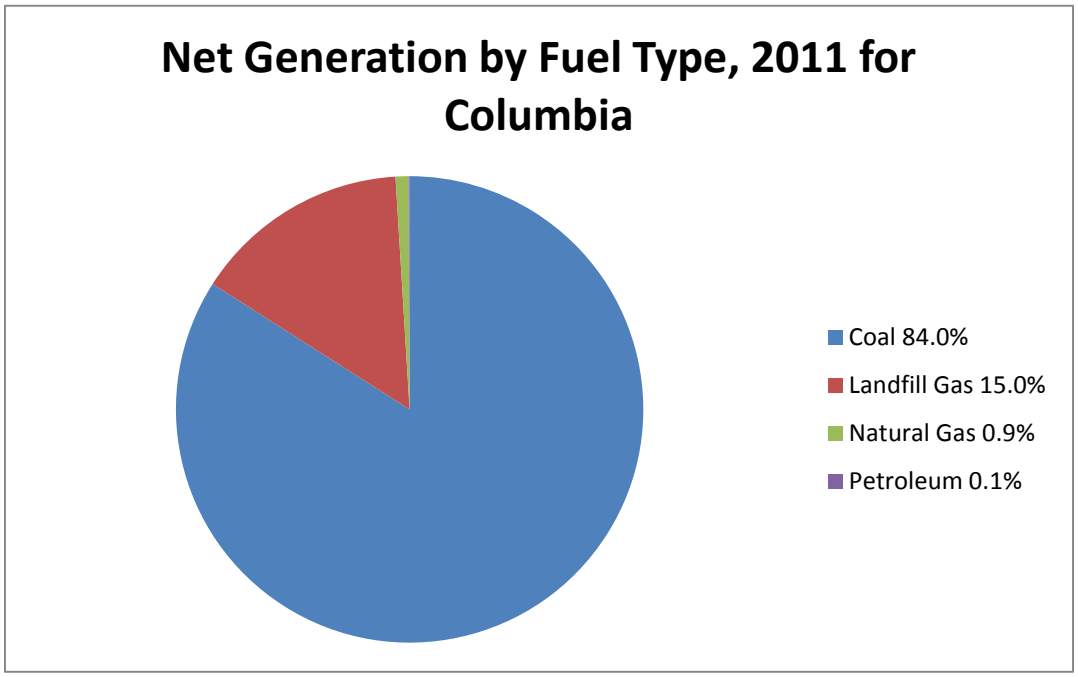
Missouri Department of Natural Resources

City of Columbia
Power Plant Name: Columbia
Electric Generation and Emissions in 2011

Generation Tables

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated, MWh	Percent of Total	
Non-renewable sources						
Coal	976,019	98.7%	87.8%	76,595	98.9%	84.0%
Natural Gas	12,604	1.3%	1.1%	811	1.0%	0.9%
Petroleum	620	0.1%	0.1%	69	0.1%	0.1%
Nuclear						
Other						
Non-renewable total	**989,243**	**100.0%**	**89.0%**	**77,475**	**100.0%**	**85.0%**
Renewable sources						
Biomass						
Hydroelectric						
Landfill Gas	122,426	100.0%	11.0%	13,667	100.0%	15.0%
Solar						
Waste Fuels						
Wind						
Wood						
Renewable total	**122,426**	**100.0%**	**11.0%**	**13,667**	**100.0%**	**15.0%**
Grand total	**1,111,669**		**100.0%**	**91,142**		**100.0%**

Fuel Type	Physical Units	Number of Units
Anthracite Coal and Bituminous Coal	Short Tons	38,404
Natural Gas	MCf	12,604
Distillate Fuel Oil	Barrels	107
Landfill Gas	MCf	306,067


Net Generation by Fuel Type, 2011 for Columbia
Coal 84.0%
Landfill Gas 15.0%
Natural Gas 0.9%
Petroleum 0.1%

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Power Plant Nameplate information for Columbia

Plant Name	County Location	Generator	Generator Type	Generator Status	Nameplate Capacity (MW)
Columbia		*All Operating Generators*			*402.4*
Columbia	Boone	6	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	50.0
Columbia	Boone	DAN1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	8.0
Columbia	Boone	LF1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	LF2	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	MBS1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	MBS2	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	SF1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	SF2	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	4.0
Columbia	Boone	SH1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	5.2
Columbia	Boone	SH2	Internal Combustion Engine (diesel, piston,	Operating - in service	5.2

			reciprocating)		
Columbia	Boone	WTP1	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	8.0
Columbia	Boone	WTP2	Internal Combustion Engine (diesel, piston, reciprocating)	Operating - in service	8.0
Columbia	Boone	5	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	66.0
Columbia	Boone	7	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	88.0
Columbia	Boone	8	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	140.0

Emissions from Electricity Generated in 2011: Columbia

	CO2 Equivalent (TONS)	Carbon Dioxide (CO2) (TONS)	Methane (CH4) (TONS)	Nitrogen Dioxide (NO2) (TONS)
Columbia	3,707,117	433,202	49,130	7,233

	Sulfur Dioxide (SO2) (TONS)	Annual Nitrogen Oxide (NOx) (TONS)	Summer Nitrogen Oxide (NOx) (TONS)
Columbia	1,899	0.0000	0.0000

Identified Flue Gas Desulfurization (FGD) controls installed on Columbia power plant

Plant	Control Equipment	Sorbent Type
	No FGD Controls Installed	

Identified Flue Gas Particulate (FGP) controls installed on Columbia power plant

Plant	Control Equipment
Columbia	Baghouse, reverse air

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Notes:
Generation, emissions and pollution control data include power plants owned by the utility and located in Missouri.

Emissions data calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data

Fuel Consumption and Generation Data from United States Energy Information Administration, Form 923, United States Department of Energy
http://www.eia.gov/electricity/data/eia923

Pollution control data (FGD and FGP equipment) from United States Energy Information Administration, Form 860, United States Department of Energy
http://www.eia.gov/electricity/data/eia860/index.html

Emissions factors for fuel-based generation from United States Environmental Protection Agency "Emission Factors for Greenhouse Gas Inventories", November 7, 2011,
http://www.epa.gov/climateleadership/documents/emission-factors.pdf