



Gas Company ESG/Sustainability Quantitative Information

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

NorthWestern Corp
 NorthWestern Energy
(e.g., vertically integrated, T&D only, competitive integrated)
Total Company - Montana, South Dakota & Nebraska
(e.g., deregulated, regulated, both)
 06/01/21

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
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Natural Gas Distribution

1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS					<u>All methane leak sources per 98.232 (i) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded.</u>
1.1	Number of Gas Distribution Customers	268,622	286,774	289,340	293,267	
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)	4,477.4	4,841.6	4,912.2	4,995.2	
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	2,463.2	2,396.8	2,390.3	2,383.0	
1.2.3	Unprotected Steel - Bare & Coated (miles)	0.0	0.0	0.0	0.0	
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	0.0	0.0	0.0	0.0	
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 cathodically 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)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
1.3.2	Cast Iron / Wrought Iron (# years to complete)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
2	Distribution CO ₂ e Fugitive Emissions					
2.1	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	35,114	37,375	36,597	36,391	<u>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 below and converted to CO₂e here.</u> 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>
2.1.A	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.131	0.130	0.126	0.124	
2.1.B	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	5.059	5.163	5.012	4.932	
2.2	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	1,404.6	1,495.0	1,463.9	1,455.6	INPUT VALUE (total mt CH ₄) as explained in definition above. Subpart W input is CH ₄ (mt).
2.2.A	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.005	0.005	0.005	0.005	
2.2.B	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.202	0.207	0.200	0.197	
2.2.1	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	73.15	77.86	76.24	75.81	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	88,823,814	91,783,341	94,071,243	94,676,363	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)	84,383	87,194	89,368	89,943	
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.0028	0.0030	0.0026	0.0026	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)



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Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
Natural Gas Transmission and Storage						
						<u>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. CO₂ and N₂O are excluded.</u>
0.1	Transmission Line Miles	0.0	2,094.0	2,221.0	2,144.0	
1	Onshore Natural Gas Transmission Compression Methane Emissions					Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (e) (1-8), CO ₂ and N ₂ O emissions are excluded from this section.
1.1.1	Pneumatic Device Venting (metric tons/year)	0.0	120.0	120.0	120.0	Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4)
1.1.2	Blowdown Vent Stacks (metric tons/year)	0.0	58.24	63.74	47.78	Value reported using calculation in 40 CFR 98 Sub W Section 236(i)(1)(iii)
1.1.3	Transmission Storage Tanks (metric tons/year)	0.0	0.0	0.0	0.0	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	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	1,382.4	1,382.4	1,382.4	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	3.82	3.82	4.91	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)	0.0	67.2	67.2	67.2	Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
1.1.7.B	Equipment Leaks per Transmission Line Mile (metric tons / transmission line miles)		0.032	0.030	0.031	
1.1.8	Other Leaks (metric tons/year)	0.0	0.000	0.000	0.000	Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
1.1.8.B	Other leaks per Transmission Line Mile (metric tons / transmission line miles)		0.000	0.000	0.000	
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)		0.032	0.030	0.031	
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	0.0	1,631.6	1,637.1	1,622.3	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile (metric tons / trans. line miles)		0.779	0.737	0.757	
1.3	Total Transmission Compression Methane Emissions (CO ₂ e/year)	0.0	40,791	40,929	40,557	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	0.0	84,981	85,268	84,494	Density of Methane = 0.0192 kg/ft ³ 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), CO ₂ and N ₂ O emissions are excluded from this section.
2.1.1	Pneumatic Device Venting (metric tons/year)	0.0	7.27	7.27	103.24	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	0.00	0.00	0.00	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	1,382.4	1,382.4	1,382.4	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	1.30	1.30	1.27	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	34.60	34.60	34.61	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	0.00	0.00	0.00	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	2,390.6	2,390.6	2,390.6	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	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	3,816.2	3,816.2	3,912.1	
2.3	Total Storage Compression Methane Emissions (CO ₂ e/year)	0.0	95,404	95,404	97,802	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	0.0	198,759	198,759	203,754	Density of Methane = 0.0192 kg/ft ³ per 40 CFR Sub W EQ. W-36



