



2023 Sustainability Accounting Standards Board (SASB) Mapping Report

Black Hills Corporation SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS Electric Utilities & Power Generators

Topic	SASB Code	Accounting Metric	Response
Greenhouse Gas Emissions & Energy Resource Planning	IF-EU-110a.1	(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations.	See EII Disclosure (1) 4,100,289 MT. Scope 1 emissions for Power Generators and SF6 only, see EII Disclosure. (2) 4.35% (3) 99.8%. SF6 emissions are part of our electric utilities and are being reported under this framework (Electric Utilities and Power Generators)
	IF-EU-110a.2	Greenhouse gas (GHG) emissions associated with power deliveries:	See EII Disclosure 5,006,699 MT. Emissions associated with all power deliveries, including market sales, see EII Disclosure.
	IF-EU-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	See page 11 of our Corporate Sustainability Report We are excited to announce significant advancements in our decarbonization journey. We have continued to achieve progress toward our goal to reduce electric utility emission intensity 40% by 2030 and 70% by 2040 and have expanded our natural gas utility goal to be net zero for our distribution system by 2035. We are transitioning to a cleaner energy future through the addition of low or zero-carbon generation sources, and fossil fuel plant retirements or conversions. Our preferred resource plan in Colorado plans to add 400 MW of renewable energy and battery storage by 2030. We will be positioned to achieve our greenhouse gas (GHG) reduction goals, without reliance on future technologies, through the conversion of Neil Simpson II coal plant to include natural gas as a dual fuel unit, conversion or retirement of our remaining coal and diesel power plants and added renewable energy resources and storage. In addition to company owned and operated renewable energy sources, we leverage power purchase agreements (PPA) to meet customers' needs and help achieve our GHG reduction goals. Our first large-scale solar PPA, Fall River Solar, was brought online in 2023. The energy from this 80 MW project located near Oelrichs, South Dakota will be used to serve Black Hills Energy customers throughout western South Dakota and eastern Wyoming. Our total renewable portfolio of owned and contracted renewable energy represents 33% of our generation capacity and helps to achieve our GHG reduction goals and serve our customers' needs. Natural gas is a critical source of energy and it will play a vital role in the energy transition, reducing our country's greenhouse gas emissions. Our natural gas utilities serve more than 1.1 million customers in six states. We operate a gas system above industry standards, investing in quality materials with low emission rates. Cast iron pipe has not been present in our system since 2014, and 99% of our infrastructure is comprised of protected steel or plastic. These investments, with a focus on system integrity, damage prevention and measurement improvement, have positioned us to achieve our net zero emissions target for our natural gas distribution system by 2035.
Air Quality	IF-EU-120a.1	Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SO2 (3) Particulate matter (PM10), (4) Lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population	See EII Disclosure for additional notes on inclusions. (1) 1,880 MT (2) 1,147 MT (3) 366 MT (4) 0.03 MT (5) 0.008 MT NOx (3.91%), SO2 (0.42%), PM10 (8.59%), Pb (0.06%), Hg (0.00%)
Water Management	IF-EU-140a.1	(1) Total water withdrawn (2) Total water consumed, percentage of each in regions with high or extremely high baseline water stress	(1) 2,873 thousand cubic meters (2) 2,873 thousand cubic meters 100.0%
	IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	1
	IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	See page 22 of our Corporate Sustainability Report We have a long and successful track record of environmental leadership and innovation in our utility operations, starting with our pioneering efforts in 1969, when we introduced the first use of industrial air-cooled condensers in the western hemisphere at our energy complex in Wyoming. Using air-cooled condensing technology saves billions of gallons of water per year in this arid region with limited water resources. The U.S. Energy Information Agency lists that the average conventional coal power plant using water to cool the boilers consumes 78 gal/kwh. Black Hills Energy's water consumption rate at its coal-fired power plants using the air-cooled condensing technology consumes 0.097 gal/kwh resulting in an annual water savings of nearly 250 billion gallons. This provides cost benefits by not having to manage and discharge significant amounts of processed water to the environment and leaves this natural resource in place. Our natural gas combustion turbine fleet uses minimal amounts of water, and we have implemented additional innovative and protective water management measures. At the Pueblo Airport Generating Station, we manage wastewater with an evaporation pond. Rather than treat and discharge treated water to the Arkansas River, pollutants in the water settle out in the pond and evaporate in the atmosphere, returning our wastewater to the Earth's natural water cycle form. At the Cheyenne Prairie Generating Station, discharge water is sent to the City's wastewater treatment plant. This plant is located adjacent to our generation facility and requires adherence to stringent water limits set in the Industrial Pretreatment Water discharge permit issued to us. The discharge water goes through further treatment at the wastewater treatment plant before it is discharged to Crow Creek for downstream use.
