NorthWestern Corporation

doing business as

NorthWestern Energy

Sustainability Accounting Standards Board (SASB) Disclosure Report

For Calendar Year 2022

Disclosed December 2023

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Environment

GHG Emissions

Gross Scope 1 Emissions

Environment / GHG Emissions / Gross Scope 1 Emissions

Gross global Scope 1 emissions.

Gross Global Scope 1 Emissions:	Totals, in metric tons of carbon dioxide equivalents (mt of CO2-e):
Total Carbon Dioxide (CO2) Emissions:	2,759,210
Total Methane (CH4) Emissions:	62,816
Total Nitrous Oxide (N2O) Emissions:	
Total Hydrofluorocarbons (HFCs) Emissions:	
Total Perfluorocarbons (PFCs) Emissions:	
Total Sulfur Hexafluoride (SF6) Emissions:	777
Total Nitrogen Trifluoride (NF3) Emissions:	
Total Scope 1 Emissions:	2822803
Discuss any change in its emissions from the previous reporting period: NorthWestern's Scope 1 Emissions data for the past several years is included in our Key Sustainability Statistics Report which is referenced below. It's important to note that resources are dispatched economically and are also dependent on the needs of the transmission system. Our electricity supply portfolio includes a significant amount of wind which we do not own and many times our owned fossil-fuel fired resources are dispatched as a necessity in order to balance load and generation and keep our grid stable. Our scope 1 emissions are influenced by the intermittency of other's generation on our system.	
Discuss any differences in emissions reported to other entities:	
Discuss the calculation methodology for emissions disclosure: NorthWestern calculates equivalent CO2 emissions (CO2e) using data from EPA's Greenhouse Gas reporting tool for wholly owned, jointly owned, and contracted fossil fueled resources. Operators of the jointly owned plants also provide data for NorthWestern's share of emissions. For calculations associated with our entire MT and SD energy supply portfolios, NorthWestern estimates CO2e emissions associated with market purchases using emission factors from the Northwest Power and Conservation Council and EPA's eGrid data. The energy supply portfolio emissions are published in the EEI/ESG Sustainability document which is referenced below and posted on NorthWestern's website and updated each year.	
Gross global Scope 1 GHG emissions originated from perfluorinated compounds, in metric tons of carbon dioxide equivalents (mt of CO2-e): NOTE: Semiconductors sector only	
Percentage of gross global Scope 1 GHG emissions that are covered under an emissions-limiting regulation or program (%): NOTE: Metals & Mining, Iron & Steel Producers, Chemicals, and Electric Utilities & Power Generators sectors only	
Percentage of gross global Scope 1 GHG emissions that are covered under emissions reporting-based regulations (%): NOTE: Electric Utilities & Power Generators sector only	78
Breakdown of emissions by mineral or business unit: NOTE: Metals & Mining sector only	

Additional Comments

A summary of NorthWestern's Scope 1 and Scope 2 emissions associated with our electric and natural gas businesses can be found in the Environmental section of our Key Sustainability Statistics Report.

NorthWestern also calculates the CO2 and CO2e emissions associated with the energy supply portfolios in MT and SD which are made up of owned and contracted resources and market purchases. The energy supply portfolio emissions are published in the EEI/ESG Sustainability document which is posted on NorthWestern's website and updated each year. See references below.

NorthWestern calculates the methane and associated CO2e emissions for our natural gas business. These emissions are published in the AGA ESG Template document which is posted on NorthWestern's website and updated each year. See references below.

References:

EEI/ESG Sustainability Document

Key Sustainability Statistics Report Page(s) Environmental Section

AGA ESG Template

GHG Emissions from Power Deliveries

Environment / GHG Emissions / GHG Emissions from Power Deliveries

Greenhouse gas (GHG) emissions associated with power deliveries.

GHG emissions associated with electric power delivered to retail customers, resulting from owned power generation and purchased power, in metric tons of C02-e (t):	

Additional Comments

NorthWestern Energy publishes GHG emissions associated with electric power delivered to retail customers via the EEI/ESG Sustainability form which can be found on its corporate website at www.northwesternenergy.com. The form includes data for baseline year 2008 and years 2015 through the current year. Note the current year's data cannot be calculated until the following year after all resources in the portfolio have finished their GHG reporting and the data has been verified and combined for the Montana and South Dakota portfolios. NorthWestern Energy also publishes GHG emissions data in its Key Sustainability Statistics Report which is included as a reference and can also be found on www.northwesternenergy.com.

References:

EEI/ESG Sustainability Document Page(s) All

Key Sustainability Statistics Report Page(s) Various

Scope 1 Emissions, Targets, and Performance

Environment / GHG Emissions / Scope 1 Emissions, Targets, and Performance

Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets.

Discuss long- and short-term strategy or plan to manage Scope 1 greenhouse gas (GHG) emissions: Our Net Zero by 2050 Document describes NorthWestern's current plan and commitment to achieve net zero Scope 1 and Scope 2 carbon emissions by 2050 while continuing to provide reliable, affordable services for our customers. Our Key Sustainability Statistics Report provides an easy-to-read reference for current and historic Scope 1 GHG emissions.
Discuss emission reduction target(s) and performance analysis: See above and refer to our Net Zero by 2050 Document.
Discuss activities and investments required to achieve the plans and/or targets: See above and refer to our Net Zero by 2050 Document.
Discuss the scope of strategies, plans, and/or reduction targets, as they relate to different business units, geographies, or emissions sources: See above and refer to our Net Zero by 2050 Document.
Discuss whether strategies, plans, and/or reduction targets are related to emissions reporting-based programs or regulations:

References:

Net Zero by 2050 (pdf)

Markets Subject to RPS

Environment / GHG Emissions / Markets Subject to RPS

(1) Number of customers served in markets subject to renewable portfolio standards (RPS) and (2) percentage fulfillment of RPS target by market.

