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

## **Gas Company ESG/Sustainability Quantitative Information**

NorthWestern Corp NorthWestern Energy >15% Vertically Integrated and remaining

>15% Vertically integrated and remaining

Montana, South Dakota & Nebraska

Regulatory Environment: Regulated Report Date: 5/1/22

**NorthWestern Energy - Total Company** 

Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)  1.3.1 Unprotected Steel (Bare & Coated) (# years to complete)  2. Cast Iron / Wrought Iron (# years to complete)  3. Cast Iron / Wrought Iron (# years to complete)  4. Distribution CO2e Fugitive Emissions  2. Distribution CO2e Fugitive Methane Emissions from Gas Distribution Operations/(metric tons)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  3. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  4. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  4. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  5. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  6. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  7. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  8. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  9. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  1. La CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons			Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS   266,022   286,774   293,340   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   267,314   293,240   292,267   293,240   293,2	Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
METHANE EMISSIONE AND INTRICATION FROM DISTRIBUTION MAINS 1.3 Number of Gas Distribution Customers  266, 622 286, 774 289, 240 293, 267 296, 721 200 Distribution Mains in Service  1.2 Distribution Mains in Service  1.2 Distribution Mains in Service  1.2 A Service Methane State of Service Methane Emissions from Gas Distribution Operations (metric tons)  2.4 4.37 4.8 4.2 2.987 2.980 2.987 2.980 2.983 2.987 2.980 2.983 2.977 2.980 2.983 2.983 2.977 2.980 2.983 2.980 2.983 2.983 2.977 2.980 2.983		Natural Gas Distribution						
1.1 Number of Gas Distribution Outstomers 1.2 Distribution Mains in Service 1.2 Distribution Mains in Service 1.3 Distribution Mains in Service 1.4 Plasts (miles) 1.4 A 477 1.4 A 582 1.4 Plasts (miles) 1.5 Cachodically Protected Service Asser & Coated (miles) 1.6 Cachodically Protected Service Asser & Coated (miles) 1.7 Cachodically Protected Service Asser & Coated (miles) 1.8 Distribution Mains in Service 1.9 Cachodically Protected Service Asser & Coated (miles) 1.0 Cachodically Protected Service Asser & Coated (miles) 1.1 Cachodically Protected Service Asser & Coated (miles) 1.2 Cachodically Protected Service Asser & Coated (miles) 1.3 Cachodically Protected Service Asser & Coated (miles) 1.4 Coate Inc. No. Wrought into miles and Coated (miles) 1.5 Plant Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (## 2000) 1.5 Plant Commitment to Deplace / Upgrade Remaining Miles of Distribution Mains (## 2000) 1.5 Plant Commitment to Plant Coated (## years to complete) 1.5 Upgrade Service Assert & Coated (## years to complete) 1.6 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0								
1.2 Distribution Mains in Service  4.477								
1.2 Distribution Makins Service 1.2.1 Electrophic (princip) 1.2.2 Electrophic (princip) 1.2.3 Electrophic (princip) 1.2.4 Cast Iron / Wrought Iron - without upgrades / miles   1.2.4 Cast Iron / Wrought Iron - without upgrades / miles   1.2.5 Electrophic (princip) 1.2.6 Cast Iron / Wrought Iron - without upgrades / miles   1.2.6 Cast Iron / Wrought Iron - without upgrades / miles   1.2.7 Electrophic (princip) 1.2.8 Electrophic (princip) 1.2.9 Electrophic (princip) 1.2.1 Electrophic (princip) 1.2.2 Electrophic (princip) 1.2.3 Electrophic (princip) 1.2.3 Electrophic (princip) 1.2.4 Cast Iron / Wrought Iron - without upgrades / miles   1.2.5 Electrophic (princip) 1.2.5 Electrophic (princip) 1.2.6 Electrophic (princip) 1.2.6 Electrophic (princip) 1.2.6 Electrophic (princip) 1.2.7 Electrophic (princip) 1.2.7 Electrophic (princip) 1.2.8 Electrophic (princip) 1.2.8 Electrophic (princip) 1.2.1 Upgrade Remaining Miles of Distribution Mains (princip) 1.2.2 Electrophic (princip) 1.2.2 Electrophic (princip) 1.2.3 Electrophic (princip) 1.2.3 Electrophic (princip) 1.2.4 Electrophic (princip) 1.2.5 Electrophic (princip)	1.1	Number of Gas Distribution Customers	268,622	286,774	289,340	293,267	296,731	Those matrics should include all local distribution companies (LDCs) hold by the
1.2.2 Carborically Protected Steel - Bare & Coasted families) 1.2.3 Upprotected Steel - Bare & Coasted families) 1.2.4 Cast root, //wought from - without upgrades (miles) 1.2.5 Plan/Commitment to Replace // Upgrade Remaining foliate of Distribution Mains /# years to complete) 1.3 Plan/Commitment to Replace // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Coaste of Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Mains /# years to complete // Upgrade Remaining foliate of Distribution Coasted // Workinght from // Busing Advanced Later utility commission and active foliate of Distribution Coasted // Workinght from // Busing Advanced Later utility commission and active foliate of Distribution Coasted // Upgrade Remaining foliate deal utility commission and active foliate of Distribution Coasted // Upgrade Remaining foliate of Distribution Coasted // Upgrade Remaining foliate deal utility commission and active foliate of Distribution Coasted // Upgrade Remaining foliate foliate facility commission and active foliate of Distribution Coasted // Upgrade Remaining foliate foliate facility commission and active foliation foliate foliate foliation companies (Indicative Coasted foliation	1.2	Distribution Mains in Service						Parent Company that are above the LDC Facility reporting threshold for EPA's 40
