What Have You Heard About Transportation and Climate Change in Jefferson County?

Give it some thought and then share what you’ve heard with those at your table or with the person next to you.
<table>
<thead>
<tr>
<th>Sector or Subsector</th>
<th>Community-Wide(^1) (tons CO(_2)e)</th>
<th>Community-Wide(^1) (% CO(_2)e)</th>
<th>Jefferson County Operations (tons CO(_2)e)</th>
<th>Port Townsend City Operations (tons CO(_2)e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary Energy</td>
<td>325,133</td>
<td>61%</td>
<td>1,443</td>
<td>1,609</td>
</tr>
<tr>
<td>Residential</td>
<td>121,605</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>49,017</td>
<td>9%</td>
<td>1,443</td>
<td>1,609</td>
</tr>
<tr>
<td>Industrial</td>
<td>154,511</td>
<td>29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>209,079</td>
<td>39%</td>
<td>1,886</td>
<td>533</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>2,502</td>
<td>&lt;1%</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Water, PUD(^1)</td>
<td></td>
<td></td>
<td>364</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>536,714</strong></td>
<td><strong>100%</strong></td>
<td><strong>3,728</strong></td>
<td><strong>2,142</strong></td>
</tr>
</tbody>
</table>

\(^8\) The inventory included electricity consumed by Jefferson Public Utility District No. 1 to provide water service to County residents.
Emissions are for Transportation Sector and for Residential, Commercial and Industrial Subsectors of the Stationary Energy Sector. Emissions from the Solid Waste Sector were too small to include. Data obtained from CACP Model output.
Figure 6. Port Townsend City Operations - CO₂e Emissions in 2005

- Buildings: 31%
- Water/Sewage: 38%
- Vehicles: 15%
- Employee Commute: 9%
- Streetlights: 7%

Figure 7. Jefferson County Operations – CO₂e Emissions in 2005

- Buildings: 38%
- Vehicles: 32%
- Employee Commute: 19%
- Water PUD: 10%
- Streetlights: 1%
Total U.S. Greenhouse Gas Emissions by Economic Sector in 2017

- Agriculture: 9%
- Commercial & Residential: 12%
- Industry: 22%
- Transportation: 29%
- Electricity: 28%

Total: 100%
Figure 4: Energy-related CO₂ emissions by sector

Million metric tons

- Power
- Transportation
- Industry
- Buildings

Source: Rhodium US Climate Service
EMISSIONS FLIP
Transportation is Biggest Source of U.S. Emissions

Million Metric Tons of Carbon Dioxide

Source: EIA, Annual Energy Review

CLIMATE CENTRAL
Carbon Intensity of Travel: g CO2e/pkm

- Large Car (15 MPG) - 312
- Long Flight (business) - 296
- Medium Car (25 MPG) - 191
- Average Local Bus (US) - 185
- Motorbike (50 MPG) - 153
- Long Flight (economy) - 139
- Small Car (35 MPG) - 138
- Electric Car (US grid) - 123
- Short Flight (economy) - 120
- Heavy Rail (US) - 119
- Hybrid Car (45 MPG) - 118
- Scooter (80 MPG) - 101
- Coach (US) - 85
- Metro (NYC) - 50
- Electric Car (Solar) - 43
- School Bus (US) - 23
- Eurostar Rail (France) - 20

Note: All figures are grams of carbon dioxide equivalents per passenger kilometre (g CO2e/pkm). Figures include direct emissions from fuel combustion, indirect emissions from fuel production and vehicle construction emissions. Average loading is assumed for each mode, 1.6 for all cars and 1 for motorbikes. Miles per gallon (MPG) is on road efficiency in US gallons. No radiative forcing multiplier is used for air travel. The electric car is assumed to achieve 200 Wh/km.

Sources: DEFRA, EIA, EPA, GREET 1.8, Chester & Horvath
What are your thoughts? Please discuss at your tables or with a partner. Have someone jot down what you’d like to share with the group.
SHIFTING GEARS
Number of Plug-in Electric Vehicles Sold in the U.S. (thousands)

Source: Alternative Fuels Data Center

CLIMATE CENTRAL
THE TRUTH ABOUT IDLING A VEHICLE

HOW TURNING OFF YOUR VEHICLE FOR 10 SECONDS CAN SAVE MILLIONS
WHAT IS IDLING?
An idling vehicle is one whose engine is running while it is parked or not in use.

ELECTRIC IGNITION
Today’s car ignition systems are now so efficient that restarting an engine uses very little gas.

IT IS TIME TO RETHINK IDLING

WARMING UP
Even in cold weather, engines only need 30 seconds to warm up

DAMAGING
Turning your car off is better for the engine than leaving it running

RESTARTING
10 seconds of idling wastes more fuel than restarting
WHERE IDLING HAPPENS

- Drive-Thrus
- Driveways
- Banks
- Car Washes
- Schools
- Trains
- Malls
- Bridges

2 MINUTES

SPENT IDLING

EQUALS

1 MILE OF DRIVING
The average American driver spends over 16 minutes a day idling their vehicle. Cutting that in half can mean big savings.

### Annual Savings by Eliminating 8 Minutes of Voluntary Idling Per Day

<table>
<thead>
<tr>
<th>Engine Size</th>
<th>Gas Saved</th>
<th>CO₂ Saved</th>
<th>Money Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Cylinder</td>
<td>32 gallons</td>
<td>704 lbs of CO₂</td>
<td>$67</td>
</tr>
<tr>
<td>8 Cylinder</td>
<td>64 gallons</td>
<td>1,408 lbs of CO₂</td>
<td>$134</td>
</tr>
</tbody>
</table>

*Price based on average estimated gasoline price at $2.10*
3.8 million gallons of fuel is wasted by idling in the U.S. every day.

That is equal to:

5 Olympic-size swimming pools filled with fuel

40,000 tons of CO2
Reducing America's idling could save 200,000 barrels of foreign oil imports per day.
$7,980,000 EVERY DAY

SMALL ACTION BIG CHANGE

IT'S YOUR TURN
TURN IT OFF

LEARN HOW TO BE IDLE-FREE

WWW.ITURNITOFF.COM
<table>
<thead>
<tr>
<th>Driver Location</th>
<th>Departing Trip</th>
<th>Return Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellevue</td>
<td>7:20am Mon 1/8</td>
<td></td>
</tr>
<tr>
<td>Marilyn Mayers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 passengers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Seattle

8:00am Wed 12/27
4:00pm Wed 12/27

Full

- Natalie I @ Auburn
- Tabitha @ Seattle
- Jill MacIntyre Witt @ Bellingham
- Audrey Zemke @ Seattle
- Shaylon Blair Stolk @ Seattle
- Meg Wade @ Seattle
What are some actions we can take as individuals? A community? A nation?

Please discuss at your tables.

Have someone jot down what you’d like to share with the group.
Climate on Tap

Thank you for coming!
Questions?

Facilitator:
Laura Tucker
Ltucker@co.Jefferson.wa.us

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