

## PJM System-Wide Generation Fuel Mix

### Power Sources

Sources of electricity for all Direct Energy customers in the reporting period 1/1/2016 - 12/31/2016 was met by generation from the following sources.

Sources of electricity supplied for the 12 months ending 12/31/2016.

Source	Percentage of total
Coal	34.2642
Oil	0.2023
Natural Gas	26.3437
Nuclear	34.6952
Hydro	1.0393
*Biomass	0.0002
*Captured Methane Gas	0.3186
*Solar Voltaic	0.1265
*Solid Waste	0.5209
*Water	0.0000
*Wind	2.2275
*Wood/Wood Waster	0.5209
<b>Total:</b>	<b>100%</b>
*Renewable Energy Resources Subtotal:	4%

### Air Emissions

Carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>x</sub>) emission rates for the PJM Regions.

#### PJM SYSTEM MIX - Emissions

Emission Type	Lbs. per MWH	Percentage of PJM Regional Average
Carbon Dioxide	992.0448	100%
Nitrogen Oxides	0.7533	100%
Sulfur Dioxide	1.3171	100%

The benchmark emission levels that are shown approximate the emission rate for all electricity generation in the PJM region. Data used to calculate the emission profile came from generator owner-entered values, EPA generator-specific emission factors based on 2004/2005 CEMS data, EPA plant emission factors from eGRID or fuel type default. CO is a "greenhouse gas" which may contribute to global climate change. SO and NO<sub>x</sub> released into the atmosphere react to form acid rain. Nitrogen Oxides also react to form ground level ozone, an unhealthy component of "smog."

One hundred percent of the total electricity supplied was purchased from other suppliers and the amount of nuclear waste attributable to producing this electricity is not known and is not included in this table.