

Washington State
Legislature
**JOINT
TRANSPORTATION
COMMITTEE**

Implementing Alternative Transportation Funding Methods



Evaluation Criteria & Funding Method Implementation



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Purpose

- Joint Transportation Committee (JTC) directed to conduct a comprehensive analysis of mid-term and long-term transportation funding mechanisms and methods (Transportation Budget)
- Principal Objective – Identify specific steps to begin implementing viable mid-term and long-term transportation funding approaches
- Focus on state imposed and collected transportation taxes and fees

Schedule

July 30 JTC Meeting: Policy Initiatives and Data Collection

Sept. 9 JTC Meeting: Evaluation Criteria/Initial Screening

Sept. 30 JTC Meeting: Implementation Alternatives

- Taxpayer and revenue impacts
- Implementation alternatives for preferred funding methods
 - Fuel & Use

Nov. 18 JTC Meeting: Implementation Alternatives

- Implementation alternatives for preferred funding methods
 - Vehicle, Driver, & Other
- Funding scenarios

Dec. 2 JTC Meeting: Draft Report

Dec. 31: Draft Final Report

Evaluation Framework

Goal: Package of funding tools that the legislature could consider to meet transportation funding objectives

- **Revenue Stream:** Provide a stream of revenue commensurate with transportation system funding needs.
- **Public Benefits/Reflects Use:** Provide a clear purpose and policy rationale linked to transportation system use, economic development, and other state policies and goals.
- **Equitable:** Funding burden is geographically equitable and equitably allocates the costs to those who benefit.
- **Local:** Allows for viable local transportation funding options that recognize the distinct needs of different local systems.

Evaluation Criteria

- Two thresholds – Is the funding method an appropriate state level fee or tax and does it have a nexus with transportation?
- Eighteen criteria to meet the four objectives

Initial Screening

Funding Methods – High Priority for Further Analysis

- **Fuel**

- Barrel Fee
- Motor Vehicle Fuel Tax
 - Index
 - Add special sales tax
 - Add gross receipts tax
 - Add petroleum tax
 - Vary by county – increase in most populous counties for large infrastructure projects
- Alternative Fuel Tax
 - Electric/natural gas fuel tax

Initial Screening

Funding Methods – High Priority for Further Analysis

- **Use**

- Highway Facility Tolls
 - Expand allowed uses of toll revenues
 - Expand facility tolling
 - Segment tolls
- Highway Congestion Pricing
 - Expand HOT lanes
 - Variable tolls
 - Zone based or cordon tolls
- Highway Systemwide Pricing – Vehicle Miles Traveled (VMT)
 - Vary with congestion/vehicle characteristics
 - Vary by road type
- Highway Systemwide Pricing – Truck Weight/VMT Pricing

Initial Screening

Funding Methods – High Priority for Further Analysis

- **Use**
 - Ferry Fares
 - Fuel surcharge
 - Adaptive management strategies
 - Non-resident pricing
 - Increase farebox recovery
 - Capital surcharge on fares
 - Reservation surcharge
 - Vessel naming
 - Lottery
 - Rail Fares (Cascade Amtrak Service)
 - Increase farebox recovery rate
 - Capital surcharge
 - Rail Fares (Freight TBD)
 - Off-Road Use Fees

Initial Screening

Funding Methods – High Priority for Further Analysis

- **Vehicles**

- Rental Vehicle Sales Tax
 - Locals allowed uniform rental vehicle sales taxes
- Motor Vehicle Registration, Weight & Title Fees
 - Increase title fees
 - Increase weight fees
 - Index fees
- Combined License Fee – Trucks
 - Index fee
 - Base on miles traveled
- Motor Vehicle Excise Tax
 - Set rate to fund multi-modal transportation program
 - Vary with miles traveled
- Tire Tax
 - Additional \$1.00 for maintenance
 - Additional \$5.00 for studded

Initial Screening

Funding Methods – High Priority for Further Analysis

- **Driver**
 - Driver's Licenses
 - Increase fee
 - Index
 - Increase the number of years
 - Tax on Auto Insurance Premiums
- **Transportation Business**
 - Dealer/Manufacturer Business License
 - Index
 - State Impact Fee
- **Electric Generation from Highways**