1.2.4 Coast row/ Wrought Iron a Complete)  1.3 Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)  1.3 Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)  1.3.1 Unprotected Steel (Box & Coated) (# years to complete)  1.3.2 Cost trow/ Wrought Iron (# years to complete)  1.3.3 Cost trow/ Wrought Iron (# years to complete)  1.4 CO2F Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete)  2.1 CO2F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete (# years to complete)  2.2 CO3F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete)  2.3 Coate (# years to complete)  2.4 CO3F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete (# years to complete)  2.5 CO3F Fugitive Methane Emissions from Gas Distribution Operations/United Miles (# years to complete (# years to complet		Plastic (miles)	4,477		,	·	,	
Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)  1.3.1 Unprotected Steel (Bare & Coated) (# years to complete)  2.3.2 Cast ron / Wrought from / without provide the number of years to complete)  2.4.3 Coze Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.5.4 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.6 Coze Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.7 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.8 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.9 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.2 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.3 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.4 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.5 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.6 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.7 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.8 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.9 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.2 COZe Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.3 Annual Natural Gas Throughput from Gas Distribution Operations (metric tons)  2.4 Fugitive Methane Emissions from G		· · · · · ·	,					
Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)  1.3.1 Unprotected Steet (Bare & Coated) (# years to complete)  1.3.2 Cast from / Virought into mains, consistent with applicable state utility commission authorizations.  1.3.1 Unprotected Steet (Bare & Coated) (# years to complete)  1.3.2 Cast from / Virought into (# years to complete)  1.3.3 Cast from / Virought into (# years to complete)  1.3.4 Cast from / Virought into (# years to complete)  1.3.5 Cast from / Virought into (# years to complete)  1.4 CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  1.5 Co2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  1.5 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.5 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/castomers)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luctomer)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luctomer)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luctomer)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luctomer)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luctomer)  1.6 Co2e Fugitive Methane Emissions from Gas Distribution Operations/Luctomer (metric tons/luct			~		*	-		
2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.2 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.3 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.4 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.5 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.6 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.7 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.8 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.9 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.9 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.9 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.1 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.1 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.2 CO3e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/sustomers) 2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscs/year) 2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscs/year) 2.3 Annual Natural Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mscs/year) 2.4 Fugitive Methane Emissions for Gas Distribution Operations in millions of standard cubic feet (Mscs/year) 2.5 Calculated annual metric: (MMSFC methane emissions/MMSCF methane emissions/MMSCF methane emissions/MMSCF methane emissions form Sas Distribution O		Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (#	0	0	0	0	0	
2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.1. CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.3. Annual Natural Gas Throughput from Gas Distribution Operations (MMSCF/year)  2.4. Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.5. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.6. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.7. CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.8. CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.9. CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons/customers)  2.3 Annual Natural Gas Throughput from Gas Distribution Oper	1.3.1	Unprotected Steel (Bare & Coated) (# years to complete)	0	0	0	0	0	Optional: # yrs by pipe type.