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Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline	Calendar Year	Calendar Year	Calendar Year	Definitions
		2012	2018	2019	2020	
3	Onshore Natural Gas Transmission Pipeline Blowdowns					
3.1	Transmission Pipeline Blowdown Vent Stacks (metric tons/year)	0.0	120.0	428.2	6,336.9	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. Value reported using calculation in 40 CFR 98 Sub W Section 232(i)(3)(ii)
3.2	Transmission Pipeline Blowdown Vent Stacks (CO2e/year)	0.0	3,000	10,705	158,424	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	0.0	6,249	22,302	330,049	
4	Other Non-Sub W Emissions Data (OPTIONAL)					(OPTIONAL) If desired, report 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	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	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	0.0	0.0	
5	Summary and Metrics					
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	0.0	290.0	306.3	618.3	EIA 176 throughput or other reference for other throughput selected Methane content in natural gas equals 95% based on 40 CFR 98 Sub W 233(u)(2)(vii)
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year)	0.0	58,560,354	60,156,069	59,059,773	
5.2.1	Annual Methane Gas Throughput from Gas Transmission and Storage Operations (MMSCF/year)	0.0	55,632	57,148	56,107	
5.3	Methane Emissions Intensity Metric (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.00%	0.52%	0.54%	1.10%	

Natural Gas Gathering and Boosting						
1	METHANE EMISSIONS					
1.1	Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions	0.0	0.0	0.0	0.0	This metric is collected to support calculations under EPA 40 CFR 98, Subpart W.
1.1.1	Total Miles of Gathering Pipeline Operated by gas utility (miles)	0.0	569.0	618.0	568.6	
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)	0.0	414,061	1,535,249	660,299	
1.1.4	Gathering Pipeline Blow-Down Emissions outside storage and compression facilities (metric tons CO2e)	0.0	198.8	737.2	317.1	
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION					
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)	0.0	7,318	7,552	7,569	CO2 combustion emissions as 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)	0.0	0.0	0.0	0.0	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)	0.0	24.3	25.1	25.1	
3.1.2	VOC (metric tons per year)	0.0	55.7	54.2	54.8	



Gas Company ESG/Sustainability Quantitative Information

Parent Company: NorthWestern Corp
Operating Company(s): NorthWestern Energy
Business Type(s): *(e.g., vertically integrated, T&D only, competitive)*
State(s) of Operation: **Montana**
Regulatory Environment: *(e.g., deregulated, regulated, both)*
Report Date: 06/01/21

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
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Natural Gas Distribution

Ref. No.	Metric	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS					<u>All methane leak sources per 98.232 (i) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded.</u>
1.1	Number of Gas Distribution Customers	182,364	197,251	199,663	202,436	
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 (<i>miles</i>)	3,335	3,596	3,643	3,695	
1.2.2	Cathodically Protected Steel - Bare & Coated (<i>miles</i>)	1,255	1,200	1,191	1,183	
1.2.3	Unprotected Steel - Bare & Coated (<i>miles</i>)	0.0	0.0	0.0	0.0	
1.2.4	Cast Iron / Wrought Iron - without upgrades (<i>miles</i>)	0.0	0.0	0.0	0.0	
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (<i># years to complete</i>)					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.
1.3.1	Unprotected Steel (Bare & Coated) (<i># years to complete</i>)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
1.3.2	Cast Iron / Wrought Iron (<i># years to complete</i>)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
2	Distribution CO₂e Fugitive Emissions					
2.1	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (<i>metric tons</i>)	24,511	24,887	25,326	25,179	<u>Fugitive methane</u> emissions (<u>not CO₂ combustion emissions</u>) 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 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>
2.1.A	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Customer (<i>metric tons/customers</i>)	0.134	0.126	0.127	0.124	
2.1.B	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (<i>metric tons/line mile</i>)	5.340	5.189	5.239	5.162	
2.2	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (<i>metric tons</i>)	980.4	995.5	1,013.0	1,007.2	<u>INPUT VALUE (total mt CH₄) as explained in definition above. Subpart W input is CH₄ (mt).</u>
2.2.A	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Customer (<i>metric tons/customers</i>)	0.005	0.005	0.005	0.005	
2.2.B	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (<i>metric tons/line mile</i>)	0.214	0.208	0.210	0.206	
2.2.1	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	51.1	51.8	52.8	52.5	



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Regulatory Environment: *(e.g., deregulated, regulated, both)*
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Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	53,433,828	47,770,055	50,504,100	52,689,225	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)	50,762	45,382	47,979	50,055	
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.0010	0.0011	0.0011	0.0010	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)

