

**Table L1. Transportation sector energy consumption by region and fuel, High Zero-carbon Technology Cost case**

quadrillion British thermal units

Region and fuel	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>World</b>								
Motor gasoline and E85	46.7	46.7	45.8	45.1	44.9	45.8	47.7	0.1%
Distillate fuel oil and bioDiesel	42.9	43.7	44.0	44.7	45.8	47.7	49.3	0.5%
Residual fuel oil	8.0	8.7	9.2	9.5	9.5	9.4	9.0	0.4%
Liquefied petroleum gas	0.5	0.4	0.3	0.3	0.3	0.3	0.4	-1.3%
Jet fuel	11.1	14.1	15.7	17.3	19.0	20.7	22.3	2.5%
Other liquid fuels	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.3%
Natural gas	4.2	4.5	4.7	4.9	5.3	5.8	6.7	1.7%
Electricity	1.9	2.2	2.7	3.5	4.4	5.2	5.9	4.1%
<b>Total</b>	<b>115.8</b>	<b>120.7</b>	<b>123.0</b>	<b>125.8</b>	<b>129.7</b>	<b>135.4</b>	<b>141.8</b>	<b>0.7%</b>
<b>Americas</b>								
Motor gasoline and E85	21.8	21.2	20.0	19.0	18.6	18.7	19.2	-0.4%
Distillate fuel oil and bioDiesel	11.1	11.1	11.1	11.1	11.2	11.5	11.7	0.2%
Residual fuel oil	1.3	1.2	1.2	1.2	1.2	1.2	1.2	-0.3%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2%
Jet fuel	4.1	4.5	4.8	5.0	5.4	5.8	6.2	1.4%
Other liquid fuels	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1%
Natural gas	1.4	1.3	1.2	1.2	1.3	1.3	1.4	0.1%
Electricity	0.1	0.2	0.3	0.5	0.7	0.9	1.1	8.8%
<b>Total</b>	<b>40.0</b>	<b>39.6</b>	<b>38.7</b>	<b>38.3</b>	<b>38.6</b>	<b>39.5</b>	<b>40.9</b>	<b>0.1%</b>
<b>United States</b>								
Motor gasoline and E85	15.9	15.3	14.3	13.4	12.8	12.7	13.0	-0.7%
Distillate fuel oil and bioDiesel	6.7	6.6	6.3	6.1	6.1	6.1	6.1	-0.4%
Residual fuel oil	0.7	0.5	0.5	0.5	0.4	0.4	0.4	-1.6%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1%
Jet fuel	3.1	3.4	3.5	3.6	3.9	4.1	4.4	1.3%
Other liquid fuels	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1%
Natural gas	1.0	0.9	0.8	0.8	0.8	0.9	1.0	0.0%
Electricity	0.1	0.1	0.2	0.4	0.6	0.7	0.8	9.6%
<b>Total</b>	<b>27.6</b>	<b>26.9</b>	<b>25.7</b>	<b>24.9</b>	<b>24.7</b>	<b>25.0</b>	<b>25.8</b>	<b>-0.2%</b>
<b>Canada</b>								
Motor gasoline and E85	1.4	1.3	1.2	1.1	1.0	1.0	0.9	-1.4%
Distillate fuel oil and bioDiesel	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.0%
Residual fuel oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8%
Jet fuel	0.2	0.3	0.3	0.3	0.4	0.4	0.4	2.0%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5%
Natural gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.1%
Electricity	0.0	0.0	0.0	0.1	0.1	0.1	0.1	11.7%
<b>Total</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.6</b>	<b>2.6</b>	<b>0.1%</b>
<b>Mexico</b>								
Motor gasoline and E85	1.4	1.4	1.4	1.4	1.5	1.6	1.6	0.4%
Distillate fuel oil and bioDiesel	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4%
Residual fuel oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.6%
Jet fuel	0.2	0.2	0.2	0.2	0.3	0.3	0.3	2.5%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0%
<b>Total</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>2.6</b>	<b>0.7%</b>
<b>Brazil</b>								

Motor gasoline and E85	1.5	1.5	1.5	1.5	1.5	1.6	1.6	0.2%
Distillate fuel oil and bioDiesel	1.6	1.7	1.7	1.8	1.8	1.9	1.9	0.6%
Residual fuel oil	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.8%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9%
Jet fuel	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.7%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8%
Natural gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.2%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	3.5%
<b>Total</b>	<b>3.7</b>	<b>3.8</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>4.1</b>	<b>4.2</b>	<b>0.5%</b>
<b>Other Americas</b>								
Motor gasoline and E85	1.6	1.6	1.6	1.7	1.8	2.0	2.1	1.1%
Distillate fuel oil and bioDiesel	1.5	1.6	1.7	1.8	1.9	2.0	2.1	1.2%
Residual fuel oil	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.9%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2%
Jet fuel	0.4	0.4	0.5	0.5	0.6	0.7	0.7	2.1%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9%
Natural gas	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.4%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.1	12.2%
<b>Total</b>	<b>4.0</b>	<b>4.3</b>	<b>4.5</b>	<b>4.7</b>	<b>5.0</b>	<b>5.4</b>	<b>5.7</b>	<b>1.2%</b>
<b>Europe and Eurasia</b>								
Motor gasoline and E85	5.6	5.2	4.5	3.8	3.3	2.9	2.7	-2.6%
Distillate fuel oil and bioDiesel	12.1	11.7	10.8	10.2	10.0	10.1	10.3	-0.6%
Residual fuel oil	1.7	1.9	2.0	2.1	2.1	2.1	2.0	0.7%
Liquefied petroleum gas	0.3	0.1	0.1	0.1	0.1	0.2	0.2	-1.0%
Jet fuel	2.9	3.5	3.8	4.1	4.4	4.6	4.9	1.8%
Other liquid fuels	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7%
Natural gas	0.5	0.8	0.9	1.0	1.0	1.1	1.2	2.9%
Electricity	0.8	0.8	0.9	1.2	1.4	1.7	1.8	3.1%
<b>Total</b>	<b>23.9</b>	<b>24.2</b>	<b>23.2</b>	<b>22.6</b>	<b>22.5</b>	<b>22.7</b>	<b>23.2</b>	<b>-0.1%</b>
<b>Western Europe</b>								
Motor gasoline and E85	3.6	3.3	2.7	2.1	1.6	1.2	0.9	-4.9%
Distillate fuel oil and bioDiesel	10.5	10.1	9.1	8.4	8.0	8.0	8.1	-0.9%
Residual fuel oil	1.6	1.8	2.0	2.0	2.0	2.0	2.0	0.8%
Liquefied petroleum gas	0.3	0.1	0.1	0.1	0.1	0.2	0.2	-1.0%
Jet fuel	2.4	3.0	3.2	3.5	3.7	3.9	4.1	1.9%
Other liquid fuels	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7%
Natural gas	0.1	0.2	0.2	0.2	0.3	0.4	0.5	5.4%
Electricity	0.3	0.4	0.5	0.7	1.0	1.2	1.4	5.4%
<b>Total</b>	<b>18.9</b>	<b>18.9</b>	<b>17.8</b>	<b>17.2</b>	<b>17.0</b>	<b>17.1</b>	<b>17.3</b>	<b>-0.3%</b>
<b>Russia</b>								
Motor gasoline and E85	1.5	1.5	1.4	1.3	1.2	1.2	1.1	-1.1%
Distillate fuel oil and bioDiesel	1.1	1.1	1.1	1.1	1.2	1.2	1.2	0.3%
Residual fuel oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0%
Jet fuel	0.4	0.5	0.5	0.5	0.6	0.6	0.6	1.2%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8%
Natural gas	0.2	0.3	0.3	0.3	0.3	0.3	0.3	1.4%
Electricity	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-1.1%
<b>Total</b>	<b>3.6</b>	<b>3.7</b>	<b>3.7</b>	<b>3.6</b>	<b>3.6</b>	<b>3.6</b>	<b>3.5</b>	<b>-0.1%</b>
<b>Eastern Europe and Eurasia</b>								
Motor gasoline and E85	0.5	0.5	0.5	0.5	0.5	0.6	0.7	1.1%
Distillate fuel oil and bioDiesel	0.5	0.5	0.6	0.7	0.8	0.9	1.0	2.5%
Residual fuel oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2%
Jet fuel	0.1	0.1	0.1	0.1	0.1	0.2	0.2	2.0%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0%
Natural gas	0.2	0.4	0.4	0.4	0.4	0.3	0.3	2.0%
Electricity	0.1	0.1	0.1	0.1	0.2	0.2	0.2	1.8%