Coal Ash Management	IF-EU-150a.1	(1) Amount of coal combustion products (CCPs) generated, (2) percentage recycled	(1) 114,817 metric tons (2) 0%. All coal ash is used for back fill in reclamation; however, according to SASB guidance, this process does not meet the definition for being recycled.
	IF-EU-150a.2	Description of coal combustion products (CCPs) management policies and procedures for active and inactive operations	0 impoundments
Energy Affordability	IF-EU-240a.1	Average retail electric rate for (USD/kWh): (1) residential, (2) commercial, and (3) industrial customers	Colorado: (1) \$0.1742 (2) \$0.1244 (3) \$0.1086 South Dakota: (1) \$0.1367 (2) \$0.1246 (3) \$0.0851 Wyoming: (1) \$0.1588 (2) \$0.1245 (3) \$0.0665
	IF-EU-240a.2	Typical monthly electric bill for residential customers for: (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month	Colorado: (1) \$94.14 (2) \$194.06 South Dakota: (1) \$77.34 (2) \$142.68 Wyoming: (1) \$81.26 (2) \$146.02
	IF-EU-240a.3	(1) Number of residential customer electric disconnections for non-payment, (2) percentage reconnected within 30	(1) Colorado: 2,055 (2) 70% (1) South Dakota: 852 (2) 71% (1) Wyoming: 501 (2) 73%
	IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	See 10-K Report, Item 1A, Risk Factors. We offer a variety of programs to help our customers, including budget billing, energy efficiency programs and energy assistance. See Billing and Payments Black Hills Energy for more information. See page 31 of our Corporate Sustainability Report
Workforce Health & Safety	IF-EU-320a.1	(1) Total recordable Incident Rate (TRIR), (2) Fatality Rate, and (3) near miss frequency rate (NMFR) for (a) direct employees and (b) contract employees	(1) 1.51 (2) 0.0 (3) N/A 99.99%
	IF-EU-420a.2 IF-EU-420a.3	Percentage of electric load served by smart grid technology Customer electricity savings from efficiency measures, by market	See page 21 of our Corporate Sustainability Report Colorado: 17,086,801 kWh South Dakota: 532,686 kWh Wyoming: 2,221,590 kWh
Nuclear Safety & Emergency Management	IF-EU-540a.1	Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column	N/A
	IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A
Grid Resiliency	IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	In the interest of security and to avoid setting disclosure precedence, this response will be unanswered.
	IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI), SAIDI inclusive of major event days, in minutes, (2) System Average Interruption Frequency Index (SAIFI), SAIFI inclusive of major event days, in minutes, (3) Customer Average Interruption Duration Index (CAIDI), and CAIDI inclusive of major event days, in minutes, inclusive of major event days.	(1) 61.560 Minutes 79.612 Minutes (2) 3.009 Minutes 1.188 Minutes (3) 61.012 Minutes 67.014 Minutes
Activity Metrics	IF-EU-000.A	Number of: (1) residential, (2) commercial, and (3) industrial customers served; other	See Black Hills' 10-K for fiscal year ending Dec 31, 2023 (1) 190,776 (2) 30,491 (3) 1,073
	IF-EU-000.B	Total electricity delivered to: (1) residential, (2) commercial, (3) industrial, (4) all other retail customers, and (5) wholesale customers.	See Black Hills' 10-K for fiscal year ending Dec 31, 2023 (1) 1,438,500 MWh (2) 2,074,400 MWh (3) 2,094,800 MWh (4) 150,900 MWh (5) 1,317,000 MWh
	IF-EU-000.C	Length of (1) transmission and (2) distribution lines	Colorado Electric: (1) 599 miles (2) 3,213 miles South Dakota Electric: (1) 1,232 miles (2) 2,616 miles Wyoming Electric: (1) 86 miles (2) 1,360 miles
	IF-EU-000.D	(1) Total electricity generated, (2) percentage by major energy source, and (3) percentage in regulated markets	See Black Hills' 10-K for fiscal year ending Dec 31, 2023. For regulated market, see page 12 & 13 of Black Hills' 10-K Coal: (1) 2,683,400 MWh (2) 49.8% (3) 31.0% Natural Gas: (1) 2,021,400 MWh (2) 37.6% (3) 53.3% Wind: (1) 678,500 MWh (2) 12.6% (3) 12.2% Petroleum: (1) 0 MWh (2) 0% (3) 3.5% 2,276,400 MWh
	IF-EU-000.E	Total wholesale electricity purchased	2,276,400 MWh



2023 Sustainability Accounting Standards Board (SASB) Mapping Report

Black Hills Energy SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS Gas Utilities & Distributors

Topic	SASB Code	Accounting Metric	Response
Energy Affordability	IF-GU-240a.1	Average retail gas rate for (1) Residential, (2) Commercial, (3) Industrial customers, and (4) Transportation services only	Arkansas: (Arkansas customer bills are generated using volumes in CCF) (1) \$17.22/Mcf (2) \$12.54/Mcf (3) \$7.72/Mcf (4) \$1.29/Mcf Colorado: (1) \$12.16/Dth (2) \$11.81/Dth (3) \$8.02/Dth (4) \$1.55/Dth Iowa: (1) \$13.20/Dth (2) \$10.74/Dth (3) \$8.26/Dth (4) \$0.38/Dth Kansas: (1) \$14.38/Dth (2) \$11.44/Dth (3) \$4.16/Dth (4) \$0.46/Dth Nebraska: (1) \$15.06/Dth (2) \$12.23/Dth (3) \$6.94/Dth (4) \$1.27/Dth Wyoming: (1) \$13.02/Dth (2) \$10.03/Dth (3) \$7.27/Dth (4) \$1.83/Dth
	IF-GU-240a.2	Typical monthly gas bill for residential customers for (1) 50 MMBtu and (2) 100 MMBtu of gas delivered per year	Arkansas: (1) \$72.95 (2) \$133.56 Colorado: (1) \$56.81 (2) \$100.60 Iowa: (1) \$59.64 (2) \$100.94 Kansas: (1) \$63.38 (2) \$106.74 Nebraska: (1) \$66.14 (2) \$113.08 Wyoming: (1) \$60.86 (2) \$101.71
	IF-GU-240a.3	(1) Number of residential customer gas disconnections for non-payment, (2) percentage reconnected within 30 days	(1) Arkansas: 4,776 (2) 36% (1) Colorado: 1,035 (2) 37% (1) Iowa: 2,195 (2) 29% (1) Kansas: 2,214 (2) 36% (1) Nebraska: 3,932 (2) 32% (1) Wyoming: 1,071 (2) 25%
	IF-GU-240a.4	Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory	See 10-K Report, Item 1A, Risk Factors. We offer a variety of programs to help our customers, including budget billing, energy efficiency programs and energy assistance. See Billing and Payments Black Hills Energy for more information.
