

July 2021

# Environmental information about your electricity

As of Jan. 1, 2017, Upper Michigan Energy Resources Corp. (UMERC) has served as your electric service provider.

This report provides information about environmental characteristics of the electricity supplied by UMERC. 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 2020 UMERC data on average fuel mix, airborne emissions and high-level nuclear waste with a recent 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.

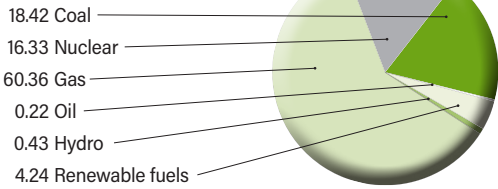
<b>Average fuel mix comparison</b>	<b>Total UMERC electric system 2020 actual (expressed in percent)</b>	<b>Five-state regional average fuel mix Aug. 2019 to July 2020 (expressed in percent)</b>
<b>Fuel source</b>		
Coal	18.42	32.24
Nuclear	16.33	28.58
Gas	60.36	30.63
Oil	0.22	0.39
Hydro	0.43	0.75
<b>Renewable fuels total</b>	<b>4.24</b>	<b>7.41</b>
Biofuel	0.41	0.73
Biomass	0.27	0.47
Landfill gas	--	--
Solar	0.11	0.19
Solid waste incineration	0.01	0.01
Wind	3.18	5.56
Wood	0.26	0.45

The fuel mix data for the electricity supplied to you by UMERC 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 purchased electricity because the actual fuel mix characteristics of that purchased electricity could not be discerned. The resources purchased from the Midcontinent Independent System Operator accounted for approximately 57% of the electricity supplied by UMERC during the relevant period.

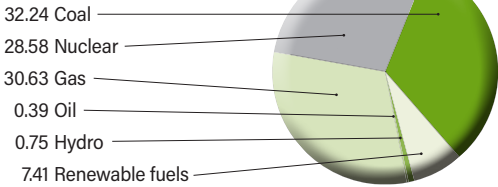


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**UMERC system (%)**



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



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

Emission type	Total UMERC system average (lbs./MWh) <sup>1</sup> 2020 actual	Five-state regional average for fossil/nuclear generation (lbs./MWh) <sup>2</sup> Jan. to Dec. 2018
Sulfur dioxide	0.01	1.25
Carbon dioxide	1,109.96	1,248.00
Oxides of nitrogen	0.18	0.91
High-level nuclear waste <sup>3</sup>	0.00	0.006

<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 2020 data.

<sup>2</sup> Regional average in Michigan, Illinois, Indiana, Ohio and Wisconsin. MPSC update Oct. 22, 2020.

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

**Questions?**

Residential customers: Call 800-242-9137 anytime

Business customers: Call 800-714-7777 weekdays from 8 a.m. to 5 p.m.

