

July 2017

# Environmental information about your electricity

As of Jan 1, 2017, Upper Michigan Energy Resources Corp. (UMERC) has served as your electric service provider. Wisconsin Public Service (WPS) continues to supply electricity to UMERC.

This report provides information about environmental characteristics of the electricity supplied by WPS. We provide this information to you twice a year as required by the Michigan Public Service Commission (MPSC).

The information contained in this insert compares recent data on average fuel mix, airborne emissions and high-level nuclear waste, with a regional average provided by the MPSC.

All utilities in Michigan, as well as alternative energy suppliers serving customers under Michigan Customer Choice, provide this information to their customers.

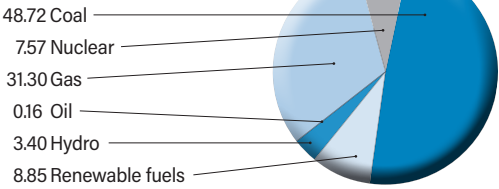
<b>Average fuel mix comparison</b>	<b>WPS electric system</b> 2016 actual (expressed in percent)	<b>Five-state regional average fuel mix</b> Aug. 2015 to July 2016 (expressed in percent)
<b>Fuel source</b>		
Coal	48.72	47.72
Nuclear	7.57	26.67
Gas	31.30	18.13
Oil	0.16	0.57
Hydro	3.40	0.84
<b>Renewable fuels total</b>	<b>8.85</b>	<b>6.07</b>
Biofuel	0.22	0.79
Biomass	0.60	0.53
Landfill gas	0.86	--
Solar	0.02	0.07
Solid waste incineration	0.03	0.09
Wind	5.34	4.11
Wood	1.78	0.48

The fuel mix data for the electricity supplied to you by WPS that appears in this table includes regional average fuel mix data from Michigan, Illinois, Indiana, Ohio and Wisconsin as a proxy for the actual fuel mix of certain electricity purchased by WPS because the actual fuel mix characteristics of that purchased electricity could not be discerned. The unknown resources purchased from other companies accounted for approximately 28 percent of the electricity supplied by WPS during the relevant period.

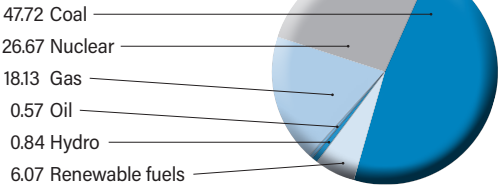


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**WPS system (%)**



**Five-state regional average (%)**



**Airborne emissions and high-level nuclear waste comparison**

Emission type	Total WPS system average (lbs./MWh) <sup>1</sup> 2016 actual	Five-state regional average for fossil/nuclear generation (lbs./MWh) <sup>2</sup> Aug. 2015 to July 2016
Sulfur dioxide	0.75	7.56
Carbon dioxide	1545.70	2170.00
Oxides of nitrogen	0.69	2.01
High-level nuclear waste <sup>3</sup>	0.00	0.0083

<sup>1</sup> These rates show the relative amount of air emissions or nuclear waste in pounds per megawatt-hour (MWh) produced as a result of generating electricity from fossil fuel or nuclear units. The emission and nuclear waste characteristics of the electricity you receive vary depending on the mix of fuels used to generate the electricity provided by your supplier. Generation split is based on actual 2016 data.

<sup>2</sup> Regional average (2015-16) in Michigan, Illinois, Indiana, Ohio and Wisconsin. MPSC update Oct. 31, 2016.

<sup>3</sup> WPS has no nuclear generation and, therefore, no emissions associated with high-level nuclear waste.

**Questions?**

Residential customers: Call 800-450-7260 anytime  
 Business customers: Call 877-444-0888 weekdays from 7 a.m. to 5 p.m.

