Gas Company ESG/Sustainability Quantitative Information

Parent Company: Atmos Energy Corporation
Operating Company(s): Atmos Energy Corporation
Business Type(s): Gas Distribution, Transmission, and Storage
State(s) of Operation: Colorado, Kansas, Kentucky, Louisiana, Mississippi, Tennessee, Texas, Virginia
Regulatory Environment: *Regulated*
Report Date: *5/20/2021*

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline	Last Year 2018	Current Year 2019	Next Year 2020	Future Year	Definitions
	Natural Gas Distribution						
							All methane leak sources per 98.232 (i) (1-6) are included for Distribution. Combustion sources are excluded. CO_2 is excluded.
1	**METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS**						
1.1	Number of Gas Distribution Customers		3,272,020.00	3,318,845.00			
1.2	Distribution Mains in Service						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.
1.2.1	Plastic *(miles)*		37,361.60	38,626.00			
1.2.2	Cathodically Protected Steel - Bare & Coated *(miles)*		24,633.70	24,374.78			
1.2.3	Unprotected Steel - Bare & Coated *(miles)*		7,447.20	7,199.62			
1.2.4	Cast Iron / Wrought Iron - without upgrades *(miles)*		428.00	355.54			
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains *(# years to complete)*						These metrics should provide the number of years remaining to take out of service, replace or upgrade catholdically unprotected steel mains, and cast iron/wrought iron mains, consistent with applicable state utility commission authorizations.
1.3.1	Unprotected Steel (Bare & Coated) (*# years to complete*)						Optional: # yrs by pipe type.
1.3.2	Cast Iron / Wrought Iron (*# years to complete*)		3	2			Optional: # yrs by pipe type.
2	Distribution CO2e Fugitive Emissions						
2.1	CO2e Fugitive Methane Emissions from Gas Distribution Operations *(metric tons)*		1,019,339.56	1,000,711.08			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)(ix)(D), 98.236(r)(1)(v), and 98.236(r)(2)(v)(B) - i.e., this is Subpart W methane emissions as input in row 2.2.1 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 2.2.1 (below).
2.2	CH4 Fugitive Methane Emissions from Gas Distribution Operations *(metric tons)*		40,773.58	40,028.44			INPUT VALUE (total mt CH4) as explained in definition above. Subpart W input is CH4 (mt).
2.2.1	CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)		2,123.62	2,084.81			
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (*Mscf/year*)		473,071,994.00	469,801,454.00			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).
2.3.1	Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)		449,418.39	446,311.38			
2.4	Fugitive Methane Emissions Rate (*MMscf of Methane Emissions per MMscf of Methane Throughput*)		0.473%	0.467%			$\frac{E_C}{TP_C} = \frac{tonnes\ CH_4}{MMscf\ gas} \times \frac{10^6\ g\ CH_4}{tonne\ CH_4} \times \frac{g\ mole\ CH_4}{16\ g\ CH_4} \times \frac{gmol\ Nat.Gas}{0.95\ gmol\ CH_4} \times \frac{scf\ gas}{1.198\ gmol\ gas} \times \frac{MMscf\ gas\ emissions}{10^6\ scf\ gas} = \frac{MMscf\ gas\ emissions}{MMscf\ gas\ throughput} = \%$
	Natural Gas Transmission and Storage						
							All methane leak sources per 98.232 (e) (1-8), (f)(1-8), and (m) are included for Transmission and Storage. Combustion sources are excluded. CO_2 and N_2O are excluded.
1	**Onshore Natural Gas Transmission Compression Methane Emissions**						Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (e) (1-8), CO2 and N2O emissions are excluded from this section.
1.1.1	Pneumatic Device Venting (metric tons/year)		3.4	3.4			Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4)
1.1.2	Blowdown Vent Stacks (metric tons/year)		186.9	206.9			Value reported using calculation in 40 CFR 98 Sub W Section 236(i)(1)(iii)
1.1.3	Transmission Storage Tanks (metric tons/year)		9.7	6.7			Value reported using calculation in 40 CFR 98 Sub W Section 236(k)(2)(v)
1.1.4	Flare Stack Emissions (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11)
1.1.5	Centrifugal Compressor Venting (metric tons/year)		0.0	1.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(o)(2)(ii)(D)(2)
1.1.6	Reciprocating Compressor Venting (metric tons/year)		0.0	22.8			Value reported using calculation in 40 CFR 98 Sub W Section 236(p)(2)(ii)(D)(2)
1.1.7	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year)		12.0	37.5			Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
1.1.8	Other Leaks (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
1.2	Total Transmission Compression Methane Emissions (metric tons/year)		212.1	278.2			
1.3	Total Transmission Compression Methane Emissions (CO2e/year)		5,301.8	6,954.7			
1.4	Total Transmission Compression Methane Emissions (MSCF/year)		11,045.5	14,489.0			Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36
2	**Underground Natural Gas Storage Methane Emissions**						Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (f) (1-8), CO2 and N2O emissions are excluded from this section.
2.1.1	Pneumatic Device Venting (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4)
2.1.2	Flare Stack Emissions (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11)
2.1.3	Centrifugal Compressor Venting (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(o)(2)(ii)(D)(2)
2.1.4	Reciprocating Compressor Venting (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(p)(2)(ii)(D)(2)

