

**Table L1. Transportation sector energy consumption by region and fuel, High Economic Growth 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	46.8	47.5	47.1	46.9	47.6	49.5	52.5	0.4%
Distillate fuel oil and bioDiesel	42.9	44.3	45.7	47.7	50.4	54.0	57.6	1.1%
Residual fuel oil	8.0	8.8	9.6	10.2	10.6	10.9	10.9	1.1%
Liquefied petroleum gas	0.5	0.4	0.3	0.3	0.3	0.3	0.4	-1.1%
Jet fuel	11.1	14.2	16.3	18.4	20.8	23.4	26.2	3.1%
Other liquid fuels	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.8%
Natural gas	4.2	4.6	4.9	5.4	6.1	7.1	8.5	2.6%
Electricity	1.9	2.2	2.9	3.7	4.7	5.7	6.4	4.4%
<b>Total</b>	<b>115.9</b>	<b>122.4</b>	<b>127.2</b>	<b>133.1</b>	<b>141.0</b>	<b>151.4</b>	<b>163.1</b>	<b>1.2%</b>
<b>Americas</b>								
Motor gasoline and E85	21.9	21.9	20.9	19.9	19.6	19.9	20.8	-0.2%
Distillate fuel oil and bioDiesel	11.1	11.4	11.6	11.9	12.3	12.9	13.4	0.7%
Residual fuel oil	1.3	1.2	1.2	1.3	1.3	1.3	1.3	0.2%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5%
Jet fuel	4.1	4.6	4.9	5.3	5.7	6.2	6.8	1.8%
Other liquid fuels	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3%
Natural gas	1.4	1.3	1.2	1.3	1.4	1.4	1.6	0.4%
Electricity	0.1	0.2	0.4	0.6	0.8	1.0	1.2	9.3%
<b>Total</b>	<b>40.1</b>	<b>40.6</b>	<b>40.3</b>	<b>40.4</b>	<b>41.4</b>	<b>43.0</b>	<b>45.3</b>	<b>0.4%</b>
<b>United States</b>								
Motor gasoline and E85	16.0	16.0	15.1	14.1	13.5	13.3	13.8	-0.5%
Distillate fuel oil and bioDiesel	6.7	6.7	6.6	6.6	6.6	6.8	6.9	0.1%
Residual fuel oil	0.7	0.5	0.5	0.5	0.5	0.5	0.4	-1.6%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5%
Jet fuel	3.1	3.4	3.6	3.8	4.1	4.5	4.8	1.6%
Other liquid fuels	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2%
Natural gas	1.0	0.9	0.8	0.8	0.8	0.9	1.0	0.1%
Electricity	0.1	0.1	0.3	0.5	0.6	0.8	0.9	10.2%
<b>Total</b>	<b>27.7</b>	<b>27.8</b>	<b>27.0</b>	<b>26.3</b>	<b>26.3</b>	<b>26.9</b>	<b>28.1</b>	<b>0.0%</b>
<b>Canada</b>								
Motor gasoline and E85	1.4	1.3	1.2	1.0	1.0	0.9	0.9	-1.7%
Distillate fuel oil and bioDiesel	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.3%
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	-2.6%
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	1.0%
Natural gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-0.3%
Electricity	0.0	0.0	0.0	0.1	0.1	0.1	0.1	11.5%
<b>Total</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>0.2%</b>
<b>Mexico</b>								
Motor gasoline and E85	1.4	1.4	1.4	1.5	1.6	1.7	1.7	0.6%
Distillate fuel oil and bioDiesel	0.5	0.5	0.5	0.5	0.5	0.6	0.6	1.1%
Residual fuel oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.1%
Jet fuel	0.2	0.2	0.2	0.2	0.3	0.3	0.4	2.9%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.1	0.1	13.1%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6%
<b>Total</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.3</b>	<b>2.4</b>	<b>2.6</b>	<b>2.8</b>	<b>1.1%</b>
<b>Brazil</b>								

