ALLETE

2023 CORPORATE SUSTAINABILITY REPORT

PEOPLE. PLANET. PROSPERITY.

This report encompasses data from 2022 unless otherwise noted.

TABLE OF CONTENTS

Cautionary Statement — Forward-Looking Statements

Statements in this report that are not statements of historical facts are considered "forward-looking" and, accordingly, involve risks and uncertainties that could cause actual results to differ materially from those discussed. Although such forward-looking statements have been made in good faith and are based on reasonable assumptions, there can be no assurance that the expected results will be achieved. Any statements that express, or involve discussions as to, future expectations, risks, beliefs, plans, objectives, assumptions, events, uncertainties, financial performance, or growth strategies (often, but not always, through the use of words or phrases such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "projects," "likely," "will continue," "could," "may," "potential," "target," "outlook," "vision" or words of similar meaning) are not statements of historical facts and may be forward-looking.

In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, we are providing this cautionary statement to identify important factors that could cause our actual results to differ materially from those indicated in forward-looking statements made by or on behalf of ALLETE in this report, in presentations, on our website, in response to questions or otherwise. These statements are qualified in their entirety by reference to, and are accompanied by, the following important factors, in addition to any assumptions and other factors referred to specifically in connection with such forward-looking statements that could cause our actual results to differ materially from those indicated in the forward-looking statements:

+ Our ability to successfully implement our strategic objectives;
+ Global and domestic economic conditions affecting us or our customers;
+ Changes in and compliance with laws and regulations;
+ Changes in tax rates or policies, rates of inflation, or availability of key materials and supplies;
+ The outcome of legal and administrative proceedings (whether civil or criminal) and settlements;
+ Weather conditions, natural disasters and pandemic diseases;
+ Our ability to access capital markets, bank financing and other financing sources;
+ Changes in interest rates and the performance of the financial markets;
+ Project delays or changes in project costs;
+ Changes in operating expenses and capital expenditures and our ability to raise revenues from our customers;
+ The impacts of commodity prices on ALLETE and our customers;
+ Our ability to attract and retain qualified, skilled and experienced personnel;
+ Effects of emerging technology;
+ War, acts of terrorism and cybersecurity attacks;
+ Our ability to manage expansion and integrate acquisitions;
+ Population growth rates and demographic patterns;
+ Wholesale power market conditions;
+ Federal and state regulatory and legislative actions that impact regulated utility economics, including our allowed rates of return, capital structure, ability to secure financing, industry and rate structure, acquisition and disposal of assets and facilities, operation and construction of plant facilities and utility infrastructure, recovery of purchased power, capital investments and other expenses, including present or prospective environmental matters;
+ Effects of competition, including competition for retail and wholesale customers;
+ Effects of restructuring initiatives in the electric industry;
+ The impacts on our businesses of climate change and future regulation to restrict the emissions of greenhouse gases;
+ Effects of increased deployment of distributed low-carbon electricity generation resources;
+ The impacts of laws and regulations related to renewable and distributed generation;
+ Pricing, availability and transportation of fuel and other commodities and the ability to recover the costs of such commodities;
+ Our current and potential industrial and municipal customers' ability to execute announced expansion plans;
+ Real estate market conditions where our legacy Florida real estate investment is located may deteriorate; and
+ The success of efforts to realize value from, invest in, and develop new opportunities.

Additional disclosures regarding factors that could cause our results or performance to differ from those anticipated by this report are discussed in Part I, Item 1A. Risk Factors of ALLETE's Annual Report are on the most recent Form 10-K and updated quarterly in subsequent Form 10-Qs. Any forward-looking statement speaks only as of the date on which such statement is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which that statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for management to predict all of these factors, nor can it assess the impact of each of these factors on the businesses of ALLETE or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement. Readers are urged to carefully review and consider the various disclosures made by ALLETE in reports filed by ALLETE with the Securities and Exchange Commission that attempt to identify the risks and uncertainties that may affect ALLETE's business.

We Are Putting Sustainability into Action for an Equitable Clean-Energy Future


Bethany Owen

Dear customers and investors,

At ALLETE, sustainability in action is the foundation of our strategy, and we're working closely with all of our diverse stakeholders as we advance the clean-energy future. Our strategy is designed to provide value to our customers, meaningful investment in our communities, opportunities for our employees, and long-term earnings and dividend growth for our shareholders. All of that is what we mean when we say we at ALLETE are leading the way to a truly sustainable clean-energy future.

Our strategy also recognizes the impacts of climate change are already upon us—and we are taking action to reduce carbon emissions. ALLETE is the No. 1 investor in renewable energy among U.S investor-owned utilities relative to market cap, and we are poised to add significantly more clean energy in the coming years while ensuring reliable, resilient energy delivery to our customers. We are enhancing and growing our businesses by providing sustainable energy solutions to meet evolving societal expectations and regulations, and each of our companies plays an important role in this strategy.

Minnesota Power continues to advance its Integrated Resource Plan (IRP) approved by the Minnesota Public Utilities Commission in 2022. The IRP lays out ambitious goals of reducing carbon emissions by 80% by 2035 and achieving more than 70% renewable energy in 2030. Already delivering more than 50% renewable energy, the company is working on significant additions of solar and wind, along with energy storage, to meet these goals.

An important part of ALLETE's strategy includes major investments in transmission needed to safeguard a reliable and resilient grid during the clean-energy transition. Minnesota Power is advancing regulatory review of two significant transmission projects—a modernization of its existing high-voltage direct-current (HVDC) line and the Northland Reliability Project, a new 180-mile transmission line from northern Minnesota to central Minnesota.

ALLETE and Grid United also continue to make progress on the first-of-its-kind North Plains Connector project that will enhance inter-regional reliability and transfer capacity between the middle of the country and energy markets to the west.

Our other utility company, Superior Water, Light & Power, receives its energy from Minnesota Power and shares in these carbon-reduction and climate goals, and recently completed its first community solar garden to provide an additional renewable energy option to customers.