2.1.5	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
2.1.6	Other Equipment Leaks (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
2.1.7	Equipment leaks from valves, connectors, open-ended lines, and pressure relief valves associated with storage wellheads (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
2.1.8	Other equipment leaks from components associated with storage wellheads (metric tons/year)		0.0	0.0			Value reported using calculation in 40 CFR 98 Sub W Section 232(q)(2)(v)
2.2	Total Storage Compression Methane Emissions (metric tons/year)		0.0	0.0			
2.3	Total Storage Compression Methane Emissions (CO2e/year)		0.0	0.0			
2.4	Total Storage Compression Methane Emissions (MSCF/year)		0.0	0.0			Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36
3	**Onshore Natural Gas Transmission Pipeline Blowdowns**						Blowdown vent stacks for onshore transmission pipeline as defined in 40 CFR 98 Sub W Section 232 (m), CO2 and N2O emissions are excluded from this section.
3.1	Transmission Pipeline Blowdown Vent Stacks (metric tons/year)		8,161.4	4,473.6			Value reported using calculation in 40 CFR 98 Sub W Section 232(i)(3)(ii)
3.2	Transmission Pipeline Blowdown Vent Stacks (CO2e/year)		204,035.5	111,840.3			
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)		425,074.0	233,000.5			
4	**Other Non-Sub W Emissions Data**						Additional sources required by ONE Future include dehydrator vents, storage station venting transmission pipeline leaks, and storage tank methane.
4.1	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (metric tons/year)		0.0	0.0			
4.2	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (CO2e/year)		0.0	0.0			
4.3	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (MSCF/year)		0.0	0.0			
5	**Summary and Metrics**						
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)		436.1	247.5			
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year)		882,309,930.0	910,684,924.0			**EIA 176 throughput or other reference for other throughput selected**
5.2.1	Annual Methane Gas Throughput from Gas Transmission and Storage Operations (MMSCF/year)		838,194.4	865,150.7			Methane content in natural gas equals 95% based on 40 CFR 98 Sub W 233(u)(2)(vii)
5.3	Fugitive Methane Emissions Rate (MMscf of Methane Emissions per MMscf of Methane Throughput)		0.0	0.0			

Natural Gas Gathering and Boosting

1	METHANE EMISSIONS						
1.1	Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions						
1.1.1	Total Miles of Gathering Pipeline Operated by gas utility *(miles)*		N/A	N/A			
1.1.2	Volume of Gathering Pipeline Blow Down Emissions *(scf)*		N/A	N/A			This metric is collected to support calculations under EPA 40 CFR 98, Subpart W.
1.1.4	Gathering Pipeline Blow-Down Emissions outside storage and compression facilities *(metric tons CO2e)*		N/A	N/A			
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION						
2.1	CO2e Emissions for Gathering & Boosting Compression Stations *(metric tons)*		N/A	N/A			CO2 combustion emissionsas reported to EPA under 40 CFR 98, Subpart C, as directed in Subpart W, 98.232(k).
3	CONVENTIONAL COMBUSTION EMISSIONS FROM GATHERING & BOOSTING COMPRESSION						
3.1	Emissions reported for all permitted sources (minor or major)		N/A	N/A			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.
3.1.1	NOx *(metric tons per year)*		N/A	N/A			
3.1.2	VOC *(metric tons per year)*		N/A	N/A			

Additional Metrics (Optional)

	Insert additional rows in this section as necessary.						