Motor gasoline and E85	1.5	1.5	1.5	1.6	1.7	1.8	1.9	0.8%
Distillate fuel oil and bioDiesel	1.6	1.7	1.8	2.0	2.1	2.2	2.3	1.3%
Residual fuel oil	0.2	0.3	0.3	0.3	0.3	0.3	0.3	1.5%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6%
Jet fuel	0.2	0.2	0.3	0.3	0.3	0.3	0.4	1.7%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5%
Natural gas	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.0%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	4.1%
<b>Total</b>	<b>3.7</b>	<b>3.9</b>	<b>4.0</b>	<b>4.3</b>	<b>4.5</b>	<b>4.8</b>	<b>5.1</b>	<b>1.1%</b>
<b>Other Americas</b>								
Motor gasoline and E85	1.6	1.6	1.7	1.8	2.0	2.2	2.5	1.7%
Distillate fuel oil and bioDiesel	1.5	1.6	1.8	1.9	2.0	2.2	2.4	1.6%
Residual fuel oil	0.3	0.4	0.4	0.5	0.5	0.5	0.5	1.6%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6%
Jet fuel	0.4	0.4	0.5	0.6	0.6	0.7	0.8	2.6%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6%
Natural gas	0.2	0.2	0.3	0.3	0.3	0.3	0.3	1.0%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.1	12.4%
<b>Total</b>	<b>4.0</b>	<b>4.3</b>	<b>4.7</b>	<b>5.0</b>	<b>5.5</b>	<b>6.0</b>	<b>6.6</b>	<b>1.8%</b>
<b>Europe and Eurasia</b>								
Motor gasoline and E85	5.6	5.2	4.5	3.9	3.4	3.0	2.8	-2.5%
Distillate fuel oil and bioDiesel	12.1	11.8	11.1	10.8	10.8	11.3	11.8	-0.1%
Residual fuel oil	1.7	1.9	2.1	2.3	2.4	2.4	2.5	1.4%
Liquefied petroleum gas	0.3	0.1	0.1	0.1	0.1	0.2	0.2	-0.8%
Jet fuel	2.9	3.6	3.9	4.3	4.6	5.0	5.4	2.2%
Other liquid fuels	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4%
Natural gas	0.5	0.8	1.0	1.1	1.2	1.4	1.6	4.0%
Electricity	0.8	0.8	0.9	1.2	1.5	1.8	2.0	3.4%
<b>Total</b>	<b>23.9</b>	<b>24.4</b>	<b>23.8</b>	<b>23.7</b>	<b>24.2</b>	<b>25.2</b>	<b>26.3</b>	<b>0.3%</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	9.3	8.8	8.7	8.9	9.3	-0.5%
Residual fuel oil	1.6	1.8	2.1	2.2	2.3	2.3	2.4	1.5%
Liquefied petroleum gas	0.3	0.1	0.1	0.1	0.1	0.2	0.2	-0.8%
Jet fuel	2.4	3.0	3.3	3.6	3.9	4.2	4.5	2.3%
Other liquid fuels	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4%
Natural gas	0.1	0.2	0.2	0.3	0.4	0.6	0.9	7.1%
Electricity	0.3	0.4	0.5	0.8	1.0	1.3	1.5	5.5%
<b>Total</b>	<b>18.9</b>	<b>19.1</b>	<b>18.3</b>	<b>18.0</b>	<b>18.2</b>	<b>18.8</b>	<b>19.7</b>	<b>0.1%</b>
<b>Russia</b>								
Motor gasoline and E85	1.5	1.5	1.4	1.3	1.3	1.2	1.2	-0.9%
Distillate fuel oil and bioDiesel	1.1	1.1	1.1	1.2	1.3	1.3	1.4	1.0%
Residual fuel oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2%
Jet fuel	0.4	0.5	0.5	0.6	0.6	0.6	0.7	1.6%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9%
Natural gas	0.2	0.3	0.3	0.3	0.4	0.5	0.4	2.2%
Electricity	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-0.7%
<b>Total</b>	<b>3.6</b>	<b>3.7</b>	<b>3.8</b>	<b>3.8</b>	<b>3.9</b>	<b>4.0</b>	<b>4.0</b>	<b>0.4%</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	1.4%
Distillate fuel oil and bioDiesel	0.5	0.5	0.6	0.7	0.9	1.0	1.2	3.1%