Natural gas	0.2	0.2	0.3	0.5	0.6	0.7	0.9	6.1%
Electricity	0.1	0.1	0.2	0.2	0.3	0.3	0.5	4.4%
<b>Total</b>	<b>5.1</b>	<b>5.7</b>	<b>7.4</b>	<b>9.4</b>	<b>11.6</b>	<b>13.6</b>	<b>15.4</b>	<b>4.1%</b>
<b>Other Asia Pacific</b>								
Motor gasoline and E85	3.8	4.1	4.5	5.2	5.9	6.6	7.2	2.4%
Distillate fuel oil and bioDiesel	3.6	3.9	4.3	4.6	5.0	5.3	5.6	1.6%
Residual fuel oil	2.4	2.6	2.8	2.9	2.9	2.8	2.7	0.4%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.8%
Jet fuel	0.9	1.5	1.8	2.1	2.4	2.7	2.9	4.3%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4%
Natural gas	0.2	0.2	0.2	0.3	0.3	0.5	0.7	4.6%
Electricity	0.0	0.0	0.0	0.1	0.1	0.2	0.3	11.8%
<b>Total</b>	<b>10.9</b>	<b>12.4</b>	<b>13.8</b>	<b>15.2</b>	<b>16.6</b>	<b>18.1</b>	<b>19.5</b>	<b>2.1%</b>
<b>Africa and Middle East</b>								
Motor gasoline and E85	5.5	5.8	6.1	6.6	7.2	7.9	8.7	1.6%
Distillate fuel oil and bioDiesel	5.0	5.2	5.4	5.7	6.1	6.5	7.0	1.2%
Residual fuel oil	1.2	1.4	1.5	1.5	1.5	1.5	1.4	0.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.1%
Jet fuel	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.3%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8%
Natural gas	0.5	0.5	0.5	0.5	0.5	0.6	0.7	1.5%
Electricity	0.0	0.0	0.1	0.1	0.1	0.2	0.2	5.8%
<b>Total</b>	<b>13.3</b>	<b>14.3</b>	<b>15.2</b>	<b>16.3</b>	<b>17.6</b>	<b>19.1</b>	<b>20.8</b>	<b>1.6%</b>
<b>Africa</b>								
Motor gasoline and E85	2.4	2.6	3.0	3.4	3.9	4.5	5.2	2.8%
Distillate fuel oil and bioDiesel	2.6	2.8	3.0	3.3	3.6	4.0	4.5	1.9%
Residual fuel oil	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.8%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-30.3%
Jet fuel	0.3	0.4	0.5	0.6	0.7	0.8	0.9	3.7%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8%
Natural gas	0.1	0.1	0.2	0.2	0.2	0.3	0.3	3.7%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	3.6%
<b>Total</b>	<b>5.7</b>	<b>6.2</b>	<b>6.9</b>	<b>7.8</b>	<b>8.7</b>	<b>9.9</b>	<b>11.2</b>	<b>2.5%</b>
<b>Middle East</b>								
Motor gasoline and E85	3.2	3.2	3.2	3.2	3.3	3.4	3.5	0.4%
Distillate fuel oil and bioDiesel	2.3	2.3	2.4	2.4	2.4	2.5	2.5	0.3%
Residual fuel oil	1.0	1.2	1.3	1.3	1.3	1.3	1.2	0.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.2%
Jet fuel	0.8	1.0	1.1	1.3	1.5	1.6	1.8	3.2%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7%
Natural gas	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.2%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	9.1%
<b>Total</b>	<b>7.7</b>	<b>8.1</b>	<b>8.3</b>	<b>8.6</b>	<b>8.8</b>	<b>9.2</b>	<b>9.6</b>	<b>0.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding. Quantities for the United States, Americas, and World include energy used for U.S. military transportation and the energy content of lubricants.

**Table L2. Transportation sector passenger transport energy consumption by region and mode, High Zero-carbon Technology Cost case**  
quadrillion British thermal units

Region and mode	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>								
Light-duty vehicles	19.3	18.9	17.8	17.0	16.6	16.6	17.1	-0.4%
Air	3.7	4.1	4.3	4.6	4.9	5.3	5.6	1.5%
Buses	1.0	1.2	1.2	1.3	1.3	1.3	1.4	1.0%
Two- and three-wheeled vehicles	0.3	0.4	0.5	0.6	0.7	0.8	0.9	4.2%
Rail	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2%
<b>Total</b>	<b>24.4</b>	<b>24.6</b>	<b>24.0</b>	<b>23.5</b>	<b>23.6</b>	<b>24.1</b>	<b>25.1</b>	<b>0.1%</b>
<b>Europe and Eurasia</b>								
Light-duty vehicles	8.9	8.2	6.9	6.0	5.4	5.1	5.0	-2.1%
Air	2.5	3.2	3.4	3.7	3.9	4.1	4.3	1.9%
Buses	1.3	1.3	1.3	1.3	1.2	1.2	1.1	-0.6%
Two- and three-wheeled vehicles	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4%
Rail	0.2	0.2	0.1	0.1	0.1	0.1	0.1	-1.2%
<b>Total</b>	<b>13.0</b>	<b>12.9</b>	<b>11.9</b>	<b>11.2</b>	<b>10.8</b>	<b>10.6</b>	<b>10.6</b>	<b>-0.7%</b>
<b>Asia Pacific</b>								
Light-duty vehicles	12.7	13.5	14.4	15.1	15.8	16.8	17.9	1.2%
Air	2.2	3.9	4.8	5.6	6.4	7.1	7.9	4.6%
Buses	2.5	2.5	2.6	2.7	2.7	2.7	2.7	0.3%
Two- and three-wheeled vehicles	2.1	2.4	2.7	3.0	3.3	3.5	3.7	2.0%
Rail	0.3	0.3	0.3	0.3	0.2	0.2	0.2	-0.5%
<b>Total</b>	<b>19.8</b>	<b>22.6</b>	<b>24.8</b>	<b>26.7</b>	<b>28.3</b>	<b>30.4</b>	<b>32.4</b>	<b>1.8%</b>
<b>Africa and Middle East</b>								
Light-duty vehicles	4.5	4.5	4.6	4.8	4.9	5.2	5.6	0.8%
Air	1.0	1.3	1.5	1.8	2.0	2.3	2.6	3.6%
Buses	1.8	2.1	2.5	2.9	3.5	4.1	4.8	3.5%
Two- and three-wheeled vehicles	0.1	0.1	0.1	0.2	0.3	0.3	0.4	5.9%
Rail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3%
<b>Total</b>	<b>7.4</b>	<b>8.0</b>	<b>8.8</b>	<b>9.7</b>	<b>10.7</b>	<b>12.0</b>	<b>13.4</b>	<b>2.2%</b>
<b>World</b>								
Light-duty vehicles	45.4	45.2	43.8	42.8	42.7	43.7	45.6	0.0%
Air	9.4	12.5	14.1	15.6	17.2	18.8	20.4	2.8%
Buses	6.6	7.1	7.6	8.2	8.7	9.3	9.9	1.4%
Two- and three-wheeled vehicles	2.6	3.0	3.4	3.9	4.4	4.8	5.2	2.5%
Rail	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-0.3%
<b>Total</b>	<b>64.5</b>	<b>68.2</b>	<b>69.4</b>	<b>71.0</b>	<b>73.4</b>	<b>77.0</b>	<b>81.5</b>	<b>0.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.

