

EEI ESG/Sustainability Data

Parent Company: Great Plains Energy Incorporated
Operating Company(s): KCP&L, KCP&L Greater Missouri Operations Company
Business Type(s): vertically integrated
State(s) of Operation: Kansas, Missouri
State(s) with RPS Programs: MO, KS (voluntary)
Regulatory Environment: Regulated
Report Date: November-17

Ref. No.	Refer to the Definitions tab for more information on each metric	Baseline 2012 <i>Actual</i>	Last Year 2015 <i>Actual</i>	Current Year 2016 <i>Actual</i>	Comments, Links, Additional Information, and Notes
Portfolio					
1	Owned Nameplate Generation Capacity at end of year (MW)	7,092	7,092	6,907	EIA Form 860, share of owned generation
1.1	Coal	4,054	4,054	3,866	EIA Form 860, share of owned generation
1.2	Natural Gas	1,746	1,765	1,765	EIA Form 860, share of owned generation
1.3	Nuclear	596	596	596	EIA Form 860, share of owned generation
1.4	Petroleum	546	527	527	EIA Form 860, share of owned generation
1.5	Total Renewable Energy Resources	150	150	153	EIA Form 860, share of owned generation
1.5.1	Biomass/Biogas	1.6	1.6	1.6	EIA Form 860, share of owned generation
1.5.2	Geothermal				
1.5.3	Hydroelectric				
1.5.4	Solar			3	EIA Form 860, share of owned generation
1.5.5	Wind	149	149	149	EIA Form 860, share of owned generation
1.6	Other				
2	Net Generation for the data year (MWh)	28,290,741	25,797,075	24,627,454	EIA Form 923. Include power purchase agreements and share of owned generation.
2.1	Coal	22,715,818	18,973,170	17,511,406	EIA Form 923, includes generation from TDF
2.2	Natural Gas	504,774	248,800	163,331	EIA Form 923
2.3	Nuclear	3,893,914	4,056,184	3,875,640	EIA Form 923
2.4	Petroleum	39,920	69,261	31,615	EIA Form 923
2.5	Total Renewable Energy Resources	1,133,020	2,437,214	3,034,068	EIA Form 923
2.5.1	Biomass/Biogas	3,295	26,535	24,956	FERC Form 1, EIA Form 923
2.5.2	Geothermal				
2.5.3	Hydroelectric		399,316	418,419	FERC Form 1
2.5.4	Solar		0	2,966	EIA Form 923
2.5.5	Wind	1,133,020	2,023,810	2,599,121	FERC Form 1
2.6	Other				
3	Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters				
3.1	Total Annual Capital Expenditures (nominal dollars)	\$610,200,000	\$ 677,100,000	\$ 609,400,000	Annual Report
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	57,918	153,359	179,526	EIA Form 861
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	-	40,805,000	54,252,000	EIA Form 861, not available in 2012
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	-	60%	80%	EIA Form 861, not available in 2012
4	Retail Electric Customer Count (at end of year)				
4.1	Commercial	96,858	98,901	99,462	EIA Form 861
4.2	Industrial	2,248	2,190	2,147	EIA Form 861
4.3	Residential	727,059	742,047	750,556	EIA Form 861

