

Funding Scenario Descriptions & Performance

These scenarios were developed based on direction set by the Transportation Futures Task Force at previous meetings. They represent approaches for funding to further Task Force discussion and are intended to be developed and refined based on Task Force guidance.

The funding gap to meet is approximately \$36B. The overall approach is to increase certain near-term sources to advance needs from last 10 years of the currently adopted Transportation 2040 Plan, meet identified investment needs, phase sources according to need and revenue capacity, and ultimately result in long-term sustainable sources of revenue.

There are five scenarios presented for Task Force consideration:

1. ***Adopted Transportation 2040 Plan***
2. ***Flat-rate Pay Per Mile Charge***
3. ***Peak/Off Peak Pay Per Mile Charge***
4. ***Major Emissions Fee (with Pay Per Mile Charge)***
5. ***Mixed Sources***

Revenue Sources Common to All Scenarios

The following revenue sources are common to each scenario:

- **Express Toll Lanes.** Facilities with Express Toll Lanes include: SR 167, I-405, I-5
- **Toll New/Replacement Major Facilities.** Facilities with tolls include: SR 520, SR 509 extension, SR 167 extension, Tacoma Narrows Bridge, Alaskan Way Tunnel

Note that toll revenues raised in this category are assumed to be dedicated to the specific facility they are raised from and unavailable for funding other needs.

Revenue Sources Common to Scenarios 2-5

The following revenue sources are common to scenarios 2-5:

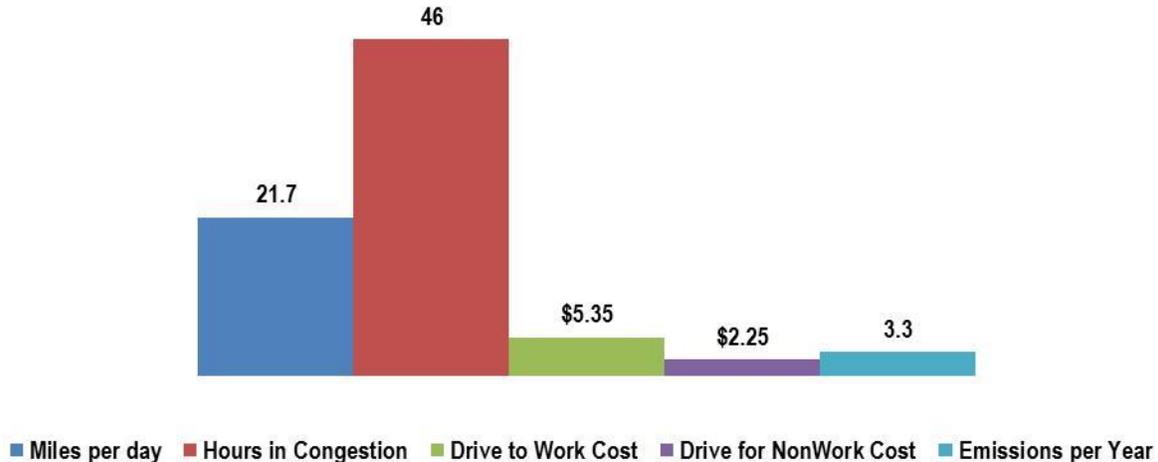
- **Motor vehicle fuel increases** of 40% increase over 2015 for all vehicles and \$100 increase for alternative fuel vehicles **beginning in 2021**; increases are phased out beginning in 2031 in scenarios 2-5
- **Ferry fare increases** at a rate higher than Transportation 2040 / Scenario 1, but consistent with historic inflation
- **Transit fare increases** at a rate higher than Transportation 2040 / Scenario 1, but consistent with historic inflation

Transportation Today

Major Elements of Current Transportation Funding

- Fuel Tax
- Sales Tax
- Motor Vehicle Fees
- Ferry Fares
- Transit Fares
- Facility specific tolls
- General Property Taxes

Performance of the Transportation System Today



Miles per Day – The average number of miles traveled in a personal vehicle per person per day. Miles per person peaked in the Central Puget Sound Region in the mid 1990's at around 24 miles per person before beginning a slow but steady decline.

Hours in Congestion – The amount of time on average that every person spends in congestion each year.

