

	Source	AEP System 2018 GHG Emissions lbs CO2e/MWh (sales to ultimate customer)				2018 lbs/kWh	Previous Version	
		CO2	CH4	N2O	CO2e		lbs/kWh	Percent Change
Ohio Power Co.	AEP	1,291.8	3.300	5.311	1,303.3	1.30	1.34	-2.8%
AEP - Ohio *	eGRID-RFCW	1,243.4	3.024	5.035	1,251.5	1.25	1.25	0.0%
AEP Texas Inc.*	eGRID-ERCT	1,009.2	2.128	2.915	1,014.2	1.01	1.01	0.0%
Appalachian Power Co.	AEP	1,547.1	4.570	6.431	1,560.4	1.56	1.57	-0.6%
Indiana Michigan Power Co.	AEP	780.9	2.515	3.473	788.0	0.79	0.79	-0.3%
Kentucky Power Co.	AEP	1,747.9	5.239	7.351	1,763.0	1.76	1.76	0.2%
Public Service Co. of Oklahoma	AEP	1,324.6	2.455	5.059	1,333.5	1.33	1.25	6.3%
Southwestern Electric Power Co.	AEP	1,712.2	4.640	6.690	1,725.1	1.73	1.67	3.2%
Kingsport Power Co.	AEP	1,548.5	4.571	6.434	1,562.8	1.56	na	
Wheeling Power Co.	AEP	1,633.2	5.027	7.214	1,646.0	1.65	1.80	-9.4%
AEP System	AEP	1,365.7	3.670	5.594	1,377.0	1.38	1.38	0.0%

* Standard electricity delivered in deregulated service territories is from the grid.

The most recent EPA eGRID emission rates (2016) are used for purchased power:

RFCW (AEP East), ERCT (AEP Texas), SPSO (AEP West)

- Changes from previous version (Original created 4/25/2019 and modified 5/17/2019. This version modified 9/6/2019):
 - o Spot purchases for PSO and SWEPCO incorrectly used the US EPA eGRID ERCT (ERCOT) region. They were changed to SPSO (SPP South).
 - o Purchase Power Agreements from specific facilities originally used eGRID emission data in the absence of better information. These PPAs (5 for PSO, 1 for SWEPCO) emissions are now available from EPA's Mandatory GHG Reporting data and have been updated.
 - o Calculations of inter-company power exchange emissions rates have been improved.
 - o Calculation of effective energy mix was added for each operating company (see below).
- Emission rates are Scope 1 & 2 emissions (based on WRI/WBCSD Greenhouse Gas Protocol) divided by the total quantity of electricity delivered to end customers (based on FERC Form 1, page 401a, for each AEP company)
- About half of AEP's GHG emissions are Scope 1 CO2 emissions that are monitored by EPA certified Continuous Emission Monitoring Systems.
- Scope 2 uses the Location Based method of estimating emissions from spot market purchased electricity.
- Scope 2 emissions are adjusted for the sale of Renewable Energy Credits.
- Around 1% of total GHG emissions capture space heating, mobile sources (line trucks, facility on-road and off-road vehicles, river operation boats) and the fugitive emission of Sulfur Hexafluoride (SF6) from transmission and distribution equipment.
- AEP's equity share ownership of Ohio Valley Electric Cooperative power plants, Kyger Creek and Clifty Creek, is included in the emission totals.
- AEP's equity share ownership of facilities not operated by AEP is included in the emission totals (Dolet Hills, and James Stuart). When 40 CFR Part 98 Subpart C emissions are not available, estimated are used based on historical rates.
- CH4, N2O and SF6 emissions are combined with CO2 emissions using IPCC FAR5 – 100 year Global Warming Potential factors to get CO2e.
- SF6 emissions calculated using EPA's SF6 Emissions Reduction Partnership for Electric Power Systems methodology. Since point sources are located throughout the AEP System, the SF6 total corporate emissions are allocated by operating company transmission and distribution line miles.

	Effective Energy Mix (Net Generation)								
	Coal	NGas	Oil	Nuclear	Hydro	Wind	Solar	Other	
Ohio Power Co.	54.2%	14.8%	1.0%	24.5%	0.8%	4.0%	0.1%	0.5%	
AEP - Ohio *	49.8%	16.7%	1.1%	27.6%	0.9%	3.2%	0.1%	0.6%	
AEP Texas Inc.*	25.9%	48.2%	0.5%	10.8%	0.3%	13.7%	0.2%	0.4%	
Appalachian Power Co.	62.8%	21.0%	0.1%	8.6%	3.1%	4.1%	0.1%	0.1%	
Indiana Michigan Power Co.	36.3%	1.8%	0.0%	57.1%	0.4%	4.2%	0.1%	0.0%	
Kentucky Power Co.	71.0%	17.6%	0.1%	9.9%	0.4%	0.8%	0.1%	0.1%	
Public Service Co. of Oklahoma	22.2%	52.4%	0.4%	0.0%	0.7%	24.0%	0.0%	0.3%	
Southwestern Electric Power Co.	62.6%	24.7%	0.5%	0.0%	0.9%	11.0%	0.0%	0.4%	
Kingsport Power Co.	62.8%	21.0%	0.1%	8.6%	3.1%	4.1%	0.1%	0.1%	
Wheeling Power Co.	66.7%	14.7%	0.2%	16.1%	0.7%	1.2%	0.1%	0.2%	
AEP System	51.4%	19.9%	0.4%	19.5%	1.2%	7.3%	0.1%	0.3%	