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Emissions					
5	GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)				
5.1	Owned Generation				
5.1.1	Carbon Dioxide (CO2)				
5.1.1.1	Total Owned Generation CO2 Emissions (MT)	22,860,959	19,062,350	16,748,294	2016 does not include Jeffery Energy Center owned emissions. Only for facilities reporting in e-GGRT Electronic Greenhouse Gas Reporting Tool (e-GGRT)
5.1.1.2	Total Owned Generation CO2 Emissions Intensity (MT/Net MWh)	0.83	0.80	0.76	
5.1.2	Carbon Dioxide Equivalent (CO2e)				
5.1.2.1	Total Owned Generation CO2e Emissions (MT)	22,985,738	19,164,473	16,835,927	e-GGRT
5.1.2.2	Total Owned Generation CO2e Emissions Intensity (MT/Net MWh)	0.83	0.80	0.77	e-GGRT
5.2	Purchased Power				
5.2.1	Carbon Dioxide (CO2)				
5.2.1.1	Total Purchased Generation CO2 Emissions (MT)	0	0	0	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0	0	0	
5.2.2	Carbon Dioxide Equivalent (CO2e)				
5.2.2.1	Total Purchased Generation CO2e Emissions (MT)	0	0	0	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0	0	0	
5.3	Owned Generation + Purchased Power				
5.3.1	Carbon Dioxide (CO2)				
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions (MT)	22,860,959	19,062,350	16,748,294	e-GGRT
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.81	0.74	0.68	e-GGRT
5.3.2	Carbon Dioxide Equivalent (CO2e)				
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions (MT)	22,985,738	19,164,473	16,835,927	e-GGRT
5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.81	0.74	0.68	e-GGRT
5.4	Non-Generation CO2e Emissions				
5.4.1	Fugitive CO2e emissions of sulfur hexafluoride (MT)	0.50	1.09	0.34	T&D only
5.4.2	Fugitive CO2e emissions from natural gas distribution (MT)				
6	Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)				
6.1	Generation basis for calculation	Total			EIA Form 923. Include power purchase agreements and share of owned generation.
6.2	Nitrogen Oxide (NOx)				
6.2.1	Total NOx Emissions (MT)	14,317	10,230	8,293	EPA Air Markets database
6.2.2	Total NOx Emissions Intensity (MT/Net MWh)	0.00076	0.00040	0.00034	EPA Air Markets database
6.3	Sulfur Dioxide (SO2)				
6.3.1	Total SO2 Emissions (MT)	21,609	13,675	7,062	EPA Air Markets database
6.3.2	Total SO2 Emissions Intensity (MT/Net MWh)	0.00051	0.00053	0.00029	EPA Air Markets database
6.4	Mercury (Hg)				
6.4.1	Total Hg Emissions (kg)	-	-	3.78	EPA Air Markets database
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	-	-	1.53E-07	EPA Air Markets database

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Resources					
7	Human Resources				
7.1	Total Number of Employees	3,059	2,911	2,879	Internal
7.2	Total Number on Board of Directors/Trustees	10	10	10	
7.3	Total Women on Board of Directors/Trustees	1	2	2	
7.4	Total Minorities on Board of Directors/Trustees	1	1	1	
7.5	Employee Safety Metrics				
7.5.1	Recordable Incident Rate	2.34	2.44	1.45	EEI Safety Survey
7.5.2	Lost-time Case Rate	0.66	1.07	0.43	EEI Safety Survey
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	1.15	1.72	0.92	EEI Safety Survey
7.5.4	Work-related Fatalities	0	0	0	EEI Safety Survey
8	Fresh Water Resources				
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	5.13E-07	4.97E-07	6.83E-07	EIA Form 923. 2016 data not yet available in database.
8.2	Water Withdrawals - Non-consumptive (Billions of Liters/Net MWh)	9.13E-05	8.66E-05	6.97E-05	EIA Form 923. 2016 data not yet available in database.
9	Waste Products				
9.2	Percent of Coal Combustion Products Beneficially Used	48%	48%	49%	EIA Form 923. 2016 data not yet available in database.

Definitions for the EEI ESG/Sustainability Template for Regulated Electric Companies

Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
Utility Portfolio					
1	Owned Nameplate Generation Capacity at end of year (MW)	Summation of the nameplate capacity of installed owned generation in the company portfolio, as reported to the U.S. Energy Information Administration (EIA) on Form 860 Generator Information . Note that data should be provided in terms of equity ownership for shared facilities. Nameplate capacity is defined as the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.	Megawatt (MW): One million watts of electricity.	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ . Form 860 instructions available at: www.eia.gov/survey/form/eia_860/instructions.pdf .
1.1	Coal	Nameplate capacity of generation resources that produce electricity through the combustion of coal (a readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time).	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.2	Natural Gas	Nameplate capacity of generation resources that produce electricity through the combustion of natural gas (a gaseous mixture of hydrocarbon compounds, the primary one being methane).	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.3	Nuclear	Nameplate capacity of generation resources that produce electricity through the use of thermal energy released from the fission of nuclear fuel in a reactor.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.4	Petroleum	Nameplate capacity of generation resources that produce electricity through the combustion of petroleum (a broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids).	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5	Total Renewable Energy Resources	Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5.1	Biomass/Biogas	Nameplate capacity of generation resources that produce electricity through the combustion of biomass (an organic nonfossil material of biological origin constituting a renewable energy source).	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5.2	Geothermal	Nameplate capacity of generation resources that produce electricity through the use of thermal energy released from hot water or steam extracted from geothermal reservoirs in the earth's crust.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5.3	Hydroelectric	Nameplate capacity of generation resources that produce electricity through the use of flowing water.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5.4	Solar	Nameplate capacity of generation resources that produce electricity through the use of the radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.5.5	Wind	Nameplate capacity of generation resources that produce electricity through the use of kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.	MW	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
1.6	Other	Nameplate capacity of generation resources that are not defined above.	MW	End of Year	
2	Net Generation for the data year (MWh)	Summation of the amount of gross generation less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Data can be provided in terms of total, owned, and/or purchased, depending on how the company prefers to disseminate data in this template. Provide owned generation data as reported to EIA on Form 923 Schedule 3 and align purchased power data with the Federal Energy Regulatory Commission (FERC) Form 1 Purchased Power Schedule . Reference Pages numbers 326-327. Note: Electricity required for pumping at pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.	Megawatthour (MWh): One thousand kilowatt-hours or one million watt-hours.	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ . Form 923 instructions available at: www.eia.gov/survey/form/eia_923/instructions.pdf .
2.1	Coal	Net electricity generated by the combustion of coal (a readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time).	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.2	Natural Gas	Net electricity generated by the combustion of natural gas (a gaseous mixture of hydrocarbon compounds, the primary one being methane).	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.3	Nuclear	Net electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.4	Petroleum	Net electricity generated by the combustion of petroleum (a broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids).	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5	Total Renewable Energy Resources	Energy resources that are naturally replenishing but flow-limited. They are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. Renewable energy resources include biomass, hydro, geothermal, solar, wind, ocean thermal, wave action, and tidal action.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5.1	Biomass/Biogas	Net electricity generated by the combustion of biomass (an organic nonfossil material of biological origin constituting a renewable energy source).	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5.2	Geothermal	Net electricity generated by the use of thermal energy released from hot water or steam extracted from geothermal reservoirs in the earth's crust.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5.3	Hydroelectric	Net electricity generated by the use of flowing water.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5.4	Solar	Net electricity generated by the use of the radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.5.5	Wind	Net electricity generated by the use of kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.	MWh	Annual	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
2.6	Other	Net electricity generated by other resources that are not defined above. If applicable, this metric should also include market purchases where the generation resource is unknown.	MWh	Annual	
3	Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters				
3.1	Total Annual Capital Expenditures	Align annual capital expenditures with data reported in recent investor presentations. A capital expenditure is the use of funds or assumption of a liability in order to obtain physical assets that are to be used for productive purposes for at least one year. This type of expenditure is made in order to expand the productive or competitive posture of a business.	Nominal Dollars	Annual	Accounting Tools, Q&A, http://www.accountingtools.com/questions-and-answers/what-is-a-capital-expenditure.html
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	Incremental Annual Electricity Savings for the reporting year as reported to EIA on Form 861 . Incremental Annual Savings for the reporting year are those changes in energy use caused in the current reporting year by: (1) new participants in DSM programs that operated in the previous reporting year, and (2) participants in new DSM programs that operated for the first time in the current reporting year. A "New program" is a program for which the reporting year is the first year the program achieved savings, regardless of when program development and expenditures began.	MWh	End of Year	U.S. Energy Information Administration, <i>Form EIA-861 Annual Electric Power Industry Report Instructions</i> . Available at: www.eia.gov/survey/form/eia_861/instructions.pdf .

