

**Table 8. U.S. Renewable Energy Consumption (Quadrillion Btu)**

U.S. Energy Information Administration | Short-Term Energy Outlook - February 2017

	2016				2017				2018				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2016	2017	2018
<b>Electric Power Sector</b>															
Hydroelectric Power (a) .....	<b>0.709</b>	<b>0.684</b>	<b>0.528</b>	<b>0.531</b>	<i>0.624</i>	<i>0.770</i>	<i>0.618</i>	<i>0.515</i>	<i>0.641</i>	<i>0.735</i>	<i>0.639</i>	<i>0.527</i>	<b>2.451</b>	<i>2.528</i>	<i>2.542</i>
Wood Biomass (b) .....	<b>0.061</b>	<b>0.049</b>	<b>0.060</b>	<b>0.050</b>	<i>0.054</i>	<i>0.048</i>	<i>0.059</i>	<i>0.055</i>	<i>0.056</i>	<i>0.050</i>	<i>0.062</i>	<i>0.056</i>	<b>0.220</b>	<i>0.216</i>	<i>0.223</i>
Waste Biomass (c) .....	<b>0.070</b>	<b>0.072</b>	<b>0.072</b>	<b>0.072</b>	<i>0.068</i>	<i>0.070</i>	<i>0.073</i>	<i>0.072</i>	<i>0.069</i>	<i>0.072</i>	<i>0.074</i>	<i>0.073</i>	<b>0.287</b>	<i>0.283</i>	<i>0.287</i>
Wind .....	<b>0.575</b>	<b>0.529</b>	<b>0.452</b>	<b>0.565</b>	<i>0.597</i>	<i>0.614</i>	<i>0.436</i>	<i>0.624</i>	<i>0.666</i>	<i>0.680</i>	<i>0.481</i>	<i>0.665</i>	<b>2.120</b>	<i>2.272</i>	<i>2.492</i>
Geothermal .....	<b>0.040</b>	<b>0.039</b>	<b>0.040</b>	<b>0.042</b>	<i>0.041</i>	<i>0.040</i>	<i>0.041</i>	<i>0.040</i>	<i>0.039</i>	<i>0.039</i>	<i>0.040</i>	<i>0.040</i>	<b>0.162</b>	<i>0.162</i>	<i>0.158</i>
Solar .....	<b>0.061</b>	<b>0.093</b>	<b>0.108</b>	<b>0.074</b>	<i>0.082</i>	<i>0.146</i>	<i>0.142</i>	<i>0.088</i>	<i>0.098</i>	<i>0.173</i>	<i>0.168</i>	<i>0.100</i>	<b>0.337</b>	<i>0.459</i>	<i>0.538</i>
Subtotal .....	<b>1.517</b>	<b>1.466</b>	<b>1.259</b>	<b>1.334</b>	<i>1.466</i>	<i>1.690</i>	<i>1.370</i>	<i>1.394</i>	<i>1.568</i>	<i>1.749</i>	<i>1.464</i>	<i>1.460</i>	<b>5.576</b>	<i>5.920</i>	<i>6.241</i>
<b>Industrial Sector</b>															
Hydroelectric Power (a) .....	<b>0.004</b>	<b>0.003</b>	<b>0.002</b>	<b>0.003</b>	<i>0.004</i>	<i>0.003</i>	<i>0.002</i>	<i>0.003</i>	<i>0.004</i>	<i>0.003</i>	<i>0.002</i>	<i>0.003</i>	<b>0.012</b>	<i>0.013</i>	<i>0.013</i>
Wood Biomass (b) .....	<b>0.319</b>	<b>0.312</b>	<b>0.318</b>	<b>0.321</b>	<i>0.309</i>	<i>0.301</i>	<i>0.311</i>	<i>0.313</i>	<i>0.304</i>	<i>0.300</i>	<i>0.312</i>	<i>0.314</i>	<b>1.270</b>	<i>1.235</i>	<i>1.230</i>
Waste Biomass (c) .....	<b>0.047</b>	<b>0.048</b>	<b>0.048</b>	<b>0.047</b>	<i>0.049</i>	<i>0.048</i>	<i>0.047</i>	<i>0.048</i>	<i>0.049</i>	<i>0.048</i>	<i>0.047</i>	<i>0.048</i>	<b>0.191</b>	<i>0.192</i>	<i>0.192</i>
Geothermal .....	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<i>0.001</i>	<b>0.004</b>	<i>0.004</i>	<i>0.004</i>
Biofuel Losses and Co-products (f) .....	<b>0.196</b>	<b>0.193</b>	<b>0.203</b>	<b>0.209</b>	<i>0.196</i>	<i>0.199</i>	<i>0.205</i>	<i>0.201</i>	<i>0.202</i>	<i>0.203</i>	<i>0.204</i>	<i>0.198</i>	<b>0.800</b>	<i>0.800</i>	<i>0.807</i>
