UW 2022 Tri-Campus Greenhouse Gas Emissions Inventory

UW Sustainability Office
December 6, 2023

BE BOUNDLESS
Intro to UW Sustainability Office (Seattle Campus)

Lisa Dulude
Director

Daimon Eklund
Communications Manager

Open Position
CSF Program Manager

Marilyn Ostergren
Energy & Sustainability Specialist

New Position
Sustainability Planning & Policy Specialist

New Position
Sustainability Project & Engagement Specialist

Website: sustainability.uw.edu
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UNIVERSITY of WASHINGTON
UW 2022 GHG Inventory

> UW’s first public-facing GHG Inventory since 2005
> First time that UW has inventoried ‘Goods and Services’ purchased
> Includes all three campuses as well as UW major medical facilities
> This 2022 Inventory is important information for updating UW’s Sustainability Action Plan (kick-off in fall 2024) and for UW’s Zero Carbon Roadmap (in-progress)
> You can’t manage what you don’t measure!
GREENHOUSE GAS (GHG) EMISSIONS

(2022) 524.5K MtCO₂e

64% GOODS & SERVICES

18% FOSSIL FUEL CONSUMPTION IN BUILDINGS

7% AIR TRAVEL

6% COMMUTING

5% OTHER

UNIVERSITY of WASHINGTON
GREENHOUSE GAS (GHG) EMISSIONS

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7% AIR TRAVEL
6% COMMUTING
5% OTHER

e = equivalent
GREENHOUSE GAS (GHG) EMISSIONS

Greenhouse Gases: gases that contribute to global warming via the “Greenhouse Gas Effect”
GREENHOUSE GAS (GHG) EMISSIONS

SCOPE 1: DIRECT EMISSIONS
- BUILDINGS
- FLEET
- FUGITIVE EMISSIONS

SCOPE 2: ELECTRICITY GENERATION EMISSIONS
- FOSSIL FUEL GENERATION

SCOPE 3: INDIRECT EMISSIONS
- AIR TRAVEL
- GOODS & SERVICES
- COMMUTING

UNIVERSITY of WASHINGTON
GREENHOUSE GAS (GHG) EMISSIONS

64% GOODS & SERVICES

18% FOSSIL FUEL CONSUMPTION IN BUILDINGS

7% AIR TRAVEL

6% COMMUTING

5% OTHER

20% SCOPE 1

<1% SCOPE 2

(2022) 524.5K MtCO$_2$e

UNIVERSITY of WASHINGTON
## PROFILES

<table>
<thead>
<tr>
<th></th>
<th>UW BOTHELL</th>
<th>UW TACOMA</th>
<th>INTERCOLLEGIATE ATHLETICS</th>
<th>HOUSING &amp; FOOD SERVICES</th>
<th>UW MEDICINE</th>
<th>UW SEATTLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOODS &amp; SERVICES</strong></td>
<td>35%</td>
<td>23%</td>
<td>29%</td>
<td>73%</td>
<td>78%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>FOSSIL FUEL COMBUSTION</strong></td>
<td>13%</td>
<td>15%</td>
<td>18%</td>
<td>26%</td>
<td>6%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>AIR TRAVEL</strong></td>
<td>13%</td>
<td>10%</td>
<td>52%</td>
<td>0%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td><strong>COMMUTING</strong></td>
<td>39%</td>
<td>48%</td>
<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**UNIVERSITY of WASHINGTON**
AIR TRAVEL
COMMUTING

- UW SEATTLE (including Athletics, Medicine and Housing & Food Services)
- UW TACOMA
- UW BOTHELL

UNIVERSITY of WASHINGTON
COMMUTING
GOODS & SERVICES

UW TOTAL 338K MtCO₂e

Professional, Scientific, and Technical Services: 18%
Manufacturing - Metals, Machinery, Electronics, Misc: 13%
Manufacturing - Wood, Paper, Petroleum, Chemicals: 12%
Construction: 11%
Retail Trade: 10%
Transportation and Warehousing: 10%
Accommodation and Food Services: 6%
Other Services except Public Administration: 5%
Administrative and Support and Waste Management...: 4%
Real Estate and Rental and Leasing: 4%
## GOODS & SERVICES

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific, and Technical Services</td>
<td>42%</td>
</tr>
<tr>
<td>Manufacturing - Metals, Machinery, Electronics, Misc</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Manufacturing - Wood, Paper, Petroleum, Chemicals</td>
<td>7%</td>
</tr>
<tr>
<td>Construction</td>
<td>27%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>1%</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>1%</td>
</tr>
<tr>
<td>Other Services except Public Administration</td>
<td>2%</td>
</tr>
<tr>
<td>Administrative and Support and Waste Management</td>
<td>2%</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>4%</td>
</tr>
</tbody>
</table>
# GOODS & SERVICES

## HOUSING & FOOD SERVICES

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Scientific, and Technical Services</td>
<td>2%</td>
</tr>
<tr>
<td>Manufacturing - Metals, Machinery, Electronics, Misc</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Manufacturing - Wood, Paper, Petroleum, Chemicals</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Construction</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Transportation and Warehousing</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>94%</td>
</tr>
<tr>
<td>Other Services except Public Administration</td>
<td>3%</td>
</tr>
<tr>
<td>Administrative and Support and Waste Management</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Real Estate and Rental and Leasing</td>
<td>1%</td>
</tr>
</tbody>
</table>
GREENHOUSE GAS (GHG) EMISSIONS

64% GOODS & SERVICES

(2022)
524.5K MtCO₂e

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7% AIR TRAVEL

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UNIVERSITY of WASHINGTON
**PROJECTED EMISSION SCENARIOS**

- **STATE POLICIES**: emissions without intervention
- **COMMUTING**: -9% (17K MtCO₂e)
- **FLEET ELECTRIFICATION**: -1% (2K MtCO₂e)
- **AIR TRAVEL**: -25% (46K MtCO₂e)
- **ELECTRIFICATION + ENERGY EFFICIENCY**: -76% (151K MtCO₂e)
- **REFRIGERANTS**: -1% (1< MtCO₂e)

**NOTE**: Does not include GOODS & SERVICES PURCHASED
ADDRESSING GOODS & SERVICES

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ADDRESSING GOODS & SERVICES

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ADDRESSING GOODS & SERVICES

UW TOTAL

338K MtCO₂e

18% Professional, Scientific, and Technical Services
13% Manufacturing-Metal, Machinery
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11% Construction
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6% Accommodation and Food Services
5% Other Services except Public Administration
4% Administrative and Support and Waste Management
4% Real Estate and Rental and Leasing

Improved plant-based options
Sustainable Purchasing

Welcome to the University of Washington Green Purchasing Program.

The University is committed to environmental stewardship by maintaining purchasing practices that promote and encourage the use and purchase of environmentally and socially responsible products.
QUESTIONS & DISCUSSION

The final UW 2022 GHG Inventory Report will be published in early January, so stay tuned!

Website: sustainability.uw.edu
Email: sustainability@uw.edu
Visit our staff page for individual contact information
STAY INFORMED & ENGAGED!

➔ UW Sustainability newsletter, blog, and events: Connect with us | UW Sustainability
  ◆ Tacoma Sustainability Office
  ◆ Bothell Sustainability Office

➔ UW Sustainability Events Calendar

➔ GET INVOLVED
  ◆ Student Decarbonization Task Force Meetings
  ◆ Campus Sustainability Fund (CSF)
  ◆ More opportunities on our website