**Table L3. Transportation sector freight transport energy consumption by region and mode, High Zero-carbon Technology Cost case**

quadrillion British thermal units

Region and mode	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>								
Heavy-duty trucks	11.1	10.8	10.6	10.5	10.7	11.0	11.3	0.1%
Rail	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.2%
Marine vessels	1.9	1.9	2.0	2.0	2.0	2.0	2.0	0.3%
Natural gas pipeline	1.0	0.8	0.7	0.7	0.7	0.8	0.8	-0.9%
Air freighter	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.1%
<b>Total</b>	<b>14.9</b>	<b>14.5</b>	<b>14.2</b>	<b>14.1</b>	<b>14.3</b>	<b>14.7</b>	<b>15.1</b>	<b>0.0%</b>
<b>Europe and Eurasia</b>								
Heavy-duty trucks	7.4	7.3	7.1	7.1	7.3	7.7	8.1	0.3%
Rail	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-0.1%
Marine vessels	2.1	2.4	2.6	2.7	2.7	2.7	2.7	0.9%
Natural gas pipeline	0.2	0.5	0.5	0.5	0.5	0.5	0.5	2.8%
Air freighter	0.4	0.4	0.4	0.5	0.5	0.5	0.6	1.2%
<b>Total</b>	<b>10.9</b>	<b>11.3</b>	<b>11.3</b>	<b>11.4</b>	<b>11.7</b>	<b>12.1</b>	<b>12.6</b>	<b>0.5%</b>
<b>Asia Pacific</b>								
Heavy-duty trucks	10.9	11.4	11.8	12.3	13.0	13.9	14.7	1.1%
Rail	0.9	1.0	1.0	1.1	1.1	1.1	1.1	0.6%
Marine vessels	6.1	6.9	7.5	7.8	7.9	8.0	7.9	0.9%
Natural gas pipeline	0.0	0.1	0.1	0.1	0.1	0.1	0.1	3.6%
Air freighter	0.8	0.7	0.7	0.7	0.7	0.7	0.7	-0.4%
<b>Total</b>	<b>18.7</b>	<b>20.0</b>	<b>21.1</b>	<b>21.9</b>	<b>22.7</b>	<b>23.7</b>	<b>24.5</b>	<b>1.0%</b>
<b>Africa and Middle East</b>								
Heavy-duty trucks	4.2	4.3	4.4	4.5	4.7	4.9	5.2	0.7%
Rail	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7%
Marine vessels	1.4	1.6	1.8	1.8	1.9	1.9	1.9	1.0%
Natural gas pipeline	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0%
Air freighter	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2%
<b>Total</b>	<b>6.0</b>	<b>6.3</b>	<b>6.4</b>	<b>6.6</b>	<b>6.9</b>	<b>7.1</b>	<b>7.4</b>	<b>0.7%</b>
<b>World</b>								
Heavy-duty trucks	33.7	33.9	33.9	34.5	35.7	37.4	39.3	0.5%
Rail	2.5	2.5	2.6	2.6	2.7	2.7	2.7	0.3%
Marine vessels	11.5	12.9	13.8	14.3	14.5	14.6	14.5	0.8%
Natural gas pipeline	1.4	1.5	1.4	1.4	1.4	1.4	1.5	0.2%
Air freighter	1.4	1.3	1.3	1.4	1.5	1.5	1.6	0.3%
<b>Total</b>	<b>50.5</b>	<b>52.0</b>	<b>53.0</b>	<b>54.1</b>	<b>55.7</b>	<b>57.7</b>	<b>59.5</b>	<b>0.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.

**Table L4. Aircraft efficiency, High Zero-carbon Technology Cost case**

seat miles per gallon

Aircraft type and vintage	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Narrow body aircraft</b>								
New	84.5	86.9	90.5	94.4	98.3	102.3	106.5	0.8%
Stock	77.3	79.4	82.4	86.1	90.0	93.9	97.8	0.8%
<b>Wide body aircraft</b>								
New	107.0	110.0	114.4	119.0	123.7	128.6	133.7	0.8%
Stock	98.9	102.0	104.8	108.4	112.5	117.5	122.8	0.8%
<b>Regional jets</b>								
New	54.6	56.9	59.7	62.5	65.3	68.1	70.8	0.9%
Stock	52.6	54.1	55.9	58.0	60.1	62.4	64.6	0.7%
<b>Average aircraft</b>								
New	87.6	91.7	95.6	99.6	103.7	107.9	112.3	0.9%
Stock	80.8	84.5	87.4	91.0	94.7	98.9	103.1	0.9%

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.

**Table L5. Revenue passenger air travel, High Zero-carbon Technology Cost case**

billion revenue-passenger-miles

Region and type	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>United States</b>								
Domestic	710	754	824	898	1,004	1,127	1,266	2.1%
International	243	401	447	497	563	641	729	4.0%
<b>Total</b>	<b>953</b>	<b>1,155</b>	<b>1,271</b>	<b>1,395</b>	<b>1,568</b>	<b>1,768</b>	<b>1,995</b>	<b>2.7%</b>
<b>Canada</b>								
Domestic	33	38	42	45	49	53	56	1.9%
International	45	91	105	119	134	150	167	4.8%
<b>Total</b>	<b>78</b>	<b>130</b>	<b>147</b>	<b>164</b>	<b>183</b>	<b>202</b>	<b>224</b>	<b>3.8%</b>
<b>Mexico</b>								
Domestic	36	40	48	57	68	80	94	3.5%
International	41	46	54	63	73	84	96	3.1%
<b>Total</b>	<b>76</b>	<b>86</b>	<b>102</b>	<b>120</b>	<b>141</b>	<b>164</b>	<b>190</b>	<b>3.3%</b>
<b>Brazil</b>								
Domestic	56	61	68	74	79	82	85	1.5%
International	30	46	52	58	61	63	65	2.8%
<b>Total</b>	<b>86</b>	<b>107</b>	<b>121</b>	<b>132</b>	<b>139</b>	<b>146</b>	<b>150</b>	<b>2.0%</b>
<b>Other Americas</b>								
Domestic	54	72	83	95	108	123	139	3.4%
International	96	119	141	165	192	223	258	3.6%
<b>Total</b>	<b>150</b>	<b>191</b>	<b>224</b>	<b>260</b>	<b>301</b>	<b>346</b>	<b>396</b>	<b>3.5%</b>
<b>Western Europe</b>								
Domestic	524	696	776	863	958	1,061	1,173	2.9%
International	370	668	737	810	889	974	1,065	3.8%
<b>Total</b>	<b>894</b>	<b>1,364</b>	<b>1,513</b>	<b>1,673</b>	<b>1,847</b>	<b>2,035</b>	<b>2,238</b>	<b>3.3%</b>
<b>Russia</b>								
Domestic	103	108	117	124	132	141	151	1.4%
International	37	61	87	95	105	115	127	4.5%
<b>Total</b>	<b>140</b>	<b>170</b>	<b>203</b>	<b>219</b>	<b>237</b>	<b>257</b>	<b>278</b>	<b>2.5%</b>
<b>Eastern Europe and Eurasia</b>								
Domestic	10	11	13	15	18	21	25	3.5%
International	36	47	56	66	78	92	108	4.0%
<b>Total</b>	<b>46</b>	<b>58</b>	<b>69</b>	<b>82</b>	<b>97</b>	<b>114</b>	<b>133</b>	<b>3.9%</b>
<b>Japan</b>								
Domestic	47	62	65	66	68	70	72	1.5%
International	24	99	114	115	116	117	119	6.0%
<b>Total</b>	<b>70</b>	<b>161</b>	<b>178</b>	<b>181</b>	<b>184</b>	<b>187</b>	<b>191</b>	<b>3.6%</b>
<b>South Korea</b>								
Domestic	8	9	9	10	10	10	10	0.8%
International	18	76	98	109	113	118	125	7.3%
<b>Total</b>	<b>26</b>	<b>85</b>	<b>107</b>	<b>118</b>	<b>123</b>	<b>128</b>	<b>136</b>	<b>6.1%</b>
<b>Australia and New Zealand</b>								
Domestic	44	61	72	82	91	101	111	3.4%
International	32	86	107	124	143	164	187	6.6%
<b>Total</b>	<b>75</b>	<b>147</b>	<b>179</b>	<b>206</b>	<b>234</b>	<b>265</b>	<b>298</b>	<b>5.0%</b>
<b>China</b>								
Domestic	241	560	748	949	1,138	1,345	1,528	6.8%
International	22	156	211	267	327	397	469	11.6%
<b>Total</b>	<b>263</b>	<b>715</b>	<b>960</b>	<b>1,216</b>	<b>1,466</b>	<b>1,742</b>	<b>1,997</b>	<b>7.5%</b>
<b>India</b>								
Domestic	73	101	154	215	281	353	427	6.5%
International	28	74	107	143	182	224	267	8.4%