New Energy Equity, one of the nation's leading distributed solar developers, continues its strong performance in delivering solar projects across the country. Their growing and robust solar project pipeline gives us great confidence in the very bright future for our newest company.

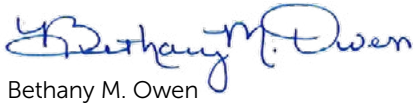
ALLETE Clean Energy has more than 1,200 megawatts of operating nameplate wind capacity across seven states and has developed and or sold an additional 400 megawatts. The company also recently entered a new customer segment after signing a 5-year power purchase agreement to sell wind power to Seattle City Light, the company's first municipal customer.

BNI Energy's focus on sustainability involves supporting its customer to advance an ambitious project to capture the carbon emissions from a neighboring power plant and safely sequester the carbon deep underground. If successful, it could make North Dakota's lignite a valuable source of clean, affordable and reliable energy for decades to come.

We believe the transition to a clean-energy future needs to be just and equitable, with new opportunities and investments designed to give everyone a chance to thrive. Our work culture encourages all employees to achieve their fullest potential by acknowledging and embracing their unique skills, talents and perspectives. With our core value of integrity as our guide, our corporate governance structure serves as an example of diversity, equity and inclusion from the top.

We also strive to support diverse businesses through our purchasing and contracting decisions, an initiative that already has seen success. Our distribution of grants through the Minnesota Power Foundation has shifted to more closely align with our area's social needs, supporting programs that focus on education, income inequality, food insecurity, social justice and the opportunity gap.

This sustainability report highlights many of the ways we are doing the right thing for the climate while also lifting and strengthening our customers, our communities and our employees. I truly believe that how we build the clean-energy future matters as much as what we build as we strive to leave no one behind during this important transition. We envision a future of equitable, resilient and healthy communities served by increasingly clean energy, and we'll continue to work with you to make it happen.



Bethany M. Owen
ALLETE Chair, President and CEO

ALLETE is putting sustainability into action while honoring our commitments to the climate, our customers and the communities we serve.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

The Task Force on Climate-Related Financial Disclosures (TCFD) section details ALLETE's **governance**, **strategy**, **risk management**, and **metrics and targets** in regards to the risks and opportunities associated with climate change.

There is considerable overlap between these four sections of the TCFD, and material is referenced from different sections accordingly.

This section of ALLETE's Corporate Sustainability Report has been compiled in accordance with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and the TCFD Implementation Guide. Additional guidance has been taken from the Climate Disclosure Standards Board (CDSB), and other information and data has been sourced from ALLETE's Sustainability Accounting Standards Board (SASB) reporting, as well as the Edison Electric Institute (EEI) Environmental, Social, and Governance (ESG) report.

ALLETE recognizes the significant impacts climate change can have on our businesses, and the importance of evaluating our business model for different climate-related transitions/pathways. Our carbon vision for Minnesota Power, ALLETE's largest business unit, represents a proposed path that significantly reduces the risks of more aggressive carbon emission reduction scenarios that might be imposed by external parties through regulation or legislation.

ALLETE's carbon reductions have and will be accomplished by ALLETE's business units through a combination of adding more renewable generation, transitions to Minnesota Power's thermal fleet, strengthening Minnesota Power's energy delivery system, and pursuing the potential for incorporating new technology. Through these efforts, ALLETE is positioned for further growth while reducing the transitional risk associated with shifts to a lower-carbon economy.

We believe our considerable progress on reducing carbon emissions, coupled with our bold vision for the future, positions ALLETE to continue to be a leader in renewable energy and carbon reduction for decades to come. This combination of execution and vision helps ALLETE manage transitional and physical risks, while also providing an excellent platform for continuing ALLETE's significant growth.

Governance and Management

(TCFD G(a) and G(b))

Our commitment to sustainability is led and supported through strong board leadership, intentional management focus and sound governance practices. We firmly believe these elements are foundational to ensure ALLETE and its investors continue to prosper while protecting the planet and supporting and empowering employees, stakeholders and our communities.

Governance

The board oversees ALLETE's strategy and Enterprise Risk Management, including the evaluation of sustainability-related risks and opportunities and ESG initiatives, in a manner designed to drive performance for our investors and other stakeholders. Corporate responsibility is integrated into our governance processes and embedded in our strategy and our core values, namely: integrity, safety, people and planet.

Each committee of the ALLETE board of directors has an oversight role in the advancement of sustainability measures through evaluation of ALLETE's climate-related reporting process, linking environmental performance to executive compensation, or ensuring sustainability-related financial disclosures receive appropriate levels of review and assurance.

+ The Corporate Governance and Nominating Committee oversees the reporting of ESG matters and address ESG topics on at least a quarterly basis.

+ The Executive Compensation and Human Capital Committee establishes the company's philosophy and policies regarding ALLETE executive and director compensation, which includes setting sustainability-related performance goals. Our annual incentive plan (AIP) is designed to balance the needs of multiple stakeholders, including investors, employees and customers. Environmental, reliability, and safety metrics have been incorporated into AIP performance goals for more than 15 years. Since 2019 we have added sustainability goals to advance our next-generation sustainability vision and increase the transparency and clarity for sustainability reporting.

+ The Audit Committee assists the board in its oversight of ALLETE's sustainability-related SEC financial disclosures and internal controls over financial reporting, as well as compliance with legal and regulatory requirements. The Audit Committee also receives audit reports for ESG reporting from ALLETE's internal audit department.

Management

Evaluating, preparing, planning and responding to environmental and climate-related risks is a management priority at ALLETE. Many of ALLETE's businesses and growth initiatives are focused on meeting regulatory requirements and mandates that are related to climate-related concerns. This includes reducing carbon emissions, adding renewable energy, and strengthening our energy delivery system.

