation—especially when combined with the effects of inflation. Oregon’s pilot program is exploring the possibility of shifting toward a true user fee under which everyone would pay the same rate per mile for use of the transportation system rather than a fee based on their oil consumption.

In 2001 the Oregon Legislature established ODOT’s Road User Fee Task Force “to develop a design for revenue collection for Oregon’s roads and highways that will replace the current system for revenue collection.” After much deliberation, the Road User Fee Task Force recommended that ODOT conduct a study to research the feasibility of replacing the state gas tax with a mileage-based fee collected at fueling stations.

Bringing this concept to the testing phase has involved wrestling with complex policy and implementation issues, such as technology, collection methods, privacy concerns, systems integration and the details of potentially transitioning from the gas tax to a road user fee system. This work has led to the development and implementation of the Road User Fee Pilot Program, a sophisticated yet practical system for counting vehicle miles traveled and collecting revenue from drivers at service stations using the same system used to collect the gas tax. The goal is to minimize disruption imposed on the public.

As the first stage in the process of evaluating and potentially implementing mileage-based fees, ODOT’s Road User Fee Pilot Program is conducting a small-scale feasibility study to test the system and the technology involved and determine what additional issues need to be addressed. This pilot program kicked off in March when 260 volunteers in the Portland area were recruited to have their vehicles equipped with on-board mileage-counting devices. Using GPS technology, these devices will count the

number of miles driven in Oregon and the number driven during rush hour. Two service stations in the Portland area have been equipped with mileage reading devices. For one year, the volunteers are required to purchase gas at the participating service stations twice per month. While refueling, the on-board mileage counter communicates with the mileage readers placed at the pumps. When the purchase is totaled, the gas tax is deducted and the road user fee of 1.2 cents per mile—calculated to be revenue neutral based on Oregon’s 24 cent per gallon gas tax and an average fuel economy of 20 miles per gallon—is added automatically.

The Road User Fee Pilot Program includes a test for congestion pricing. Starting next month, almost half of the volunteers will participate in what we refer to as the “rush hour group.” This group will pay 10 cents per mile while driving in the Portland Metro area during rush hour (defined as 7-9 am and 4-6 pm Monday through Friday) during the second half of the study. We will be looking to see if driver behavior changes from the first half of the study.

ODOT has heard three primary objections from the public to this approach. The first is privacy, a concern that arises from having GPS-based mileage counters placed in cars by the government. This concern is easy to address: the State of Oregon will NOT be tracking the movements of motorists. The devices on the cars will essentially be sophisticated odometers that count the number of miles driven but will neither gather nor store specific information on where people drove, or when they drove there; it will only count how many miles they drove in the state versus out of the state and in the rush hour pricing area versus out of that area. Collecting this information provides no opportunity for invasion of privacy.

The second objection comes with the way in which charging a per mile fee will reduce the incentives to purchase fuel efficient vehicles. Currently a Hummer costs much more to drive per mile than a Prius, and the fear is that equalizing the transportation taxes each pays would reduce the incentive to purchase a Prius. While this is a valid concern, the disincentivizing effect would likely be very small, particularly because the gas tax has become such a small part of the cost of a gallon of gas as prices have skyrocketed in recent years. Oregon’s 24 cent per gallon gas tax is currently about 10% of the cost of a gallon of gas, so making modest changes to the way transportation taxes are assessed would likely have only a minimal impact on behavior. What’s more, legislators could establish a rate structure that would address these concerns by providing a reduced per-mile rate for fuel efficient vehicles.

The third issue is cost. The public has questioned how much it would cost them and the government to transition to this new way of collecting road revenue, which involves

expensive new technology on cars and gas pumps. We believe that road user fees could be implemented over a period of time and phased in as new cars come pre-installed with pieces of the requisite technology; many of the hardware components exist today and are already being included on many new models. This phase-in period would reduce the costs of retrofitting the fleet. If policymakers believe the U.S. should move toward road user fees, they could facilitate the transition by implementing national standards for technology and require placement of the needed technology on new vehicles.