End-Use Efficiency	IF-GU-420a.2	Customer gas savings from efficiency measures by market	Arkansas: 154,303 Dth Colorado: 152,507 Dth Iowa: 21,946 Dth Wyoming: 16,942 Dth
Integrity of Gas Delivery Infrastructure	IF-GU-540a.1	Number of (1) reportable pipeline incidents, (2) corrective actions received and (3) notices of pipeline safety statutes	(1) 0 (2) 0 (3) 0
	IF-GU-540a.2	Percentage of distribution pipeline that is (1) cast or wrought iron and (2) unprotected steel	(1) 0% (2) 1.09%* *Percentage reflects distribution mains and services, and includes unknown pipeline material.
	IF-GU-540a.3	Percentage of gas (1) transmission and (2) distribution pipelines inspected	See our AGA Disclosure (1) 2.22% of transmission system was inspected by in-line inspection methods; 0.026% by pressure testing; and 3.99% by internal/external direct assessment. Natural gas transmission pipeline inspection requirements are based on pipeline proximity to populated areas. Our service area is largely rural, and the ratio of transmission pipeline located in high consequence proximity to total system miles is low. (2) 0% of distribution system was inspected by in-line inspection methods (this is not typically performed on the lower pressure distribution pipelines)
	IF-GU-540a.4	Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions	See page 19 of our Corporate Sustainability Report Our comprehensive, programmatic integrity management program monitors our natural gas pipeline systems and plans upgrades to our pipeline networks to enhance safety, improve system reliability and reduce or eliminate methane emissions. The program assesses risk and prioritizes the replacement and upgrading of pipeline to proactively replace vintage and at-risk materials while achieving our GHG emissions reduction goal. Integrity management involves comprehensive evaluations of all pipelines and aboveground equipment, including direct inspection of pipelines for leaks using state of the art technologies. Our GHG emissions reduction strategy includes: Pipeline replacement: We're continuing our multi-year investment plan to update older infrastructure with lower emissions pipeline and service line materials, and have committed to replacing all unprotected steel pipe with lower emitting material by 2035. Damage prevention: Our comprehensive damage prevention strategy increases system safety and lowers the potential for methane to be released from a damaged natural gas pipeline. By conducting outreach and education, we can help prevent pipeline hits and mitigate emissions. Renewable natural gas (RNG): We currently receive RNG from four facilities and are pursuing additional RNG opportunities. RNG, a carbon negative or neutral energy, has the potential to further reduce operational and customer natural gas GHG emissions. Expanded leak detection and surveying: By collecting detailed emissions data from our system, we can identify new opportunities for reductions. In addition to our regular system-wide leak surveys, we conduct additional leak surveys of our aboveground natural gas equipment to help determine fugitive emissions from our system. In 2020 we began surveying two additional states, Colorado and Nebraska, which joined Arkansas in our surveying program as required by the EPA Greenhouse Gas reporting program. The additional surveys we conducted helped us identify fugitive emissions from our system that otherwise would not have been found as quickly.
Activity Metrics	IF-GU-000.A	Number of: (1) residential, (2) commercial, (3) industrial, and (4) transportation customers served	See Black Hills' 10-K for fiscal year ending Dec 31, 2023 (1) 871,930 (2) 84,917 (3) 2,179 (4) 157,367
	IF-GU-000.B	Amount of natural gas delivered to (1) residential customers, (2) commercial customers, (3) industrial customers, and (4) transferred to a third party	See Black Hills' 10-K for fiscal year ending Dec 31, 2023 (1) 60,100,000 Dth (2) 29,400,000 Dth (3) 5,700,000 Dth (4) 159,800,000 Dth
	IF-GU-000.C	Length of gas (1) transmission and (2) distribution pipelines	Arkansas (1) 875 miles (2) 3,317 miles Colorado (1) 152 miles (2) 7,290 miles Iowa (1) 173 miles (2) 2,938 miles Kansas (1) 339 miles (2) 3,096 miles Nebraska (1) 1,313 miles (2) 8,658 miles Wyoming (1) 1,201 miles (2) 3,618 miles