

## ***I-5 Electric Highway***

*Public/Private Partnership Project*

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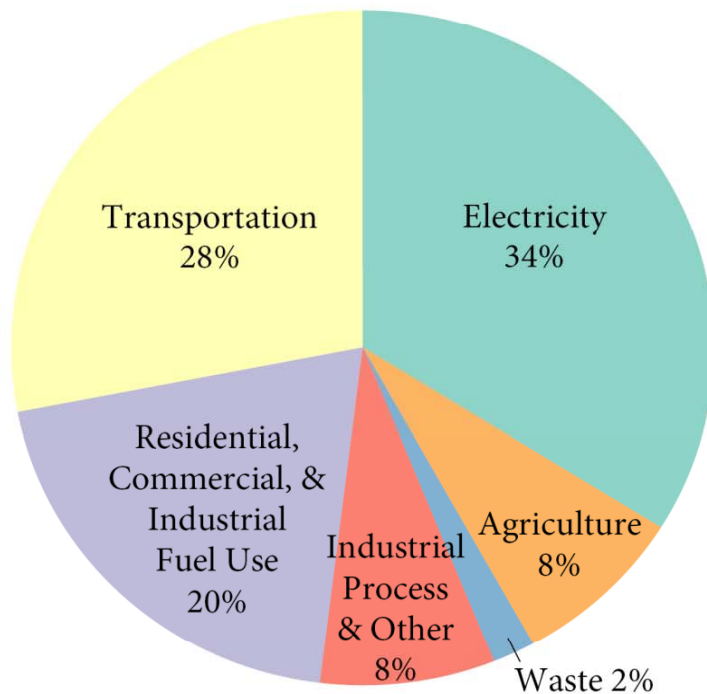


# TRANSPORTATION-ENERGY IMPERATIVE



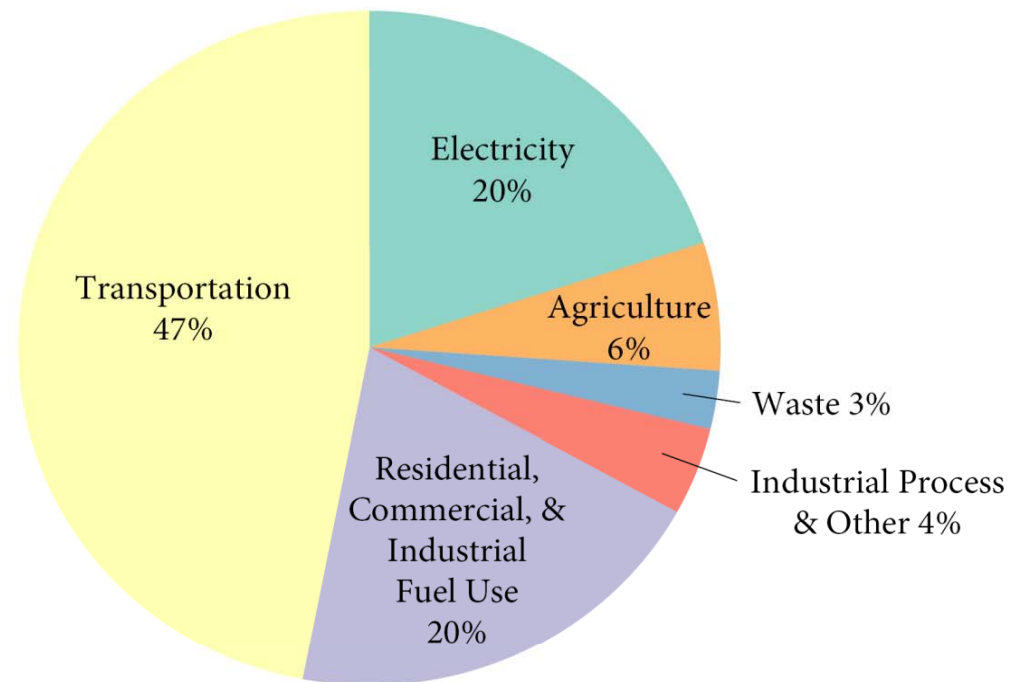
**GHG emissions from Washington State's transportation sector (47%) are nearly double the national figures.**