Initial Screening

Funding Methods – Not Considered for Further Analysis

- Vehicle engine & displacement fee
- Advertising
- Container freight fee
- Varying driver's license fees by vehicle miles traveled

Funding Methods – Lower Priority for Further Analysis

- Will be reviewed at subsequent meetings

State Fees and Taxes by Vehicle Type

GOAL: Measure implications of funding scenarios on both total revenues and individual tax payers

APPROACH: Estimate state fees and taxes by representative vehicle types at different levels of vehicle use

VEHICLE TYPE:	Compact	Mid-Size	Pick-up/ Light Truck	Hybrid	Electric	Motorcycle	Freight (Medium)	Freight (Heavy)
Weight (lbs)	< 4,000	4,001- 6,000	6,001- 8,000	< 4,000	< 4,000	< 4,000	22,001- 24,000	40,001- 42,000
Miles Per Year								
Low	8,000	8,000	8,000	8,000	8,000	8,000	13,500	13,000
Medium	11,500	11,500	11,500	11,500	11,500	11,500	27,000	32,500
High	15,000	15,000	15,000	15,000	15,000	15,000	45,000	65,000
Miles Per Gallon								
2009	32.5	23.1	14.8	48.8	230.0	55.6	7.8	5.7
2025	52.8	40.2	32.8	78.8	230.0	100.0	14.0	6.3

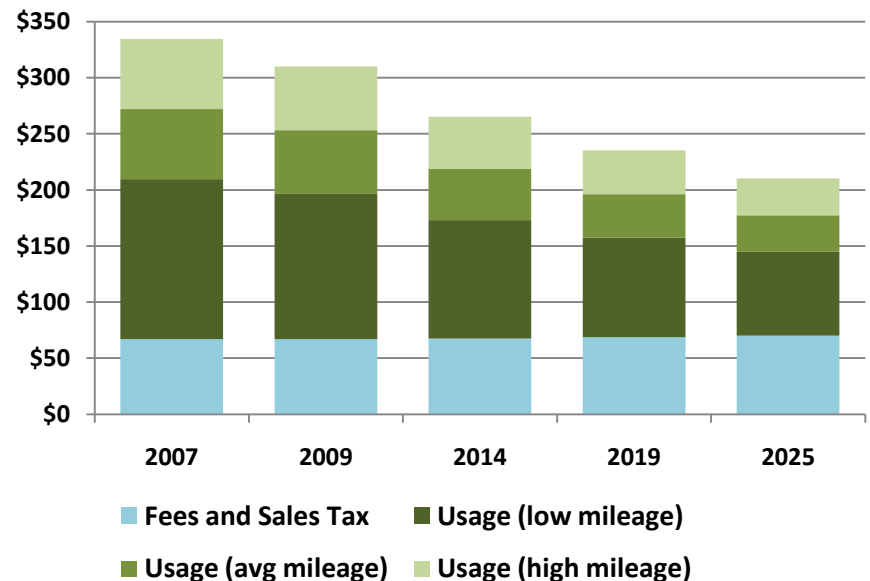
State Fees and Taxes by Vehicle Type - Example

Mid-Size Sedan Owner

- Baseline assumes no changes in existing transportation tax structure
- Over time, increasing fuel efficiency results in decreasing taxes paid

Total Annual Transportation Related Taxes and Fees – Mid-Size Sedan

Miles Per Year:	8,000	11,500	15,000
2007	\$210	\$272	\$335
2009	\$196	\$253	\$310
2014	\$173	\$219	\$265
2019	\$157	\$196	\$235
2025	\$145	\$177	\$210



State Fees and Taxes by Vehicle Type

Summary of Annual Baseline Transportation Taxes/Fees for All Vehicle Types (mid-level usage)