<b>Total</b>	<b>101</b>	<b>176</b>	<b>261</b>	<b>358</b>	<b>462</b>	<b>576</b>	<b>694</b>	<b>7.1%</b>
<b>Other Asia Pacific</b>								
Domestic	97	208	272	342	423	513	612	6.8%
International	88	315	411	499	598	709	832	8.4%
<b>Total</b>	<b>184</b>	<b>523</b>	<b>683</b>	<b>841</b>	<b>1,021</b>	<b>1,223</b>	<b>1,444</b>	<b>7.6%</b>
<b>Africa</b>								
Domestic	37	54	68	85	105	129	156	5.3%
International	68	116	145	178	215	257	304	5.5%
<b>Total</b>	<b>105</b>	<b>170</b>	<b>213</b>	<b>263</b>	<b>320</b>	<b>386</b>	<b>460</b>	<b>5.4%</b>
<b>Middle East</b>								
Domestic	42	53	64	77	91	105	119	3.8%
International	192	284	348	423	510	611	726	4.9%
<b>Total</b>	<b>234</b>	<b>337</b>	<b>413</b>	<b>500</b>	<b>601</b>	<b>715</b>	<b>845</b>	<b>4.7%</b>
<b>World</b>								
Domestic	2,114	2,888	3,423	3,998	4,623	5,314	6,023	3.8%
International	1,367	2,686	3,219	3,730	4,299	4,939	5,644	5.2%
<b>Total</b>	<b>3,481</b>	<b>5,573</b>	<b>6,642</b>	<b>7,728</b>	<b>8,922</b>	<b>10,253</b>	<b>11,668</b>	<b>4.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.

**Table L6. Revenue freight air transport, High Zero-carbon Technology Cost case**

billion revenue-ton-miles

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>58.8</b>	<b>59.6</b>	<b>65.0</b>	<b>71.6</b>	<b>80.3</b>	<b>90.3</b>	<b>101.8</b>	<b>2.0%</b>
United States	47.9	48.5	52.7	57.9	64.8	72.7	81.7	1.9%
Canada	2.1	2.0	1.9	1.8	1.8	1.8	1.8	-0.5%
Mexico	1.5	1.6	1.8	2.0	2.2	2.4	2.7	2.2%
Brazil	2.5	2.4	2.4	2.5	2.5	2.6	2.6	0.2%
Other Americas	4.8	5.2	6.2	7.4	9.0	10.8	12.9	3.6%
<b>Europe and Eurasia</b>	<b>39.9</b>	<b>43.4</b>	<b>49.7</b>	<b>55.8</b>	<b>62.6</b>	<b>69.9</b>	<b>78.0</b>	<b>2.4%</b>
Western Europe	38.6	42.2	48.7	54.8	61.6	68.8	76.9	2.5%
Russia	1.1	1.0	0.9	0.9	0.9	0.9	1.0	-0.3%
Eastern Europe and Eurasia	0.2	0.2	0.1	0.1	0.1	0.2	0.2	-0.3%
<b>Asia Pacific</b>	<b>65.2</b>	<b>67.1</b>	<b>71.6</b>	<b>76.2</b>	<b>80.2</b>	<b>84.3</b>	<b>87.9</b>	<b>1.1%</b>
Japan	6.8	7.1	7.4	7.5	7.5	7.5	7.6	0.4%
South Korea	10.8	10.2	9.9	10.0	10.1	10.3	10.5	-0.1%
Australia and New Zealand	2.0	2.3	2.7	3.0	3.2	3.4	3.5	2.1%
China	19.8	20.6	22.9	25.5	27.8	30.1	32.0	1.7%
India	2.5	3.2	4.2	5.1	6.0	6.8	7.6	4.0%
Other Asia Pacific	23.2	23.7	24.5	25.1	25.7	26.2	26.7	0.5%
<b>Africa and Middle East</b>	<b>10.9</b>	<b>10.5</b>	<b>10.9</b>	<b>11.9</b>	<b>13.2</b>	<b>14.7</b>	<b>16.3</b>	<b>1.5%</b>
Africa	5.0	5.3	6.3	7.4	8.8	10.2	11.8	3.1%
Middle East	5.8	5.2	4.6	4.5	4.4	4.5	4.5	-0.9%
<b>World</b>	<b>174.7</b>	<b>180.6</b>	<b>197.2</b>	<b>215.5</b>	<b>236.3</b>	<b>259.3</b>	<b>284.0</b>	<b>1.7%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/ao](http://www.eia.gov/ao)

Note: Totals may not equal sum of components due to independent rounding.

**Table L7. Passenger aircraft capacity, High Zero-carbon Technology Cost case**

billion seat miles

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>1,685</b>	<b>1,989</b>	<b>2,218</b>	<b>2,462</b>	<b>2,768</b>	<b>3,116</b>	<b>3,504</b>	<b>2.7%</b>
United States	1,173	1,370	1,504	1,648	1,851	2,085	2,350	2.5%
Canada	99	154	174	195	217	240	265	3.6%
Mexico	94	105	125	147	172	200	231	3.2%
Brazil	118	128	144	157	166	173	179	1.5%
Other Americas	201	231	271	314	363	418	479	3.1%
<b>Europe and Eurasia</b>	<b>1,403</b>	<b>1,936</b>	<b>2,171</b>	<b>2,399</b>	<b>2,650</b>	<b>2,922</b>	<b>3,216</b>	<b>3.0%</b>
Western Europe	1,167	1,659	1,839	2,033	2,244	2,471	2,716	3.1%
Russia	176	204	245	264	285	309	334	2.3%
Eastern Europe and Eurasia	60	73	86	102	121	142	166	3.7%
<b>Asia Pacific</b>	<b>1,098</b>	<b>2,218</b>	<b>2,896</b>	<b>3,561</b>	<b>4,249</b>	<b>5,010</b>	<b>5,783</b>	<b>6.1%</b>
Japan	126	208	230	233	237	240	245	2.4%
South Korea	37	103	130	144	149	156	165	5.5%
Australia and New Zealand	136	184	224	257	292	331	372	3.7%
China	406	850	1,136	1,436	1,729	2,053	2,352	6.5%
India	130	206	305	418	539	671	807	6.7%
Other Asia Pacific	263	667	871	1,072	1,302	1,560	1,842	7.2%
<b>Africa and Middle East</b>	<b>459</b>	<b>676</b>	<b>833</b>	<b>1,016</b>	<b>1,225</b>	<b>1,464</b>	<b>1,734</b>	<b>4.9%</b>
Africa	143	227	284	350	425	512	610	5.3%
Middle East	316	449	549	666	800	952	1,124	4.6%
<b>World</b>	<b>4,645</b>	<b>6,819</b>	<b>8,118</b>	<b>9,438</b>	<b>10,892</b>	<b>12,512</b>	<b>14,237</b>	<b>4.1%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/ao](http://www.eia.gov/ao)

