



**Empire District Electric Company
Electric Generation and Emissions in 2010**

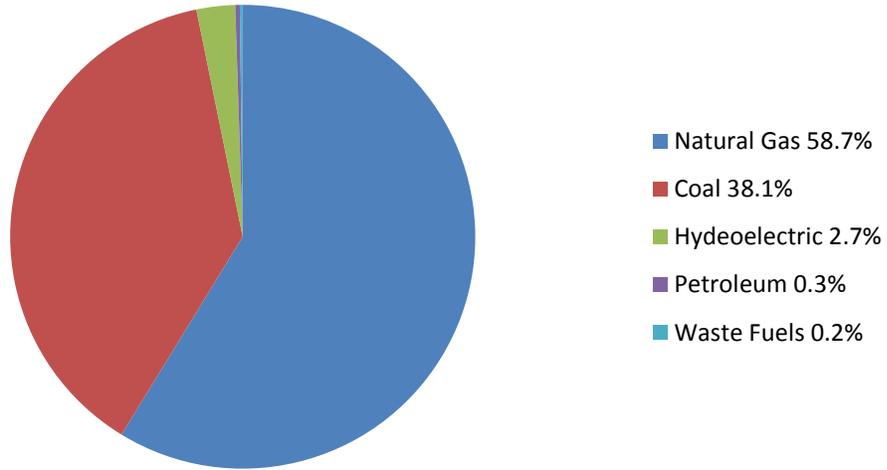
Generation Tables

| | Fuel Consumption, MMBTUs | Percent of Total | | Net Electric Power Generated, MWh | Percent of Total | |
|------------------------------|--------------------------|------------------|---------------|-----------------------------------|------------------|---------------|
| | | | | | | |
| Non-renewable sources | | | | | | |
| Coal | 13,612,067 | 48.0% | 46.5% | 1,249,992 | 39.2% | 38.1% |
| Natural Gas | 14,619,354 | 51.6% | 49.9% | 1,927,936 | 60.5% | 58.7% |
| Petroleum | 114,297 | 0.4% | 0.4% | 10,334 | 0.3% | 0.3% |
| Nuclear | | | | | | |
| Other | | | | | | |
| Non-renewable total | 28,345,718 | 100.0% | 96.8% | 3,188,262 | 100.0% | 97.1% |
| Renewable sources | | | | | | |
| Biomass | | | | | | |
| Hydroelectric | 859,543 | 92.3% | 2.9% | 88,104 | 93.0% | 2.7% |
| Landfill Gas | | | | | | |
| Solar | | | | | | |
| Waste Fuels | 71,708 | 7.7% | 0.2% | 6,589 | 7.0% | 0.2% |
| Wind | | | | | | |
| Wood | | | | | | |
| Renewable total | 931,251 | 100.0% | 3.2% | 94,693 | 100.0% | 2.9% |
| Grand total | 29,276,969 | | 100.0% | 3,282,955 | | 100.0% |

| Fuel Type | Physical Units | Number of Units |
|-------------------------------------|----------------|-----------------|
| Anthracite Coal and Bituminous Coal | Short Tons | 85,914 |
| Sub-bituminous Coal | Short Tons | 670,515 |
| Natural Gas | MCf | 14,314,025 |
| Distillate Fuel Oil | Barrels | 4,477 |
| Petroleum Coke | Short Tons | 3,748 |
| Hydroelectric | MMBTU | 859,543 |
| Tire-derived Fuels | Short Tons | 2,561 |



Net Generation by Fuel Type, 2010 for Empire District Electric Company





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Power Plant Nameplate information for Empire District Electric Company

| Plant Name | County Location | Nameplate Capacity (MW) |
|---|------------------------|--------------------------------|
| <i>Empire District Electric Company</i> | | 5,268.0 |
| Asbury | Jasper | 926.0 |
| Empire Energy Center | Jasper | 1,516.0 |
| Ozark Beach | Taney | 64.0 |
| State Line Combined Cycle | Jasper | 2,762.0 |



Emissions from Electricity Generated in 2010: Empire District Electric Company

| | CO2 Equivalent (TONS) | Carbon Dioxide (CO2) (TONS) | Methane (CH4) (TONS) | Nitrogen Dioxide (NO2) (TONS) |
|---|------------------------------|------------------------------------|-----------------------------|--------------------------------------|
| <i>Empire District Electric Company</i> | 57,694,628 | 9,284,861 | 747,637 | 105,514 |
| Asbury | 50,904,006 | 5,862,404 | 682,981 | 99,029 |
| Empire Energy Center | 557,411 | 275,582 | 5,303 | 550 |
| Ozark Beach | 0 | 0 | 0 | 0 |
| State Line Combined Cycle | 6,233,211 | 3,146,875 | 59,353 | 5,935 |

| | Sulfur Dioxide (SO2) (TONS) | Annual Nitrogen Oxide (NOx) (TONS) | Summer Nitrogen Oxide (NOx) (TONS) |
|---|------------------------------------|---|---|
| <i>Empire District Electric Company</i> | 20,609 | 0.0016 | 0.0019 |
| Asbury | 20,609 | 0.0014 | 0.0017 |
| Empire Energy Center | 0 | 0.0000 | 0.0000 |
| Ozark Beach | 0 | 0.0000 | 0.0000 |
| State Line Combined Cycle | 0 | 0.0002 | 0.0002 |



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Identified Flue Gas Desulfurization (FGD) controls installed on plants operated by Empire District Electric Company

| Plant | Control Equipment | Sorbent Type |
|-------|---------------------------|--------------|
| | No FGD Controls Installed | |

Identified Flue Gas Particulate (FGP) controls installed on plants operated by Empire District Electric Company

| Plant | Control Equipment |
|--------|--|
| Asbury | Electrostatic precipitator, cold side, without flue gas conditioning |

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>