	2007	2009	2014	2019	2025	% Change 2009-2025
Compact Car	\$197	\$186	\$165	\$150	\$137	-26%
Mid-Size Sedan	\$272	\$253	\$219	\$196	\$177	-30%
Light Trucks (SUVs / Pick-ups)	\$437	\$368	\$275	\$237	\$211	-43%
Hybrid	\$151	\$144	\$130	\$121	\$113	-22%
Electric Car	N/A	\$77	\$77	\$79	\$80	5%
Motorcycle	\$138	\$129	\$114	\$104	\$96	-26%
Freight (Medium)	\$1,683	\$1,544	\$1,285	\$1,114	\$972	-37%
Freight (Heavy)	\$2,854	\$2,794	\$2,641	\$2,502	\$2,351	-16%

Implementation Focus

Implementation:

- **Administration** – Can the public understand and comply with tax or fee
- **Cost of collection**
- **Funding constraints** – Subject to 18th amendment or legislative restrictions

Broad Implementation Issues

- **Index** - Basis and frequency
- **Computer system** - DOL

Barrel Fee

Revenue

16 years - \$1.9 billion assuming:

- \$1.00 per barrel fee indexed to the CPI
- Cost per gallon at retail – 2.4 cents
- For each \$0.05 increase – revenues increase \$94 million over 16 years

Implementation

Administration – DOL

- Rule making – expected to be controversial and somewhat complicated per 2009 fiscal note
- Public able to understand and comply once in place

Funding Constraints – Could be subject to 18th Amendment

Motor Vehicle Fuel Tax

Motor vehicle fuel taxes

- 38 percent of all state transportation funding
- 51 percent of all earned revenue

Five options for restructuring

Option 1: Index the motor vehicle fuel tax rate

- Ten states index their motor vehicle fuel tax
- Question 1: How frequently to adjust the tax?
 - Five states adjust annually, 4 semi-annually, 1 quarterly
- Question 2: What index to use?
 - Two states index by CPI, 4 by the whole fuel price, 1 by the producer price index, 1 by the average cost of fuel, 1 by the retail price of fuel, 1 by alternative fuels sold
 - Federal studies have recommended indexing to the transportation construction cost index

Motor Vehicle Fuel Tax

Option 2: Add a special sales tax to retail sales

- Eleven states add sales tax to retail purchases at rates ranging from 2 percent to 7 percent or 4 to 8 cpg
- Question 1: What is the sales tax applied to?
 - Four states apply sales tax after state and federal taxes are deducted
- Question 2: Should it be a sales tax or a different tax?
 - One state has a motor fuel infrastructure assessment – 2 percent of the retail price

Option 3: Add a gross receipts tax as a percentage of the wholesale price

- Connecticut applies a 7.53 percent gross receipts tax

Motor Fuel Tax

Option 4: Add a petroleum company tax as a flat rate to the wholesale price

- New York has a 16.4 cpg petroleum business tax

Option 5: Increase sales tax only in largest counties for large infrastructure projects

- One state applies the sales tax only in areas served by mass transit systems

Motor Fuel Tax

Revenue – 16 Years (\$ billion)

	Index – Seattle CPI	Index – WSDOT CCI	Special Sales Tax	Gross Receipts Tax (per 1%)	Petroleum Company Tax (per 5 cpg)	Increase Seven Counties (per 5 cpg)
Revenue	\$5.4	\$10.9	\$12.2	\$1.3	\$2.4	\$1.8
% Increase	31%	62%	69%	7%	14%	10%

Assumes

- Index annually
- Sales tax at 6.5 percent, applied after state and federal taxes deducted
- State revenues net of distributions to cities and counties
- Could add local option sales tax

Motor Vehicle Fuel Tax

Implementation

Administration:

- DOR would administer sales tax, gross receipts tax, petroleum company tax options
 - A gross receipts tax should be applied separately from B&O tax
 - Sales tax deductible on federal taxes
- DOL administers the motor vehicle fuel tax
 - DOL systems are an implementation concern for all DOL collections
- Public able to comply with motor fuel taxes – limited understanding

Collection Costs

- DOR would incur increased audit and compliance costs for special sales tax
- To minimize collection costs, sales tax should be reflected in pump price