Number of customers served located in markets subject to renewable portfolio standards (RPS):	398,200
Fulfillment of RPS targets, as percentage on a sales-weighted basis, in megawatt hours (%):	100
Number of customers served in markets where RPSs are voluntary:	64,700
Fulfillment of voluntary RPSs, as percentage on a sales-weighted basis, in megawatt hours (%):	100
Discuss operations in markets with RPS regulations or where regulations are emerging: During the 2021 Montana Legislative session, Montana repealed its 15% renewable portfolio standard requirement via HB 576. There is no indication of a compulsory RPS requirement in South Dakota, only a voluntary RPS program in South Dakota set at 10% by 2015.	
If you are not meeting current RPS obligations, or may be at risk of not being able to meet future RPS regulations discuss reasons for not meeting RPS regulations, the number of customers for whom RPS standards are not met or likely not to be met, and/or any punitive fines or settlements stemming from failure to meet RPS regulations:	

Additional Comments

Historic renewable portfolio standard reports can be found on the Montana Public Service Commission website at www.psc.mt.gov

Air Quality

Air Pollutant Emissions

Environment / Air Quality / Air Pollutant Emissions

Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs).

Emissions of Air Pollutants, in Metric Tons per Pollutant (t):	
Total carbon monoxide (CO) emissions (t):	0
Total oxides of nitrogen (NOX) emissions (t):	978.8
Total oxides of sulfur (SOX) emissions (t):	1636.9
Total particulate matter 10 micrometers or less in diameter (PM10) emissions (t):	
Total lead and lead compound (Pb) emissions (t):	
Total mercury and mercury compounds (Hg) emissions (t):	7.5
Total non-methane volatile organic compounds (VOCs) emissions (t):	

Percentage of Emissions from Dense Population Facilities (%):	
Percentage of NOx located in or near areas of dense population (%):	0
Percentage of SOx located in or near areas of dense population (%):	0
Percentage of PM10 located in or near areas of dense population (%):	0
Percentage of Pb located in or near areas of dense population (%):	0
Percentage of Hg located in or near areas of dense population (%):	0

Discuss the calculation methodology for emissions disclosure:

Emissions are calculated using EPA approved methods and according to requirements in the applicable Air Quality permits.

Additional Comments

NorthWestern currently reports emissions of GHGs, NOx, SOx, and Hg for owned (including jointly owned) facilities and purchased power on the EEI/ESG and AGA/ESG Sustainability forms. CO2 equivalent Scope 1 and Scope 2 emissions are included in our Key Sustainability Statistics Report. These forms and reports can be found on our corporate website at www.northwesternenergy.com and are included as references below.

NorthWestern is compliance with all Air Quality permits for its owned fleet of resources. NorthWestern does not currently summarize, in a single location, emissions of CO, PM10 and VOCs from its fleet or emissions near areas of dense population, if any, but is in the process of developing an emissions database for these constituents which will be posted to our website and included in our Key Sustainability Statistics Report.

References:

- EEI/ESG Sustainability Document
- AGA ESG Template
- Key Sustainability Statistics Report

Water & Wastewater Management

Water Use and Sources

Environment / Water & Wastewater Management / Water Use and Sources

(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress.

Total water withdrawn from all sources, in thousands of cubic meters (m^3):	4,935.34
Disclose portions of water supply by source:	Percentage of total use (%):
Water Source: Various	
Total water consumed in operations, in thousands of cubic meters (m^3):	4,857.44
Identify activities that withdraw and consume water in areas with High or Extremely High Baseline Water Stress: None	
Percentage of total water that is withdrawn in areas with High or Extremely High Baseline Water Stress (%):	0
Percentage of total water consumed in areas with High or Extremely High Baseline Water Stress (%):	0

Additional Comments

A five year history of water withdrawn and used at owned thermal plants is reported in the Key Sustainability Report. Water utilized in the production of hydro-electric energy is non-consumptive. Water consumed at operational and administrative facilities is not currently tracked and considered de minimis. Risks associated with weather dependent generation sources is addressed in the 2023 Montana Electric Supply Resource Procurement Plan.

References:

Key Sustainability Statistics Report	Page(s) 5
Montana Integrated Resource Plan 2023	
SD Integrated Resource Plan 2022	

Water Management Incidents

Environment / Water & Wastewater Management / Water Management Incidents

Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations.

Total instances of non-compliance:	0

Additional Comments

NorthWestern Energy was not the subject of a formal enforcement action in 2022 or to date in 2023 related to violation of water quantity or water quality laws, regulations, policies or orders. Material environmental issues are disclosed in the 10-Q.

Water Risks Management

Environment / Water & Wastewater Management / Water Risks Management

Description of water management risks and discussion of strategies and practices to mitigate those risks.

Describe water management risks associated with water withdrawals, water consumption, and discharge of water and/or wastewater: Water use at the thermal facilities is tracked and reported in the Key Sustainability Statistics Report. Risks associated with the portion of Electric Supply Resource portfolio that is weather dependent is addressed in the Electricity Supply Resource Procurement Plan, including hydroelectricity which makes up over 40% of NorthWestern's electric portfolio. Effective use of the water, albeit non-consumptive, is critical. Resource specialists monitor snowpack, snow/water equivalent, volume runoff forecast and weather to forecast probable water conditions. Generation is then forecast based on this data with risk offset by market purchases.
Discuss the potential impacts that water management risks may have on operations and timeline over which such risks are expected to manifest:
Discuss short-term and long-term strategies or plan to mitigate water management risks:
Disclose additional discussion for water management targets:
Discuss whether water management practices result in any additional lifecycle impacts or tradeoffs in your organization:

References:

Key Sustainability Statistics Report	
Montana Integrated Resource Plan 2023	Page(s) 20

Waste & Hazardous Materials Management

Coal Combustion Residuals

Environment / Waste & Hazardous Materials Management / Coal Combustion Residuals

Amount of coal combustion residuals (CCR) generated, percentage recycled.

