



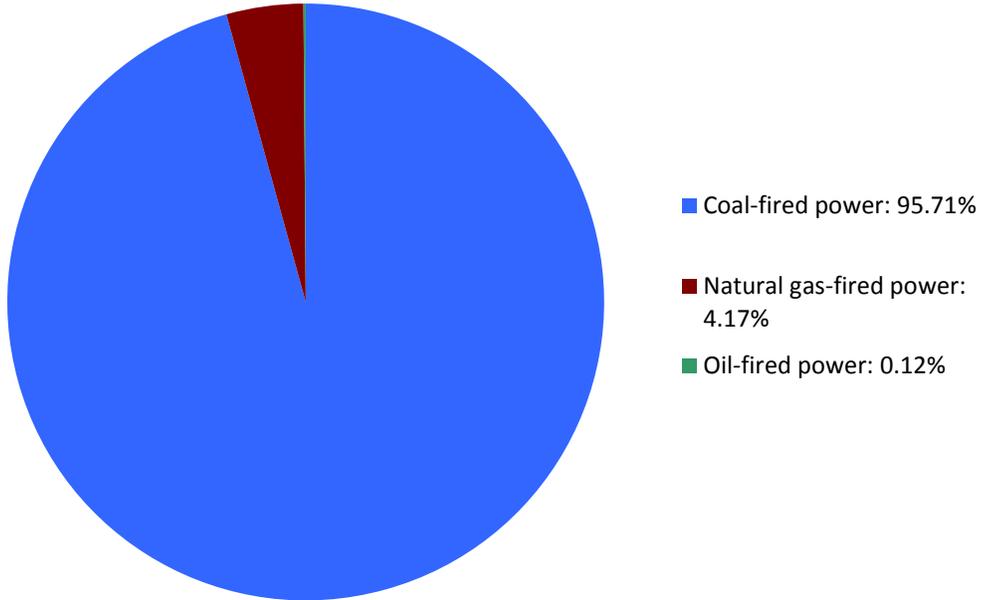
**Associated Electric Cooperative, Inc.
Utility-Owned Electric Generation and Emissions in 2009**

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated in 2009 (MWh)	Percent of Total	
Non-renewable sources						
Coal-fired power	148,365,531	96.43%		14,608,396	95.71%	
Natural gas-fired power	5,308,983	3.45%		635,969	4.17%	
Oil-fired power	188,586	0.12%		18,414	0.12%	
Nuclear power						
Other non-renewable power						
Non-renewable total	153,863,100	100.00%	100.00%	15,262,779	100.00%	100.00%
Renewable sources						
Hydroelectric Power						
Wind						
Waste and biomass						
Solar						
Geothermal						
Landfill Gas						
Renewable total	0	0.00%	0.00%	0	0.00%	0.00%
Grand total all sources	153,863,100		100.00%	15,262,779		100.00%

Fuel Type	Physical Units	Number of Units
Sub-Bituminous Coal	Short Tons	8,623,016
Natural Gas	Mcf	5,243,261
Distillate Fuel Oil	Barrels	32,074



Net Generation by Fuel Type, 2009 for Associated Electric Cooperative, Inc.





Emissions from Electricity Generated in 2009: Associated Electric Cooperative, Inc.

Plant	Carbon Dioxide (CO2) (Tons)	Carbon Monoxide (CO) (Tons)	Ammonia (NH3) (Tons)	Nitrogen Oxides (NOx) (Tons)	Sulfur Dioxides (SO2) (Tons)
Associated Electric Cooperative, Inc.	15,822,401.89	9,582.22	81.40	7,596.80	31,111.32
Essex	5,070.24	0.06	NV	2.67	0.04
Holden	58,007.90	0.76	NV	12.31	0.71
New Madrid	7,314,366.65	4,977.02	24.07	3,451.35	14,480.53
Nodaway	2,147.39	0.26	NV	0.90	0.02
St Francis Energy Facility	257,274.11	26.29	19.42	42.76	1.44
Thomas Hill	8,185,500.50	4,577.83	37.92	4,086.81	16,628.58
Unionville	35.10	NV	NV	NV	NV