Funding Constraints

- Special sales tax not subject to 18th amendment
- All others are subject to 18th amendment

Alternative Fuels Tax

Tax on plug in hybrid electric (PHEV) or natural gas vehicles

- Charging infrastructure three location types
 - Single family residences with garages
 - Multi-family apartments or condominiums with shared garages
 - Commercial/public venues
- U.S. Department of Energy report concluded that most charging stations would be separately metered
 - Utilities offering deep discounts for off-peak use
 - PG&E Northern California lowest rate is for a separately metered electric vehicle or natural gas fueling station to which PG&E adds a time clock that limits the time spent charging and allows PG&E to choose the charging time.

Two options

Option 1: Tax fuel where separately metered

- Could consider requiring separate meters

Option 2: Tax charging stations, if not separately metered

Alternative Fuels Tax

Revenue

- Could be set to replace average fuel tax

Implementation

Administration

- DOR likely to administer the tax
- If separately metered, possible to apply tax
- If not, it will be difficult to tax charging systems – unclear how unmetered plugs would be tracked and how to enforce
- Complicated by:
 - Vehicle to grid technologies
 - Pricing intelligence technology – vehicle or charging station
 - Off grid recharging systems – i.e. solar systems

Funding Constraints

- May be subject to 18th amendment – which covers excise taxes collected on the sale, distribution or use of motor vehicle fuel

Highway Facility Tolls

Toll Policies

- RCW 47.54.830 restricts the use of toll revenues to the tolled facility
- Tolling in place Tacoma Narrows Bridge
- Authorized 520
- WSDOT to report on toll options for Viaduct and Columbia River Crossing

Toll Options

Option 1: Expand allowed use of tolls

- Recommendation of Climate Action Team to use for transit, carpooling
- Federal government allows use of tolls for transit if a state certifies annually that the highway is being fully maintained
- Pennsylvania Turnpike Act 44 revenues used for rural and urban transit
- London – imposition of cordon tolling tied to increase in transit
- Legislature could consider allowing toll revenues to be used for transit that serves a state highway, facility or ferry terminal within the tolled facility's core service area

Highway Facility Tolls

Option 2: Expand facility tolling

- Six other options identified in 2006 tolling study

Option 3: Segment tolls

- Toll portions of extended systems, such as I-5 as segments
- 24 states have toll facility agreements for portions of the interstate

Revenue

- Tacoma Narrows Bridge & SR 167 toll revenue in 16 year plan

Implementation

Administration

- Public can understand and comply with tolls
- Anticipate all electronic tolling

Cost of Collection

- High when compared to administering motor fuel tax or licenses

Funding Constraints

- Not subject to 18th amendment, but subject to legislative constraints

Highway Congestion Pricing

Current Congestion Pricing

- SR 167

Three Options

Option 1: Expand HOT lanes in congested areas

- HOT lane studies underway for the I-405 corridor
- Seven states have HOT lanes and studies are underway in 6 more states

Option 2: Variable tolls on tolled roads/bridges

- Being done on SR 167
- Anticipated on the 520 bridge

Option 3: Zone or cordon tolls

- London, Singapore and Stockholm

Revenues

- SR 167 tolls in 16-year plan
- Done primarily to improve system performance

VMT Fee: Automobile

VMT Fee Recommendations

- Recommended as primary long-term funding method in 2007 JTC study
- Recommended in three federal commission studies
- Subject of pilot study in Oregon & a six state study by University of Iowa

Three options

Option 1: Impose state VMT fee

- 2007 study recommended timing of transition from motor vehicle fuel tax to VMT fee based on the development of technology to collect the fee
- Should be indexed if imposed
- Netherlands 2014/Denmark 2016

Option 2: Vary VMT fee by congestion and/or vehicle characteristics

- Help reduce congestion by variable pricing
 - Could also apply portion of VMT fee to transit
- Encourage transition to low or zero emission vehicles

VMT Fee

Option 3: Vary VMT fee by road type/location

- Non-urban drivers concerned about equity of VMT where there is limited access to transit