2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  35,114  37,375  36,597  36,391  36,391  36,735  2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)  2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.1 CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.3 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.4 Fugitive Methane Emissions from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  2.5 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  2.6 Annual Natural Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mscf/year)  2.7 Annual Methane Gas Throughput from Gas Distribution Operations in			0	0	0	0	0	Optional: # yrs by pipe type.
2.1.A (metric tons/customers)  2.1.B (metric tons/customers)  2.1.B (metric tons/customers)  2.2.C CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (source)  2.2.A CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2.B CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2.B CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)  2.2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.3.1 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  2.4 Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per 0.0032060 0.0030060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.003060 0.0038669 0.0038669 0.003831 Calculated annual metric: (MMSFC methane emissions/MMSCF methane			35,114	37,375	36,597	36,391	36,735	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.</u> , this is <u>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.
2.1. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/line mile)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.2. CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  3. Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  3. Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mscf/year)  4.9322  4.9325  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9235  4.9296  4.9296	2.1.A		0.1307	0.1303	0.1265	0.1241	0.1238	
2.2.A CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)  2.2.B CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)  2.2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  2.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mscf/year)  2.4 Fugitive Methane Emissions Rate (Percent Mmscf of Methane Emissions per 0.0032060 0.0032060 0.0032088 0.0026782 0.0028781 Calculated annual metric: (MMSFC methane emissions/MMSCF methane)	2.1.B	· · · · · · · · · · · · · · · · · · ·	5.0593	5.1633	5.0116	4.9322	4.9235	
(metric tons/customers)  2.2.8 CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)  2.2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  2.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mscf/year)  2.3.1 Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per 0.0032060 0.0032060 0.0032060 0.0032060 0.0032060 0.0032060 0.0052 0.0051 0.0050 0.005	2.2	CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	1,405	1,495	1,464	1,456	1,469	
(metric tons/line mile)  2.2.1 CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)  3.15 77.86 76.24 75.81 76.50  2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet (Mscf/year)  3.633,770 88,635,813 90,923,715 86,058,464 87,798,021 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 form of the Subpart W end of the Su	2.2.A		0.0052	0.0052	0.0051	0.0050	0.0050	
2.3 Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )  2.3 Annual Methane Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )  2.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet ( <i>Mmscf/year</i> )  2.3.1 Equitive Methane Emissions Rate (Percent <i>Mmscf of Methane Emissions per</i> 2.3.2 Annual Methane Emissions Rate (Percent <i>Mmscf of Methane Emissions per</i> 2.3.3 Equitive Methane Emissions Rate (Percent <i>Mmscf of Methane Emissions per</i> 2.3.4 Equitive Methane Emissions Rate (Percent <i>Mmscf of Methane Emissions per</i> 2.3.5 Annual Methane Emissions Rate (Percent <i>Mmscf of Methane Emissions per</i> 2.3.6 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.6 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.7 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.0 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.0 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (Mmscf/year)  3.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in the "Facility Operation of the	2.2.B		0.2024	0.2065	0.2005	0.1973	0.1969	INPUT VALUE (total mt CH4) as explained in definition above. Subpart W input is CH4 (mt).
Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )  2.3 Annual Methane Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )  2.3.1 Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet ( <i>MMscf/year</i> )  2.3.1 Equitive Methane Emissions Rate (Percent <i>MMscf of Methane Emissions per</i> 2.3.1 Fugitive Methane Emissions Rate (Percent <i>MMscf of Methane Emissions per</i> 2.3.2 Calculated annual metric: (MMSFC methane emissions/MMSCF methane)	2.2.1	CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	73.15	77.86	76.24	75.81	76.50	
Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)  84,204  86,378  81,756  83,408  Calculated annual metric: (MMSFC methane emissions/MMSCF methane)  0,003,000  0,000	2.3	· · · · · · · · · · · · · · · · · · ·	73,633,770	88,635,813	90,923,715	86,058,464	87,798,021	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
2.4 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	2.3.1		69,952	84,204	86,378	81,756	83,408	
	2.4		0.0032060	0.0030908	0.0026782	0.0028069	0.0028321	