Amount of coal combustion residuals (CCR) generated from operations, in metric tons (t):	139,977
Percentage of coal combustion residuals (CCR) that were recycled (%):	8.0%

Additional Comments

This data represents NorthWestern's share of jointly owned coal facilities.

References:

Key Sustainability Statistics Report Page(s) 5

CCR Impoundments

Environment / Waste & Hazardous Materials Management / CCR Impoundments

Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment.

	Less Than Low Hazard Potential:	Low Hazard Potential:	Significant Hazard Potential:	High Hazard Potential:	Incised:
Satisfactory:	1		1		
Fair:					
Poor:					
Unsatisfactory:					
Not Applicable:					
					Total Number of Coal Combustion Residual (CCR) Impoundments: 2

Additional Comments

Effluent Holding Pond - Significant Hazard Potential - Satisfactory Structural Integrity Assessment.
Bottom Ash Pond - Less than Low Hazard Potential, Satisfactory Structural Integrity Assessment

Social Capital

Access & Affordability

Average Retail Electric Rate

Social Capital / Access & Affordability / Average Retail Electric Rate

Average retail electric rate for (1) residential, (2) commercial, and (3) industrial customers.

Type of Retail Customer:	Average Retail Electric Rate (kWh):
Residential:	0.12332
Commercial:	0.10959
Industrial:	0.01536
Additional Type:	

Additional Comments

2022 Total Revenue by customer class divided by kWh by customer class.

References:

2022 Annual Report	Page(s) 51

Monthly Residential Electric Bill

Social Capital / Access & Affordability / Monthly Residential Electric Bill

Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month.

Reporting Currency: US Dollar		
Type of Customer:	Typical Monthly Electric Bill for the First 500 Kilowatt Hours Delivered per Month (kWh):	Typical Monthly Electric Bill for the First 1000 Kilowatt Hours Delivered per Month (kWh):
Residential Customers:	62.26	120.29
Discuss any variance in disclosure with those figures reported in the Edison Electric Institute's "Typical Bills and Average Rates Report": This is NorthWestern Energy Typical Bill in the State of Montana for the July 1, 2022 EEI Typical Bills and Average Rates Report		

Additional Comments

Rates in Effect as of July 1, 2022

Electric Disconnections

Social Capital / Access & Affordability / Electric Disconnections

Number of residential customer electric disconnections for non-payment, percentage reconnected within 30 days.

Total number of electricity disconnections among residential customers that resulted from non-payment:	11,800
Percentage of disconnections that are reconnected within 30 days (%):	75.6%
Discuss how policies, programs, and regulations impact the number and duration of residential customer disconnections: Policies, programs and regulations that impact the number and duration of residential disconnects vary based on time of year. We follow separate winter moratorium periods for each state. The moratorium itself would not have an impact on the duration of a customers disconnection, it can however have an impact on timing of disconnection. Each state has separate programs for low-income payment assistance that can impact the duration of a customer's disconnection depending on volumes, etc., and turn around of application and notification to the utility of any assistance. Once accounts are resolved, services are restored as quickly as possible. More information can be found in our Customer Handbooks.	

Additional Comments

We are unable to differentiate disconnections / reconnections by service type since some customers are electric, natural gas and combo customers. The data provided is reflective of all residential jurisdictions (Montana, South Dakota and Nebraska) and electric, natural gas and combo customers.

References:

Montana Customer Handbook	Page(s) 20-24
South Dakota Customer Handbook	Page(s) 20-24
Nebraska Customer Handbook	Page(s) 18-21
Key Sustainability Statistics Report	Page(s) 7

Customer Affordability of Electricity

Social Capital / Access & Affordability / Customer Affordability of Electricity

Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory.

Describe the external factors that cause, or are reasonably likely to cause, a significant impact on the affordability of electricity among your retail customers: Each state in which NorthWestern Energy operates (Montana, South Dakota, Nebraska) offers assistance to residential customers in the form of monetary assistance for those who cannot pay their bill or are disconnected from service for non-payment. Unemployment rates are significantly better than the national average. We also have low taxation within the states we operate which drive economic development attracting new companies in our service territory or help current businesses thrive.
Describe the frequency and magnitude in which each external factor impacts the affordability of electricity for customers and the trend in the impact of the factor on the affordability of electricity for customers: In Montana, over 15% of the typical residential bill recover the cost of property taxes levied by state and local governments upon NorthWestern's electric system. Also in Montana, we do not own enough of our own generation to meet supply during peak times during the day. Thus we need to purchase electricity on the open market where at times this has become very expensive (sometimes up near 20 times our normal generation costs).
Describe the risks and opportunities that arise out of the external factors: We have seen significant population growth to our service territories especially in conjunction with the Covid-19 pandemic and many individuals working remotely. As a result, we have seen favorable population shifts from urban areas into the smaller communities and rural areas that NorthWestern Energy serves. In addition, many coal plants are shutting down across the United States, due to operational issues or mainly due to environmental pressures. With these closures, peak electricity or capacity (energy needed in a short notice) has become scarce and expensive due to supply and demand. This is expensive for our customers. We see an opportunity to buy or build capacity assets to meet our customer needs and provide affordable and reliable energy.
Describe how your average rates, average bills, and/or customer disconnections compare to other utilities: NorthWestern Energy electric and natural gas rates are below the national average rates. Additional information can be found in our Key Sustainability Statistics Report.
Disclose the median household income, poverty rates, employment rates, or other quantitative or qualitative data that depict the economic conditions of the service territory: (Source: Census.gov) 2021 Median Household Income: Montana $60,560 (up 7.1% over 2020), South Dakota $63,920 (up 6.7% over '20) and Nebraska $66,644 (up 5.8% over '20) 2021 Poverty Rates: Montana 11.9%, South Dakota 12.3% and Nebraska 10.8% 2021 High School Graduation Rate: Montana 94.4%, South Dakota 92.5% and Nebraska 91.7% 2021 Bachelor's Degree or Higher: Montana 33.7%, South Dakota 30.0% and Nebraska 32.9% (Source: BLS.gov) 2023 (March) Unemployment Rates and US Rank: Montana 2.1% (4th), South Dakota 1.9% (1st) and Nebraska 2.1% (2nd)

