

January 2024

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 2022 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.

Average fuel mix comparison	Total UMERC electric system 2022 actual (expressed in percent)	Five-state regional average fuel mix Aug. 2022 to July 2023 (expressed in percent)
Fuel source		
Coal	16.24	26.45
Nuclear	16.07	26.17
Gas	60.61	35.92
Oil	0.26	0.43
Hydro	0.44	0.72
Renewable fuels total	6.38	10.32
Biofuel	0.50	0.76
Biomass	0.22	0.36
Landfill gas	--	--
Solar	0.72	1.17
Solid waste incineration	0.01	0.01
Wind	4.68	7.62
Wood	0.25	0.40

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. The resources purchased from the Midcontinent Independent System Operator accounted for approximately 61% of the electricity supplied by UMERC during the relevant period.



UMERC system (%)

16.24 Coal

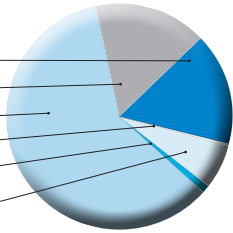
16.07 Nuclear

60.61 Gas

0.26 Oil

0.44 Hydro

6.38 Renewable fuels



Five-state regional average (%)

26.45 Coal

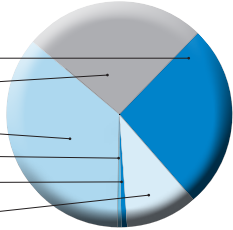
26.17 Nuclear

35.92 Gas

0.43 Oil

0.72 Hydro

10.32 Renewable fuels



Airborne emissions and high-level nuclear waste comparison

Emission type	Total UMER system average (lbs./MWh) ¹ 2022 actual	Five-state regional average for fossil/nuclear generation (lbs./MWh) ² Jan. to Dec. 2021
Sulfur dioxide	0.01	0.95
Carbon dioxide	1,113.11	1,092.16
Oxides of nitrogen	0.21	0.78
High-level nuclear waste ³	0.00	0.006

¹ 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 2022 data.

² Regional average in Michigan, Illinois, Indiana, Ohio and Wisconsin. MPSC update October 10, 2023.

³ UMER 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 8 a.m. to 5 p.m.