As discussed in the risk management section, ALLETE's management closely monitors, tracks and evaluates environmental and climate-related issues on regulatory, legislative and policy fronts. Environmental regulations and mandates are identified through monitoring the Federal Register, participating in trade associations and industry peer groups, and engaging with external legal and regulatory consultants. Physical risks are regularly evaluated by ALLETE's business leaders and discussed with corporate sustainability reporting staff at least annually.

Once identified, environmental and/or climate issues are then assessed for impact to the company through the company's risk management programs and groups.

During 2022, management actively engaged with investors, customers and other key stakeholders to discuss ALLETE's sustainability strategy and initiatives and to gain insights into stakeholders' perspectives about sustainability and corporate responsibility, and how to effectively measure, communicate and disclose our efforts.

Strategy for Climate-Related Risks and Opportunities

(TCFD S(a), S(b), and S(c))

ALLETE's Overall Strategy for Climate Change Risks and Opportunities

ALLETE's robust yet flexible growth strategy is designed to put sustainability into action while simultaneously managing risks and advancing the clean energy economy.

This approach positions ALLETE for long-term resiliency in a lower-carbon economy, and is a business approach that is designed to endure and thrive through the transitional and physical risks associated with climate change. Embedded throughout this strategy is an unwavering commitment to protect the environment while also providing consistent value and services to our customers, investors and all of the regions we serve.

BNI Energy uses drones as a survey tool.

While managing risks is important, there are also significant opportunities within our businesses to participate in the transition to a lower-carbon economy. Financial growth has already been achieved through expanding renewable generation for our regulated and nonregulated businesses, as well as significant investments in transmission infrastructure.

We feel these opportunities will grow in the coming years with innovative solutions like carbon capture and sequestration technology, new low-carbon fuel options, electrification of different sectors of the economy, energy efficiency and energy storage all creating additional business opportunities. ALLETE's growth strategy is designed to provide solutions for these converging trends and needs in the energy sector, including significant planned capital investments over the next five years, most of which advance clean energy initiatives.

Key Elements

Our multipronged strategy for climate-related risks and opportunities relies on the following common elements across our business units.

Expand renewable sources of energy

Renewable energy will provide growth and reduce risks associated with additional carbon regulations. As of December 2022, ALLETE is ranked first among investor-owned utilities for investment in renewable energy based on market capitalization.

Reduce overall carbon emissions

ALLETE's approach to decarbonization includes coal fleet retirements, conversion to natural gas or other zero- or low-carbon fuels, and partnering with customers on carbon capture and sequestration projects.

Strengthen the electric grid

ALLETE is investing significantly in infrastructure for managing the delivery of increasing amounts of renewable energy, and enhancing the resiliency and reliability of the grid to protect against extreme weather events while providing customers more choice and control.

Adopt innovative solutions

We are reducing water use, investing in infrastructure that will be more resistant to weather changes, and implementing strategic underground installation of energy delivery components that may be more vulnerable to climate impacts. Coupled with ongoing efforts to identify feasible alternative low- or zero-carbon fuels and carbon capture and sequestration technology, we are optimistic technology advancement will continue to help ALLETE lead the way to a lower-carbon energy future.

ALLETE COMPANIES

Each ALLETE company plays a unique and significant role in executing our strategy. Combined, our businesses work together to create a well-balanced approach toward managing risks and building on opportunities to transition to a lower-carbon future.

minnesota power

AN ALLETE COMPANY

Minnesota Power is moving to renewable energy faster and further than most similar utilities through innovative projects and partnerships. It serves customers, including large industrial customers that provide clean minerals for a clean energy economy, with safe and reliable power.

Minnesota Power generates, transmits and distributes electricity in northern Minnesota, an area rich in natural resources. Increased renewable standards are expediting the transition away from coal and creating renewable infrastructure opportunities. Additional wind and solar generation, storage, and supporting transmission and distribution will play a significant role in Minnesota Power's future.

Minnesota Power is making significant progress toward 100% carbon-free energy supply, and is transitioning away from coal-fired generation by 2035.

+ Minnesota Power has a significant portfolio of owned and contracted wind and solar resources, and has plans to reach more than a 70% renewable energy supply by 2030. Minnesota Power's Integrated Resource Plan recently approved by the Minnesota Public Utilities calls for adding up to 400 megawatts of wind energy and 300 megawatts of regional solar energy by 2030. The IRP also includes a significant investment in energy storage to support the expansion of renewables on Minnesota Power's system.
+ In August 2023, Minnesota Power and Great River Energy filed an application for a Certificate of Need and Route Permit from the Minnesota Public Utilities Commission to build a high-voltage transmission line to bolster electric reliability in northern and central Minnesota.The Northland Reliability Project will facilitate the transfer of more low-carbon energy throughout the state and beyond.
+ Significant opportunity also exists in potential modernization of Minnesota Power's HVDC transmission line, connecting wind-rich North Dakota with natural resource-rich Minnesota. In June 2023, Minnesota Power filed an application for a Certificate of Need and Route Permit from the Minnesota Public Utilities Commission to upgrade its HVDC converter stations and substations. The proposed project will allow for bi-directional power flow between Minnesota and North Dakota, which will increase electric reliability in both states. After installation, Minnesota Power's HVDC line will continue to transfer about 500 megawatts of wind-generated electricity to Minnesota Power customers.

Minnesota Power's 100% carbon-free energy journey

2022

Minnesota Power provides 59% renewable energy to its retail customers.

By 2030

Add up to 700 MW of wind and solar power to reach more than 70% renewable energy supply.

By 2035

Achieve a coal-free energy supply by transforming the company's last coal unit.

2040-2050

Adopt innovative solutions and use evolving technology to deliver 100% carbon-free energy.

Minnesota Power anticipates investing in infrastructure for managing the delivery of increasing amounts of renewable energy and engaging with stakeholders on strategies for reaching Minnesota's carbon-free energy goal reliably, safely, affordably and justly. While Minnesota Power achieved 59% renewable energy in 2022, renewable percentages will vary annually based on availability of wind, solar, and hydro resources, as well as customer demand.