Although we are only half-way through the study, I am pleased to report that the system we have designed is working well. The pilot has proven that the technology can work, and the basic system has been shown to be technically feasible.

While ODOT's pilot has proved that this concept is feasible, there are many challenges to be worked out before it can be deployed here in Oregon, much less at a national level. This pilot program is just the first step in the process of developing and implementing a road user fee. Oregon would like to build on our work and continue this research and development by improving the experience at the pump, resolving issues associated with nationwide implementation and the transition from the gas tax to road user fees, and finalizing cost estimates for full mileage fee implementation.

Additional development, study, and testing needs to take place for road user fees to come to fruition, and support from the federal government will be critical if this means of collecting transportation revenue is ever to be adopted. In the next surface transportation reauthorization bill, Congress should consider providing funding for larger scale studies and operational tests of this type of program so that we can conclusively determine whether road user fees can and should be implemented at a nationwide level.

While Oregon's pilot program shows great promise, that promise is long-term and will take years to realize. In the near future, road user fees will not replace the fuels tax as the primary source of funding for transportation infrastructure.

### **Oregon Innovative Partnerships Program**

We are also in the early stages of exploring the possibility of financing additional highway capacity through public-private partnerships and tolling. In 2003 our Legislature enacted the Oregon Innovative Partnerships Program to allow new, cutting edge approaches to financing transportation projects. The program allows ODOT to enter into partnerships with private-sector businesses and government agencies to

study, design, finance, construct, operate, and maintain critically needed transportation projects.

Last year, the Oregon Innovative Partnerships Program identified three significant transportation projects as possible public-private partnership projects: the Newberg-Dundee Bypass, the Sunrise Corridor and the I-205 South Corridor Improvements. Each project has the potential to significantly relieve traffic congestion in the communities in which they would be built, and the three were selected because funding the three projects—which together would cost well over \$1 billion—will be very challenging using the resources we currently have available.

ODOT issued a Request for Proposals (RFP) for these three projects in spring of 2005 to seek private sector interest in a two-phase contracting process. The first contract is for “pre-development” services to bring the project to the point it can secure private sector financing. By satisfactorily determining whether a project is technically and financially feasible and acceptable to the public, the private partner would earn the exclusive right to enter into negotiations with ODOT on the “implementation contract” to actually build and perhaps operate and maintain the new facility.

After receiving and reviewing proposals, ODOT invited the Oregon Transportation Improvement Group (OTIG) to interview, as the top ranked proposer on all three projects. OTIG is a consortium of companies with extensive experience and long histories of success in the financing, design, engineering and operation of state-of-the-art transportation facilities. OTIG is led by Macquarie Infrastructure Group (MIG), one of the largest public infrastructure companies in the world. The group was chosen because of its significant U.S. and international experience financing, developing and operating high-quality transportation facilities; its ability to fund the projects up front; its willingness to assume the financial risk for the timely construction and successful operation of the three projects; and for a proposed 30% reduction in costs if awarded all three projects.

ODOT is currently working with OTIG in a pre-development phase to evaluate the financial and technical feasibility of various options for building the projects through a public-private partnership. Activities undertaken during this phase will allow OTIG to make informed decisions regarding whether to go forward into the implementation phase. OTIG has agreed to bear the cost of conducting the pre-development studies, but ODOT will be required to reimburse these costs if ODOT or OTIG decide not to proceed with a project; with one exception, none of OTIG’s pre-development costs will be reimbursed if the projects move successfully into implementation, and ODOT’s costs are capped well below the expected costs of completing the feasibility reviews. The pre-

development contract includes several escape clauses that either party can use if predevelopment work shows the projects to be financially or technically infeasible.

If the pre-development work demonstrates that the projects are technically and financially viable, OTIG will have exclusive rights to enter into negotiations with ODOT to implement the projects. OTIG has proposed to finance, construct and operate these new facilities as toll facilities for a period of years that has yet to be negotiated. For a number of the early years, these projects are projected to operate at a loss. OTIG would operate the new facilities in exchange for the right to receive a return on its investment in the later years of its lease term.