NorthWestern Corp NorthWestern Energy

>15% Vertically Integrated and remaining

Montana, South Dakota & Nebraska

Regulatory Environment: Regulated
Report Date: 5/1/22

**NorthWestern Energy - Total Company** 

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
	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 2 O are excluded.
0.1	Transmission Line Miles	Not Available	2,094.00	2,221.00	2,144.00	2,140.00	
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)	Not Available	120.00	120.00	120.01	120.00	Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4)
1.1.2	Blowdown Vent Stacks (metric tons/year)	Not Available	58.24	63.74	47.78	47.70	Value reported using calculation in 40 CFR 98 Sub W Section 236(i)(1)(iii)
1.1.3	Transmission Storage Tanks (metric tons/year)	Not Available	-	-	-	-	Value reported using calculation in 40 CFR 98 Sub W Section 236(k)(2)(v)
1.1.4	Flare Stack Emissions (metric tons/year)	Not Available	-	-	-	-	Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11)
1.1.5	Centrifugal Compressor Venting (metric tons/year)	Not Available	1,382.40	1,382.40	1,382.40	1,382.40	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)	Not Available	3.82	3.82	4.91	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)	Not Available	67.18	67.18	67.18	67.20	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)	Not Available	0.03	0.03	0.03	0.03	
1.1.8	Other Leaks (metric tons/year)	-	-	-	-	-	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)	-	-	-	-	-	
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)	Not Available	0.03	0.03	0.03	0.03	
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	Not Available	1,631.64	1,637.14	1,622.28	1,622.21	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile (metric tons / trans. line miles)	Not Available	0.78	0.74	0.76	0.76	
1.3	Total Transmission Compression Methane Emissions (CO2e/year)	Not Available	40,791	40,929	40,557	40,555	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	Not Available	84,981	85,268	84,494	84,490	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)	Not Available	7.27	7.27	103.24	95.97	Value reported using calculation in 40 CFR 98 Sub W Section 236(b)(4)
2.1.2	Flare Stack Emissions (metric tons/year)	-	-	-	-	-	Value reported using calculation in 40 CFR 98 Sub W Section 236(n)(11)
2.1.3	Centrifugal Compressor Venting (metric tons/year)	Not Available	1,382.40	1,382.40	1,382.40	1,382.40	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)	Not Available	1.30	1.30	1.27	1.30	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)	Not Available	34.60	34.60	34.61	34.60	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)	Not Available	2,390.60	2,390.60	2,390.56	2,390.60	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(q)(2)(v)
2.2	Total Storage Compression Methane Emissions (metric tons/year)	Not Available	3,816.17	3,816.17	3,912.08	3,904.87	
2.3	Total Storage Compression Methane Emissions (CO2e/year)	Not Available	95,404	95,404	97,802	97,622	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	Not Available	198,759	198,759	203,754	203,379	Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36



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**NorthWestern Energy - Total Company** 

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	. Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
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)	Not Available	120	428	6,337	1,082	Value reported using calculation in 40 CFR 98 Sub W Section 232(i)(3)(ii)
3.2	Transmission Pipeline Blowdown Vent Stacks (CO2e/year)	Not Available	3,000	10,705	158,424	27,040	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	Not Available	6,249	22,302	330,049	56,334	
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)	-	-	-	-	-	
4.2	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (CO2e/year)	-	-	-	-	-	
4.3	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Subpart W (MSCF/year)	-	-	-	-	-	
5	Summary and Metrics						
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	Not Available	290	306	618	344	
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations (MSCF/year)	Not Available	58,560,354	60,156,069	59,059,773	58,072,832	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)	Not Available	55,632	57,148	56,107	55,169	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)	Not Available					
	Natural Gas Gathering and Boosting						
1	METHANE EMISSIONS						
1.1	Gathering and Boosting Pipelines, Blow Down Volumes, and Emissions	Not Available	-	-	-	-	
1.1.1	Total Miles of Gathering Pipeline Operated by gas utility (miles)	Not Available	569.00	618.00	568.56	568.60	
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)	Not Available	414,061	1,535,249	660,299	660,298	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	Not Available	198.75	737.20	317.10	317.10	.,
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION						
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)	Not Available	7,318.00	7,552.00	7,569.00	7,046.00	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 COMPRI						
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 ( metric tons per year)	Not Available	24.27	25.05	25.12	23.35	
3.1.2	VOC (metric tons per year)	Not Available	55.73	54.24	54.79	54.82	



Gas Company ESG/Sustainability Quantitative Information

NorthWestern Corp
NorthWestern Energy

>15% Vertically Integrated and remaining

State(s) of Operation: Montana Regulatory Environment: Regulated Report Date: 5/1/22 NorthWestern Energy - Montana only