ALLETE clean energy

ALLETE Clean Energy leverages deep development and operating experience, industry knowledge and innovation to bring clean energy to customers. It has a growing reputation as a respected national player in wind energy, and continues to build business relationships, grow its capabilities and expand to new geographies.

ALLETE Clean Energy is an independent power producer that delivers clean energy solutions for electric utilities, cooperatives, municipalities, independent power marketers and large end-users across the United States. ALLETE Clean Energy's entrepreneurial spirit and talented team fuel the company's passion for clean energy project development, construction and efficient operations. ALLETE Clean Energy owns, operates or has developed more than 1,600 megawatts of wind energy generation in five major energy markets and eight states across the U.S.

+ Established regional infrastructure and asset portfolio provides a foundation for developing, acquiring and operating clean energy and renewable energy projects.
+ Premier geographic footprint in wind-rich regions, diversified across eight states.
+ Broadening business model and core competencies beyond wind to include storage, solar and other technologies paired with existing sites.
+ Leverages its competitive advantages of having experience as a developer, owner and operator, as well as its diversity in locations, ISO markets, technology and customer segments.

ALLETE Clean Energy is strategically positioned to benefit from the accelerating transition to clean energy.

The Caddo wind site in Oklahoma produces electricity for Fortune 500 corporate customers.

SWL&P's community solar garden is a simple, flexible and convenient way for customers to save money over the long-term and support clean energy.

SWL&P marked a renewable energy milestone with a ceremonial groundbreaking of Superior Solar.

SWL&P

AN ALLETE COMPANY

Superior Water, Light & Power is transforming the way it delivers electricity, natural gas and water to its customers in northwestern Wisconsin while providing more information and options to help them manage their energy and water use. The company purchases its power from Minnesota Power, resulting in a cleaner, more renewable energy supply to its electric customers.

SWL&P Customers

15,000 electric
13,000 natural gas
10,000 water

Key Initiatives

+ Built a fully subscribed 470-kilowatt community solar garden in Superior, Wisconsin, to provide customers a choice for a renewable energy supply.
+ Advanced Metering Infrastructure deployment across its electric, gas and water utilities is complete, giving customers more control over their energy use and increased accuracy in billing.
+ Beginning in 2019, the company commenced a 30-year water infrastructure review and associated replacement projects to ensure water quality, reliability and flexibility to serve current and future customer needs.

The power in our projects

With diverse experience and a team of in-house experts, New Energy Equity has successfully completed hundreds of solar projects around the country, which together produce more than 580,000,000 kWh* of electricity per year—and growing.

580,000,000 kWh
Kilowatt hours generated per year.

906,178,905 lbs
CO_2 emissions avoided per year.

$5,600,000
Savings generated per year.

*Estimated totals

NEW ENERGY EQUITY
AN ALLETE COMPANY

New Energy Equity, one of the nation's top distributed solar developers, is ALLETE's newest company. It was acquired in April 2022.

An end-to-end solar development and finance company based in Annapolis, Maryland, New Energy Equity is committed to expanding the reach of distributed-generation solar and storage projects to provide more sustainable energy solutions for communities, industry partners and customers. Most of its projects are between 200 kilowatts and 5 megawatts per site. The New Energy Equity team includes experts in all aspects of solar projects–development, engineering, land acquisition, program management, legal diligence, construction, and financing.

New Energy Equity also offers comprehensive solar operations, maintenance, and asset management services to its customers through its wholly-owned subsidiary, Energy Support Services.

+ New Energy Equity has successfully completed more than 280 projects totaling about 500 megawatts across the United States and has a development pipeline of more than 2 gigawatts across 27 states.
+ In 2022, New Energy Equity completed construction on 28 solar projects representing about 21 megawatts.
+ Solar Power World ranked New Energy Equity as a Top-20 Solar Developer in 2022.

BNI energy
AN ALLETE COMPANY

BNI Energy is engaging in national efforts to develop carbon capture and sequestration for the energy industry and is an industry leader in reclamation practices at its North Dakota mine.

BNI Energy owns and operates BNI Coal, a lignite mine near Center, North Dakota. Two electric generating cooperatives, Minnkota Power and Square Butte, operate the Milton R. Young Generating Station and use virtually all of the coal produced by BNI Energy under long-term agreements. BNI Energy's vision is to be a trusted partner recognized as an expert in delivering energy solutions while being environmentally responsible, community-minded and financially strong.

BNI Energy has a rich history of responsible energy production in North Dakota and is focused on value-added energy services and infrastructure solutions that balance environmental stewardship and the energy needs of consumers. The company is leveraging its talent, experience and solid track record to advance sustainable solutions in North Dakota. Increasing regulation and evolving social expectations have placed a priority and urgency on finding lower-carbon, clean energy solutions. BNI plays a critical role in advancing solutions and relationships in energy-rich North Dakota, creating a solid foundation for transitional activities including the addition of renewable energy, and enhanced and expanded energy delivery opportunities.

Part of BNI Energy's mission is to work with partners such as Minnkota Power Cooperative and the state of North Dakota to advance lower-carbon solutions, including carbon sequestration technology at the Milton R. Young Generating Station. Such solutions are critical to the coal industry and could help solve climate issues and secure the utilization of North Dakota's vast lignite resources for generations. BNI also is an industry leader in mineland reclamation at its Center Mine, where farmers work alongside mining operations on reclaimed land. BNI Energy has received the North Dakota Public Service Commission Excellence in Surface Coal Mining and Reclamation Award for research on mineland reclamation practices.

Physical Risks of Climate Change on ALLETE

Many climate models predict that global climate change will result in the potential for increased frequency, intensity and duration of severe weather or other natural disasters. In turn, these changes could result in increased costs to ALLETE's businesses and decreased reliability and increased costs for our customers.