Residual fuel oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6%
Jet fuel	0.1	0.1	0.1	0.1	0.1	0.2	0.2	2.3%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1%
Natural gas	0.2	0.4	0.4	0.4	0.4	0.4	0.3	2.1%
Electricity	0.1	0.1	0.1	0.2	0.2	0.2	0.2	2.6%



Natural gas	0.2	0.2	0.3	0.5	0.7	1.0	1.2	7.4%
Electricity	0.1	0.1	0.2	0.2	0.3	0.4	0.5	5.0%
<b>Total</b>	<b>5.1</b>	<b>5.8</b>	<b>7.8</b>	<b>10.4</b>	<b>13.2</b>	<b>15.9</b>	<b>18.6</b>	<b>4.7%</b>
<b>Other Asia Pacific</b>								
Motor gasoline and E85	3.8	4.1	4.6	5.4	6.3	7.3	8.4	2.9%
Distillate fuel oil and bioDiesel	3.6	4.0	4.4	4.9	5.5	6.1	6.7	2.2%
Residual fuel oil	2.4	2.7	3.0	3.1	3.2	3.3	3.2	1.1%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-6.7%
Jet fuel	0.9	1.5	1.9	2.2	2.6	3.0	3.5	4.9%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1%
Natural gas	0.2	0.2	0.2	0.3	0.4	0.6	0.8	5.4%
Electricity	0.0	0.0	0.0	0.1	0.1	0.2	0.3	12.3%
<b>Total</b>	<b>10.9</b>	<b>12.5</b>	<b>14.2</b>	<b>16.1</b>	<b>18.2</b>	<b>20.5</b>	<b>23.0</b>	<b>2.7%</b>
<b>Africa and Middle East</b>								
Motor gasoline and E85	5.6	5.8	6.3	6.9	7.7	8.6	9.8	2.1%
Distillate fuel oil and bioDiesel	5.0	5.2	5.6	6.0	6.6	7.2	8.0	1.7%
Residual fuel oil	1.2	1.4	1.5	1.6	1.7	1.7	1.7	1.4%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.0%
Jet fuel	1.1	1.4	1.7	2.0	2.3	2.7	3.1	3.7%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5%
Natural gas	0.5	0.5	0.5	0.5	0.6	0.7	0.9	2.5%
Electricity	0.0	0.0	0.1	0.1	0.1	0.2	0.2	6.1%
<b>Total</b>	<b>13.4</b>	<b>14.4</b>	<b>15.7</b>	<b>17.2</b>	<b>19.0</b>	<b>21.2</b>	<b>23.7</b>	<b>2.1%</b>
<b>Africa</b>								
Motor gasoline and E85	2.4	2.6	3.1	3.6	4.3	5.2	6.2	3.5%
Distillate fuel oil and bioDiesel	2.6	2.9	3.2	3.6	4.1	4.6	5.3	2.5%
Residual fuel oil	0.1	0.2	0.2	0.2	0.2	0.2	0.2	1.5%
Liquefied petroleum gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-30.1%
Jet fuel	0.3	0.4	0.5	0.7	0.8	1.0	1.2	4.5%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5%
Natural gas	0.1	0.1	0.2	0.2	0.3	0.4	0.5	5.3%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	4.0%
<b>Total</b>	<b>5.7</b>	<b>6.3</b>	<b>7.3</b>	<b>8.4</b>	<b>9.8</b>	<b>11.5</b>	<b>13.5</b>	<b>3.1%</b>
<b>Middle East</b>								
Motor gasoline and E85	3.2	3.2	3.2	3.3	3.3	3.5	3.6	0.5%
Distillate fuel oil and bioDiesel	2.3	2.4	2.4	2.4	2.5	2.6	2.7	0.5%
Residual fuel oil	1.0	1.2	1.4	1.4	1.5	1.5	1.5	1.4%
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	1.7	1.9	3.3%
Other liquid fuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4%
Natural gas	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7%
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	9.2%
<b>Total</b>	<b>7.7</b>	<b>8.1</b>	<b>8.4</b>	<b>8.8</b>	<b>9.2</b>	<b>9.7</b>	<b>10.3</b>	<b>1.1%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836 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.