Drive to Work Cost – Round-trip cost for the average work trip which includes all costs associated with operating a vehicle including the cost of gasoline, routine maintenance, insurance, parking costs (if applicable) in addition to any tolls or pay per mile charges.

Drive for Non-Work Cost – Round-trip cost for the average regional non-work trip which includes all costs associated with operating a vehicle including the cost of gasoline, routine maintenance, insurance, parking costs (if applicable) in addition to any tolls or pay per mile charges.

Emissions per Year – The total tons of air pollutants that the average person emits annually with their personal vehicle for all their daily travel via private vehicle.

Overall Performance of Scenarios 1-5 – What Did We Learn?

- All scenarios can fill the \$36B funding gap but have different impacts and costs to users
- Overall, the scenarios perform similarly at a regional level:
 - Miles per Day ranged between 19.3 and 20.2 (vs. today's rate of 21.7 miles per day)
 - Hours in Congestion ranged between 46 and 52 (vs. today's rate of 46 hours per person per year)
 - Drive to Work Cost ranged between \$8.49 and \$9.02 (vs. today's rate of \$5.35 per round-trip)
 - Drive for Non-Work Cost ranged between \$3.01 and \$3.37 (vs. today's rate of \$2.25 per round-trip)
 - Emissions per Year ranged between 3.1 and 3.3 (vs. today's rate of 3.3 tons per person per year)
- The greatest congestion benefits are realized in scenarios that price peak travel higher than off peak travel

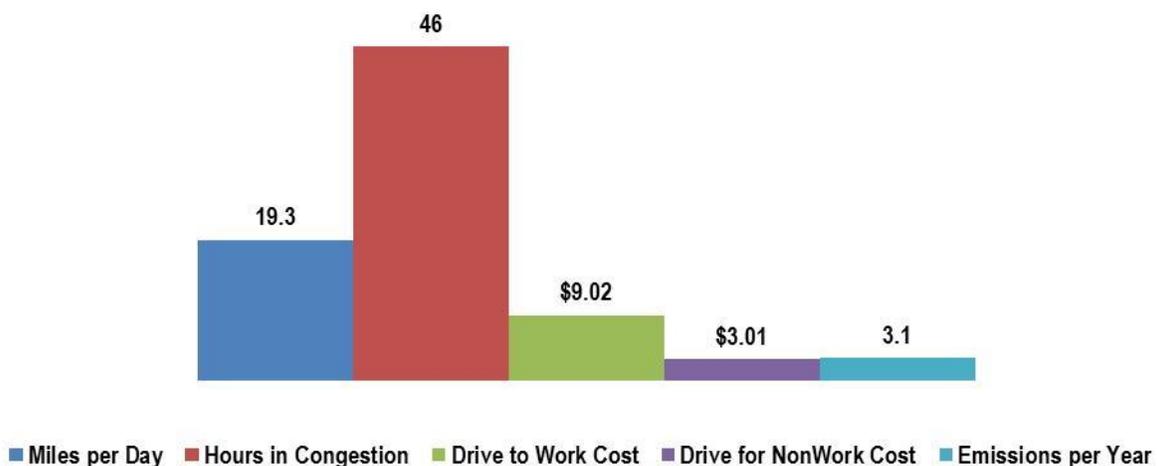
Scenario #1: Adopted Transportation 2040 Plan

This scenario summarizes the currently adopted T2040 Plan which relies on region-wide highway system tolling and use of relatively low flat rate Pay Per Mile to supplement losses in the fuel tax.

Major Elements

- **Highway System Tolling** begins in 2031, raising \$2.3B annually for a total of \$22.8B through 2040, at rates averaging \$0.15 per mile on the freeway system with the average cost of a highway trip at \$1.50 beginning in 2031.
- **A fee related to vehicle use such as Pay Per Mile replaces the fuel tax** beginning in 2015. Through 2040, this fee raises \$5.9B, offsetting a decline of \$5.2B in fuel tax revenues, for a net of \$700M.
- **Modest (10%-20%) transit and ferry fare increases and modest (0.1%-0.3%) sales tax increases** in 2020 and 2030 to support transit investments.
- **A 1.5% motor vehicle excise tax (MVET)** in support of city, county, and transit investments beginning in 2016.
- Note that the 2015 Transportation Revenue Package increased some sources more than anticipated in the T2040 Plan. When the 2015 package is added to T2040, adjusted Scenario for T2040 includes a number of potential “rollbacks” such as Vehicle Fees and Sales Tax. These are shown along with the rollback in the Fuel Tax in the table at the end of this document.