Natural Gas Transmission and Storage						
0.1	Transmission Line Miles	0.0	2,094	2,221	2,144	<u>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. CO₂ and N₂O are excluded.</u>
1	Onshore Natural Gas Transmission Compression Methane Emissions					<u>Fugitive Methane</u> emissions as defined in 40 CFR 98 Sub W Section 232 (e) (1-8), CO ₂ and N ₂ O emissions are excluded from this section.
1.1.1	Pneumatic Device Venting (metric tons/year)	0.0	120.0	120.0	120.0	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.2	Blowdown Vent Stacks (metric tons/year)	0.0	58.24	63.74	47.78	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.3	Transmission Storage Tanks (metric tons/year)	0.0	0.0	0.0	0.0	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.4	Flare Stack Emissions (metric tons/year)	0.0	0.0	0.0	0.0	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.5	Centrifugal Compressor Venting (metric tons/year)	0.0	1,382.4	1,382.4	1,382.4	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.6	Reciprocating Compressor Venting (metric tons/year)	0.0	3.82	3.82	4.91	Value reported using calculation in 40 CFR 98 Sub W Section
1.1.7	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year)	0.0	67.18	67.18	67.18	Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
1.1.7.B	Equipment Leaks per Transmission Line Mile (metric tons / transmission line miles)		0.0	0.0	0.0	
1.1.8	Other Leaks (metric tons/year)					Value reported using calculation in 40 CFR 98 Sub W Section
1.1.8.B	Other leaks per Transmission Line Mile (metric tons / transmission line miles)					
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)					
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	0.0	1,631.6	1,637.1	1,622.3	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile (metric tons / trans. line miles)		0.779	0.737	0.757	
1.3	Total Transmission Compression Methane Emissions (CO ₂ e/year)	0.0	40,791	40,929	40,557	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	0.0	84,981	85,268	84,494	Density of Methane = 0.0192 kg/ft ³ per 40 CFR Sub W EQ. W-36
2	Underground Natural Gas Storage Methane Emissions					<u>Fugitive Methane</u> emissions as defined in 40 CFR 98 Sub W Section 232 (f) (1-8), CO ₂ and N ₂ O emissions are excluded from this section.
2.1.1	Pneumatic Device Venting (metric tons/year)	0.0	7.27	7.27	103.24	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	0.0	0.0	Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11)



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2.1.3	Centrifugal Compressor Venting (metric tons/year)	0.0	1,382.4	1,382.4	1,382.4	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	1.30	1.30	1.27	Value reported using calculation in 40 CFR 98 Sub W Section 236(p)(2)(iii)(D)(2)
2.1.5	Equipment leaks from valves, connectors, open ended lines, pressure relief valves, and meters (metric tons/year)	0.0	34.60	34.60	34.61	Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
2.1.6	Other Equipment Leaks (metric tons/year)					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	2,390.6	2,390.6	2,390.6	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)					Value reported using calculation in 40 CFR 98 Sub W Section 232(a)(2)(v)
2.2	Total Storage Compression Methane Emissions (metric tons/year)	0.0	3,816.2	3,816.2	3,912.1	
2.3	Total Storage Compression Methane Emissions (CO2e/year)	0.0	95,404	95,404	97,802	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	0.0	198,759	198,759	203,754	Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36
3	Onshore Natural Gas Transmission Pipeline Blowdowns					<u>Blowdown vent stacks for onshore transmission pipeline</u> 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)	0.0	120.0	428.2	6,336.9	Value reported using calculation in 40 CFR 98 Sub W Section 232(ii)(3)(ii)
3.2	Transmission Pipeline Blowdown Vent Stacks (CO2e/year)	0.0	3,000	10,705	158,424	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	0.0	6,249	22,302	330,049	
4	Other Non-Sub W Emissions Data (OPTIONAL)					(OPTIONAL) If desired, report 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)	0.00	0.00	0.00	0.00	
4.2	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (CO2e/year)	0.00	0.00	0.00	0.00	
4.3	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (MSCF/year)	0.00	0.00	0.00	0.00	
5	Summary and Metrics					
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	0.0	290.0	306.3	618.3	
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year)	0.0	58,560,354	60,156,069	59,059,773	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)	0.0	55,632	57,148	56,107	Methane content in natural gas equals 95% based on 40 CFR 98 Sub W 233(u)(2)(vii)
5.3	Methane Emissions Intensity Metric (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	Missing Data	0.52%	0.54%	1.10%	



Gas Company ESG/Sustainability Quantitative Information

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

NorthWestern Corp
NorthWestern Energy
(e.g., vertically integrated, T&D only, competitive)
Montana
(e.g., deregulated, regulated, both)
 06/01/21

