Proposed Action for NEPA Analysis

Consistent with the requirements of 23 U.S.C. 168, the information in this document, and the public and agency input received, may be adopted or incorporated by reference into an environmental review process to meet the requirements of the National Environmental Policy Act.

What is being proposed

ODOT is proposing to implement and operate congestion pricing on all lanes of approximately 55 miles of Interstate-5 (I-5) and Interstate 205 (I-205) in the Portland metropolitan area. Congestion pricing is a type of tolling that charges higher prices during peak traffic periods and at more congested locations. The higher toll encourages drivers to consider other options besides driving alone during rush hour. When a small number of drivers choose other options, travel times and reliability are greatly improved for drivers who choose to pay the tolls.

The purpose of the Regional Mobility Pricing Project is to use congestion pricing on I-5 and I-205 to manage traffic congestion on these facilities in the Portland, Oregon metropolitan area in a manner that will generate revenue for transportation system investments. The project will be evaluated as the "Proposed Action" in the upcoming National Environmental Policy Act (NEPA) environmental review phase. In mid-2023, a full environmental review document, called an Environmental Assessment, will be available for public review and comment. The earliest tolling could begin under the Regional Mobility Pricing Project is in late 2025.

Development of the Proposed Action

The Oregon Department of Transportation (ODOT) initiated planning work for congestion pricing in 2017 with the Value Pricing Feasibility Analysis and continued developing the project concept over the past three years. ODOT recently conducted a planning phase[1] and will begin the National Environmental Policy Act (NEPA) phase in September 2022. During the planning phase, ODOT consulted with regional project partners and the community to develop a project concept for congestion pricing on I-5 and I-205, which now forms the basis of the Proposed Action.[2]

Congestion and regional growth

Traffic in the Portland metropolitan area has reached a point of severe congestion and highly unreliable travel conditions during peak periods. This results in delays to auto, freight, and transit travelers, hampers economic growth, and contributes to increased greenhouse gas emissions.

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[1] Conducted consistent with guidelines for the US Department of Transportation/Federal Highway Administration planning phase referred to as Planning and Environment Linkages (PEL), which represents a collaborative and integrated approach to transportation decision-making that 1) considers environmental, community, and economic goals early in the transportation planning process, and 2) uses the information, analysis, and products developed during planning to inform the environmental review process.

[2] Regional Mobility Pricing Project Summer 2021 Engagement Report and Regional Mobility Pricing Project Spring 2022 Engagement Report.

The Portland metropolitan area is growing quickly and is anticipated to continue to add new residents and jobs, resulting in more congestion on major roadways, even with planned investments in the transportation system. In 2019, the average auto commuter in the Portland metropolitan area experienced 68 hours of congestion delay per year.[3] As the region's population continues to grow, the number of vehicles using the system and the hours of congestion are expected to increase as well. The Portland metropolitan area population is expected to increase by more than 20% over the next 20 years, from 2.5 million residents in 2018 to more than 3 million by 2040.[4]

Unpredictable travel times create challenges for freight, services, small businesses, employers, and employees, and anyone using the roads. Overall, the delays due to congestion on freeways were estimated to cost the region $1.2 million per day in 2019.[5] Traffic congestion also leads to an increase in fuel consumption and greenhouse gas emissions, as vehicles spend more time on the road idling or moving at very low speeds and repeatedly accelerating and decelerating.

This congestion results in traffic flow breakdowns (stop and go traffic on the interstates) which in turn causes safety issues and reduces the number of vehicles that can efficiently use the system. The congestion on the interstates also leads drivers to seek alternate routes, pushing cars onto adjacent roadways, which causes congestion and safety concerns on these roads.

Future growth projects and transportation modeling show us that current plans to reduce traffic are not enough. Regional transportation plans call for roadway projects, improvements in transit, and increased use of active transportation modes, which will mitigate some of the effects of congestion. However, they will not fully address the expected increase in demand on the transportation network as the region continues to grow. Congestion pricing can work in combination with these other planned projects to reduce regional traffic congestion.

Proposed Action description

The National Environmental Policy Act (NEPA) environmental review will evaluate a single Proposed Action (congestion pricing) in comparison to a No Action scenario (no congestion pricing, further described later in this document). The Proposed Action for evaluation during NEPA includes the following project elements:

Congestion pricing will be applied to all lanes of I-5 and I-205

The project concept includes congestion pricing all lanes of the existing interstate, rather than pricing a single lane or set of lanes, building a new tolled turnpike, or tolling a newly constructed lane. Early analysis of congestion pricing on I-5 and I-205 showed that tolling all lanes can reduce congestion on the

[3] Texas A&M Transportation Institute. 2021. *2021 Urban Mobility Report*.
[4] Census Reporter 2018.
[5] Oregon Department of Transportation Portland Region 2020 Traffic Performance Report.

entire interstate facility.[6] It also allows ODOT to keep toll rates lower on an individual basis, providing more affordable benefits to a greater number of users compared to single express lanes.