Subtotal .....	<b>0.571</b>	<b>0.562</b>	<b>0.576</b>	<b>0.582</b>	<i>0.563</i>	<i>0.558</i>	<i>0.571</i>	<i>0.570</i>	<i>0.565</i>	<i>0.560</i>	<i>0.571</i>	<i>0.568</i>	<b>2.291</b>	<i>2.261</i>	<i>2.263</i>
<b>Commercial Sector</b>															
Wood Biomass (b) .....	<b>0.018</b>	<b>0.018</b>	<b>0.019</b>	<b>0.018</b>	<i>0.018</i>	<i>0.018</i>	<i>0.019</i>	<i>0.018</i>	<i>0.018</i>	<i>0.018</i>	<i>0.019</i>	<i>0.018</i>	<b>0.073</b>	<i>0.073</i>	<i>0.073</i>
Waste Biomass (c) .....	<b>0.013</b>	<b>0.012</b>	<b>0.012</b>	<b>0.013</b>	<i>0.013</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.013</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<b>0.049</b>	<i>0.049</i>	<i>0.049</i>
Geothermal .....	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<b>0.005</b>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<i>0.005</i>	<b>0.020</b>	<i>0.020</i>	<i>0.020</i>
Subtotal .....	<b>0.058</b>	<b>0.063</b>	<b>0.064</b>	<b>0.058</b>	<i>0.059</i>	<i>0.066</i>	<i>0.067</i>	<i>0.059</i>	<i>0.062</i>	<i>0.069</i>	<i>0.070</i>	<i>0.061</i>	<b>0.243</b>	<i>0.252</i>	<i>0.261</i>
<b>Residential Sector</b>															
Wood Biomass (b) .....	<b>0.096</b>	<b>0.096</b>	<b>0.097</b>	<b>0.097</b>	<i>0.098</i>	<i>0.098</i>	<i>0.099</i>	<i>0.099</i>	<i>0.103</i>	<i>0.103</i>	<i>0.104</i>	<i>0.104</i>	<b>0.386</b>	<i>0.395</i>	<i>0.413</i>
Geothermal .....	<b>0.011</b>	<b>0.011</b>	<b>0.011</b>	<b>0.011</b>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.012</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<i>0.013</i>	<b>0.044</b>	<i>0.047</i>	<i>0.052</i>
Solar (d) .....	<b>0.031</b>	<b>0.047</b>	<b>0.049</b>	<b>0.035</b>	<i>0.036</i>	<i>0.055</i>	<i>0.057</i>	<i>0.042</i>	<i>0.043</i>	<i>0.066</i>	<i>0.068</i>	<i>0.050</i>	<b>0.162</b>	<i>0.190</i>	<i>0.227</i>
Subtotal .....	<b>0.138</b>	<b>0.154</b>	<b>0.157</b>	<b>0.143</b>	<i>0.145</i>	<i>0.165</i>	<i>0.168</i>	<i>0.153</i>	<i>0.159</i>	<i>0.181</i>	<i>0.185</i>	<i>0.167</i>	<b>0.592</b>	<i>0.632</i>	<i>0.692</i>
<b>Transportation Sector</b>															
Ethanol (e) .....	<b>0.277</b>	<b>0.283</b>	<b>0.293</b>	<b>0.287</b>	<i>0.269</i>	<i>0.290</i>	<i>0.297</i>	<i>0.284</i>	<i>0.274</i>	<i>0.291</i>	<i>0.296</i>	<i>0.285</i>	<b>1.140</b>	<i>1.140</i>	<i>1.146</i>
Biomass-based Diesel (e) .....	<b>0.051</b>	<b>0.066</b>	<b>0.088</b>	<b>0.084</b>	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<i>0.072</i>	<i>0.078</i>	<i>0.089</i>	<i>0.091</i>	<b>0.289</b>	<i>0.304</i>	<i>0.330</i>
Subtotal .....	<b>0.328</b>	<b>0.349</b>	<b>0.381</b>	<b>0.367</b>	<i>0.328</i>	<i>0.361</i>	<i>0.383</i>	<i>0.371</i>	<i>0.345</i>	<i>0.369</i>	<i>0.386</i>	<i>0.376</i>	<b>1.426</b>	<i>1.443</i>	<i>1.475</i>
<b>All Sectors Total</b>															
Hydroelectric Power (a) .....	<b>0.713</b>	<b>0.687</b>	<b>0.530</b>	<b>0.534</b>	<i>0.628</i>	<i>0.774</i>	<i>0.621</i>	<i>0.518</i>	<i>0.645</i>	<i>0.739</i>	<i>0.642</i>	<i>0.530</i>	<b>2.464</b>	<i>2.541</i>	<i>2.556</i>