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	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	102.264	107.251	100.003	202.426	205 102	
1.1	Number of Gas Distribution Customers	182,364	197,251	199,663	202,436	205,182	These metrics should include all local distribution companies (LDCs) held by the
1.2	Distribution Mains in Service						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)	3,335	3,596	3,643	3,695	3,760	
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	1,255	1,200	1,191	1,183	1,170	
1.2.3	Unprotected Steel - Bare & Coated (miles)	-	-	-	-	-	
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	-	-	-	-	-	These metrics should provide the number of years remaining to take out of service,
1.3	Plan/Commitment to Replace / Upgrade Remaining Miles of Distribution Mains (# years to complete)						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 )	-	-	-	-	-	Optional: # yrs by pipe type.
2	Distribution CO2e Fugitive Emissions						
2.1	CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	24,511	24,887	25,326	25,179	25,494	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. 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).
2.1.A	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.1344	0.1262	0.1268	0.1244	0.1242	
2.1.B	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	5.3401	5.1890	5.2391	5.1618	5.1711	
2.2	CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	980	995	1,013	1,007	1,020	INPUT VALUE (total mt CH4) as explained in definition above. Subpart W input is
2.2.A	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.0054	0.0050	0.0051	0.0050	0.0050	<u>CH4 (mt).</u>
2.2.B	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.2136	0.2076	0.2096	0.2065	0.2068	
2.2.1	CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	51.06	51.85	52.76	52.46	53.11	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )	38,243,784	44,622,527	47,356,572	44,071,326	43,827,067	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
2.3.1	Annual Methane Gas Throughput from Gas Distribution Operations in millions of standard cubic feet (MMscf/year)	36,332	42,391	44,989	41,868	41,636	Secretary of the secret
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput )	0%	0%	0%	0%	0%	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)



NorthWestern Corp Operating Company(s): NorthWestern Energy

>15% Vertically Integrated and remaining

State(s) of Operation: Montana Regulatory Environment: Regulated Report Date: 5/1/22

#### NorthWestern Energy - Montana only

**Gas Company ESG/Sustainability Quantitative Information** 

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
	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 2 O are excluded.
0.1	Transmission Line Miles	-	2,094	2,221	2,144	2,140	
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)	0.0	120.0	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	58.2	63.7	47.8	47.7	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	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	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	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	3.8	3.8	4.9	4.9	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	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)	0.0	0.0	0.0	0.0	0.0	

	Matarar das 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 2 O are excluded.
0.1	Transmission Line Miles	-	2.094	2,221	2,144	2,140	
1	Onshore Natural Gas Transmission Compression Methane Emissions				_,	_,	Fugitive Methane emissions as defined in 40 CFR 98 Sub W Section 232 (e) (1-8),
-	Offshore Natural das Transmission Compression Methane Emissions						CO2 and N2O emissions are excluded from this section.
1.1.1	Pneumatic Device Venting (metric tons/year)	0.0	120.0	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	58.2	63.7	47.8	47.7	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	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	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	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	3.8	3.8	4.9	4.9	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,						Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
	and meters (metric tons/year)	0.0	67.2	67.2	67.2	67.2	The second secon
1.1.7.B							
1.1.7.0	Equipment Leaks per Transmission Line Wile (metric tons / transmission line miles)	0.0	0.0	0.0	0.0	0.0	
1.1.8	Other Leaks (metric tens (vear)			0.0	2.2		Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
	Other Leaks (metric tons/year)	0.0	0.0	0.0	0.0	0.0	value reported using calculation in 40 CFN 38 300 W Section 250(4)(2)(V)
1.1.8.B	Other leaks per Transmission Line Mile (metric tons / transmission line miles)	0.0	0.0	0.0	0.0	0.0	
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)	0.0	0.0	0.0	0.0	0.0	
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	0.0	1,631.6	1,637.1	1,622.3	1,622.2	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile	0.0	0.8	0.7	0.8	0.8	
	(metric tons / trans. line miles)	0.0	0.0	0.7	0.0	0.0	
1.3	Total Transmission Compression Methane Emissions (CO2e/year)	0.0	40,791.0	40,928.5	40,557.0	40,555.3	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	0.0	84,981.3	85,267.7	84,493.8	84,490.1	Density of Methane = 0.0192 kg/ft3 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), CO2
							and N2O emissions are excluded from this section.
2.1.1	Pneumatic Device Venting (metric tons/year)	0.0	7.3	7.3	103.2	96.0	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	0.0	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	1,382.4	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	1.3	1.3	1.3	1.3	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,	0.0	34.6	34.6	34.6	34.6	Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
	and meters (metric tons/year)	0.0	34.0	34.0	34.0	34.0	
2.1.6	Other Equipment Leaks (metric tons/year)	0.0	0.0	0.0	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						Value reported using calculation in 40 CFR 98 Sub W Section 236(q)(2)(v)
	valves associated with storage wellheads (metric tons/year)	0.0	2,390.6	2,390.6	2,390.6	2,390.6	
2.1.8	Other equipment leaks from components associated with storage wellheads	0.0	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	3,904.9	(4// //
2.3	Total Storage Compression Methane Emissions (CO2e/year)	0.0	95,404.3	95,404.3	97,802.0	97,621.8	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	0.0	198,759	198,759	203,754	203,379	Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36
2.7	. otal otal age compression methalic Emissions (moci / year)	•	130,733	130,733	203,734	203,373	- 2.1.1., 2.1.1.2
3	Onshore Natural Gas Transmission Pipeline Blowdowns						Blowdown vent stacks for onshore transmission pipeline as defined in 40 CFR 98 Sub
,	Onshore Natural Gas Hallsinission ripeline blowdowns						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	1,081.6	Value reported using calculation in 40 CFR 98 Sub W Section 232(i)(3)(ii)
3.2	Transmission Pipeline Blowdown Vent Stacks (CO2e/year)	0	3,000	10,705	158,424	27,040	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	0	6,249	22,302	330,049	56,334	
				,			