Assumed toll rates are based on future modeled demand and capacity

To predict how congestion pricing could alter travel patterns, the project team uses a transportation model, the Metro Regional Transportation Demand Model. Demand in the model is based on forecasts of the number and types of trips generated in the region over the course of a typical day. Assumed toll rates for the environmental analysis will be based on modeled demand and capacity.

Reducing demand on the interstates to reduce congestion requires consideration of the time and the location of these trips. In general, a higher toll rate will decrease demand more than a lower toll rate. Therefore, assumed toll rates will be higher during peak hours and at more congested locations, and lower during off-peak hours and at locations with less demand. Assumed toll rates will be lower where highway capacity is greater (for example due to there being more lanes, efficient alternate routes, or other travel options) and higher where capacity is limited.

This overall congestion pricing structure recognizes a need to limit demand as well as a desire to minimize rerouting onto surface roadways. If toll rates are too high, too many vehicles will reroute to local roads, causing congestion on these roads and impacting safety.

Toll rates are based on a set schedule (not dynamic pricing)

Scheduled toll rates allow drivers to determine the cost of their trip before they enter the tolled interstate and make an informed decision about their travel options. The toll schedule will vary based on time of day and location to account for travel demand and supply. Because there are so many possible entry and exit points across 55 miles of interstate, trip costs could vary depending on the specific trip characteristics including entry/exit points and hour of the day.

Toll rates will be monitored and adjusted after implementation

Toll rates adopted by the Oregon Transportation Commission will be initially determined based on modeled demand and supply. After tolling begins, toll rates will be monitored and adjusted on a recurring basis based on actual (not modeled) traffic data.

[6] In 2017, ODOT conducted the Value Pricing Feasibility Analysis to evaluate different options for congestion pricing on I-5 and I-205. Early analysis documented in Technical Memorandum #3 compared two ways to implement the toll: 1) tolling all lanes; and 2) tolling a single lane, either by tolling an existing lane or constructing a new tolled lane in each travel direction.

All electronic tolling with gantries and transponders

The project concept is developed for an all-electronic toll collection system that does not require drivers to slow down or stop to pay at a toll booth. Gantries are bridge-like structures over the roadway, which support electronic equipment (see Figure 1). Most vehicles will be equipped with transponders, a small device placed on the inside of the windshield connected to a toll account. The equipment on the gantries will read the in-vehicle transponders or capture a picture of the vehicle's license plate. Drivers will be charged from their toll account or be sent a bill to the mailing address associated with the license plate number. Drivers without an account may be charged an additional processing fee.

Figure 1: Conceptual Image of Gantry and Electronic Equitment

Pricing on I-5 and I-205 from the Columbia River to the Boone Bridge in Wilsonville

During the NEPA phase, ODOT will study the maximum extents of I-5 and I-205 in the region to identify the greatest level of benefits and impacts. The evaluation area for the Proposed Action (see Figure 2) includes I-5 from the Interstate Bridge to the Boone Bridge in Wilsonville, Oregon and I-205 from the Glenn Jackson Bridge to the point at which I-205 intersects with I-5 in Tualatin, Oregon. Depending on the analysis, project limits may be adjusted prior to implementation of congestion pricing.

The Regional Mobility Pricing Project is being studied as an independent project, following two other proposed projects that include tolls: the Interstate Bridge Replacement Program and the I-205 Toll Project. Drivers would not pay on additional toll for the Regional Mobility Pricing Project on the sections of I-5 and I-205 that are tolled by these other projects.

Low-income toll program

The Low-Income Toll Report for the Oregon Toll Program was submitted to the Oregon Legislature and Oregon Transportation Commission in September 2022. The report presents an approach to developing a low-income toll program, including discount and income threshold options as well as best practices for implementation of an equitable, inclusive toll system. ODOT is committed to making the low-income toll program available the first day tolling begins, which is planned for the end of 2024 as part of the I-205 Toll Project. Discount options and other applicable program elements will be studied during the NEPA analysis to help inform development of the program. The program will be further defined by the Oregon Transportation Commission during the rulemaking and rate setting process.

Figure 2. Regional Mobility Pricing Project Evaluation Area

Note: The Regional Mobility Pricing Project is not studying tolling on the sections of I-5 and I-205 where tolls are proposed as part of the Interstate Bridge Replacement Program and the I-205 Toll Project.

Project benefits

The project team conducted initial studies to define the project concept and determine how congestion pricing can be most effective. The project concept has been refined throughout the planning phase and forms the basis of the Proposed Action. During the National Environmental Policy Act (NEPA) environmental review process, the project team will conduct additional modeling to test and further assess these results and will review and discuss the findings with partner agencies and community members to determine what further refinements should be made to the Proposed Action.

Decrease the duration of congestion on I-5 and I-205

The initial analysis found that the project concept would decrease the number of hours per day that drivers experience severe congestion on I-5 and I-205. The project concept developed during the planning phase was intended to manage severe congestion, not eliminate all congestion during all hours. If congestion were completely eliminated, tolls would have to be prohibitively high causing financial hardship and significant rerouting to the surrounding roadways to avoid the toll. The project concept was developed with consideration of the entire roadway network, not just to maximize benefits on I-5 and I-205.