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
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 (<i>miles</i>)		569.0	618.0	568.6	
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (<i>scf</i>)		414,061	1,535,249	660,299	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 (<i>metric tons CO2e</i>)		198.75	737.20	317.10	
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION					
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (<i>metric tons</i>)		7,318	7,552	7,569	CO2 combustion emissions 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)					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 (<i>metric tons per year</i>)		24.3	25.1	25.1	
3.1.2	VOC (<i>metric tons per year</i>)		55.7	54.2	54.8	



Gas Company ESG/Sustainability Quantitative Information

Parent Company: NorthWestern Corp
Operating Company(s): NorthWestern Energy
Business Type(s): *(e.g., vertically integrated, T&D only, competitive)*
State(s) of Operation: **South Dakota**
Regulatory Environment: *(e.g., deregulated, regulated, both)*
Report Date: 06/01/21

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
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Natural Gas Distribution

Ref. No.	Metric	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS					All methane leak sources per 98.232 (i) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded.
1.1	Number of Gas Distribution Customers	44,584	46,997	47,010	48,055	
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)	782.7	860.0	879.9	900.4	
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	795.1	788.2	791.0	789.8	
1.2.3	Unprotected Steel - Bare & Coated (miles)	0.0	0.0	0.0	0.0	
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	0.0	0.0	0.0	0.0	
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 cathodically 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)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
1.3.2	Cast Iron / Wrought Iron (# years to complete)	0.0	0.0	0.0	0.0	Optional: # yrs by pipe type.
2	Distribution CO ₂ e Fugitive Emissions					
2.1	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	6,796	6,908	7,156	7,146	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) - i.e., this is Subpart W methane emissions as input in row 2.2 below and converted to CO ₂ e 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 CH ₄ input in the 2.2 (below).
2.1.A	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.152	0.147	0.152	0.149	
2.1.B	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	4.307	4.191	4.283	4.228	
2.2	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	271.9	276.3	286.2	285.8	INPUT VALUE (total mt CH ₄) as explained in definition above. Subpart W input is CH ₄ (mt).
2.2.A	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.006	0.006	0.006	0.006	
2.2.B	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.172	0.168	0.171	0.169	
2.2.1	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	14.2	14.4	14.9	14.9	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	28,891,086	35,522,366	35,032,176	33,811,445	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)	27,447	33,746	33,281	32,121	
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.0005	0.0004	0.0004	0.0005	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)



Gas Company ESG/Sustainability Quantitative Information

Parent Company: NorthWestern Corp
Operating Company(s): NorthWestern Energy
Business Type(s): (e.g., vertically integrated, T&D only, competitive integrated)
State(s) of Operation: Nebraska
Regulatory Environment: (e.g., deregulated, regulated, both)
Report Date: 06/01/21

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions
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Natural Gas Distribution

Ref. No.	Metric	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Definitions	
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS					All methane leak sources per 98.232 (j) (1-6) are included for Distribution. Combustion sources are excluded. CO₂ is excluded.	
1.1	Number of Gas Distribution Customers	41,674	42,526	42,667	42,776	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						
1.2.1	Plastic (miles)	359.7	385.6	389.3	399.8		
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	413.1	408.6	408.3	410.2		
1.2.3	Unprotected Steel - Bare & Coated (miles)	0.0	0.0	0.0	0.0		
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	0.0	0.0	0.0	0.0	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.	
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)						
1.3.1	Unprotected Steel (Bare & Coated) (# years to complete)	0.0	0.0	0.0	0.0		
1.3.2	Cast Iron / Wrought Iron (# years to complete)	0.0	0.0	0.0	0.0	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) - i.e., this is Subpart W methane emissions as input in row 2.2 below and converted to CO ₂ e 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 CH ₄ input in the 2.2 (below).	
2.1	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	3,807	5,581	4,116	4,066		
2.1.A	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.091	0.131	0.096	0.095		
2.1.B	CO ₂ e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	4.926	7.027	5.160	5.019		
2.2	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	152.3	223.2	164.6	162.6		INPUT VALUE (total mt CH ₄) as explained in definition above. Subpart W input is CH ₄ (mt).
2.2.A	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.004	0.005	0.004	0.004		
2.2.B	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.197	0.281	0.206	0.201		
2.2.1	CH ₄ Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	7.9	11.6	8.6	8.5		
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)	6,498,900	8,490,920	8,534,967	8,175,693	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-GRRR 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)	6,174	8,066	8,108	7,767		
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput)	0.0013	0.0014	0.0011	0.0011	Calculated annual metric: (MMSCF methane emissions/MMSCF methane throughput)	