Scenario #1 Performance



- Reduces miles driven per person and highway congestion below existing levels.
- Pricing of the highway system leads to increased traffic and congestion on arterials, meaning that overall hours in congestion remains the same.
- Has the highest average per work trip cost but the lowest for non-work trips.

Scenario #1 Policy Considerations

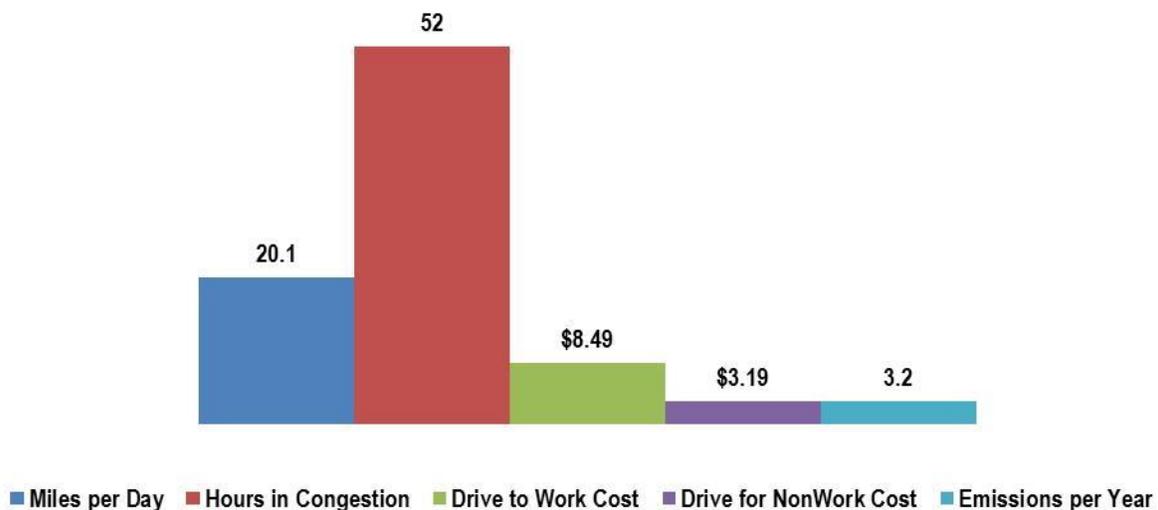
- The adopted Transportation 2040 plan raises a significant amount of revenue primarily from highway users, but leaves arterials free of a charge, assumes large transit investments, results in significant highway delay reductions and emissions benefits, and costs the least to low-income households. Is it politically feasible or equitable to place the burden heavily on highway (freeway) users?
- A major assumption made in the adopted Transportation 2040 plan is that Highway System Tolling revenues would be available for uses beyond the specific facility and general “highway purposes.”
- The adopted Transportation 2040 plan remains back loaded with respect to near-term city, county, local transit, and maintenance and preservation needs.

Scenario #2: Flat-rate Pay Per Mile Charge

This scenario relies on a flat-rate pay per mile charge (higher than Scenario #1) for travel on all regional roadways supplemented with transportation utility district fees and development impact fees.

Major Elements

- **Flat-rate Pay Per Mile Charge** of \$0.05 per mile on all roads beginning in 2026 (and rising with inflation), raising approximately \$22.6B through 2040, with the average cost approximately \$0.25 to \$0.50 per automobile trip.
- **Transportation Utility Districts** are implemented beginning in 2021 and raise approximately \$310M a year for a total of \$6.2B through 2040, or approximately \$0.05 per trip.
- **Impact Fees** are implemented beginning in 2021 and raise approximately \$66M a year for a total of \$1.3B through 2040.