References:

Account Services and Energy Affordability	
Key Sustainability Statistics Report	Page(s) 6

Average Retail Gas Rate

Social Capital / Access & Affordability / Average Retail Gas Rate

Average retail gas rate for (1) residential, (2) commercial, (3) industrial customers, and (4) transportation services only.

Type of Retail Customer:	Average Bundled Gas Rate (MMBtu):
Residential Customers:	10.7424
Commercial Customers:	9.86865
Industrial Customers:	9.32515
Transportation Services:	
Sub-classification or Additional Type:	

Additional Comments

Average natural gas rates shown for calendar year 2022. 2022 Annual Report/10K page 53 - Revenues divided by Dekatherms

References:

2022 Annual Report	Page(s) 53

Typical Monthly Gas Bill

Social Capital / Access & Affordability / Typical Monthly Gas Bill

Typical monthly gas bill for residential customers for (1) 50 MMBtu and (2) 100 MMBtu of gas delivered per year.

Reporting Currency: US Dollars	
Type of Customer:	Typical Monthly Gas Bill:
Residential Customers:	First 50 million MMBtu: 53.66 First 100 million MMBtu: 100.80
Sub-classification or Additional Type:	First 50 million MMBtu: First 100 million MMBtu:
Disclose methodology for calculating typical monthly gas bill for residential customers: The rates for a typical monthly gas bill in Montana is the average of the 12 months typical bill for 50 dekatherms (50 MMBTU) and 100 dekatherms (100 MMBTU) usage per year in 2022 from internal sources.	

Gas Disconnections for Nonpayment

Social Capital / Access & Affordability / Gas Disconnections for Nonpayment

Number of residential customer gas disconnections for nonpayment, percentage reconnected within 30 days.

Total number of gas disconnections among residential customers that resulted from non-payment:	11,800
Percentage of disconnections that were reconnected within 30 days (%):	75.6%
Discuss how policies impact the number and duration of residential customer disconnections: Policies, programs and regulations that impact the number and duration of residential disconnects vary based on time of year. We follow separate winter moratorium periods for each state. The moratorium itself woulnd not have an impact on the duration of a customers disconnection, it can however have an impact on timing of disconnection. Eachst state has separate programs for low-income payment assistance that can impact the duration of a customer's disconnection depending on volumes, etc., and turn around of application and notification to the utility of any assistance. Once accounts are resolved, services are restored as quickly as possible. More information can be found in our Customer Handbooks.	
Discuss how programs impact the number and duration of residential customer disconnections:	
Discuss how regulations impact the number and duration of residential customer disconnections:	

Additional Comments

We are unable to differentiate disconnections / reconnections by service type since some customers are electric, natural gas and combo customers. The data provided is reflective of all residential jurisdictions (Montana, South Dakota and Nebraska) and electric, natural gas and combo customers.

References:

Montana Customer Handbook	Page(s) 20-24
South Dakota Customer Handbook	Page(s) 20-24
Nebraska Customer Handbook	Page(s) 18-21
Key Sustainability Statistics Report	Page(s) 7

Gas Affordability

Social Capital / Access & Affordability / Gas Affordability

Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory.

Describe the external factors that cause, or are reasonably likely to cause, a significant impact on the affordability of gas among your retail customers: Each state in which NorthWestern Energy operates (Montana, South Dakota, Nebraska) offers assistance to residential customers in the form of monetary assistance for those who cannot pay their bill or are disconnected from service for non-payment. Unemployment rates are significantly better than the national average. We also have low taxation within the states we operate which drive economic development attracting new companies in our service territory or help current businesses thrive.
For each external factor, describe the frequency and magnitude in which the factor impacts the affordability of gas for your customers: In Montana, over 15% of the typical residential bill recover the cost of property taxes levied by state and local governments upon NorthWestern's natural gas system. About 85% of our supply of gas in Montana and all in South Dakota and Nebraska is purchased on the market and flowed as a pass-through cost to our customers, meaning we only own a small portion of gas reserves in Montana. Customers are subject to supply and demand of gas market prices, which can fluctuate, especially during extreme cold periods in the winter months
For each external factor, describe the trend in the impact of the factor on the affordability of gas for your customers: Property taxes in Montana continue to increase by about 7.4% per year, for the last 10 years. With regards to market purchases of natural gas, we have access to both AECO and Henry gas trading hubs, which has some of the lowest and least volatile prices in the midwest and northwest U.S.
Describe the risks and opportunities that arise out of the external factors: We have seen significant population growth to our service territories especially in conjunction with the Covid-19 pandemic and many individuals working remotely. As a result, we have seen favorable populations shifts from urban areas into the smaller communities and rural areas that NorthWestern Energy serves.
Describe how your average rates, average bills, and/or customer disconnections compare to other utilities: NorthWestern Energy electric and natural gas rates are below the national average rates. Additional information can be found in our Key Sustainability Statistics Report.

References:

Account Services and Energy Affordability

Key Sustainability Statistics Report Page(s) 6

Human Capital

Employee Health & Safety

Incident, Fatality, and Near Miss Frequency Rate

Human Capital / Employee Health & Safety / Incident, Fatality, and Near Miss Frequency Rate

(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR).