Parent Company: Operating Company(s): Business Type(s): Gas Company ESG/Sustainability Quantitative Information

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		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
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	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	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	0.0	
5	Summary and Metrics						
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	0.0	290.0	306.3	618.3	344.2	
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations	0	58,560,354	60,156,069	59,059,773	58,072,832	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	55,632.3	57,148.3	56,106.8	55,169.2	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	1%	1%	1%	1%	
	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)		569.0	618.0	568.6	568.6	
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)		414,061	1,535,249	660,299	660,298	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		198.8	737.2	317.1	317.1	
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION						
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)		7,318	7,552	7,569	7,046	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 COMPR						
3.1	Emissions reported for all permitted sources (minor or major)						The number of permitted sources for conventional emissions may not be the same
5.1	Emissions reported for all permitted sources (million of major)						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)		24.3	25.1	25.1	23.4	
3.1.2	VOC (metric tons per year)		55.7	54.2	54.8	54.8	



NorthWestern Corp NorthWestern Energy Business Type(s):

>15% Vertically Integrated and remaining

State(s) of Operation: South Dakota **Regulatory Environment:** Regulated 5/1/22 Report Date:

NorthWestern Energy - South Dakota only

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Calendar Year 2021	Definitions
	Natural Gas Distribution						
							All methane leak sources per 98.232 (i) (1-6) are included for Distribution. Combustion sources are excluded. CO <sub>2</sub> is excluded.
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS						
1.1	Number of Gas Distribution Customers	44,584	46,997	47,010	48,055	48,647	
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)	782.70	860.01	879.85	900.36	923.40	
1.2.2	Cathodically Protected Steel - Bare & Coated (miles)	795.08	788.24	791.00	789.78	789.02	
1.2.3	Unprotected Steel - Bare & Coated (miles)  Cast Iron / Wrought Iron - without upgrades (miles)	-	-	-	-	-	
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 )	-	-	-	-	-	Optional: # yrs by pipe type.
2.1	Distribution CO2e Fugitive Emissions  CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	6,796	6,908	7,156	7,146	7,192	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. 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
2.1.A	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.1524	0.1470	0.1522	0.1487	0.1478	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.B	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile  (metric tons/line mile)	4.3075	4.1908	4.2827	4.2281	4.1996	
2.2	CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	271.85	276.30	286.23	285.84	287.31	
2.2.A	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.0061	0.0059	0.0061	0.0059	0.0059	
2.2.B	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.1723	0.1676	0.1713	0.1691	0.1678	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)	14.16	14.39	14.91	14.89	14.96	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )	28,891,086	35,522,366	35,032,176	33,811,445	36,046,928	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 (rolumn 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	34,245	
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput )	0%	0%	0%	0%	0%	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)