Improve travel times and reliability

The initial analysis found that the project concept would improve travel times for people using I-5 and I-205, especially during peak periods, which are generally between 7 a.m. – 9 a.m. in the morning and 4 p.m. – 6 p.m. in the evening. Because there is less congestion during the midday, congestion pricing would have a smaller impact on midday and off-peak travel but would still save travelers time and provide for more reliable travel times on I-5 and I-205.

Support regional greenhouse gas emissions reduction goals through reduced vehicle miles traveled (VMT), vehicle hours traveled (VHT) and single occupancy vehicle trips

The total number of VMT and VHT by all vehicles provides a measure of overall roadway use in the region and is often correlated with vehicle emissions. A decrease in regional VMT and VHT indicates reduced vehicle emissions because drivers are taking fewer trips or choosing closer destinations, more direct routes, carpooling, or traveling by a different mode (or a combination of these). Decrease in VHT, a measure of total time spent driving, also indicate less time spent in car due to congestion management (reduced congestion delay and improved travel times). VHT considers vehicle speeds, another key determinant of emissions, as a vehicle travelling at faster speeds (above 30 mph) generally contributes less to emissions compared to a slower moving vehicle (below 30 mph).

The initial analysis found that congestion pricing would reduce VMT and VHT on a regional and per capita level. These reductions appear to be attributed to a number of factors, including reduced peak hour congestion, shifts in travel time to less congested periods, and changes in trip destination to closer locations. Some drivers also would shift their travel mode from single occupancy vehicle trips to other modes of travel, including transit, walking, biking or carpooling, reducing greenhouse gas emissions associated with driving alone.

No Action

ODOT will also evaluate a No Action scenario in the National Environmental Policy Act (NEPA) environmental analysis. The evaluation of the No Action scenario considers two future years (2027 and 2045) without the Regional Mobility Pricing Project's application of congestion pricing on I-5 and I-205. The scenario is used as a baseline to create an "apples to apples" comparison of the benefits and impacts of the Regional Mobility Pricing Project and to better understand the implications of not applying congestion pricing.

The Metro Regional Travel Demand Model will be used to model and evaluate the effects of the No Action scenario. The No Action scenario assumes the same levels of growth in population and employment forecast for the future years (2027 and 2045) in the region as the Proposed Action. The No Action scenario also includes all transportation system improvements that are part of the financially constrained Regional Transportation Plan (RTP) that would be under construction or complete by 2045. Table 1 summaries the key major system improvements assumed that are included in the 2027 and 2045 future-year financially constrained network and No Action scenario. The No Action scenario also assumes that the Interstate Bridge Replacement (IBR) Program and the I-205 Improvements Project are constructed or under construction and incorporates into the modeling the most recently available toll rate information for IBR and the I-205 Toll Project. Therefore, the same tools and regional assumptions that are used to evaluate the Proposed Action will be used to evaluate the No Action scenario.

Table 1. Major System Improvements in No Action Scenario/Regional Mobility Pricing Project

Improvement	Expected Completion Year	In 2027 Network	In 2040 Network
Interstate Bridge Replacement Program - Improvements	2040	X	√
Interstate Bridge Replacement Program - Tolls	2027	√	√
I-205 Improvements Project	2026	√	√
I-205 Toll Project	2026	√	√
I-5 Rose Quarter (both directions)	2027	√	√
OR 217N: OR 99W to Scholls Ferry (Auxiliary Lane)	2024	√	√
OR 217S: Beaverton-Hillsdale to OR 99W (Auxiliary Lane)	2024	√	√
OR 224 Milwaukie Expressway Improvements	2027	√	√
I-5N: Braided Ramps I-205 to Nyberg	2040	X	√
I-5N: Nyberg to Lower Boones Ferry (Auxiliary Lane)	2040	X	√
I-5S: Wilsonville Rd to Wilsonville-Hubbard Hwy (Auxiliary Lane)	2040	X	√
I-5S: Truck Climbing Lane (Marquam to Multnomah Blvd). PE and ROW and CON phases	2040	X	√
US 26: Widen to six lanes from Brookwood to Cornelius Pass (both directions)	2040	X	√
OR 217S: Braided Ramps Beaverton-Hillsdale Hwy to Allen Blvd	2040	X	√
OR 212/224 Sunrise Hwy Phase 2: SE 122nd to SE 172nd (CON)	2040	X	√

CON = construction phase; I- = Interstate; OR = Oregon Route; PE = preliminary engineering; ROW = right-of-way; US = U.S. Route

These transportation system improvements are also assumed in baseline future year analysis (2027 and 2045) for the Regional Mobility Pricing Project. The only difference from the No Action scenario is the application of congestion pricing on I-5 and I-205 associated with the Regional Mobility Pricing Project.