Total recordable incident rate (TRIR):	1.57
Fatality rate:	0
Near miss frequency rate (NMFR):	N/A
Process for classifying, identifying, and reporting near misses: We currently do not track near misses.	

Additional Comments

As stewards of critical infrastructure, providers of energy service, and members of the communities we serve, our priority is the health and safety of our employees and customers. Safety and health are considered and integrated into all work activities. We monitor several different key areas relating to safety to review and evaluate our operations, to measure progress, and to enhance compliance with our safety philosophies and policies. These key metrics include the recordable incident rate (number of work-related injuries per 100 employees for a one-year period) and lost time incident rate (number of employees who lost time due to work-related injuries per 100 employees for a one-year period). During the years ended December 31, 2022 and December 31, 2021 our recordable incident rates were 1.57 and 1.77 and lost time incident rates were 0.59 and 0.66 on a company wide basis. Our five-year average safety record for the year ended December 31, 2021 was better than our industry peer group's five-year average.

References:

Key Sustainability Statistics Report Page(s) 8

Business Model & Innovation

Business Model Resilience

Electric Utility Revenues

Business Model & Innovation / Business Model Resilience / Electric Utility Revenues

Percentage of electric utility revenues from rate structures that (1) are decoupled and (2) contain a lost revenue adjustment mechanism (LRAM).

Percentage of electric utility revenues from decoupled rate structures (%):	0%
Percentage of electric utility revenues from rate structures that contain an LRAM (%):	0%

Additional Comments

In our 2018 Montana electric rate settlement, the Montana Public Service Commission (MPSC) approved a Fixed Cost Recovery Mechanism Pilot (FCRM), intended to decouple our recovery of fixed, test-year based transmission, distribution, and production costs from sales of energy. At our request, the MPSC delayed implementation of the pilot to July 1, 2021 due to the continued uncertainties created by the COVID-19 pandemic. The FCRM is expected to function over a four-year pilot period, applying primarily to residential customers and our smallest commercial customer class. On April 15, 2021, we filed a request to delay the implementation of our FCRM pilot for another year until July 2022 or beyond, due to the continued pandemic uncertainties. We reached a settlement in our latest Montana rate case with major intervenors in April 2023 which would remove the FCRM from our operations as it does not include all customers classes. A final decision on this settlement is expected by summer of 2023.

Smart Grid Technology Electric Load

Business Model & Innovation / Business Model Resilience / Smart Grid Technology Electric Load

Percentage of electric load served by smart grid technology.

Percentage by megawatt hours of electric load served by smart grid technology (%):	44.0%
Discuss the type of smart grid technology through which its electric load is served, the customer types that are utilizing the technology whether technologies are owned by the utility or the customer, and any plans for further integration of smart grid capabilities: In 2019 and 2020, NorthWestern Energy installed automated metering infrastructure in the entirety of our South Dakota (electric and natural gas service) and Nebraska (natural gas service only) service territory (subject to opt-out provisions). In 2021 through 2025, we expect to install automated metering infrastructure in the entirety of our Montana service territory (electric and natural gas service). The primary goals of our distribution system infrastructure investment are to reverse the trend in aging infrastructure, maintain reliability, proactively manage safety, build capacity into the system, and prepare our network for the adoption of new technologies. We are taking a proactive and pragmatic approach to replacing these assets while also evaluating the implementation of additional technologies to prepare the overall system for smart grid applications.	
Discuss the opportunities and challenges associated with the development and operations of a smart grid:	

References:

Key Sustainability Statistics Report Page(s) 6

Customer Electricity Savings

Business Model & Innovation / Business Model Resilience / Customer Electricity Savings

Customer electricity savings from efficiency measures, by market.

Market:	Total Amount of Electricity Savings Delivered to Customers from Energy Efficiency Measures, in Megawatt Hours (MWh):
Montana, South Dakota	74,377
Discuss regulations related to customer efficiency measures for each relevant market: NorthWestern Energy offers for ALL markets Tax Credits for residential and commercial customers along with an E+ home Energy Check and ENERGY STAR resources. We also offer forms of energy bill assistance and encourage the development of renewable energy resource projects. We also offer education/training webinars to customers related to energy efficiency.	
Discuss the forms of policy, by each market, that allow for or incentivize energy efficiency, including a discussion of the benefits, challenges, and financial impacts associated with such regulations: In Montana, Docket No. D2018.7.46 and Docket No. 2019.07.040, respectively sets targets of 4.35 aMW to meet for electric energy savings. We have met or exceeded that target the last five years. The incremental annual investment in Demand Side Management (energy savings) programs has been over $12M each year over the last 5 years for both electric and natural gas operations.	
Discuss any efforts to meet regulations through incentives developed for customers that promote end-use efficiency: We offer in-home audits for energy efficiency. We provide customers with resources on tax incentives through each state we serve or on the federal level. We also provide customers with resources on energy efficiency for homes and appliances.	

References:

Save Energy and Money

Key Sustainability Statistics Report Page(s) 7

Decoupled Gas Utility Revenues

Business Model & Innovation / Business Model Resilience / Decoupled Gas Utility Revenues

Percentage of gas utility revenues from rate structures that (1) are decoupled or (2) contain a lost revenue adjustment mechanism (LRAM).

Percentage of gas utility revenues from revenue decoupled rate structures (%):	0.0%
Percentage of gas utility revenues from rate structures that contain a LRAM (%):	0.0%

Customer Gas Savings

Business Model & Innovation / Business Model Resilience / Customer Gas Savings

Customer gas savings from efficiency measures by market.