Revenue

- Can set to be revenue neutral or to replace taxpayer fuel tax payments
- A flat VMT fee of \$0.01 per mile would yield approximately \$10 billion over the 16-year period

Implementation

Administration: Major issue with VMT fee

- **Absent federal action or structure**
 - Hard to charge out-of-state users
 - Could consider inter-state compact
- **Two collection choices**
 - **Self-reporting**
 - Would have to include all miles, including out-of-state, to audit when title changes
 - Could consider just for PHEV vehicles

VMT Fee

Administration : Major Challenge

- **On Board Technology/GPS System**
 - Oregon – pump collection - less viable with PHEV vehicles
 - Iowa – monthly billing statements
- **Issues with Either Collection Method**
 - Privacy
 - Collection cost absent federal action
 - Public acceptance
 - Local distributions

Truck Weight/VMT Pricing

Current Fees

- Annual license fee based on weight
- Prorated for trucks involved in interstate commerce – based on miles

Option

- Truck weight/vehicle miles traveled fee
 - Oregon VMT weight fee rather than diesel tax
 - Illinois optional for trucks that drive low miles & are only operated in the state
 - Three states have a mileage fee, plus fuel tax
 - In 2 of the 3 states, the fuel tax for diesel is lower than for gasoline
 - In 1 (New Mexico), the fuel tax for diesel is higher than for gasoline

Implementation

- DOL
- Require mileage reporting for intra-state trucks

Ferry Fares

Ferry Accounts

- 16 year plan - \$1.06 billion dollar deficit by 2023-25 biennium
- 88% from capital account – due to vessel replacement
- 12% from operations account

Options

Operations Funding Options

Option 1: Increase rates to increase farebox recovery

- Plan assumes annual 2.5% increases

Option 2: Fuel surcharge

- Under review

Option 3: Adaptive management

- Six options identified in WSF Long-Range Plan

Option 4: Non-resident pricing

Option 5: Reservation surcharge

- If vehicle reservation system approved

Ferry Fares

Capital Funding Options

Option 6: Capital surcharge on fares

- RCW 47.60.290 requires that capital support be separately identified in fares
- Could be dedicated to a vessel replacement fund

Option 7: Naming rights vessel

- Washington State Transportation Commission study

Option 8: Special purpose lottery

- Alternative could be to direct baseball stadium and football stadium lottery proceeds to vessel construction when expire

Option 9: Non-resident pricing

Option 10: Reservation surcharge

- If vehicle reservation system approved

Ferry Fares

Revenue – 16 Year

Options	Revenue
Operations Funding Methods	
Increase farebox recovery	\$42 million for each 1%
Fuel surcharge	\$108 million
Adaptive management	Intended to be revenue neutral
Non-resident pricing	Uncertain, likely small revenue impact
Reservation surcharge	\$13M for each 1% (50% of vehicles w/ res.)
Capital Funding Methods	
Capital surcharge (\$1.00 vehicles, \$0.50 passengers)	\$347 million
Vessel naming rights	TBD
Lottery	TBD

Passenger Rail – Amtrak Cascades Service

Current

- One of 14 states to support Amtrak service
- Washington uses multi-modal fund for rail
 - No dedicated fund source
- California
 - Amtrak subsidy through sales tax on motor vehicle fuel
 - Voter approved bonds for rail improvements
 - Motor vehicle fuel taxes – for rail projects in state transportation plan
- New York
 - Amtrak subsidy through general fund
 - Voter approved bonds for rail improvements
 - Multi-modal program – bond sales from Thruway Authority & Dormitory Authority
- General fund – provide Amtrak subsidy in 4 states
- Multi-modal funds – provide Amtrak subsidy in other states

Passenger Rail – Amtrak Cascades Service

Options

Operation Funds

Option 1: Increase fares to increase farebox recovery

- Fares set by Amtrak and WSDOT
- Based on a “revenue neutral policy”
- Projected improvements in farebox recovery to 75% from 54%
- Based on increased ridership

Capital Funds

Option 2: Capital surcharge on fares

- WSDOT grant applications for portion of ARRA capital funding for rail