Short- to Medium-Term Physical Risks

Intensity, frequency, duration of storms

All of ALLETE's companies recognize the risk and the potential impact more frequent or intense storms could have on operations, and plan accordingly to minimize disruptions. Our regulated operations at Minnesota Power and SWL&P, with their extensive energy delivery systems, have particularly robust response plans based on the incident command approach.

Despite these plans, changes in the intensity, frequency and duration of weather events due to climate change could stress availability of both internal and mutual assistance resources in restoring critical infrastructure. More widespread storms in multiple geographic areas could also stress the supply chain, affecting the timeliness in which power poles, lines, and other equipment is available to make repairs.

Extreme or extended precipitation events can also significantly affect our operations. This could include inundation of critical infrastructure, including thermal and hydroelectric generation located next to surface waters or substations or other energy delivery infrastructure. Prolonged saturation of soils can also impact wooden power poles, causing structural concerns from increased microbial activity. Both of these risk factors can be exacerbated by increased intensity of wind storms.

As carbon dioxide levels increase in the atmosphere, some climate models indicate stronger updrafts can be expected. This could increase severity of thunderstorms, increasing the frequency or intensity of lightning strikes and result in a corresponding increased risk of damage to wind turbine blades and other electrical infrastructure. While electrical system designs typically include some level of lightning protection, and equipment is insured for damage, lightning can have significant localized impact.

Water availability

Lack of water availability for our thermal and electrical conversion facilities is another potential physical risk due to climate change. Water is used for cooling purposes for our thermal facilities for electrical generation, and is also used to cool electrical conversion infrastructure at our HVDC conversion terminals in Minnesota and North Dakota. Additionally, Minnesota Power hydropower generation, both owned and purchased, depends on fairly consistent natural conditions for precipitation and evaporation, in addition to well-regulated water use conditions from state and federal resource agencies.

Minnesota Power represents the largest water consumer among ALLETE's business units. However, Minnesota Power has significantly reduced its water consumption through various efforts, including retirement or idling of several once-through cooling units. Existing large thermal generating units at Boswell Energy Center use recirculating cooling systems (cooling towers), which reduces water use by up to 80-90% compared to once-through cooling. Closed recirculating cooling systems are planned for both the Nemadji Trail Energy Center gas-fired facility and in upgrades to the HVDC terminals in Minnesota and North Dakota, further reducing water use. In addition, Minnesota Power has employed technology at Boswell Energy Center that allows the facility to both re-use and evaporate wastewater, significantly reducing the use of, and impact to, freshwater resources.

Wildfire risks

Changing precipitation and temperature patterns, along with altered forest management practices, can change the amount and/or type of hazardous fuels on the landscape, thereby increasing the risk of wildfires. Wildfire presents risks to our transmission, distribution and generation facilities, as well as potential liability due to proximity of energized equipment to potential wildfire fuel sources. ALLETE is actively updating our wildfire risks inventory and determining if additional risk management tools are needed to reduce risks of wildfires in our operating region.

At BNI, wildfire risks are also present. However, the prairie/grassland fires that occur in BNI's operational area are generally in non-dense grasses and are easier to contain than forest fires or areas where invasive species have created more dense fuel sources. BNI incorporates a proactive approach of installing firebreaks next to active mining areas to reduce the risk of grassland fires. Onsite firefighting equipment, including water trucks, also help mitigate this risk.

Customers can view daily power production at Minnesota Power's community solar garden in Wrenshall, Minnesota, on the company's website.

Transitional Risks, Opportunities and Impacts

Climate-related transitional risks that could adversely affect our financial position include effects of environmental- or economic-based laws, regulations, incentives or initiatives designed to reduce the quantity and/or impact of greenhouse gas emissions. Additionally, restrictions on land use, wildlife impacts, and other environmental regulations could affect the siting, construction and operation of new or existing generation and transmission facilities needed to transition to lower-carbon generation sources.

One of the more significant transitional risks involves scenarios where carbon reduction or renewable generation requirements are mandated, but do not allow for a thoughtful transition to protect the safety, reliability and/or affordability of energy for our customers. Requirements to pursue more aggressive carbon-reduction goals and renewable generation before cost-effective technology is developed and regulatory policy is established could place significant pressure on one or more of our businesses and/or our customers.

ALLETE also recognizes that some approaches to limit the worst impacts of climate change would require the electric sector to decarbonize faster than other sectors. In these scenarios, the electric sector would reduce or eliminate carbon emissions 10-15 years prior to global 2050 net-zero goals, which would allow electrification of other sectors and reduce overall net emissions. This "electric system first" approach represents significant risks and opportunities, which ALLETE closely tracks and considers in its planning and strategic activities.

When assessing transitional risks, it also is important to ensure ALLETE's carbon intensities and goals are discussed in a transparent manner. As ALLETE advances its sustainability journey, we know that expectations and views about the energy landscape in the external world also are evolving.

As regulators and stakeholders seek to further define the scopes and reporting mechanisms for carbon emissions, ALLETE may make changes in how to measure the performance on our sustainability journey, including how we account for and project carbon emissions, and in how we look at the risks to our businesses. Through this evolution, we will continue to clearly articulate our commitments to the climate, our customers and the communities we serve.

The majority of our risk management discussion in this report is focused on carbon regulations related to climate change; other risk factors are discussed in more detail in ALLETE's most recent annual report on Form 10-K filed with the Securities and Exchange Commission (SEC) and as may be updated in subsequent Form 10-Qs.

Short- to Medium-Term Transitional Risks

ALLETE takes special care when assessing the magnitude and impacts of climate-related transitional risks because the diversity of our business mix is a significant part of our resiliency. That diversified business mix requires a unique risk assessment approach, since transition risks could potentially impact one business negatively, while being beneficial to another business.