Note: Totals may not equal sum of components due to independent rounding.

**Table L8. Total commercial jet fuel use, High Zero-carbon Technology Cost case**

quadrillion British thermal units

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>3.8</b>	<b>4.2</b>	<b>4.5</b>	<b>4.7</b>	<b>5.0</b>	<b>5.4</b>	<b>5.8</b>	<b>1.5%</b>
United States	2.8	3.0	3.2	3.3	3.5	3.8	4.1	1.4%
Canada	0.2	0.3	0.3	0.3	0.4	0.4	0.4	2.0%
Mexico	0.2	0.2	0.2	0.2	0.3	0.3	0.3	2.5%
Brazil	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.7%
Other Americas	0.4	0.4	0.5	0.5	0.6	0.7	0.7	2.1%
<b>Europe and Eurasia</b>	<b>2.9</b>	<b>3.5</b>	<b>3.8</b>	<b>4.1</b>	<b>4.4</b>	<b>4.6</b>	<b>4.9</b>	<b>1.8%</b>
Western Europe	2.4	3.0	3.2	3.5	3.7	3.9	4.1	1.9%
Russia	0.4	0.5	0.5	0.5	0.6	0.6	0.6	1.2%
Eastern Europe and Eurasia	0.1	0.1	0.1	0.1	0.1	0.2	0.2	2.0%
<b>Asia Pacific</b>	<b>3.0</b>	<b>4.6</b>	<b>5.5</b>	<b>6.3</b>	<b>7.1</b>	<b>7.8</b>	<b>8.6</b>	<b>3.8%</b>
Japan	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.9%
South Korea	0.2	0.3	0.3	0.3	0.3	0.3	0.3	1.5%
Australia and New Zealand	0.3	0.3	0.4	0.4	0.5	0.5	0.6	2.7%
China	1.0	1.6	1.9	2.3	2.6	2.9	3.2	4.2%
India	0.3	0.4	0.5	0.7	0.8	1.0	1.1	5.4%
Other Asia Pacific	0.9	1.5	1.8	2.1	2.4	2.7	2.9	4.3%
<b>Africa and Middle East</b>	<b>1.1</b>	<b>1.4</b>	<b>1.6</b>	<b>1.9</b>	<b>2.2</b>	<b>2.5</b>	<b>2.8</b>	<b>3.3%</b>
Africa	0.3	0.4	0.5	0.6	0.7	0.8	0.9	3.7%
Middle East	0.8	1.0	1.1	1.3	1.5	1.6	1.8	3.2%
<b>World</b>	<b>10.8</b>	<b>13.7</b>	<b>15.4</b>	<b>17.0</b>	<b>18.6</b>	<b>20.3</b>	<b>22.0</b>	<b>2.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding. Quantities for the United States, Americas, and World do not include energy used for U.S. military transportation and the energy content of lubricants.

**Table L9. New light duty vehicle sales by technology, High Zero-carbon Technology Cost case**

thousand vehicles

Region and technology	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>								
Electric	812.1	1,159.6	2,087.0	2,432.7	2,684.9	2,969.6	3,192.0	5.0%
Hydrogen	2.4	2.0	3.0	3.6	3.7	3.8	3.7	1.6%
Liquefied petroleum gas	4.0	2.6	2.3	2.1	2.1	2.2	2.4	-1.8%
Natural gas	258.6	202.8	185.4	151.4	98.5	76.9	64.0	-4.9%
Diesel	436.5	516.5	625.3	598.1	578.9	600.9	651.7	1.4%
Motor gasoline	19,832.9	19,721.3	19,118.6	18,841.5	18,902.8	19,268.4	20,037.3	0.0%
Plug-in hybrid	207.6	436.6	759.1	1,214.8	1,533.5	1,819.5	1,852.4	8.1%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>21,554.2</b>	<b>22,041.5</b>	<b>22,780.7</b>	<b>23,244.3</b>	<b>23,804.4</b>	<b>24,741.3</b>	<b>25,803.5</b>	<b>0.6%</b>
<b>United States</b>								
Electric	687.0	939.8	1,663.1	1,923.9	2,059.9	2,222.8	2,293.5	4.4%
Hydrogen	2.4	2.0	3.0	3.6	3.7	3.8	3.7	1.6%
Liquefied petroleum gas	0.4	0.9	0.9	1.0	1.2	1.5	1.8	5.1%
Natural gas	0.4	0.6	0.5	0.5	0.5	0.5	0.6	1.0%
Diesel	73.6	106.1	117.8	113.6	126.0	134.3	144.9	2.4%
Motor gasoline	13,314.3	13,809.0	12,780.0	12,422.2	12,859.4	12,951.7	13,303.7	0.0%
Plug-in hybrid	184.4	352.4	507.6	578.7	615.1	652.6	682.2	4.8%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>14,262.6</b>	<b>15,210.8</b>	<b>15,073.0</b>	<b>15,043.5</b>	<b>15,665.8</b>	<b>15,967.2</b>	<b>16,430.4</b>	<b>0.5%</b>
<b>Canada</b>								
Electric	112.9	173.5	287.5	293.7	352.7	417.9	505.5	5.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5%
Liquefied petroleum gas	0.3	0.2	0.0	0.1	0.1	0.1	0.1	-4.9%
Natural gas	1.7	0.7	0.0	0.1	0.1	0.1	0.1	-9.3%
Diesel	117.3	110.0	143.2	152.7	152.3	150.1	143.5	0.7%
Motor gasoline	1,499.3	1,360.3	1,267.9	1,283.3	1,248.4	1,216.4	1,159.8	-0.9%
Plug-in hybrid	16.6	43.0	69.2	125.4	185.1	267.7	333.9	11.3%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>1,748.1</b>	<b>1,687.6</b>	<b>1,767.9</b>	<b>1,855.3</b>	<b>1,938.7</b>	<b>2,052.3</b>	<b>2,143.0</b>	<b>0.7%</b>
<b>Mexico</b>								
Electric	7.4	23.4	56.2	84.5	104.6	126.3	147.5	11.3%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.6%
Liquefied petroleum gas	3.2	1.6	1.3	1.1	0.8	0.6	0.5	-6.5%
Natural gas	4.5	1.9	2.2	2.4	2.0	1.6	1.4	-4.1%
Diesel	7.1	6.3	5.9	6.4	7.0	7.6	7.8	0.3%
Motor gasoline	1,823.1	1,474.0	1,386.5	1,495.4	1,613.1	1,739.2	1,811.2	0.0%
Plug-in hybrid	1.5	16.2	35.3	95.6	174.4	227.3	219.0	19.5%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>1,846.8</b>	<b>1,523.3</b>	<b>1,487.4</b>	<b>1,685.5</b>	<b>1,901.9</b>	<b>2,102.6</b>	<b>2,187.3</b>	<b>0.6%</b>
<b>Brazil</b>								
Electric	2.7	6.8	31.9	59.4	75.2	91.1	124.1	14.7%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1%
Natural gas	125.8	79.8	84.1	82.9	52.6	40.4	34.2	-4.5%
Diesel	85.0	113.8	151.3	117.8	94.7	91.7	120.6	1.3%
Motor gasoline	2,230.0	1,994.5	2,425.0	2,427.0	2,030.1	2,086.0	2,348.7	0.2%
Plug-in hybrid	4.0	19.0	117.5	335.6	445.8	532.7	507.0	18.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>2,447.5</b>	<b>2,213.9</b>	<b>2,809.8</b>	<b>3,022.7</b>	<b>2,698.4</b>	<b>2,842.0</b>	<b>3,134.5</b>	<b>0.9%</b>
<b>Other Americas</b>								