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3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	Total annual investment in electric energy efficiency programs as reported to EIA on Form 861 .	Nominal Dollars	End of Year	U.S. Energy Information Administration, <i>Form EIA-861 Annual Electric Power Industry Report Instructions</i> . Available at: www.eia.gov/survey/form/eia_861/instructions.pdf .
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	Number of electric smart meters installed at end-use customer locations, divided by number of total electric meters installed at end-use customer locations. Smart meters are defined as electricity meters that measure and record usage data at a minimum, in hourly intervals, and provide usage data to both consumers and energy companies at least once daily. Align reporting with EIA Form 861 meter data, which lists all types of meter technology used in the system as well as total meters in the system.	Percent	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
4	Retail Electric Customer Count (at end of year)	Electric customer counts should be aligned with the data provided to EIA on Form 861 - Sales to Utility Customers .			U.S. Energy Information Administration, <i>Form EIA-861 Annual Electric Power Industry Report Instructions</i> . Available at: www.eia.gov/survey/form/eia_861/instructions.pdf .
4.1	Commercial	An energy-consuming sector that consists of service-providing facilities and equipment of businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
4.2	Industrial	An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity manufacturing (NAICS codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities. Various EIA programs differ in sectoral coverage.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
4.3	Residential	An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters. Note: Various EIA programs differ in sectoral coverage.	Number of end-use retail customers receiving electricity (individual homes and businesses count as one).	End of Year	U.S. Energy Information Administration, <i>Online Glossary</i> , https://www.eia.gov/tools/glossary/ .
Emissions					
5	GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)				
5.1	Owned Generation				
5.1.1	Carbon Dioxide (CO2)				
5.1.1.1	Total Owned Generation CO2 Emissions	Total direct CO2 emissions from company equity-owned fossil fuel combustion generation as reported to EPA under the GHG Reporting Program (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production), using a continuous emission monitoring system (CEMS) or other approved methodology.	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Greenhouse Gas Reporting Program</i> (40 CFR, part 98, Subparts C and D).
5.1.1.2	Total Owned Generation CO2 Emissions Intensity	Total direct CO2 emissions from 5.1.1.1, divided by total MWh of owned net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.1.2	Carbon Dioxide Equivalent (CO2e)				
5.1.2.1	Total Owned Generation CO2e Emissions	Total direct CO2e emissions (CO2, CH4, and N2O) from company equity-owned fossil fuel combustion generation as reported to EPA under the GHG Reporting Program (40 CFR, part 98, Subpart C – General Stationary Fuel Combustion and Subpart D – Electricity Production), using a continuous emission monitoring system (CEMS) or other approved methodology.	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Greenhouse Gas Reporting Program</i> (40 CFR, part 98, Subparts C and D).
5.1.2.2	Total Owned Generation CO2e Emissions Intensity	Total direct CO2e emissions from 5.1.2.1, divided by total MWh of owned net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.2	Purchased Power				
5.2.1	Carbon Dioxide (CO2)				
5.2.1.1	Total Purchased Generation CO2 Emissions	Purchased power CO2 emissions should be calculated using the most relevant and accurate of the following methods: (1) For direct purchases, such as PPAs, use the direct emissions data as reported to EPA. (2) For market purchases where emissions attributes are unknown, use applicable regional or national emissions rate: - ISO/RTO-level emission factors - Climate Registry emission factors - E-Grid emission factors	Metric Tons	Annual	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity	Total purchased power CO2 emissions from 5.2.1.1, divided by total MWh of purchased net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.2.2	Carbon Dioxide Equivalent (CO2e)				
5.2.2.1	Total Purchased Generation CO2e Emissions	Purchased power CO2e emissions should be calculated using the most relevant and accurate of the following methods: (1) For direct purchases, such as PPAs, use the direct emissions data as reported to EPA. (2) For market purchases where emissions attributes are unknown, use applicable regional or national emissions rate: - ISO/RTO-level emission factors - Climate Registry emission factors - E-Grid emission factors	Metric Tons	Annual	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity	Total purchased power CO2e emissions from 5.2.2.1, divided by total MWh of purchased net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.3	Owned Generation + Purchased Power				
5.3.1	Carbon Dioxide (CO2)				
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions	Sum of total CO2 emissions reported under 5.1.1.1 and 5.2.1.1.	Metric Tons	Annual	
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity	Total emissions from 5.3.1.1, divided by total MWh of owned and purchased net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.3.2	Carbon Dioxide Equivalent (CO2e)				
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions	Sum of total CO2e emissions reported under 5.1.2.1 and 5.2.2.1.	Metric Tons	Annual	