Scenario #2 Performance

- Reduces the overall cost for travel for work trips versus the Adopted T2040 Plan (Scenario 1).
- The Flat-Rate Pay Per Mile charge has the least reduction on miles driven of all scenarios.
- Results in highest congestion levels of the scenarios though there are modest reductions of congestion in peak periods.

Scenario #2 Policy Considerations

- Who should be subject to Pay Per Mile charges and should the rates be higher for trucks with more than two axles similar to tolling today? Should there any exemptions or subsidies be allowed?
- Should Pay Per Mile charges be phased in for particular groups of vehicles like trucks, rental cars, corporate fleets, or electric vehicles, and slowly expanded to all vehicles or should a system be developed for the entire vehicle fleet?
- Under this Scenario, trips, regardless of facility, purpose, or time of day, would cost the same and may not influence travel behavior. The flat rate approach allows both “low tech” and “high tech” options as discussed in the Pay Per Mile briefing paper.
- The technology needed to collect and administer revenues varies in complexity, and would influence implementation and public acceptance.
- A utility district concept attempted previously in Washington State was deemed unconstitutional/illegal, will have to be adjusted in the future, and could face legal challenges.
- To date, local jurisdictions have been hesitant to implement impact fees at the scale where they would yield significant revenues for local infrastructure needs.

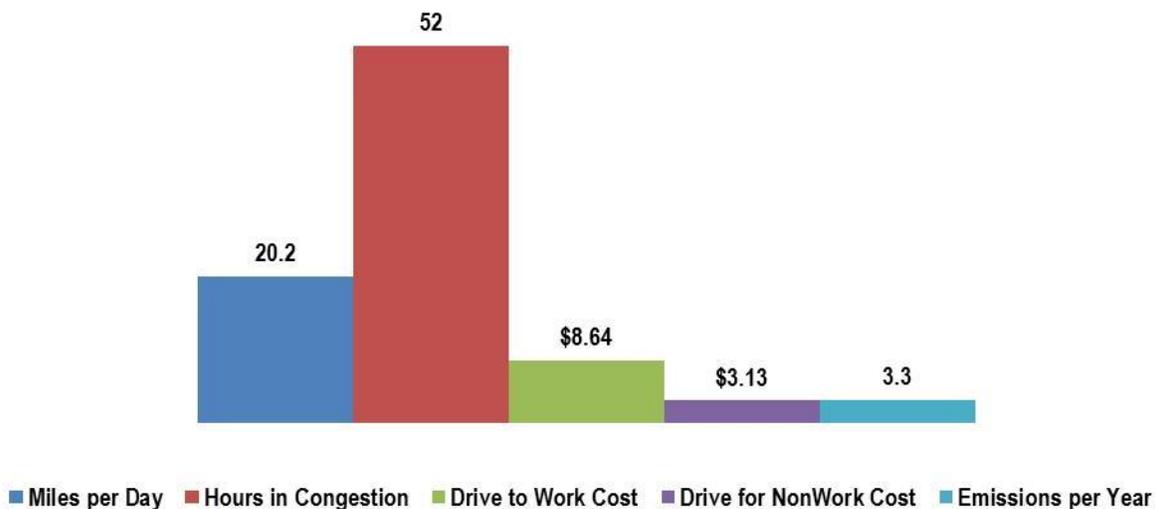
Scenario #3: Peak/Off Peak Pay Per Mile Charge

This scenario is very similar to Scenario #2, but the Pay Per Mile fee is higher during peak periods and lower during off peak periods to encourage additional congestion and emissions reductions.

Major Elements

- **Peak/Off Peak Pay Per Mile Charge** of \$0.04 per mile off peak and \$0.06 per mile peak begins in 2026 (and rises with inflation), raising approximately \$22.6B through 2040, with the average cost approximately \$0.20 to \$0.60 per automobile trip.
- **Transportation Utility Districts** are implemented beginning in 2021 and raise approximately \$310M a year for a total of \$6.2B through 2040, or approximately \$0.05 per trip.
- **Impact Fees** are implemented beginning in 2021 and raise approximately \$66M a year for a total of \$1.3B through 2040.

Scenario #3 Performance



- Reduced cost for trips in the least congested time periods.
- Congestion overall increases, but congestion in the peak periods is reduced and offset by slight increases in off peak travel.
- The lower cost of off peak travel results in the highest average daily miles driven.