<b>Total</b>	<b>34,421.0</b>	<b>35,938.0</b>	<b>41,476.0</b>	<b>46,325.9</b>	<b>48,209.9</b>	<b>49,559.1</b>	<b>51,129.1</b>	<b>1.4%</b>
<b>Japan</b>								
Electric	66.1	106.1	251.4	230.6	339.1	462.2	647.4	8.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8%
Liquefied petroleum gas	5.9	4.4	4.8	4.1	4.1	3.0	2.5	-3.1%
Natural gas	1.4	0.9	0.7	0.6	0.9	0.9	0.8	-2.1%
Diesel	141.1	136.8	127.3	127.4	113.7	112.9	105.6	-1.0%
Motor gasoline	3,144.2	3,031.7	2,838.1	2,556.0	2,232.0	2,035.0	1,740.3	-2.1%
Plug-in hybrid	44.8	122.7	136.4	184.9	194.2	191.8	167.1	4.8%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>3,403.6</b>	<b>3,402.5</b>	<b>3,358.7</b>	<b>3,103.7</b>	<b>2,884.2</b>	<b>2,805.7</b>	<b>2,663.7</b>	<b>-0.9%</b>
<b>South Korea</b>								
Electric	75.3	74.5	290.9	506.1	739.6	879.6	946.7	9.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.3%
Liquefied petroleum gas	50.3	24.8	34.7	31.0	20.6	13.9	9.7	-5.7%
Natural gas	49.3	23.7	30.7	30.2	15.2	7.8	4.0	-8.6%
Diesel	191.0	168.4	155.8	131.1	105.4	104.9	126.3	-1.5%
Motor gasoline	1,069.6	1,126.3	938.5	732.5	517.1	405.5	313.0	-4.3%
Plug-in hybrid	14.5	81.3	163.9	210.8	164.8	121.2	87.7	6.7%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>1,449.9</b>	<b>1,499.0</b>	<b>1,614.5</b>	<b>1,641.7</b>	<b>1,562.7</b>	<b>1,532.8</b>	<b>1,487.5</b>	<b>0.1%</b>
<b>Australia and New Zealand</b>								
Electric	34.4	37.6	65.8	78.5	116.8	152.5	202.1	6.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6%
Liquefied petroleum gas	0.4	0.0	2.5	1.8	1.5	1.3	1.1	3.6%
Natural gas	2.4	0.1	0.2	0.1	0.0	0.0	0.0	-18.7%
Diesel	110.9	125.0	109.5	99.7	85.7	74.4	63.0	-2.0%
Motor gasoline	873.1	922.4	861.9	800.0	714.8	649.0	572.5	-1.5%
Plug-in hybrid	8.3	19.6	75.3	169.2	274.4	370.9	422.1	15.1%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>1,029.5</b>	<b>1,104.7</b>	<b>1,115.2</b>	<b>1,149.3</b>	<b>1,193.2</b>	<b>1,248.1</b>	<b>1,260.8</b>	<b>0.7%</b>
<b>China</b>								
Electric	4,681.9	5,240.5	6,580.5	8,490.9	8,977.6	9,250.3	9,546.7	2.6%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3%
Liquefied petroleum gas	66.6	63.4	28.2	29.4	21.4	12.5	6.5	-8.0%
Natural gas	990.8	672.2	309.7	556.2	661.5	619.7	405.1	-3.1%
Diesel	43.9	37.5	22.2	61.7	55.9	44.6	34.1	-0.9%
Motor gasoline	13,208.7	11,371.7	8,665.9	8,451.1	7,648.3	6,278.9	5,273.2	-3.2%
Plug-in hybrid	1,006.8	1,786.1	3,782.8	2,995.1	2,947.9	2,297.1	1,853.4	2.2%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>19,998.6</b>	<b>19,171.4</b>	<b>19,389.5</b>	<b>20,584.4</b>	<b>20,312.7</b>	<b>18,502.9</b>	<b>17,119.0</b>	<b>-0.6%</b>
<b>India</b>								
Electric	17.1	36.2	67.6	153.9	408.8	847.1	1,234.7	16.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8%
Liquefied petroleum gas	132.2	72.2	126.3	160.3	180.5	200.6	225.1	1.9%
Natural gas	139.1	202.1	230.9	211.1	152.3	112.2	85.5	-1.7%
Diesel	1,855.3	2,495.2	3,871.9	4,787.2	4,966.9	5,159.0	5,401.5	3.9%
Motor gasoline	2,182.8	2,997.9	4,922.3	6,314.4	6,648.0	6,956.6	7,300.2	4.4%
Plug-in hybrid	4.0	19.9	248.9	483.5	1,046.4	1,549.4	1,982.1	24.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>4,330.4</b>	<b>5,823.5</b>	<b>9,467.8</b>	<b>12,110.3</b>	<b>13,403.0</b>	<b>14,824.8</b>	<b>16,229.1</b>	<b>4.8%</b>
<b>Other Asia</b>								
Electric	24.5	143.4	233.7	435.0	635.3	830.8	895.2	13.7%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2%
Natural gas	120.8	17.0	43.1	37.4	32.0	30.0	29.0	-5.0%
Diesel	1,040.8	1,259.4	1,504.1	1,590.3	1,655.7	1,912.6	2,217.4	2.7%
Motor gasoline	3,018.6	3,445.0	4,568.2	5,256.5	5,863.1	6,984.6	8,442.6	3.7%

