

Gas Company ESG/Sustainability Quantitative Information

Parent Company:
Operating Company(s)*:



Business Type(s):
State(s) of Operation:
Regulatory Environment:
Report Date:

Black Hills Corporation
Black Hills Energy Arkansas, Inc., Black Hills Colorado Gas, Inc., Black Hills Gas Distribution, LLC, Black Hills/Iowa Gas Utility Company, LLC, Black Hills/Kansas Gas Utility Company, LLC, Black Hills/Nebraska Gas Utility Company, LLC, Black Hills/Northwest Wyoming Gas Utility Company, LLC, Cheyenne Light, Fuel and Power Company (all d/b/a Black Hills Energy)

*Operating company names as of 01-01-2019. Consolidation of operating companies and changes in company names that occurred after this date will be reflected in the 2020 Quantitative Report.

Vertically Integrated
Arkansas, Colorado, Iowa, Kansas, Nebraska, Wyoming
Regulated
29-Sep-20

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Past Year 2018	Current Year 2019	Definitions	Published Comments, Links, Additional Information, and Notes
Natural Gas Distribution					
				All methane leak sources per 98.232 (j) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded.	Black Hills Energy Arkansas, Inc. is the single LDC held by parent company (Black Hills Corporation) that triggers the reporting threshold for EPA's 40 CFR 98 Subpart W reporting rule in 2018 and 2019. To more accurately calculate the corporate wide fugitive methane emission rate, all above listed LDCs were included within these metrics. Fugitive CH ₄ emissions from gas distribution operations (metric tons) were estimated following the calculation methods and emission factors in 40 CFR 98 Subpart W using currently available information. The Fugitive Methane Emission Rate for Black Hills Energy Arkansas is listed in the notes below for reference.
1 METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS					
1.1 Number of Gas Distribution Customers		1,053,893	1,066,442	These metrics should include all local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule.	
1.2 Distribution Mains in Service				These metrics should provide the number of years remaining to take out of service, replace or upgrade cathodically unprotecte steel mains, and cast iron/wrought iron mains, consistent with applicable state utility commission authorizations.	
1.2.1 Plastic (miles)		16,400	16,834		
1.2.2 Cathodically Protected Steel - Bare & Coated (miles)		12,721	12,742		
1.2.3 Unprotected Steel - Bare & Coated (miles)		432	427		
1.2.4 Cast Iron / Wrought Iron - without upgrades (miles)		0	0		
1.3 Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)				Optional: # yrs. by pipe type.	As a participant in the EPA's Methane Challenge, Black Hills Corporation has committed to a minimum annual replacement rate of 5% for unprotected steel mains along with associated service lines, beginning in 2021.
1.3.1 Unprotected Steel (Bare & Coated) (# years to complete)		-	15	Optional: # yrs. by pipe type.	
1.3.2 Cast Iron / Wrought Iron (# years to complete)		n/a	n/a	Optional: # yrs. by pipe type.	
2 Distribution CO ₂ e Fugitive Emissions				Fugitive methane emissions (not CO ₂ combustion emissions) stated as CO ₂ e, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(q)(3)(ix)(D), 98.236(r)(1)(v), and 98.236(r)(2)(v)(B). <u>i.e., this is Subpart W methane emissions as input in row 2.2 below and converted to CO₂e here.</u>	This cell calculates fugitive methane emissions as metric tons of CO ₂ equivalent (CO ₂ e). CO ₂ emissions have been excluded from the total.
2.1 CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)		274,610	277,238	This metric should include fugitive methane emissions above the reporting threshold for all natural gas local distribution companies (LDCs) held by the Parent Company that are above the LDC Facility reporting threshold for EPA's 40 C.F.R. 98, Subpart W reporting rule. <u>Calculated value based on mt CH₄ input in the 2.2 (below).</u>	
2.2 CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (metric tons)		10,984	11,090	<u>INPUT VALUE (total mt CH₄) as explained in definition above. Subpart W input is CH₄ (mt).</u>	
2.2.1 CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)		572	578	This metric provides gas throughput from distribution (quantity of natural gas delivered to end users) reported under Subpart W, 40 C.F.R. 98.236(aa)(9)(iv), as reported on the Subpart W e-GRRT integrated reporting form in the "Facility Overview" worksheet Excel form, Quantity of natural gas delivered to end users (column 4).	Metric represents quantity of natural gas delivered to end users reported under 40 CFR 98 Subpart W for Black Hills Energy Arkansas, and total gas delivered to end users as reported to the EIA on Form EIA-176 for other above listed LDCs.
2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)		236,349,484	236,179,640		
2.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)		224,532	224,371		
2.4 Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)		0.25%	0.26%	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)	The Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput) for Black Hills Energy Arkansas, Inc. 0.57% (2018) and 0.59% (2019).

Natural Gas Transmission and Storage				
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Black Hills Corporation transmission companies are below the reporting threshold for this segment.

Natural Gas Gathering and Boosting				
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1	METHANE EMISSIONS			
1.1	Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions			<i>Black Hills Energy Arkoma Basin reports for the Gathering and Boosting segment under 40 CFR 98 Subpart W.</i>
1.1.1	Total Miles of Gathering Pipeline Operated by gas utility (miles)	404	401	
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)	91,735	91,735	<i>Volume of blowdown emissions based on estimated annual number of blowdowns of Gathering and Boosting segment compressor stations. Actual annual blowdown volume from compressors, storage, and pipelines is not tracked internally. This metric is not collected separately for Black Hills Energy Arkoma Basin Gathering and Boosting facilities.</i>
1.1.4	Gathering Pipeline Blow-Down Emissions outside storage and compression facilities (metric tons CO ₂ e)	Not available	Not available	
2	CO ₂ e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION			<i>Black Hills Energy Arkoma Basin Gathering and Boosting facilities are not required to report under Subpart C, per 98.232(k). Emissions included are reported for "Combustion Equipment at Onshore Petroleum and Natural Gas Production Facilities, Onshore Petroleum and Natural Gas Gathering and Boosting Facilities, and Natural Gas Distribution Facilities" as directed in Subpart W.</i>
2.1	CO ₂ e Emissions for Gathering & Boosting Compression Stations (metric tons)	15,353	14,929	
3	CONVENTIONAL COMBUSTION EMISSIONS FROM GATHERING & BOOSTING COMPRESSION			
3.1	Emissions reported for all permitted sources (minor or major)			<i>The number of permitted sources for conventional emissions may not be the same number of sources reporting under the EPA GHG reporting rule. Companies may wish to describe which, or how many, sources are included in the conventional pollutants data and whether the CO₂e data reported includes all of these sources.</i>
3.1.1	NO _x (metric tons per year)	Not applicable	Not applicable	
3.1.2	VOC (metric tons per year)	Not applicable	Not applicable	

Additional Metrics (Optional)				
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<p><i>All information and data in the EEI and AGA ESG qualitative and quantitative reports are provided on a voluntary basis and could be subject to change. These reports contain forward-looking information as defined by the Securities and Exchange Commission. Whether actual results and developments will conform to our expectations and predictions is subject to a number of risks and uncertainties that, among other things, could cause actual results to differ materially from those contained in the forward-looking statements, including without limitation, the risk factors described in our 2019 Annual Report on Form 10-K. We assume no obligation to update publicly any such forward-looking statements, whether as a result of new information, future events or otherwise.</i></p>			
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