In the following section, different risks and opportunities that ALLETE monitors and addresses are discussed. This list is not exhaustive, but rather is focused on the primary risks and opportunities to ALLETE, based on magnitude, probability and other factors. ALLETE's comparisons of aggregated emission reductions are strictly illustrative; comparison of aggregate reduction levels to individual companies requires certain assumptions that are often not representative of the unique circumstances and uncertainties present in reality. See EPRI (Rose and Scott, 2020, 2018) for more discussion on these comparisons.

Economic Risks

Both our regulated utilities and our other businesses are subject to various types of economic risk. For our regulated utilities, we need to work within our regulatory compact to maintain financial health to support investments required for the clean energy transformation. Lack of access to capital, impacts to credit ratings, or widespread disruptions to the economy all could affect ALLETE's strategy to advance clean energy initiatives. Changes to production tax credits (PTCs), investment tax credits (ITCs) or incentives for carbon capture and sequestration, and other economic instruments also could create additional risks and opportunities for our business units. Other economic factors, such as market prices and the overall energy market, can also be difficult to predict and represent risks that must be monitored and considered in our overall strategy and risk management processes.

The passage of the Inflation Reduction Act (IRA) in August 2022 and the Infrastructure Investment and Jobs Act (IIJA) in November 2021 represent two of the most significant domestic economic developments for energy policy in decades. Both the IRA and IIJA are generally viewed as favorable for ALLETE, with significant growth opportunities.

Regulatory Risks

ALLETE monitors local, state, and federal developments for climate and energy-related matters in a structured process.

Numerous transitional risks are monitored through ALLETE's Climate Risks & Opportunities (CRO) group and the Environmental Strategy Group. These risks include proposed regulatory or other actions that could disrupt our business units. In 2022, these groups identified issues including wildlife regulations that could restrict additional renewable generation or transmission routing. Specific items monitored and reported in this report include proposed Section 111 carbon regulations by the U.S. Environmental Protection Agency (EPA), as well as the EPA's Good Neighbor Plan. Other regulatory risks are reported in ALLETE's SEC filings and are not repeated in this report.

For this report, the primary transitional risks discussed include the potential for federal carbon regulations, federal emissions standards for ozone, as well as ALLETE's alignment with overall climate goals.

Federal Carbon Regulations (Clean Air Act Section 111(b) and 111(d)

On May 23, 2023, the EPA published in the Federal Register a proposal for five separate regulatory actions under Section 111 of the Clean Air Act (CAA) addressing greenhouse gas (GHG) emissions from fossil fuel-fired electric generating units (EGUs). The EPA is proposing revised new source performance standards (NSPS) for new, modified and reconstructed EGUs (Section 111(b) of the CAA) as well as emission guidelines for certain existing (Section 111(d) of the CAA) EGUs. The EPA is also proposing in this action to officially repeal the predecessor regulation "Affordable Clean Energy Rule", first issued in 2019 and later vacated in 2021.

These regulations would apply to several Company assets including existing EGUs at the Boswell and Laskin sites as well as the proposed combined cycle natural gas-fired generating facility, NTEC. The draft rules closed for public comment on August 8, 2023, and the EPA's Spring 2023 unified agenda identifies the EPA's goal of issuing final regulations in April 2024. We continue to monitor this GHG rulemaking and analyze its potential impacts to our existing and proposed thermal generating facilities.

Good Neighbor Plan

On June 5, 2023, the EPA published a final rule in the Federal Register, the Good Neighbor Plan, to address regional ozone transport for the 2015 Ozone NAAQS by reducing NOx emissions during the period of May 1 through September 30 (ozone season). In the justification for the final rule, the EPA asserts that 23 states, including Minnesota, are modeled as significant contributors to downwind states' challenges in attaining or maintaining ozone NAAQS compliance within their state borders. The Good Neighbor Plan is designed to resolve this interstate transport issue by implementing a variety of NOx reduction strategies, including federal implementation plan requirements, NOx emission limitations, and ozone season allowance program requirements.

On February 13, 2023, the EPA also published its final rule to partially disapprove the Good Neighbor State Implementation Plans (SIPs) for the states of Minnesota and Wisconsin, and to disapprove 19 other SIP submissions. On July 5, 2023, the U.S. Court of Appeals for the Eighth Circuit granted a stay which prevents the Good Neighbor Plan from taking effect in Minnesota while the stay remains in effect. Future compliance obligations will depend on the eventual resolution of the stay and subsequent appeals.

Longer-Term Risks and Impacts

Some longer-term risk areas include the following:

The siting and operation of our wind and solar energy facilities depends heavily on meteorological conditions, as well as avoiding or minimizing negative impacts to flora, fauna and critical habitat. Although the location of ALLETE's wind energy facilities in diverse geographic regions reduces the potential impact that may be caused by unfavorable weather in a particular region, suitable meteorological conditions are variable and difficult to predict. If wind conditions are unfavorable or meteorological conditions are unsuitable, our electricity generation and revenue from wind energy facilities may be substantially below our expectations. The electricity produced, production tax credits received, and revenue generated by a wind energy facility are highly dependent on suitable wind conditions and associated weather conditions, which are variable and beyond our control.

We base our decisions about which wind projects to build or acquire, as well as our electricity generation estimates, in part on the findings of long-term wind and other meteorological studies conducted on the project site and in its region, as well as avoiding or minimizing impact on birds, bats and other species. However, the unpredictable nature of wind conditions, weather and meteorological conditions, and/or expansion or shifts of avian, bat, and other species' ranges, can result in material deviations from these studies, permit conditions and our performance expectations. Additionally, wildlife protections under the Endangered Species Act are subject to change based on evolving research and government policy. Furthermore, components of our systems could be damaged by severe weather, such as hailstorms, lightning or tornadoes. In addition, replacement and spare parts for key components of our diverse turbine portfolio may be difficult or costly to acquire or may be unavailable.