**Gas Company ESG/Sustainability Quantitative Information** 

NorthWestern Corp NorthWestern Energy

>15% Vertically Integrated and remaining

State(s) of Operation: South Dakota
Regulatory Environment: Regulated
Report Date: 5/1/22

NorthWestern Energy - South Dakota only

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
	Natural Gas Transmission and Storage						
	, and the second						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 , and N , O are excluded.
0.1	Transmission Line Miles	0	0	0	0	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), CO2 and N2O emissions are excluded from this section.
1.1.1	Pneumatic Device Venting (metric tons/year)	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	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	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	0.0	0.0	
1.1.8	Other Leaks (metric tons/year)	0.0	0.0	0.0	0.0	0.0	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)	0.0	0.0	0.0	0.0	0.0	
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)	0.0	0.0	0.0	0.0	0.0	
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	0.0	0.0	0.0	0.0	0.0	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile (metric tons / trans. line miles)	0.0	0.0	0.0	0.0	0.0	
1.3	Total Transmission Compression Methane Emissions (CO2e/year)	0.0	0.0	0.0	0.0	0.0	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	0.0	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	
2.3	Total Storage Compression Methane Emissions (CO2e/year)	0.0	0.0	0.0	0.0	0.0	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	0.0	0.0	0.0	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)	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	0.0	0.0	0.0	0.0	0.0	



## **Gas Company ESG/Sustainability Quantitative Information**

NorthWestern Corp NorthWestern Energy

>15% Vertically Integrated and remaining

State(s) of Operation: South Dakota
Regulatory Environment: Regulated
Report Date: 5/1/22

NorthWestern Energy - South Dakota only

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
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	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	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	0.0	
5	Summary and Metrics						
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	0.0	0.0	0.0	0.0	0.0	
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations	0.0	0.0	0.0	0.0	0.0	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)	0.0	0.0	0.0	0.0	0.0	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	Missing Data	Missing Data	Missing Data	Missing Data	
	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)						
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)						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						
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION						
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)						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)						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)						
3.1.2	VOC (metric tons per year)						



Parent Company:
Operating Company(s):
Business Type(s):

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

## **Gas Company ESG/Sustainability Quantitative Information**

NorthWestern Corp NorthWestern Energy

>15% Vertically Integrated and remaining

Nebraska Regulated 5/1/22 **NorthWestern Energy - Nebraska only** 

Ref. No.	Refer to the "Definitions" column for more information on each metric.	Baseline 2012	Calendar Year 2018	Calendar Year 2019	Calendar Year 2020	Calendar Year 2021	Definitions
	Natural Gas Distribution						
							All methane leak sources per 98.232 (i) (1-6) are included for
							<u>Distribution.</u> Combustion sources are excluded. CO <sub>2</sub> is excluded.
1	METHANE EMISSIONS AND MITIGATION FROM DISTRIBUTION MAINS	44.674	42.526	12.557	42.776	42.002	
1.1	Number of Gas Distribution Customers	41,674	42,526	42,667	42,776	42,902	These metrics should include all local distribution companies (LDCs) held by the
1.2	Distribution Mains in Service						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)	359.70	385.62	389.34	399.84	404.42	
1.2.2 1.2.3	Cathodically Protected Steel - Bare & Coated (miles) Unprotected Steel - Bare & Coated (miles)	413.10	408.56	408.28	410.23	414.33	
1.2.4	Cast Iron / Wrought Iron - without upgrades (miles)	-	-	-	-	-	
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 ) Distribution CO2e Fugitive Emissions	-	-	-	-	-	Optional: # yrs by pipe type.
2.1	CO2e Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	3,807	5,581	4,116	4,066	4,050	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. 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).
2.1.A	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.0914	0.1312	0.0965	0.0950	0.0944	
2.1.B	CO2e Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	4.9262	7.0267	5.1597	5.0187	4.9467	
2.2	CH4 Fugitive Methane Emissions from Gas Distribution Operations (metric tons)	152.28	223.22	164.62	162.62	161.81	
2.2.A	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Customer (metric tons/customers)	0.0037	0.0052	0.0039	0.0038	0.0038	INPUT VALUE (total mt CH4) as explained in definition above. Subpart W input is
2.2.B	CH4 Fugitive Methane Emissions from Gas Distribution Operations/Line Mile (metric tons/line mile)	0.1970	0.2811	0.2064	0.2007	0.1976	CH4 (mt).
2.2.1	CH4 Fugitive Methane Emissions from Gas Distribution Operations (MMSCF/year)	7.93	11.63	8.57	8.47	8.43	
2.3	Annual Natural Gas Throughput from Gas Distribution Operations in thousands of standard cubic feet ( <i>Mscf/year</i> )	6,498,900	8,490,920	8,534,967	8,175,693	7,924,026	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)	6,174	8,066	8,108	7,767	7,528	
2.4	Fugitive Methane Emissions Rate (Percent MMscf of Methane Emissions per MMscf of Methane Throughput )	0%	0%	0%	0%	0%	Calculated annual metric: (MMSFC methane emissions/MMSCF methane throughput)
	Natural Gas Transmission and Storage						