Plant	Volatile Organic Compounds (VOC) (Tons)	Course Particulate Matter (PM10 Total) (Tons)	Fine Particulate Matter (PM2.5 Total) (Tons)	Mercury (Hg) (LBS)
Associated Electric Cooperative, Inc.	419.55	840.08	784.34	584.19
Essex	0.09	0.28	0.28	NV
Holden	1.08	1.57	1.56	NV
New Madrid	234.78	347.50	326.11	275.19
Nodaway	0.04	0.09	0.09	NV
St Francis Energy Facility	4.37	4.13	0.31	NV
Thomas Hill	179.19	486.52	455.99	309.00

'NV' = Emissions value not available.

Note: The data provided includes only generation and emissions from power plants owned by the utility. It does not include generation or emissions from power purchased by the utility and distributed to its customers.



**Pollution controls installed on plants operated by Associated Electric Cooperative,
Inc.**

SO2 Controls			
Plant	Control Equipment	Sorbent Type	Operational Efficiency
Essex	No SO2 Controls Installed		
Holden	No SO2 Controls Installed		
New Madrid	No SO2 Controls Installed		
Nodaway	No SO2 Controls Installed		
St Francis Energy Facility	No SO2 Controls Installed		
Thomas Hill	No SO2 Controls Installed		
Unionville	No SO2 Controls Installed		



NOX Controls				
Plant	Device Type	Description	Capture Efficiency	Control Efficiency
Essex	MODIFIED FURNACE OR BURNER DESIGN	LOW NOX BURNERS	100.00%	40.00%
Holden	MODIFIED FURNACE OR BURNER DESIGN	DRY LOW-NO, BURNERS	100.00%	40.00%
Holden	WATER INJECTION	WATER INJECTION	100.00%	41.30%
New Madrid	SCR (SELECTIVE CATALYTIC REDUCTION)	Selective Catalytic Reduction for NOx Control	100.00%	93.00%
Nodaway	LOW NOX BURNERS	LOW NOX BURNERS	100.00%	40.00%
St Francis Energy Facility	LOW NOX BURNERS	LOW NOX BURNERS	100.00%	40.00%
St Francis Energy Facility	SCR (SELECTIVE CATALYTIC REDUCTION)	SELECTIVE CATALYTIC REDUCTION (SCR)	100.00%	89.00%
Thomas Hill	SCR (SELECTIVE CATALYTIC REDUCTION)	SCR Unit 1	90.00%	90.00%
Thomas Hill	SCR (SELECTIVE CATALYTIC REDUCTION)	SCR Unit 2	90.00%	90.00%
Thomas Hill	SCR (SELECTIVE CATALYTIC REDUCTION)	SCR 3A & 3B, Unit 3	80.00%	80.00%
Thomas Hill	ELECTROSTATIC PRECIPITATOR	ELECTROSTATIC PRECIPITATOR HIGH EFFICIENCY	100.00%	98.00%
Unionville	No NOX Controls Installed			



**Missouri Power plants owned and operated by Associated Electric Cooperative, Inc.
in 2009**

Plant	County	Primary Fuel	Capacity (MW)	Net Generation (MWh)
Essex	Stoddard	Natural Gas	121	7,738
Holden	Johnson	Natural Gas	274	76,766
New Madrid	New Madrid	Sub-Bituminous Coal	1,200	7,246,811
Nodaway	Nodaway	Natural Gas	207	2,805
St Francis Energy Facility	Dunklin	Natural Gas	614	548,698
Thomas Hill	Randolph	Sub-Bituminous Coal	1,135	7,379,800
Unionville	Putnam	Distillate Fuel Oil	46	161

Data Sources

- Emissions Data: Missouri Department of Natural Resources, Air Pollution Control Program, Missouri Emissions Inventory System (MOEIS)
<http://www.dnr.mo.gov/env/apcp/moeis/emissionsreporting.htm>
- CO2 Emissions calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data
- Fuel Consumption and Generation Data: United States Energy Information Administration, Form 923, United States Department of Energy
http://www.eia.gov/cneaf/electricity/page/eia906_920.html