

Frontier Utilities Northeast, LLC
Illinois

PJM System-Wide Generation Fuel Mix

Power Sources	Sources of Electricity Supplied for the previous 12 months	
Sources for electricity for Frontier Utilities Northeast, LLC customers for the reporting period 1/1/2017-12/31/2017 was met by generation from the following sources:	<u>Source</u>	
	Coal	32.2202
	Oil	0.1619
	Natural Gas	26.7095
	Nuclear	35.926
	Hydro	1.1271
	Other	0.0017
	* Biomass	0.0009
	* Captured Methane Gas	0.3261
	* Solar Voltaic	0.1834
	* Solid Waste	0.467
	* Water	0
	* Wind	2.6277
	* Wood/Wood Waster	0.2203
Fuel Cell - Non-Renewable	0.0283	
Total:	100.0001	
*Renewable Energy Resources Subtotal	4.0%	

Air Emissions		
Carbon dioxide (CO2), nitrogen oxides (NOx), and sulphur dioxide (SOx) emission rates for the PJM Regions		
	PJM System Mix-Emissions	
<u>Emission Type</u>	<u>Lbs per MWH</u>	<u>Percentage of PJM Regional Average</u>
Carbon dioxide	948.427	100%
Nitrogen oxides	0.6636	100%
Sulphur dioxide	0.7893	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 NOx released into the atmosphere react to form acid rain. Nitrogen Oxides also react to form ground level ozone, and 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.

Sources of electricity supplied for the 12 months ending 12/31/17