Customer Gas Savings from Efficiency Measures by Market:		Total Amount of Gas Savings (MMBtu):
Market Type:	Montana, South Dakota and Nebraska	35,403
List those markets where you report gas savings on a net savings basis and thus may be different from the figures disclosed here: Data is for calendar year 2022		
Discuss customer efficiency measures that are required by regulations for each relevant market: NorthWestern Energy offers a rebate program through a Universal System Benefits (USB) renewable energy fund. We also offer a commercial energy efficiency rebate program.		
Discuss the policy mechanisms in place for each market that allows for or incentivizes energy efficiency: NorthWestern Energy offers a rebate program for energy efficiency for both residential and commercial customers. We offer E+ Home EnergyCheck to audit buildings for energy efficiency. We offer education and training opportunities (webinars) related to energy efficiency along with multiple other resources. See link on "Save Energy and Money"		
Discuss incentives developed for customers that promote end-use efficiency: The Montana government offers loans for alternative energy and tax incentives for efficiency and renewable energy. There are federal tax incentives to have homes or commercial businesses to be energy efficient and also offer tax incentives for equipment meeting the ENERGY STAR certification.		

References:

Save Energy and Money

Key Sustainability Statistics Report Page(s) 7

Leadership & Governance

Critical Incident Risk Management

Number of Nuclear Power Units

Leadership & Governance / Critical Incident Risk Management / Number of Nuclear Power Units

Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column.

Licensee Response:	Regulatory Response:	Degraded Performance:	Multiple/Repetitive Degraded Cornerstone Column:	Unacceptable Performance:
0	0	0	0	0
				Total number of nuclear power units owned/ operated 0

Additional Comments

NorthWestern Energy does not own, operate or have long-term contracted nuclear power as part of its electric portfolio.

Efforts to Manage Nuclear Safety

Leadership & Governance / Critical Incident Risk Management / Efforts to Manage Nuclear Safety

Description of efforts to manage nuclear safety and emergency preparedness.

Discuss efforts to manage nuclear safety and emergency preparedness: Not applicable
Discuss how you manage nuclear safety and emergency preparedness: Not applicable
Discuss efforts to create and maintain a culture of nuclear safety and emergency preparedness: Not applicable
Discuss implementation of the Institute of Nuclear Power Operations (INPO) Principles for a Strong Nuclear Safety Culture and/or the Institute of Nuclear Power Operations (INPO) Principles for a Strong Nuclear Safety Culture: Not applicable

Additional Comments

NorthWestern Energy does not own, operate or have long-term contracted nuclear power as part of its electric portfolio.

Pipeline Incidents

Leadership & Governance / Critical Incident Risk Management / Pipeline Incidents

Number of (1) reportable pipeline incidents, (2) Corrective Action Orders (CAO), and (3) Notices of Probable Violation (NOPV).

Number of U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) reportable pipeline incidents:	0
Number of PHMSA Corrective Action Orders (CAO) received:	0
Number of Notices of Probable Violation (NOPC) received:	4
Discuss notable incidents:	

Additional Comments

Unprotected Metal Gas Pipelines

Leadership & Governance / Critical Incident Risk Management / Unprotected Metal Gas Pipelines

Percentage of distribution pipeline that is (1) cast and/or wrought iron and (2) unprotected steel.

Percentage of natural gas pipelines that are cast and/or wrought iron, by length (%):	0%
Percentage of natural gas pipelines that are unprotected steel, by length (%):	0%
Discuss pipeline replacement rates, use of polyethylene pipes, or other efforts to reduce fugitive emissions and leaks and improve the safety of distribution pipelines: See the description and details of NorthWestern's Enhanced Infrastructure Replacement Program and Gas Distribution Infrastructure Program in its Net Zero by 2050 document.	

References:

Net Zero by 2050 (pdf) Page(s) Primarily 16-17

Gas Pipelines Inspected

Leadership & Governance / Critical Incident Risk Management / Gas Pipelines Inspected

Percentage of gas (1) transmission and (2) distribution pipelines inspected.

Percentage of gas transmission pipelines that were inspected, by length (%):	100%
Percentage of gas distribution pipelines that were inspected, by length (%):	30%

Additional Comments

Approximations provided are based upon typical annual schedules.

Integrity of Gas Delivery

Leadership & Governance / Critical Incident Risk Management / Integrity of Gas Delivery

Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions.

Describe efforts to manage the integrity of gas delivery infrastructure:

NWE has a Pipeline Integrity Management plan that involves monitoring of the pipeline system, particularly in high consequence areas. We recently formed a Compliance group in the gas transmission department that is heavily involved in ensuring we meet the letter and the spirit of all PHMSA regulations. Some notable recent activities are the Control Room Management plan, Operator Qualification planning and tracking, Emergency Response plan, Underground Storage Plan, Pipeline Integrity Management, and materials tracking. NWE completes annual patrols and leak surveys of all the regulated transmission facilities and pipelines. The transmission system is actively monitored 24/7/365 by gas controllers via SCADA system. NWE has implemented a damage prevention group that completes standby during any excavation activities that are occurring near the gas transmission lines. NWE also participates in 811 one-call system and other organizations that spread information about public awareness and damage prevention of gas facilities.

Describe how you integrate a culture of safety and emergency preparedness throughout project lifecycles:

Safe production is used throughout all processes at NorthWestern Energy. In particular, many of our supervisors are trained in Human Performance Initiative. This program looks to prevent errors, but more importantly looks for ways to make sure errors that occur have no consequences. This philosophy is seen throughout our safety culture in work procedures, tailboards, emergency response, and daily operations. Gas transmission has moved from a table-top type approach to emergency training to more active full blown scenarios, when possible, that have proven beneficial in any emergency response in all conditions.