Plug-in hybrid	4.3	72.1	181.1	417.5	668.1	886.9	784.9	20.4%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>4,209.0</b>	<b>4,936.9</b>	<b>6,530.2</b>	<b>7,736.6</b>	<b>8,854.2</b>	<b>10,644.9</b>	<b>12,369.1</b>	<b>3.9%</b>
<b>Africa and Middle East</b>								
Electric	31.1	105.6	141.7	213.3	273.5	355.0	436.2	9.9%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9%
Liquefied petroleum gas	8.9	7.8	1.3	0.3	0.1	0.1	0.0	-17.5%
Natural gas	102.3	41.6	50.4	35.5	23.9	19.4	16.4	-6.3%
Diesel	100.2	115.6	146.4	159.8	165.6	196.4	232.4	3.1%
Motor gasoline	3,294.1	3,846.8	4,454.9	4,641.4	4,653.0	5,322.9	6,162.5	2.3%
Plug-in hybrid	9.9	46.0	158.9	402.8	604.9	751.0	634.7	16.0%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>3,546.5</b>	<b>4,163.3</b>	<b>4,953.6</b>	<b>5,453.0</b>	<b>5,721.0</b>	<b>6,644.8</b>	<b>7,482.4</b>	<b>2.7%</b>
<b>Africa</b>								
Electric	2.2	10.2	33.3	61.6	75.5	99.1	131.9	15.7%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1%
Natural gas	8.8	8.6	8.2	4.8	2.8	2.0	1.4	-6.3%
Diesel	73.5	84.7	114.1	133.4	145.6	179.8	218.7	4.0%
Motor gasoline	662.3	824.5	1,076.3	1,236.5	1,346.0	1,655.7	1,983.3	4.0%
Plug-in hybrid	1.0	5.0	20.0	40.8	64.7	79.0	74.7	16.7%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>747.8</b>	<b>932.9</b>	<b>1,251.9</b>	<b>1,477.1</b>	<b>1,634.6</b>	<b>2,015.6</b>	<b>2,410.0</b>	<b>4.3%</b>
<b>Middle East</b>								
Electric	28.9	95.4	108.4	151.7	198.0	255.9	304.4	8.8%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0%
Liquefied petroleum gas	8.9	7.8	1.3	0.3	0.1	0.1	0.0	-17.6%
Natural gas	93.5	33.0	42.2	30.6	21.1	17.4	14.9	-6.3%
Diesel	26.7	30.9	32.3	26.4	20.0	16.6	13.7	-2.3%
Motor gasoline	2,631.8	3,022.3	3,378.6	3,405.0	3,307.0	3,667.2	4,179.2	1.7%
Plug-in hybrid	9.0	41.0	138.9	362.0	540.2	672.0	560.1	15.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>2,798.8</b>	<b>3,230.4</b>	<b>3,701.7</b>	<b>3,975.9</b>	<b>4,086.4</b>	<b>4,629.2</b>	<b>5,072.4</b>	<b>2.1%</b>
<b>World</b>								
Electric	7,759.6	9,142.7	14,649.6	21,438.1	23,979.2	27,150.0	29,787.7	4.9%
Hydrogen	2.4	2.0	3.0	3.6	3.7	3.8	3.7	1.6%
Liquefied petroleum gas	535.2	295.9	506.7	499.2	536.4	527.4	542.8	0.1%
Natural gas	2,149.9	1,543.0	1,074.6	1,184.2	1,124.3	1,004.0	753.2	-3.7%
Diesel	8,505.7	9,410.1	11,702.6	10,217.0	10,960.6	11,533.4	11,630.5	1.1%
Motor gasoline	58,769.0	57,904.0	54,366.5	53,498.2	53,766.1	53,566.9	55,326.0	-0.2%
Plug-in hybrid	2,321.6	4,860.3	7,760.8	9,166.3	9,112.3	9,646.9	9,085.2	5.0%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>80,043.4</b>	<b>83,158.1</b>	<b>90,063.7</b>	<b>96,006.6</b>	<b>99,482.6</b>	<b>103,432.5</b>	<b>107,129.2</b>	<b>1.0%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.



**Table L10. Light-duty vehicle stocks by technology, High Zero-carbon Technology Cost case**

million vehicles

Region and technology	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>								
Electric	3.1	6.3	14.9	24.8	34.2	42.4	48.9	10.3%
Hydrogen	0.0	0.0	0.0	0.0	0.1	0.1	0.1	4.7%
Liquefied petroleum gas	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-4.0%
Natural gas	5.0	5.7	6.4	6.4	5.3	3.7	2.8	-2.1%
Diesel	7.0	7.9	9.6	11.3	12.5	13.4	13.8	2.5%
Motor gasoline	389.6	392.3	392.7	388.0	386.4	389.5	395.1	0.0%
Plug-in hybrid	1.3	2.4	5.7	10.6	17.0	24.2	30.5	12.1%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>406.1</b>	<b>414.7</b>	<b>429.5</b>	<b>441.2</b>	<b>455.6</b>	<b>473.2</b>	<b>491.2</b>	<b>0.7%</b>
<b>United States</b>								
Electric	2.7	5.3	12.1	19.7	26.6	32.2	36.2	9.7%
Hydrogen	0.0	0.0	0.0	0.0	0.1	0.1	0.1	4.8%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8%
Diesel	1.4	1.5	1.9	2.1	2.3	2.6	2.8	2.6%
Motor gasoline	270.6	270.7	266.4	259.1	255.7	256.3	259.7	-0.1%
Plug-in hybrid	1.1	2.1	4.2	6.5	8.7	10.5	11.9	8.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>275.9</b>	<b>279.7</b>	<b>284.7</b>	<b>287.4</b>	<b>293.4</b>	<b>301.7</b>	<b>310.7</b>	<b>0.4%</b>
<b>Canada</b>								
Electric	0.4	0.9	2.1	3.3	4.4	5.3	6.2	10.7%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-77.6%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.0%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.2%
Diesel	1.2	1.3	1.7	2.1	2.3	2.4	2.3	2.5%
Motor gasoline	22.9	22.9	22.3	21.6	20.7	19.9	19.0	-0.6%
Plug-in hybrid	0.1	0.2	0.6	1.1	1.7	2.7	3.7	12.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>24.6</b>	<b>25.4</b>	<b>26.8</b>	<b>28.0</b>	<b>29.1</b>	<b>30.2</b>	<b>31.3</b>	<b>0.9%</b>
<b>Mexico</b>								
Electric	0.0	0.1	0.3	0.7	1.2	1.7	2.2	18.0%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5%
Liquefied petroleum gas	0.1	0.1	0.1	0.0	0.0	0.0	0.0	-6.4%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0%
Diesel	0.4	0.3	0.1	0.1	0.1	0.1	0.1	-3.3%
Motor gasoline	22.3	23.5	25.9	28.4	30.2	31.7	33.1	1.4%
Plug-in hybrid	0.0	0.1	0.2	0.6	1.4	2.4	3.4	24.0%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>22.8</b>	<b>24.1</b>	<b>26.7</b>	<b>29.9</b>	<b>33.0</b>	<b>36.1</b>	<b>38.8</b>	<b>1.9%</b>
<b>Brazil</b>								
Electric	0.0	0.0	0.2	0.4	0.8	1.2	1.6	20.6%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3%
Natural gas	2.1	2.3	2.7	2.9	2.4	1.4	1.2	-2.1%
Diesel	0.7	1.0	1.5	2.0	2.2	2.3	2.2	4.4%
Motor gasoline	45.3	45.5	46.5	46.4	45.8	45.9	46.0	0.1%
Plug-in hybrid	0.0	0.1	0.5	1.9	4.0	6.5	8.6	25.4%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>48.1</b>	<b>48.9</b>	<b>51.5</b>	<b>53.6</b>	<b>55.3</b>	<b>57.2</b>	<b>59.5</b>	<b>0.8%</b>
<b>Other Americas</b>								