The construction, operation and maintenance of our electric generating facilities or investment in facilities are subject to operational risks that could adversely affect our financial position, results of operations and cash flows. The construction and operation of generating facilities involves many risks, including the performance by key contracted suppliers and maintenance providers; supply chain issues; start-up operations risks; breakdown or failure of facilities; the dependence on the availability of wind or water resources; or the impact of unusual, adverse weather conditions or other natural events; as well as the risk of performance below expected levels of output or efficiency. We could be subject to costs associated with any unexpected failure to produce and deliver power, including failure caused by breakdown or forced outage, as well as repairing damage to facilities due to storms, natural disasters, wars, sabotage, terrorist acts and other catastrophic events.

BNI Energy may be adversely impacted by its exposure to customer concentration and environmental laws and regulations. BNI Energy may be adversely impacted by the transitional risks associated with environmental laws and regulations, which could have an adverse effect on our financial position, results of operations and cash flows. In addition, insurance companies have decreased the available coverage for policyholders in the mining industry, affecting the availability of coverage and leading to higher deductibles and premiums.

Compatibility of ALLETE's Strategy with a Net-Zero Carbon Future

ALLETE is committed to lowering the carbon intensity of operations at all business units and for its customers. The business units' mission, customer mix, and regulatory status are all key drivers in determining the carbon reduction strategies employed.

Minnesota Power represents the highest carbon emissions of ALLETE's business units, and subsequently relies on the most extensive mix of carbon reduction strategies. As seen in Figure 1, Minnesota Power has a multipronged approach that includes ceasing coal operations by 2035 and achieving a carbon-free generation portfolio by 2040. Additionally, Minnesota Power plans to add up to 700 megawatts of renewable energy by 2030 while developing a more flexible and resilient energy delivery system. Combined with a flexible natural gas facility power purchase agreement with Nemadji Trail Energy Center to account for variabilities in renewable energy, as well as ongoing conservation efforts and evaluation of emerging technology, Minnesota Power is well-positioned to align operations with a net-zero future.

SWL&P represents the second-highest carbon emissions at ALLETE. SWL&P's carbon emissions are primarily due to purchased energy from Minnesota Power. SWL&P's energy purchasing strategy currently results in significant decreases in carbon intensity at SWL&P. Additionally, SWL&P is furthering its carbon reductions through a community solar garden, evaluation of fleet vehicle electrification, and its active role in the state of Wisconsin's energy conservation program.

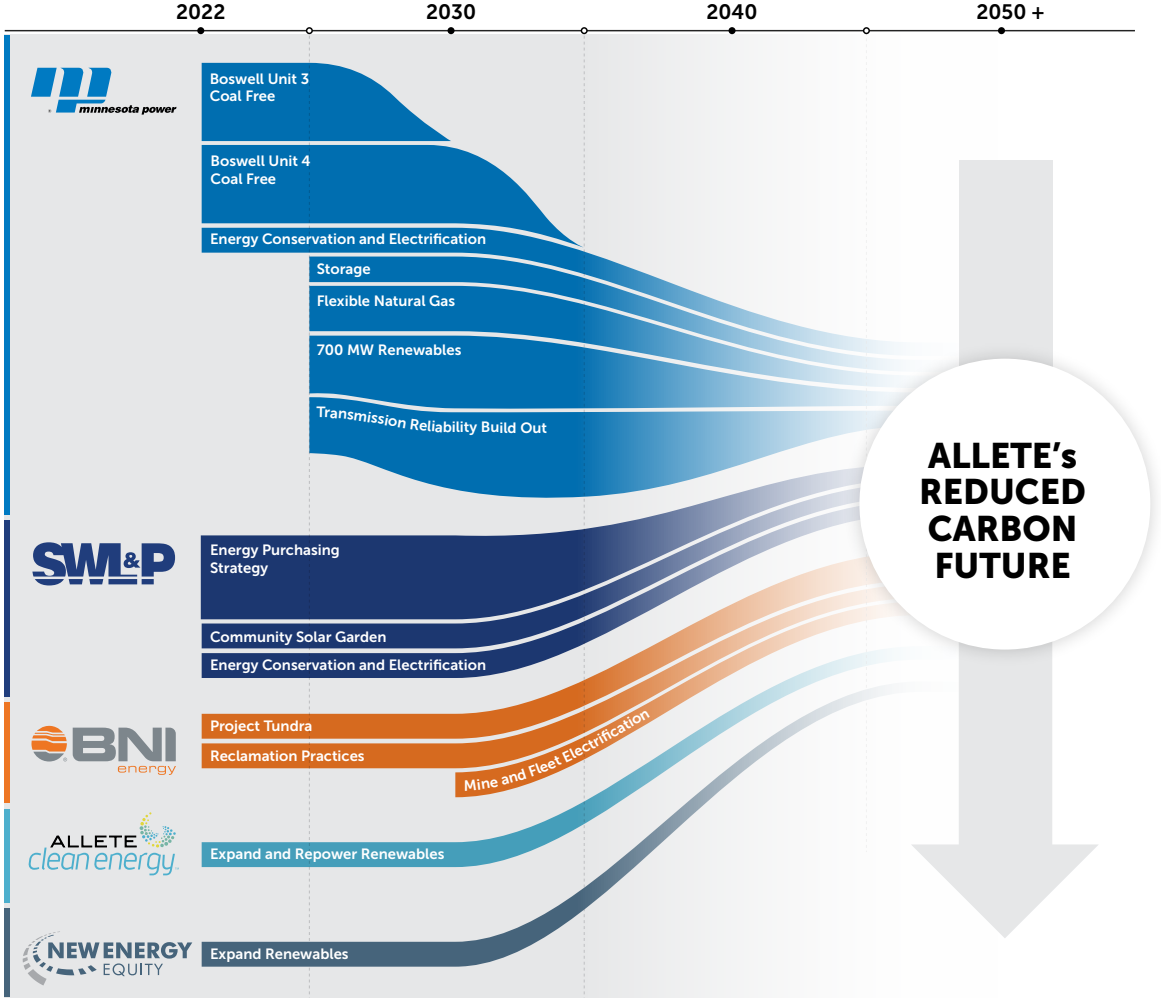


Figure 1 All of ALLETE's business units have strategies to reduce carbon, as shown above. Some of the options shown above may not be viable or have different timelines for implementation.