U.S. Greenhouse Gas Emissions



Source: Washington State Department of Ecology, 2005

Washington Greenhouse Gas Emissions



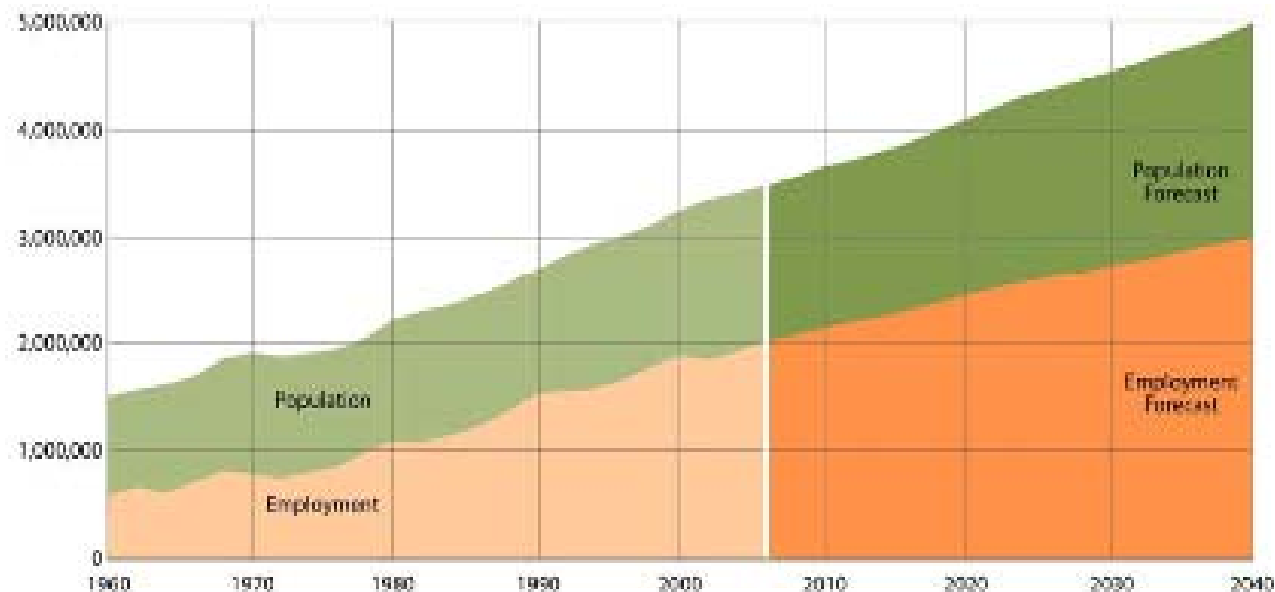
Source: Washington State Department of Ecology, 2005

# TRANSPORTATION-ENERGY IMPERATIVE



**Within the next 30 years, the central Puget Sound region is expected to grow by 1.5 million people – increasing travel demand by 40%.**

**Puget Sound region population and employment forecasts, 2040**



**In spite of these ominous forecasts, Washington's transportation system must meet stringent state laws for GHG and VMT reduction.**

## GHG Reduction Targets:

- To 1990 levels by 2020
- To 25 percent below 1990 levels by 2035
- To 50 percent below 1990 levels by 2050

## VMT Reduction Targets:\*

- By 2020, decrease by 18%
- By 2035, decrease by 30%
- By 2050, decrease by 50%

\*Statewide annual per capita VMT reductions, all fuel types.

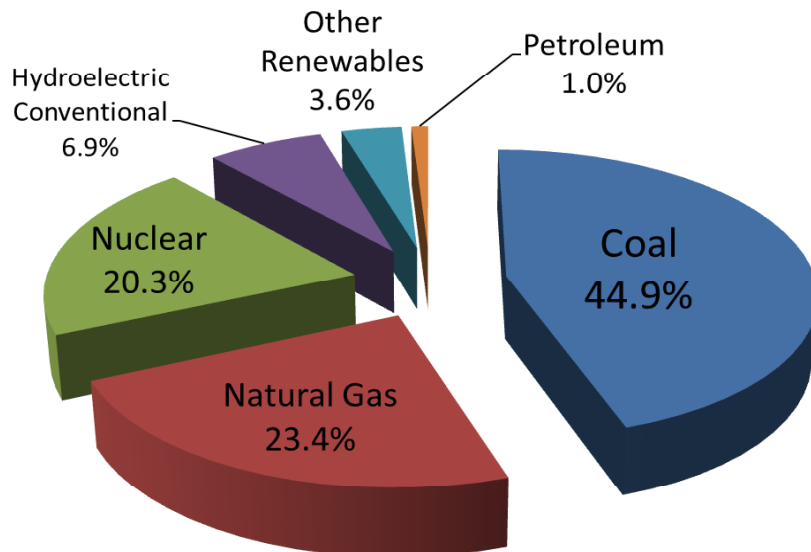
## Fuel Source: Electric Power Grid

### Advantages:

- Diverse and domestic
- Prices are stable
- Substantial spare capacity

- Network infrastructure already in place
- Electric miles cheaper than gas
- Electric miles are cleaner than gas
- 65 percent of present U.S. light-duty vehicles could be powered by existing off-peak generating capacity

2009 U.S. Electricity Generation by Source



“ This ‘green freeway’ you're planning...would link your states with a network of rest stops that allow you to do more than just grab a cup of coffee, but also charge your car.

- President Barack Obama  
3/19/2009

## The I-5 Electric Highway



**President Barack Obama**

Goal: 1 million electric vehicles by 2015

## I-5 Electric Highway Public/Private Partnership Project



- \$1.32 million ARRA funding (via Washington Department of Commerce) to develop safety net of EV Fast-Charging stations throughout I-5 Corridor
- Forming partnerships with Washington businesses to host EV Fast-charging stations
- Coordinating EV infrastructure investments with other planned investments in Puget Sound Region
- Collaborating with Oregon and California on joint EV infrastructure development and funding

## Two-Stage Deployment: Essential Charging and Corridor Completion

### Stage I and II Project Map



- Complete DC Fast-Charge network along I-5
- 2 Gateway Rest Areas (Level 2 charging for public education & demonstration)
- Additional recharge zones based on data analysis
- Likely extension across Cascades to central WA



## Issues to consider (from WSDOT's perspective):

- Long-term sustainable business model leading to commercialization
- Unintended consequences resulting from large public subsidies
- Transportation funding: confusing the symptom for the problem

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