<b>Total</b>	<b>544.9</b>	<b>609.9</b>	<b>712.2</b>	<b>797.6</b>	<b>861.4</b>	<b>917.5</b>	<b>968.6</b>	<b>2.1%</b>
<b>Japan</b>								
Electric	0.3	0.6	1.4	2.5	3.8	5.3	7.4	11.9%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-64.7%
Liquefied petroleum gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-2.8%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.7%
Diesel	1.7	2.0	2.3	2.3	2.1	2.0	2.0	0.5%
Motor gasoline	63.8	60.0	54.1	49.0	44.5	40.5	36.4	-2.0%
Plug-in hybrid	0.3	0.6	1.2	2.0	2.6	3.0	3.2	9.3%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>66.3</b>	<b>63.3</b>	<b>59.1</b>	<b>55.8</b>	<b>53.2</b>	<b>51.0</b>	<b>49.0</b>	<b>-1.1%</b>
<b>South Korea</b>								
Electric	0.4	0.6	1.6	3.6	6.6	9.6	12.0	13.3%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-79.9%
Liquefied petroleum gas	1.8	1.4	0.9	0.6	0.5	0.4	0.3	-6.7%
Natural gas	0.9	0.8	0.7	0.6	0.4	0.3	0.2	-5.3%
Diesel	6.4	6.0	4.7	3.2	2.3	1.9	1.7	-4.6%
Motor gasoline	13.5	15.0	16.3	15.5	12.8	9.7	7.1	-2.2%
Plug-in hybrid	0.1	0.3	1.1	2.0	2.6	2.5	2.1	13.2%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>23.0</b>	<b>24.2</b>	<b>25.3</b>	<b>25.5</b>	<b>25.1</b>	<b>24.4</b>	<b>23.3</b>	<b>0.0%</b>
<b>Australia and New Zealand</b>								
Electric	0.1	0.2	0.5	0.9	1.3	1.9	2.6	11.6%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-53.3%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2%
Natural gas	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-14.3%
Diesel	1.6	1.9	2.2	2.2	2.1	1.9	1.7	0.1%
Motor gasoline	14.8	15.5	16.3	16.6	16.2	15.3	14.0	-0.2%
Plug-in hybrid	0.0	0.1	0.4	1.1	2.4	4.1	5.9	19.8%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>16.7</b>	<b>17.9</b>	<b>19.5</b>	<b>20.9</b>	<b>22.1</b>	<b>23.3</b>	<b>24.3</b>	<b>1.3%</b>
<b>China</b>								
Electric	15.7	30.7	59.4	95.9	135.7	165.0	184.2	9.2%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-78.6%
Liquefied petroleum gas	1.2	1.4	1.5	1.4	1.0	0.7	0.5	-3.4%
Natural gas	16.7	18.2	18.1	16.8	14.7	12.9	11.8	-1.2%
Diesel	3.3	3.1	2.5	1.8	1.1	1.1	1.1	-4.0%
Motor gasoline	284.8	307.4	315.3	289.3	235.2	187.8	160.5	-2.0%
Plug-in hybrid	3.7	8.7	25.0	38.2	51.0	57.9	56.7	10.2%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>325.5</b>	<b>369.7</b>	<b>421.7</b>	<b>443.4</b>	<b>438.8</b>	<b>425.4</b>	<b>414.7</b>	<b>0.9%</b>
<b>India</b>								
Electric	0.1	0.2	0.5	1.1	2.8	6.3	11.7	20.5%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3%
Liquefied petroleum gas	2.2	2.0	1.9	2.3	2.8	3.2	3.8	1.9%
Natural gas	1.5	2.1	3.0	3.7	3.9	3.7	3.1	2.6%
Diesel	21.1	27.4	42.2	59.9	76.6	91.3	101.2	5.8%
Motor gasoline	24.7	31.4	49.6	73.8	98.4	120.0	135.0	6.3%
Plug-in hybrid	0.0	0.1	0.8	3.0	7.9	14.8	23.4	32.9%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>49.6</b>	<b>63.1</b>	<b>98.0</b>	<b>143.7</b>	<b>192.5</b>	<b>239.3</b>	<b>278.3</b>	<b>6.4%</b>
<b>Other Asia Pacific</b>								
Electric	0.1	0.5	1.5	3.6	6.2	9.6	12.5	19.8%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1%
Liquefied petroleum gas	0.2	0.2	0.1	0.0	0.0	0.0	0.0	-21.8%
Natural gas	2.0	1.8	1.5	1.1	0.8	0.7	0.6	-4.2%
Diesel	14.9	17.2	21.2	25.0	28.0	30.8	33.6	2.9%
Motor gasoline	46.5	51.8	63.1	75.7	89.0	103.7	119.8	3.4%

Plug-in hybrid	0.1	0.3	1.1	2.8	5.7	9.5	12.5	18.4%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>63.8</b>	<b>71.7</b>	<b>88.5</b>	<b>108.1</b>	<b>129.8</b>	<b>154.3</b>	<b>179.0</b>	<b>3.8%</b>
<b>Africa and Middle East</b>								
Electric	0.1	0.4	1.2	2.6	4.3	6.2	8.2	17.6%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5%
Liquefied petroleum gas	0.4	0.4	0.4	0.3	0.1	0.0	0.0	-13.8%
Natural gas	3.8	3.8	3.4	2.2	1.4	1.0	0.7	-5.8%
Diesel	4.0	4.4	4.9	5.4	5.8	6.3	6.9	2.0%
Motor gasoline	88.4	96.8	109.4	118.6	125.2	133.6	143.1	1.7%
Plug-in hybrid	0.0	0.2	0.9	2.9	6.3	10.6	14.1	22.7%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>96.7</b>	<b>106.0</b>	<b>120.2</b>	<b>131.9</b>	<b>143.2</b>	<b>157.8</b>	<b>173.1</b>	<b>2.1%</b>
<b>Africa</b>								
Electric	0.0	0.0	0.2	0.8	1.5	2.4	3.2	24.8%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4%
Liquefied petroleum gas	0.3	0.3	0.2	0.1	0.0	0.0	0.0	-28.4%
Natural gas	0.3	0.3	0.4	0.4	0.4	0.3	0.2	-1.7%
Diesel	3.7	4.0	4.4	4.8	5.2	5.7	6.5	2.0%
Motor gasoline	32.7	35.6	40.3	44.4	48.3	53.5	59.7	2.2%
Plug-in hybrid	0.0	0.0	0.1	0.4	1.0	1.7	2.4	26.4%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>37.0</b>	<b>40.3</b>	<b>45.7</b>	<b>50.9</b>	<b>56.4</b>	<b>63.6</b>	<b>71.9</b>	<b>2.4%</b>
<b>Middle East</b>								
Electric	0.1	0.4	0.9	1.8	2.8	3.9	5.0	15.8%
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7%
Liquefied petroleum gas	0.1	0.2	0.2	0.2	0.1	0.0	0.0	-9.9%
Natural gas	3.5	3.5	3.0	1.8	1.1	0.7	0.5	-6.4%
Diesel	0.2	0.3	0.5	0.6	0.6	0.6	0.5	2.5%
Motor gasoline	55.7	61.3	69.1	74.2	76.9	80.1	83.5	1.5%
Plug-in hybrid	0.0	0.2	0.8	2.5	5.3	8.9	11.7	22.2%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>59.7</b>	<b>65.8</b>	<b>74.5</b>	<b>81.0</b>	<b>86.8</b>	<b>94.2</b>	<b>101.2</b>	<b>1.9%</b>
<b>World</b>								
Electric	26.9	53.0	114.5	206.6	310.5	403.3	480.3	10.8%
Hydrogen	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5%
Liquefied petroleum gas	9.6	7.9	7.3	8.3	9.0	9.4	9.9	0.1%
Natural gas	35.7	38.9	39.7	36.6	31.1	25.3	21.8	-1.8%
Diesel	178.4	182.6	192.1	197.6	202.3	213.6	220.2	0.8%
Motor gasoline	1,158.3	1,196.5	1,224.6	1,205.3	1,160.2	1,127.9	1,121.6	-0.1%
Plug-in hybrid	10.0	23.8	59.8	98.9	138.5	169.1	184.8	11.0%
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
<b>Total</b>	<b>1,418.9</b>	<b>1,502.9</b>	<b>1,638.1</b>	<b>1,753.3</b>	<b>1,851.8</b>	<b>1,948.7</b>	<b>2,038.7</b>	<b>1.3%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz\_230821.151430 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

Note: Totals may not equal sum of components due to independent rounding.