Wood Biomass (b) .....	<b>0.494</b>	<b>0.475</b>	<b>0.493</b>	<b>0.486</b>	<i>0.479</i>	<i>0.466</i>	<i>0.489</i>	<i>0.485</i>	<i>0.480</i>	<i>0.471</i>	<i>0.497</i>	<i>0.492</i>	<b>1.949</b>	<i>1.919</i>	<i>1.940</i>
Waste Biomass (c) .....	<b>0.130</b>	<b>0.132</b>	<b>0.131</b>	<b>0.132</b>	<i>0.130</i>	<i>0.130</i>	<i>0.132</i>	<i>0.132</i>	<i>0.131</i>	<i>0.131</i>	<i>0.133</i>	<i>0.133</i>	<b>0.526</b>	<i>0.524</i>	<i>0.528</i>
Wind .....	<b>0.575</b>	<b>0.529</b>	<b>0.452</b>	<b>0.565</b>	<i>0.597</i>	<i>0.614</i>	<i>0.436</i>	<i>0.624</i>	<i>0.666</i>	<i>0.680</i>	<i>0.481</i>	<i>0.665</i>	<b>2.120</b>	<i>2.272</i>	<i>2.492</i>
Geothermal .....	<b>0.057</b>	<b>0.056</b>	<b>0.057</b>	<b>0.059</b>	<i>0.059</i>	<i>0.058</i>	<i>0.059</i>	<i>0.058</i>	<i>0.058</i>	<i>0.058</i>	<i>0.059</i>	<i>0.059</i>	<b>0.229</b>	<i>0.233</i>	<i>0.234</i>
Solar .....	<b>0.109</b>	<b>0.165</b>	<b>0.181</b>	<b>0.127</b>	<i>0.139</i>	<i>0.231</i>	<i>0.230</i>	<i>0.151</i>	<i>0.165</i>	<i>0.272</i>	<i>0.270</i>	<i>0.174</i>	<b>0.582</b>	<i>0.751</i>	<i>0.881</i>
Ethanol (e) .....	<b>0.287</b>	<b>0.295</b>	<b>0.305</b>	<b>0.298</b>	<i>0.283</i>	<i>0.301</i>	<i>0.309</i>	<i>0.295</i>	<i>0.284</i>	<i>0.302</i>	<i>0.308</i>	<i>0.296</i>	<b>1.185</b>	<i>1.188</i>	<i>1.191</i>
Biomass-based Diesel (e) .....	<b>0.051</b>	<b>0.066</b>	<b>0.088</b>	<b>0.084</b>	<i>0.059</i>	<i>0.071</i>	<i>0.086</i>	<i>0.087</i>	<i>0.072</i>	<i>0.078</i>	<i>0.089</i>	<i>0.091</i>	<b>0.289</b>	<i>0.304</i>	<i>0.330</i>
Biofuel Losses and Co-products (f) .....	<b>0.196</b>	<b>0.193</b>	<b>0.203</b>	<b>0.209</b>	<i>0.196</i>	<i>0.199</i>	<i>0.205</i>	<i>0.201</i>	<i>0.202</i>	<i>0.203</i>	<i>0.204</i>	<i>0.198</i>	<b>0.800</b>	<i>0.800</i>	<i>0.807</i>
<b>Total Consumption</b> .....	<b>2.611</b>	<b>2.595</b>	<b>2.438</b>	<b>2.516</b>	<i>2.562</i>	<i>2.839</i>	<i>2.560</i>	<i>2.547</i>	<i>2.698</i>	<i>2.928</i>	<i>2.676</i>	<i>2.632</i>	<b>10.160</b>	<i>10.508</i>	<i>10.934</i>

- = no data available

(a) Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

(b) Wood and wood-derived fuels.

(c) Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

(d) Includes small-scale solar thermal and photovoltaic energy used in the commercial, industrial, and electric power sectors.

(e) Fuel ethanol and biomass-based diesel consumption in the transportation sector includes production, stock change, and imports less exports. Some biomass-based diesel may be consumed in the residential sector in heating oil.

(f) Losses and co-products from the production of fuel ethanol and biomass-based diesel

**Notes:** The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

**Historical data:** Latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226 and *Renewable Energy Annual*, DOE/EIA-0603; *Petroleum Supply Monthly*, DOE/EIA-0109.

Minor discrepancies with published historical data are due to independent rounding.

**Projections:** EIA Regional Short-Term Energy Model.