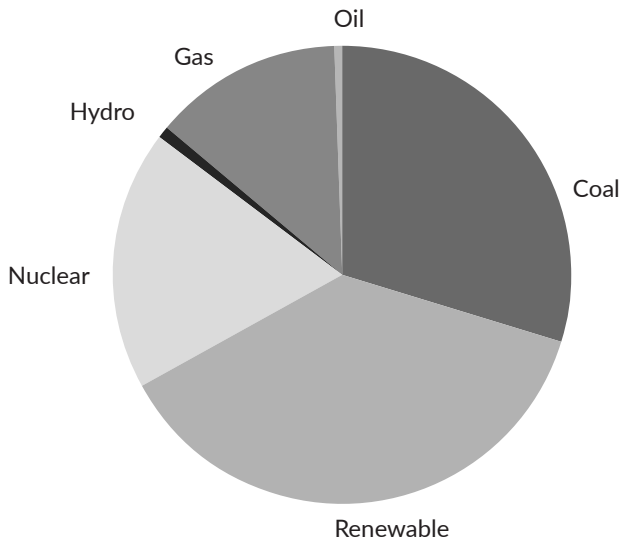




The environmental characteristics of your electricity as reported to the Michigan Public Service Commission pursuant to Public Act 141 of 2000 are as follows.

Average fuel mix comparison – Wolverine’s regional average for Spartan versus ECAR’s regional average for the 12-month period ending June 30, 2019.

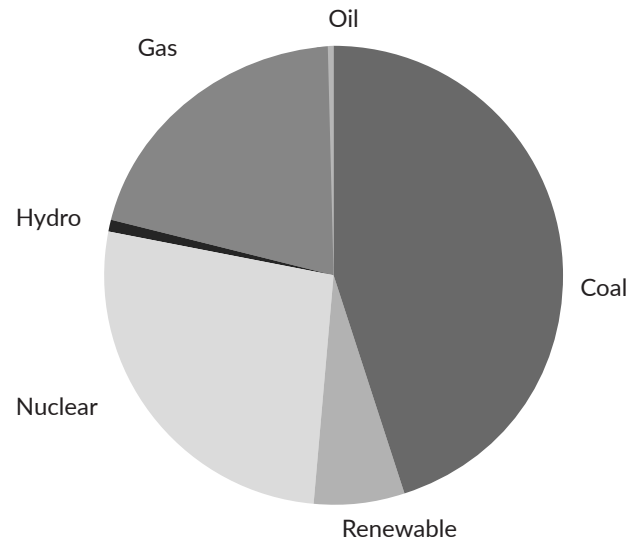
Percent of Fuel Type Used to Produce Spartan’s Total Electricity



Coal	30.67%
Oil	0.26%
Gas	13.62%
Hydro	0.64%
Nuclear	17.95%
Renewable	36.86%

Total Net Generation and Purchased Power 100%

Percent of Fuel Type Used to Produce Electricity in Michigan, Illinois, Indiana, Ohio and Wisconsin



Coal	45.48%
Oil	0.38%
Gas	20.20%
Hydro	0.95%
Nuclear	26.62%
Renewable	6.37%

Total Net Generation and Purchased Power 100%

Airborne emissions and high-level nuclear waste comparison – Wolverine’s regional average for Spartan versus ECAR’s regional average for the 12-month period ending June 30, 2019.

Type of Emission/ Waste	Spartan’s Average (Pounds/MWh)	Regional Average of All Generation in Michigan, Illinois, Indiana, Ohio and Wisconsin (Pounds/MWh)
Sulfer Dioxide	1.6	2.4
Carbon Dioxide	1,292.2	1,916.0
Oxides of Nitrogen	0.9	1.3
High-Level Nuclear Waste	0.0039	0.0060