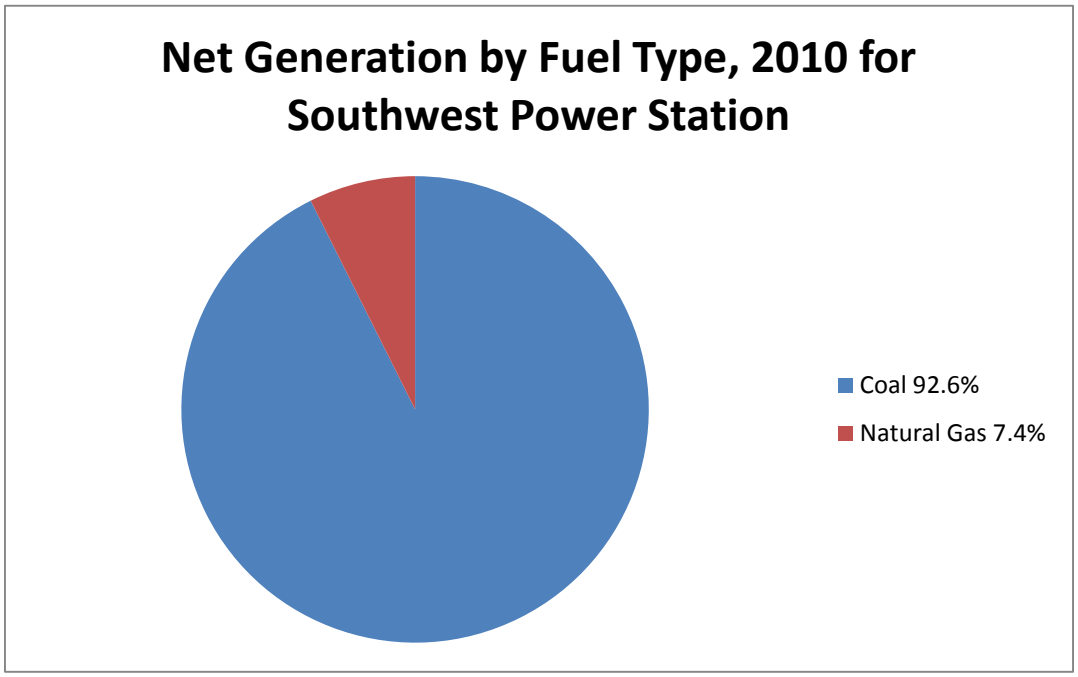
Missouri Department of Natural Resources

City Utilities of Springfield
Power Plant Name: Southwest Power Station
Electric Generation and Emissions in 2010

Generation Tables

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated, MWh	Percent of Total	
Non-renewable sources						
Coal	13,220,076	92.0%	92.0%	1,264,041	92.6%	92.6%
Natural Gas	1,144,130	8.0%	8.0%	100,553	7.4%	7.4%
Petroleum						
Nuclear						
Other						
Non-renewable total	**14,364,206**	**100.0%**	**100.0%**	**1,364,594**	**100.0%**	**100.0%**
Renewable sources						
Biomass						
Hydroelectric						
Landfill Gas						
Solar						
Waste Fuels						
Wind						
Wood						
Renewable total						
Grand total	**14,364,206**		**100.0%**	**1,364,594**		**100.0%**

Fuel Type	Physical Units	Number of Units
Sub-bituminous Coal	Short Tons	758,256
Natural Gas	MCf	1,124,163


Net Generation by Fuel Type, 2010 for Southwest Power Station
Coal 92.6%
Natural Gas 7.4%

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Power Plant Nameplate information for Southwest Power Station

Plant Name	County Location	Generator	Generator Type	Generator Status	Nameplate Capacity (MW)
Southwest Power Station		*All Operating Generators*			*1,212.0*
John Twitty Energy Center	Greene	GT1	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	114.0
John Twitty Energy Center	Greene	GT2	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	104.0
John Twitty Energy Center	Greene	ST1	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	388.0
Southwest Power Station	Greene	GT1	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	114.0
Southwest Power Station	Greene	GT2	Combustion (Gas) Turbine (includes jet engine design)	Operating - in service	104.0
Southwest Power Station	Greene	ST1	Steam Turbine, including nuclear, geothermal and solar steam (does not include combined cycle)	Operating - in service	388.0

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Emissions from Electricity Generated in 2010: Southwest Power Station

	CO2 Equivalent (TONS)	Carbon Dioxide (CO2) (TONS)	Methane (CH4) (TONS)	Nitrogen Dioxide (NO2) (TONS)
Southwest Power Station	48,562,327	5,922,815	646,240	93,769

	Sulfur Dioxide (SO2) (TONS)	Annual Nitrogen Oxide (NOx) (TONS)	Summer Nitrogen Oxide (NOx) (TONS)
Southwest Power Station	8,423	0.0009	0.0010

Identified Flue Gas Desulfurization (FGD) controls installed on Southwest Power Station power plant

Plant	Control Equipment	Sorbent Type
John Twitty Energy Center	Tray type	Dibasic acid
Southwest Power Station	Tray type	Dibasic acid
John Twitty Energy Center	Tray type	Dibasic acid
John Twitty Energy Center	Circulating Dry Scrubber	Lime and alkaline fly ash
Southwest Power Station	Circulating Dry Scrubber	Lime and alkaline fly ash
John Twitty Energy Center	Circulating Dry Scrubber	Lime and alkaline fly ash

Identified Flue Gas Particulate (FGP) controls installed on Southwest Power Station power plant

Plant	Control Equipment
John Twitty Energy Center	Electrostatic precipitator, cold side, with flue gas conditioning
Southwest Power Station	Electrostatic precipitator, cold side, with flue gas conditioning
John Twitty Energy Center	Electrostatic precipitator, cold side, with flue gas conditioning
John Twitty Energy Center	Baghouse, pulse
Southwest Power Station	Baghouse, pulse
John Twitty Energy Center	Baghouse, pulse

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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