Describe your approach to ensuring pipeline operators are qualified or supervised when performing a covered task:

In the gas transmission department, we have a weekly operations meeting that involves management, field supervision, gas control, environmental, safety, gas transportation, and gas supply employees. Part of this weekly meeting is the tracking of operator qualification of all employees and a thorough review of any employees that are not qualified for a particular task, thus informing supervision in regards to employees allowed to work on covered tasks. NWE operates under regulations of 49CFR192, which requires Operator Qualification to be followed for certain tasks. NWE has had an operator qualification plan since it was required by code. Transmission follows this plan and the GTS compliance group continually verifies people doing tasks are qualified per our operator qualification program - this is for internal and external individuals that will be working on GTS facilities or pipelines. We do allow on-the-job training, which when doing identified tasks requires a fully qualified person to observer the non-qualified individual perform the task. They have to be in direct observation of the task being completed so they can take immediate control if something were to happen.

Describe efforts to mitigate risks and promote emergency preparedness:

Our emergency response plan is reviewed annually for potential needed changes. Additionally, the plan is communicated to all employees in the department. Exercises (as noted above) are performed with our field and emergency response crews annually. Outside agencies, i.e. police and fire departments, are invited to these tabletop exercises. To date, we have had very good participation by these outside agencies. We believe this not only prepares us for an emergency, but fosters a cooperative relationship with the agencies.

Describe your efforts to manage risks related to human health and safety, and emissions, including fugitive emissions and process emissions, that arise out of the integrity of gas delivery infrastructure:

All GTS field employees carry personal monitors that detect methane, oxygen, carbon monoxide, and hydrogen sulfide gas. These monitors are calibrated regularly and training conducted regularly to ensure the atmosphere is safe for employees. Additionally, NWE patrols transmission and storage lines on at least an annual basis as well as performing leak checks regularly at our above ground facilities. Leaks are repaired regularly to minimize the risk to employees and to minimize gas lost. We ensure that employees are operator qualified and trained in what to do if they hear, smell, or find gas.

Discuss direct or indirect financial opportunities related to the management of the integrity of gas delivery infrastructure:

Pipeline integrity directly correlates to reliable gas service to our customers. This in turn correlates to revenue and financial success.

Disclose pipeline replacement rates:

Gas transmission has averaged around 4 miles per year over the last 5 years. Through integrity management plans, distribution pipeline has average 65 miles of main and approximately 1,000 services each year over the last five years.

Disclose average response time for gas emergencies:

Response time for when notification occurs to gas personnel onsite is typically less than 30 minutes, but could be slightly longer depending on location and personnel availability. Duration of gas emergencies vary depending on severity of the emergency and ability to access valves, shut off equipment, critical service time, etc. Typical duration of an emergency is around 8-10 hours.

Disclose open Grade 2 and 2+ leaks:

As reported on our 2021 Form 7100, at year end there were 11 known leaks on the transmission system and 99 known for distribution of which 3 were grade 2, the remaining were grade 3. In most instances, NWE attempts to correct all grade 2 leaks prior to November. Some happen to go beyond that but that number is limited. The total number of leaks identified are most likely grade 3 leaks that are in a monitor status. Data for 2022 are not yet available.

Disclose fugitive emissions, including the technique(s) employed to measure leakage, the amount of leakage calculated according to each technique it employs, and the regulations to which your gas leakage is subject: 62,816 metric tons in 2022 for our Distribution, Transmission pipeline and storage operations compared to 68,575 in 2021 and 66,841 metric tons in 2020.
Disclose process emissions: None
Disclose other efforts designed to reduce emissions and/or improve the safety of your gas delivery infrastructure: Northwestern Energy gas consumption equipment, i.e. compressor stations, implement best available control technology. For example, we retrofitted a number of older compressors with upgraded control panels. These panels have yielded more efficient operations which result in lower emissions and more reliable operations. Many of our above ground facilities have methane detection equipment installed in buildings to monitor for leaks, etc. Additionally, we perform regular emissions testing for CO and NOx on our compressor stations to ensure we are meeting air quality regulations. Majority of our stations have been upgraded to operator/monitor stations that do not relive gas to atmosphere. Additionally, vintage equipment that regularly vented gas to atmosphere has been identified and replaced over a period of time.

References:

AGA ESG Template Page(s) Page 1 -Line 2.1. Page 2 - Lines 1.2 & 2.2. Page 3 - Line 3.1

Net Zero by 2050 (pdf) Page(s) See natural gas section starting on page 15

Systemic Risk Management

Non-compliance with Electricity Infrastructure Regulations

Leadership & Governance / Systemic Risk Management / Non-compliance with Electricity Infrastructure Regulations

Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations.

Total number of instances of non-compliance with physical and/or cyber security standards or regulations:	
Number of instances of non-compliance with voluntary physical and/or cybersecurity standards or regulations:	

Additional Comments

Based on our own Data Privacy Policy, we do not disclose the number of non-compliance instances around cybersecurity. However, NorthWestern Corporation incorporates many frameworks into their cybersecurity practices applying numerous governance structures. We have an active threat hunting team as well as a robust incident response and disaster recovery plan which is exercised at least once per calendar year. NorthWestern Corp performs numerous vulnerability assessments and penetration testing on a weekly basis. NorthWestern Corp also leverages industry leading organization to perform periodic security audits and vulnerability testing. All employees are required to take at least four cyber security courses throughout a calendar year. In addition, employees are actively phished (via email) throughout a calendar year.

References:

Privacy Policy

Interruptions

Leadership & Governance / Systemic Risk Management / Interruptions

(1) System Average Interruption Duration Index (SAIDI), (2) System Average Interruption Frequency Index (SAIFI), and (3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days.