An implementation contract would offer OTIG a long-term concession of a negotiated length, during which time OTIG could collect the tolling revenue. This contract would specify exactly how the private sector would build, operate, and maintain the facility and cap the rate of return. For example, the contract could specify certain arrangements to ensure safety and security; could set appropriate toll levels; and would set standards for operation and maintenance of the facility to ensure that OTIG would operate a quality highway and turn it back to the state in a good condition.

Although OTIG will have the first shot at securing the implementation agreement, ODOT will have leverage in these negotiations because the state is not locked into contracting with OTIG to build these highways. ODOT is required to conduct good faith negotiations, but if we are not able to secure an acceptable agreement, we have the right to walk away and sign a contract with a different firm after a one-year waiting period has passed. If the projects move forward, OTIG has agreed to conduct a competition for design and construction, ensuring that Oregon will receive the highest value on its investment.

### **Implications: Benefits and Drawbacks**

Turning to the private sector in the way Oregon has done has the potential to provide numerous benefits, primarily in the areas of project development and finance. Working with the private sector can streamline the study, design, funding and construction of transportation projects and achieve cost and time savings by engaging the innovations, efficiencies and technologies unique to the private sector. During the project development phase the private sector is able to allocate human and financial resources as necessary to move a project forward and can quickly bring tremendous resources to bear to solve problems; due to budget constraints the public sector is less flexible in its allocation of resources.

In addition, the private sector brings the ability to access a tremendous amount of private capital more effectively than the public sector can. Access to private equity capital is important to be able to make toll road projects work in Oregon. While both the public and private sectors can do debt financing by issuing bonds, only the private sector can secure equity financing by selling stock. Bonding for tolling projects, whether secured by a public entity or private sector firm, is likely to be subject to a significant discount due to uncertainty about tolling revenue. Such a financing discount may yield too little capital for the project to be built by bonding alone. By adding private equity capital to the financing, the private sector may be able to bridge the gap and yield enough financing for the project to be constructed.

However, this model of combining public-private partnerships with tolling is likely to have relatively limited application, and in a best-case scenario it could meet only a fraction of the need for improving the transportation system, much less preserving and maintaining our existing—and rapidly aging—infrastructure. There are relatively few projects that are even candidates for consideration as public-private partnerships: To date ODOT has identified just three projects for study, though more will likely be identified in subsequent rounds.

What's more, using a public-private partnership and tolling to advance a project may generate concern among the public that could reduce its political viability, even when there is widespread support for the project. ODOT is learning this lesson with the Newberg-Dundee Bypass, the most advanced of our public-private partnership exploratory projects, which could face challenges of financial and political viability. This spring OTIG released a Summary Feasibility Review for the Newberg-Dundee Bypass that indicates highway tolling may be feasible to finance the project. However, OTIG's preliminary analysis indicates that tolling only the new bypass route may not generate enough revenue to pay for the project, leaving a large funding gap that the public would have to bridge using unidentified resources. Moreover, leaving the existing route untolled would encourage people to use the existing route to escape the toll, reducing the congestion relief provided by constructing the Bypass. Consequently, OTIG has discussed the potential use of corridor tolling, in which both the new bypass and the existing highway would be tolled, as an option for funding the Bypass. Not surprisingly, the potential of tolling an existing free highway has raised concerns among residents of the area.

### **Conclusion**

ODOT has turned to exploring innovative finance to address the challenges of funding the highway system. Escalating needs to expand capacity and take care of aging

infrastructure run up against stagnant fuels tax revenues that are being eaten away by inflation and will be reduced further by increasing fuel efficiency.

Despite ODOT's turn toward innovative finance, it is unlikely that either public private partnerships or road user fees will provide an immediate much less complete solution to our funding challenges. Road user fees, though promising, are years away from implementation, and they may never fully replace the gas tax. Public-private partnerships and tolling will likely have relatively limited use, potentially addressing the need to expand some higher-volume highways while doing little to address the problem of increasing costs to preserve and rebuild our existing infrastructure.

While the mounting challenges of the surface transportation system do require policymakers to look outside the gas tax box, it is important to recognize the limited application of these alternatives to the gas tax.