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5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity	Total emissions from 5.3.2.1, divided by total MWh of owned and purchased net generation reported in the Utility Portfolio section.	Metric Tons/Net MWh	Annual	
5.4	Non-Generation CO2e Emissions				
5.4.1	Fugitive CO2e emissions of sulfur hexafluoride	Total fugitive CO2e emissions of sulfur hexafluoride as reported to EPA under the mandatory GHG Reporting Protocols (40 CFR Part 98, Subpart DD).	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Greenhouse Gas Reporting Program</i> (40 CFR, part 98, Subpart DD).
5.4.2	Fugitive CO2e emissions from natural gas distribution	Total fugitive CO2e emissions from natural gas distribution as reported to EPA under the mandatory GHG Reporting Protocols (40 CFR Part 98, Subpart W)	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Greenhouse Gas Reporting Program</i> (40 CFR, part 98, Subpart W).
6	Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)				
6.1	Generation basis for calculation	Indicate the generation basis for calculating SO2, NOx, and Hg emissions and intensity. Fossil: Fossil Fuel Generation Only Total: Total System Generation Other: Other (please specify in comment section)			
6.2	Nitrogen Oxide (NOx)				
6.2.1	Total NOx Emissions	Total NOx emissions from company equity-owned fossil fuel combustion generation. As reported to EPA under the Acid Rain Reporting Program (40 CFR, part 75) or regulatory equivalent.	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Acid Rain Reporting Program</i> (40 CFR, part 75).
6.2.2	Total NOx Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Metric Tons/Net MWh	Annual	
6.3	Sulfur Dioxide (SO2)				
6.3.1	Total SO2 Emissions	Total SO2 emissions from company equity-owned fossil fuel combustion generation. As reported to EPA under the Acid Rain Reporting Program (40 CFR, part 75) or regulatory equivalent.	Metric Tons	Annual	U.S. Environmental Protection Agency, <i>Acid Rain Reporting Program</i> (40 CFR, part 75).
6.3.2	Total SO2 Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Metric Tons/Net MWh	Annual	
6.4	Mercury (Hg)				
6.4.1	Total Hg Emissions	Total Mercury emissions from company equity-owned fossil fuel combustion generation. Preferred methods of measurement are performance-based, direct measurement as outlined in the EPA Mercury and Air Toxics Standard (MATS). In the absence of performance-based measures, report value aligned with Toxics Release Inventory (TRI) or regulatory equivalent for international operations.	Kilograms	Annual	EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
6.4.2	Total Hg Emissions Intensity	Total from above, divided by the MWh of generation basis as indicated in 6.1.	Kilograms/Net MWh	Annual	
Resources					
7	Human Resources				
7.1	Total Number of Employees	Average number of employees over the year. To calculate the annual average number of employees: (1) Calculate the total number of employees your establishment paid for all periods. Add the number of employees your establishment paid in every pay period during the data year. Count all employees that you paid at any time during the year and include full-time, part-time, temporary, seasonal, salaried, and hourly workers. Note that pay periods could be monthly, weekly, bi-weekly, and so on. (2) Divide the total number of employees (from step 1) by the number of pay periods your establishment had in during the data year. Be sure to count any pay periods when you had no (zero) employees. (3) Round the answer you computed in step 2 to the next highest whole number.	Number of Employees	Annual	U.S. Department of Labor, Bureau of Labor Statistics, Steps to estimate annual average number of employees, www.bls.gov/respondents/lif/annualavghours.htm . EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.2	Total Number of Board of Directors/Trustees	Average number of employees on the Board of Directors/Trustees over the year.	Number of Employees	Annual	
7.3	Total Women on Board of Directors/Trustees	Total number of women (defined as employees who identify as female) on Board of Directors/Trustees.	Number of Employees	Annual	U.S. Equal Employment Opportunity Commission, EEO Terminology, www.archives.gov/eoo/terminology.html . EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.4	Total Minorities on Board of Directors/Trustees	Total number of minorities on Board of Directors/Trustees. Minority employees are defined as "the smaller part of a group. A group within a country or state that differs in race, religion or national origin from the dominant group. Minority is used to mean four particular groups who share a race, color or national origin." These groups are: "[1] American Indian or Alaskan Native. A person having origins in any of the original peoples of North America, and who maintain their culture through a tribe or community; [2] Asian or Pacific Islander. A person having origins in any of the original people of the Far East, Southeast Asia, India, or the Pacific Islands. These areas include, for example, China, India, Korea, the Philippine Islands, and Samoa; [3] Black (except Hispanic). A person having origins in any of the black racial groups of Africa; [4] Hispanic. A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race."	Number of Employees	Annual	U.S. Equal Employment Opportunity Commission, EEO Terminology, www.archives.gov/eoo/terminology.html . EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.5	Employee Safety Metrics				
7.5.1	Recordable Incident Rate	Number of injuries or illnesses x 200,000 / Number of employee labor hours worked. Injury or illness is recordable if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. You must also consider a case to meet the general recording criteria if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. Record the injuries and illnesses of all employees on your payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers. You also must record the recordable injuries and illnesses that occur to employees who are not on your payroll if you supervise these employees on a day-to-day basis. If your business is organized as a sole proprietorship or partnership, the owner or partners are not considered employees for recordkeeping purposes. For temporary employees, you must record these injuries and illnesses if you supervise these employees on a day-to-day basis. If the contractor's employee is under the day-to-day supervision of the contractor, the contractor is responsible for recording the injury or illness. If you supervise the contractor employee's work on a day-to-day basis, you must record the injury or illness.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.5.2	Lost-time Case Rate	Calculated as: Number of lost-time cases x 200,000 / Number of employee labor hours worked. Only report for employees of the company as defined for the "recordable incident rate for employees" metric. A lost-time incident is one that resulted in an employee's inability to work the next full work day.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	Calculated as: Total number of DART incidents x 200,000 / Number of employee labor hours worked. A DART incident is one in which there were one or more lost days or one or more restricted days, or one that resulted in an employee transferring to a different job within the company.	Percent	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
7.5.4	Work-related Fatalities	Total employee fatalities. Record for all employees on your payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers. Include fatalities to those that occur to employees who are not on your payroll if you supervise these employees on a day-to-day basis. For temporary employees, report fatalities if you supervise these employees on a day-to-day basis.	Number of Employees	Annual	U.S. Department of Labor, Occupational Health and Safety Administration, OSHA Recordable Incidents. EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.