Parent Company: Operating Company(s):

NorthWestern Energy Business Type(s): >15% Vertically Integrated and remaining

NorthWestern Corp

State(s) of Operation: Nebraska Regulatory Environment: Regulated 5/1/22 Report Date:

NorthWestern Energy - Nebraska only

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
							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 2 O are excluded.
0.1	Transmission Line Miles	0	0	0	0	0	
1	Onshore Natural Gas Transmission Compression Methane Emissions					0.0	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)	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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	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	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	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	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,	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	
1.1.8	Other Leaks (metric tons/year)	0.0	0.0	0.0	0.0	0.0	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)	0.0	0.0	0.0	0.0	0.0	
1.1.9.B	Total Leaks per Transmission Line Mile (metric tons / transmission line miles)	0.0	0.0	0.0	0.0	0.0	
1.2	Total Transmission Compression Methane Emissions (metric tons/year)	0.0	0.0	0.0	0.0	0.0	
1.2.B	Total Transmission Compression Methane Emissions per Transmission Line Mile (m	€ 0.0	0.0	0.0	0.0	0.0	
1.3	Total Transmission Compression Methane Emissions (CO2e/year)	0.0	0.0	0.0	0.0	0.0	
1.4	Total Transmission Compression Methane Emissions (MSCF/year)	0.0	0.0	0.0	0.0	0.0	Density of Methane = 0.0192 kg/ft3 per 40 CFR Sub W EQ. W-36
2	Underground Natural Gas Storage Methane Emissions	ole -	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	
2.3	Total Storage Compression Methane Emissions (CO2e/year)	0.0	0.0	0.0	0.0	0.0	
2.4	Total Storage Compression Methane Emissions (MSCF/year)	0.0	0.0	0.0	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	0,0	0.0	0.0	0.00	0.0	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)	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	
3.3	Transmission Pipeline Blowdown Vent Stacks (MSCF/year)	0.0	0.0	0.0	0.0	0.0	
	,						



Parent Company: Operating Company(s): Business Type(s): State(s) of Operation:

Regulatory Environment:

Report Date:

NorthWestern Corp NorthWestern Energy

>15% Vertically Integrated and remaining

Nebraska Regulated 5/1/22 NorthWestern Energy - Nebraska only

		Baseline	Calendar Year	Calendar Year	Calendar Year	Calendar Year	
Ref. No.	Refer to the "Definitions" column for more information on each metric.	2012	2018	2019	2020	2021	Definitions
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 Sub	p 0.0	0.0	0.0	0.0	0.0	
4.2	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Sub	0.0	0.0	0.0	0.0	0.0	
4.3	Total Methane Emissions from additional sources not recognized by 40 CFR 98 Sub	0.0	0.0	0.0	0.0	0.0	
5	Summary and Metrics						
5.1	Total Transmission and Storage Methane Emissions (MMSCF/year)	0.0	0.0	0.0	0.0	0.0	
5.2	Annual Natural Gas Throughput from Gas Transmission and Storage Operations	0.0	0.0	0.0	0.0	0.0	EIA 176 throughput or other reference for other throughput selected
5.2.1	Annual Methane Gas Throughput from Gas Transmission and Storage Operations (I	0.0	0.0	0.0	0.0	0.0	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 MM	M Missing Data	Missing Data	Missing Data	Missing Data	Missing Data	
	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)						
1.1.2	Volume of Gathering Pipeline Blow Down Emissions (scf)						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						
2	CO2e COMBUSTION EMISSIONS FOR GATHERING & BOOSTING COMPRESSION						
2.1	CO2e Emissions for Gathering & Boosting Compression Stations (metric tons)						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 COMP						
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 ( metric tons per year)						
3.1.2	VOC (metric tons per year)						