Scenario #3 Policy Considerations

- Who should be subject to Pay Per Mile charges, should the rates be higher for trucks with more than two axles similar to tolling today and should any exemptions or subsidies be allowed?
- Should Pay Per Mile charges be phased in for particular groups of vehicles like trucks, rental cars, corporate fleets, or electric vehicles, and slowly expanded to all vehicles or should a system be developed for the entire vehicle fleet?
- Under this Scenario in order to influence travel behavior, time of day and facility charges would have to be carefully set and managed. It is likely a “higher tech” approach would be required to provide the flexibility that allows variable rates for peak and off peak periods that can be adjusted to best impact travel behavior and help meet emission goals for the future.
- The technology needed to collect and administer revenues varies in complexity, and would influence implementation and public acceptance.
- A utility district concept attempted previously in Washington State was deemed unconstitutional/illegal and will have to be adjusted in the future and could face legal challenges.
- To date, local jurisdictions have been hesitant to implement impact fees to the scale that they would yield significant revenues for local infrastructure needs.

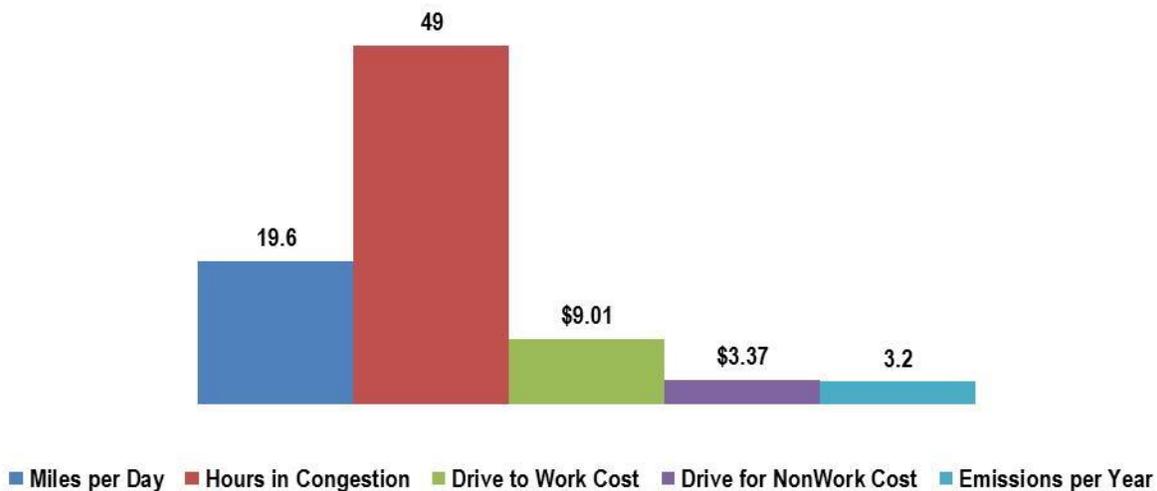
Scenario #4: Major Emissions Fee (with Pay Per Mile Charge)

This scenario adds to flat-rate pay per mile funding from Scenario 2 by including a major emissions fee. The additional funds raised would be used to off-set the sales tax and reduce the overall sales tax rate for transportation. This scenario does include modest impact fees similar to other scenarios but does not use a Transportation Utility District fee.

Major Elements

- **Major Emission Fee on Carbon Usage** begins in 2021, raising approximately \$15.2B through 2040, with the average cost approximately \$0.15 to \$0.30 per automobile trip.
- **Flat-rate Pay Per Mile Charge** of \$0.05 per mile on all roads begins in 2026 (and rises with inflation), raising approximately \$22.6B through 2040, with the average cost approximately \$0.25 to \$0.50 per automobile trip.
- **Impact Fees** are implemented beginning in 2021 and raise approximately \$70M a year for a total of \$1.5B through 2040.
- **Reduction in Transportation Sales Taxes**, with a smaller reduction (0.4% sales tax) from 2016-2031, and up to a 1% sales tax reduction by 2031

Scenario #4 Performance



- Reduces miles driven the most of any new scenario (Scenarios 2 through 5).
- Congestion levels are reduced in the peak and off peak periods but non-work trip costs are higher than all new scenarios.
- Transit ridership gains are the largest of the new scenarios.