System Average Interruption Duration Index (SAIDI), in minutes:	111.49
SAIDI inclusive of major event days, in minutes:	129.81
System Average Interruption Frequency Index (SAIFI), in minutes:	1.061
SAIFI inclusive of major event days, in minutes:	1.141
Customer Average Interruption Duration Index (CAIDI), in minutes:	105.13
CAIDI inclusive of major event days, in minutes:	113.76
Discuss notable service disruptions: We had two derecho storms (strong straight line winds) in South Dakota in May and July of 2022 classified as Catastrophic days. We also experienced 3 major event days in SD and 2 in Montana due to either weather or equipment failure. We also experienced 18 large unplanned outages, not classified as major event days that resulted in 777 outages in our Montana service territory.	

Additional Comments

The metrics provided are reported under the Institute of Electrical and Electronics Engineers (IEEE) standards. For the SAIDI and CAIDI metrics we are typically in the first or second quartile (first being best practice) versus other electric utilities.

NorthWestern Energy's transmission and distribution electrical services are primarily in rural areas of our service territory. In addition, we have many electrical power lines in rugged, mountainous regions in Montana, were 80% of our business operates.

Activity Metrics

Customers Served - NW Custom SASB QID

Activity Metrics / Customers Served - NW Custom SASB QID

Number of: (1) residential, (2) commercial, and (3) industrial customers served.

Total Number of Customers Served for IF-EU-000.A (Electric Utilities & Power Generators sector)	
Residential for IF-EU-000.A:	368,037
Commercial for IF-EU-000.A:	85,990
Industrial for IF-EU-000.A:	76
Total Number of Customers Served for IF-GU-000.A (Gas Utilities & Distributors sector)	
Residential for IF-GU-000.A:	261,096
Commercial for IF-GU-000.A:	37,380
Industrial for IF-GU-000.A:	232

Additional Comments

Average Customer Counts for 2022. Excludes government entities and third party transport customers

References:

2022 Annual Report	Page(s) Pages 51 & 53 of the 10K portion of document

Natural Gas Delivered

Activity Metrics / Natural Gas Delivered

Amount of natural gas delivered to: (1) residential customers, (2) commercial customers, (3) industrial customers, and (4) transferred to a third party.

Type of Customer:	Amount of Natural Gas Delivered (MMBtu):
Residential Customers:	21,157,000
Commercial Customers:	13,156,000
Industrial Customers:	163,000
Transferred to Third Party:	232,000

Additional Comments

These amounts are for calendar year 2022

References:

2022 Annual Report	Page(s) Page 53

Total Electricity Delivered

Activity Metrics / Total Electricity Delivered

Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers.

Total Electricity Delivered (MWh):	
Residential Customers:	3,464,000
Commercial Customers:	4,351,000
Industrial Customers:	2,590,000
All Other Retail Customers:	161,000
Wholesale Customers:	0

Additional Comments

Calendar year 2022 electricity delivered in MWh's

References:

2022 Annual Report	Page(s) Page 51

Length of Transmission and Distribution Lines (Electric Utilities)

Activity Metrics / Length of Transmission and Distribution Lines (Electric Utilities)

Length of transmission and distribution lines.

Length of transmission lines (km):	12,722
Length of distribution lines (km):	33,597

Additional Comments

12,722 kilometers (7,905 miles) of electric transmission and 33,597 kilometers (20,876 miles) of electric distribution lines. System statistics as of year-end 2022.

References:

2022 Annual Report	Page(s) Pages 12 & 15 of the 10K portion

Length of Transmission and Distribution Lines - NW Custom SASB QID

Activity Metrics / Length of Transmission and Distribution Lines - NW Custom SASB QID

Length of transmission and distribution lines.

Answers for IF-EU-000.C (Electric Utilities & Power Generators sector)	
Length of transmission lines for IF-EU-000.C (km):	12,722
Length of distribution lines for IF-EU-000.C (km):	33,597
Answers for IF-GU-000.C (Gas Utilities & Distributors sector)	
Length of transmission lines for IF-GU-000.C (km):	3,685
Length of distribution lines for IF-GU-000.C (km):	10,981

Additional Comments

NorthWestern reports our line lengths in miles, but responses provided are converted to kilometers.

References:

2022 Annual Report	Page(s) pages 12, 15 & 18 of 10K portion

Total Electricity Generated

Activity Metrics / Total Electricity Generated

Total electricity generated, percentage by major energy source, percentage in regulated markets.

Total Electricity Generated by Energy Source (MWh):	
Coal:	2,350,683
Natural Gas:	508,758
Nuclear Sources:	0
Petroleum:	
Hydropower:	2,192,758
Solar Sources:	0
Wind Sources:	493,060
Other Renewables:	0
Other Gases:	0
Total Energy Generated:	5,615,540

Total Percentage of Electricity Generated by Energy Source (%):	
Coal:	43.14%
Natural Gas:	9.02%
Nuclear Sources:	0.0%
Petroleum:	0.00%
Hydropower:	39.05%
Solar Sources:	0.0%
Wind Sources:	8.79%
Other Renewables:	0.0%
Other Gases:	0.0%

Total Percentage of Electricity in Regulated Market by Energy Source (%):	
Coal:	30.45%
Natural Gas:	25.73%
Nuclear Sources:	0.0%
Petroleum:	2.52%
Hydropower:	32.06%
Solar Sources:	0.0
Wind Sources:	9.24%
Other Renewables:	0.0%
Other Gases:	0.0%

Additional Comments

All figures include only owned generating resources and exclude spot market purchases long-term contracted resources (2022 data).

References:

EEI/ESG Sustainability Document Page(s) Page 3

Total Wholesale Electricity Purchased

Activity Metrics / Total Wholesale Electricity Purchased

Total wholesale electricity purchased.

Total wholesale electricity purchased (MWh):	4,188,987

Additional Comments

Data for Calendar year 2022 - Purchases of electricity

References:

2022 FERC Form 1 Report Page(s) Page 401a - Line 10