

# Gas Company ESG/Sustainability Quantitative Information



Parent Company: *Berkshire Hathaway Energy Company*  
Operating Company(s): *Northern Natural Gas Company*  
Report Date: *As of and for the year ended December 31, 2020*  
Disclaimer: *Data included herein is based on information available as of April 29, 2021, and is subject to change without notice should new or additional information be obtained.*

Refer to the "Definitions" column for more information on each metric.	Last Year	Current Year	% Change	Definitions
	2019	2020		

Natural Gas Distribution				
<b>METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS</b>				
Number of Gas Distribution Customers	NA	NA	-	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.
Distribution Mains in Service	NA	NA	-	
Plastic (miles)	NA	NA	-	
Cathodically Protected Steel - Bare & Coated (miles)	NA	NA	-	
Unprotected Steel - Bare & Coated (miles)	NA	NA	-	These metrics should provide the number of years remaining to take out of service, replace or upgrade cathodically unprotected steel mains, and cast iron/wrought iron mains, consistent with applicable state utility commission authorizations.
Cast Iron / Wrought Iron - without upgrades (miles)	NA	NA	-	
Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)	NA	NA	-	
Unprotected Steel (Bare & Coated) (# years to complete)	NA	NA	-	
Cast Iron / Wrought Iron (# years to complete)	NA	NA	-	Optional: # yrs by pipe type.
<b>Distribution CO2e Fugitive Emissions</b>				
CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	NA	NA	-	Fugitive methane emissions (not CO2 combustion emissions) stated as CO2e, as reported to EPA under 40 CFR 98, Subpart W, sections 98.236(q)(3)(iv)(D), 98.236(r)(1)(v), and 98.236(r)(2)(v)(8) - i.e., this is Subpart W methane emissions as input in row 2.2 below and converted to CO2e here. 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. Calculated value based on mt CH4 input in the 2.2 (below).
CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	NA	NA	-	INPUT VALUE (total mt CH4) as explained in definition above. Subpart W input is CH4 (mt).
CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	NA	NA	-	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).
Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	NA	NA	-	
Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)	NA	NA	-	
Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	NA	NA	-	

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### Natural Gas Transmission and Storage<sup>(1)</sup>

Below current year natural gas transmission and storage methane emissions metrics include methane from combustion and have been calculated using the Natural Gas Sustainability Initiative (NGSI) Methane Emissions Intensity Protocol v 1.0 unless otherwise indicated.

#### Onshore Natural Gas Transmission Compression Methane Emissions

Total Natural Gas Transmission Compression Methane Emissions (metric tons/year)	5,493	6,496	18.3 %	
Total Natural Gas Transmission Compression Methane Emissions (CO <sub>2</sub> e/year)	137,329	162,400	18.3 %	Global Warming Potential (GWP) = 25 per 40 CFR Table A-1 To Subpart A Of Part 98
Total Natural Gas Transmission Compression Methane Emissions (MSCF/year)	286,101	338,333	18.3 %	Density of Methane = 0.0192 kg/ft <sup>3</sup> per 40 CFR Sub W EQ. W-36

#### Natural Gas Storage Methane Emissions

Total Natural Gas Storage Methane Emissions (metric tons/year)	2,027	2,019	(0.4)%	
Total Natural Gas Storage Methane Emissions (CO <sub>2</sub> e/year)	50,663	50,475	(0.4)%	Global Warming Potential (GWP) = 25 per 40 CFR Table A-1 To Subpart A Of Part 98
Total Natural Gas Storage Methane Emissions (MSCF/year)	105,547	105,156	(0.4)%	Density of Methane = 0.0192 kg/ft <sup>3</sup> per 40 CFR Sub W EQ. W-36

#### Onshore Natural Gas Transmission Pipeline Methane Emissions

Total Natural Gas Transmission Pipeline Methane Emissions (metric tons/year)	3,806	6,181	62.4 %	
Total Natural Gas Transmission Pipeline Methane Emissions (CO <sub>2</sub> e/year)	95,150	154,526	62.4 %	Global Warming Potential (GWP) = 25 per 40 CFR Table A-1 To Subpart A Of Part 98
Total Natural Gas Transmission Pipeline Methane Emissions (MSCF/year)	198,229	321,929	62.4 %	Density of Methane = 0.0192 kg/ft <sup>3</sup> per 40 CFR Sub W EQ. W-36

#### Summary and Metrics

Total Transmission and Storage Methane Emissions (MMSCF/year)	590	765	29.8 %	
Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year)	1,603,310,673	1,367,395,000	(14.7)%	U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) in Form F 7100.2-1 Part C of the Annual Report for Natural Gas and Other Gas Transmission and Gathering Pipeline Systems
Annual Methane Throughput from Gas Transmission and Storage Operations (MMSCF/year)	1,523,145	1,238,860	(18.7)%	Calculated using 90.6% CH <sub>4</sub> content in natural gas.
Methane Emissions Intensity Metric (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.0387 %	0.0618 %	59.5 %	

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Natural Gas Gathering and Boosting				
METHANE EMISSIONS				
Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions	NA	NA	-	
Total Miles of Gathering Pipeline Operated by gas utility (miles)	NA	NA	-	
Volume of Gathering Pipeline Blow Down Emissions (scf)	NA	NA	-	This metric is collected to support calculations under EPA 40 CFR 98, Subpart W.
Gathering Pipeline Blow-Down Emissions outside storage and compression facilities (metric tons CO2e)	NA	NA	-	
CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION				
CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)	NA	NA	-	CO2 combustion emissionsas reported to EPA under 40 CFR 98, Subpart C, as directed in Subpart W, 98.232(k).
CONVENTIONAL COMBUSTION EMISSIONS FROM GATHERING & BOOSTING COMPRESSION				
Emissions reported for all permitted sources (minor or major)	NA	NA	-	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.
NOx ( metric tons per year)	NA	NA	-	
VOC (metric tons per year)	NA	NA	-	
Comments				
(1) Natural gas transmission and storage methane emissions metrics include methane from combustion and have been calculated using the Natural Gas Sustainability Initiative (NGSI) Methane Emissions Intensity Protocol v 1.0 unless otherwise indicated. Prior year natural gas transmission and storage methane emissions metrics were reported using the calculations in 40 CFR 98 Sub W.				