Scenario #4 Policy Considerations

- Design of emissions fee systems could have a major – or minor – impact on transportation behavior and revenue generation, depending upon how the fee system is implemented and who ultimately pays the fee.
- Is it feasible to implement both an emissions fee and a flat-rate Pay Per Mile charge at the same time?
- Revenues generated through more general carbon fees (beyond vehicle emissions) could have a wide variety of uses beyond transportation.
- Should revenues from such emissions fee strategies, if adopted, be used for elements of the transportation program which promote greenhouse gas reduction?
- Who should be subject to Pay Per Mile charges, should the rates be higher for trucks with more than two axles similar to tolling today and should any exemptions or subsidies be allowed?
- Should Pay Per Mile charges be phased in for particular groups of vehicles like trucks, rental cars, corporate fleets, or electric vehicles, and slowly expanded to all vehicles or should a system be developed for the entire vehicle fleet?
- To date, local jurisdictions have been hesitant to implement impact fees to the scale that they would yield significant revenues for local infrastructure needs.
- Reduction in transportation-related sales taxes have the potential to be more equitable for low-income households.

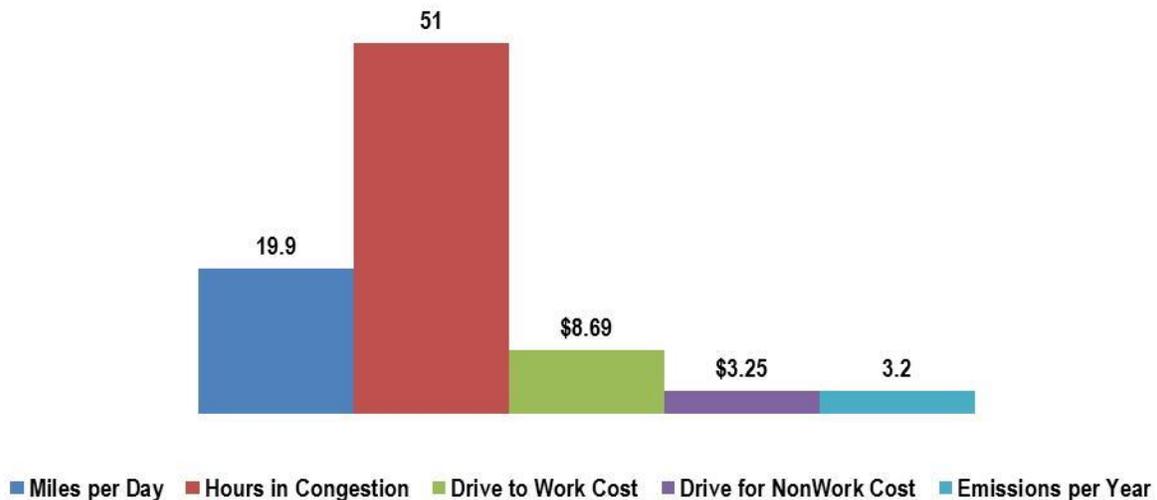
Scenario #5: Mixed Sources

This scenario is an update of the straw scenario presented at the July Task Force meeting. It includes a more modest flat-rate pay per mile charge than other scenarios, a more moderate emissions fee than Scenario 4, and includes similar impact fees and transportation utility district fees as other scenarios. It allows for a more modest sales tax rollback than Scenario 4.

Major Elements

- **Flat-rate Pay Per Mile Charge** of \$0.04 per mile for all roads begins in 2026 (and rises with inflation), raising approximately \$17.6B through 2040, with the average cost approximately \$0.20 to \$0.40 per automobile trip.
- **Moderate Emission Fee on Carbon Usage** begins in 2021, raising approximately \$7.8B through 2040, with the average cost approximately \$0.10 to \$0.20 per automobile trip.
- **Transportation Utility Districts** are implemented beginning in 2021 and raise approximately \$310M a year for a total of \$6.2B through 2040, or approximately \$0.05 per trip.
- **Impact Fees** are implemented beginning in 2021 and raise approximately \$70M a year for a total of \$1.5B through 2040.
- **Reduction in State Fuel Tax**, with non-bonded portion phased out in 2031, resulting in an approximate reduction of \$3.0B in total revenue, or \$0.20 per gallon

Scenario #5 Performance



- Similar reductions in miles driven to Scenario #4 but with lower overall trip costs.
- Higher overall congestion levels than Scenario #4 but congestion is reduced in the peak and off peak periods.
- Transit ridership gains are similar to Scenario #4.