Definitions for the EEI ESG/Sustainability Template for Regulated Electric Companies

Ref. No.	Metric Name	Definition	Units Reported in	Time Period (if applicable)	Reference to Source (if applicable)
8	Fresh Water Resources				
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	Rate of fresh water consumed for generation. Include water sourced from fresh surface water, groundwater, and municipal water. Water consumption is defined as water that is not returned to the original water source after being withdrawn, including evaporation to the atmosphere. Divide billions of liters by equity-owned total net generation from all electric generation as reported under Metric 2, Net Generation for the data year (MWh).	Billions of Liters/Net MWh	Annual	Partially sourced from EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
8.2	Water Withdrawals - Non-consumptive (Billions of Liters/Net MWh)	Rate of fresh water withdrawn, but not consumed, for generation. Include water sourced from fresh surface water, groundwater, and municipal water. Information on organizational water withdrawal may be drawn from water meters, water bills, calculations derived from other available water data or (if neither water meters nor bills or reference data exist) the organization's own estimates. Divide billions of liters by equity-owned total net generation from all electric generation as reported under Metric 2, Net Generation for the data year (MWh).	Billions of Liters/Net MWh	Annual	Partially sourced from EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
9	Waste Products				
9.1	Percent of Non-hazardous Municipal Solid Waste Diverted	Percent of non-hazardous municipal solid waste, including construction and demolition (C&D) waste diverted. If no weight data are available, estimate the weight using available information on waste density and volume collected, mass balances, or similar information.	Percent	Annual	Partially sourced from EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.
9.2	Percent of Coal Combustion Products Beneficially Used	Percent of coal combustion products (CCPs)—fly ash, bottom ash, boiler slag and flue gas desulfurization materials—diverted from disposal into beneficial uses, including being sold. Only include CCPs generated at company equity-owned facilities. If no weight data are available, estimate the weight using available information on waste density and volume collected, mass balances, or similar information.	Percent	Annual	Partially sourced from EPRI, <i>Metrics to Benchmark Sustainability Performance for the Electric Power Industry</i> , 2016 Technical Report.