Scenario #5 Policy Considerations

- Is such a diversity of sources and approaches feasible and does it provide more flexibility and options?
- Is it feasible to implement both an emissions fee and a flat-rate Pay Per Mile charge at the same time?
- Who should be subject to Pay Per Mile charges, should the rates be higher for trucks with more than two axles similar to tolling today and should any exemptions or subsidies be allowed?
- Should Pay Per Mile charges be phased in for particular groups of vehicles like trucks, rental cars, corporate fleets, or electric vehicles, and slowly expanded to all vehicles or should a system be developed for the entire vehicle fleet?
- Under this Scenario, trips, regardless of facility, purpose, or time of day, would cost the same and may not influence travel behavior. The flat rate approach allows both “low tech” and “high tech” options as discussed in the Pay Per Mile briefing paper.
- The technology needed to collect and administer revenues varies in complexity, and would influence implementation and public acceptance.
- Design of emissions fee systems could have a major – or minor – impact on transportation behavior and revenue generation, depending upon how the fee system is implemented and who is ultimately charged.
- Revenues generated through emissions fees could have a wide variety of uses beyond transportation.
- Should revenues from such emissions fee strategies, if adopted, be used for elements of the transportation program which promote greenhouse gas reduction?
- A utility district concept attempted previously in Washington State was deemed unconstitutional/illegal and will have to be adjusted in the future and could face legal challenges.
- To date, local jurisdictions have been hesitant to implement impact fees to the scale that they would yield significant revenues for local infrastructure needs.
- Reduction in the state fuel tax has the potential to be more equitable for low-income households.

Scenario Summary Table

SOURCES OF TRANSPORTATION REVENUE		Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Adopted T2040 Plan	Flat Rate Pay Per Mile Charge	Peak / Off Peak Pay Per Mile Charge	Major Emission Fee (with Pay Per Mile Charge)	Mixed Sources
Existing Sources	State Taxes on Motor Fuels	(\$7,925)	\$0	\$0	\$0	(\$3,040)
	Vehicle Fees (Registration/Weight)	(\$2,581)	\$1,900	\$1,900	\$1,900	\$1,900
	MVET	\$7,285	\$0	\$0	\$0	\$0
	Other state taxes and fees	(\$1,581)	\$0	\$0	\$0	\$0
	Other local taxes, fees, general fund	\$0	\$0	\$0	\$0	\$0
	Property Taxes (general or restricted)	\$2,100	\$0	\$0	\$0	\$0
	Fares and Operating Funds	\$900	\$1,136	\$1,136	\$1,136	\$1,136
	Tolled Facilities (bridges, new roads)	\$6,600	\$3,117	\$3,117	\$3,117	\$3,117
	Federal - FHWA/FTA	\$0	\$0	\$0	\$0	\$0
	Sales Taxes (general)	(\$3,264)	\$0	\$0	(\$9,180)	\$0
	Other Tax and Fees - Local	\$5,250	\$1,320	\$1,320	\$1,500	\$1,500
Additional Sources	Sales Tax on Motor Fuels	\$0	\$0	\$0	\$0	\$0
	Vehicle Emission Fee	\$0	\$0	\$0	\$15,200	\$7,800
	Highway System Tolling	\$22,800	\$0	\$0	\$0	\$0
	Transportation Utility District	\$750	\$6,200	\$6,200	\$0	\$6,200
	Pay Per Mile Charge	\$5,900	\$22,561	\$22,561	\$22,561	\$17,621
Note: All values in \$M		\$36,234	\$36,234	\$36,234	\$36,234	\$36,234

(\$XX,XXX) = Rollback of funding source / supplemented by other sources

Yellow Highlights = This item/scenario is significantly different than other scenarios.