BNI Energy's carbon emissions are primarily associated with emissions from gasoline and diesel engines used for mining operations, as well as acquired electricity. BNI monitors and evaluates options for commercially viable electrification options to reduce Scope 1 and 2 emissions. There are also numerous opportunities to deploy different reclamation activities to reduce carbon through land use management practices. Project Tundra could be another way to reduce BNI's downstream (Scope 3) carbon emissions. Project Tundra is a proposed carbon capture and storage initiative at Minnkota's Milton R. Young Station, BNI's primary customer. The project is designed to capture 90% of carbon emissions from either generating unit.

With relatively minimal Scope 1 and 2 emissions associated with their operations, both ALLETE Clean Energy and New Energy Equity are focused on helping customers meet their own carbon reduction goals.

In 2022, ALLETE Clean Energy provided over 3,800,000 megawatt-hours of clean, renewable energy for its customers, and has over 1,200 megawatts of installed operating renewable generating capacity. In addition to these impressive carbon reduction achievements, ALLETE Clean Energy is actively evaluating other clean energy options, including solar and storage. Combined with ongoing efforts to improve efficiency, adding electric vehicles to the fleet, and monitoring blade recycling options, ALLETE Clean Energy will continue to play a major role in ALLETE's overall carbon reduction strategy.

New Energy Equity's projects generated approximately 580,000,000 kilowatt-hours of clean, renewable energy for its customers in 2022, representing over $5 million per year savings for customers. These projects represent avoided CO_2 emissions of approximately 400,000 metric tons annually.

Risk Management: Identifying and Managing Climate-Related Risks at ALLETE

Just as climate-related risks are classified into physical and transitional risks, ALLETE tailors risk-management activities according to risk type. We use well-established risk-management tools and processes to identify and manage climate-related risks on an ongoing basis, with clear communication of risk factors and risk-management approaches to management and the board.

Physical Risk Management

Includes planning, infrastructure hardening, and reduced reliance on natural resources where possible to reduce risk of operational impacts.

Transitional Risk Management

Relies on external monitoring and internal collaboration to assess, quantify and communicate the impacts and management strategies for environmental or economic requirements related to climate change.

Physical Risk Management

ALLETE's infrastructure is designed and constructed with resiliency in mind. Harsh, ever-changing weather conditions are a normal course of business for our operations, and we build, operate and maintain our infrastructure to last long periods of time in extremely challenging conditions.

However, ALLETE understands that climate change may shift the intensity, frequency and duration of extreme weather events in the coming years. We also recognize that less-extreme, longer-term trends can also significantly alter the world in which we operate, including but not limited to changes in water availability, extended warmer weather that affects in-ground infrastructure, and ecosystem-level changes.

In addition to broader risk mitigation activities, such as geographic distribution of wind energy resources to account for potential wind pattern changes, ALLETE addresses the physical impacts of climate change through the following activities:

+ Strong planning, preparedness and mutual assistance arrangements to prepare for extreme weather events
+ More durable and resilient energy delivery infrastructure
+ Reduced reliance on consumptive and non-consumptive water use
+ Maintaining and improving the natural ecosystems in which we operate

All of these approaches are key components to ensure we continue to deliver safe, reliable and affordable energy to our customers and the regions we serve under a variety of climate scenarios.

Emergency Action Response

With thousands of collective miles of transmission and distribution lines, Minnesota Power and SWL&P are subject to negative impacts from changes in intensity, frequency or duration of storm events due to climate change. SWL&P also owns natural gas transmission and distribution infrastructure, as well as water intake, treatment and delivery infrastructure. The reliable, safe and efficient delivery of electricity, natural gas and water to our customers is of the utmost importance to our companies. Therefore, the companies consider emergency action response a key tool in managing risks from climate change to ensure reliable and safe service throughout different disruptions.

Our regulated operations design and build infrastructure systems to withstand various weather conditions, including high winds, ice, snow, and extreme heat and cold. Intense weather conditions, however, are beyond our control and at times impact service to our customers. This risk factor is more prevalent with above-ground energy delivery systems, which can be more susceptible to extreme weather events. In those instances, we respond as expeditiously as possible, while also ensuring the continued safety of our personnel and the public.

The company strives to follow effective emergency management principles and protocols that enhance its ability to provide safe and reliable energy services. Minnesota Power and SWL&P use the National Incident Management System (NIMS) to guide their Emergency Response Plans (ERP). The NIMS is a comprehensive national approach to incident management, applicable at all jurisdictional levels and across functional disciplines. It improves the effectiveness of emergency response providers and incident management organizations across a full spectrum of potential incidents and hazard scenarios.

NIMS relies on the Incident Command System (ICS) to coordinate and manage the response of an organization. Overall, this approach provides a high level of coordination and cooperation between the company's regulated operations and public and private entities in a variety of domestic incident management activities.

Energy Delivery System Resiliency

Changes in intensity, frequency or duration of storms are often associated with climate change, and ALLETE recognizes that long-term impacts from these changes can affect our businesses. Our energy delivery system is built for resiliency, and we have installed higher-class pole systems that provide additional durability in soils that remain saturated longer than historically experienced, which may also have higher levels of soil microbial activity.

We have also invested in grid modernization efforts, including additional underground infrastructure and more redundancy to prevent incidents from occurring and reduce incident severity. Our energy delivery system also is evolving to become more adaptable when incorporating integration of distributed energy sources, including smaller renewable sources of generation.

Enhanced Water Management and Planning

It is anticipated that climate change may result in changes in precipitation and evaporation. From Minnesota Power's renewable hydroelectric power generation, to the cooling waters essential for thermal generation and electrical conversion facilities, we implement numerous risk-management approaches to limit the potential impacts associated with water use and availability risks.

One of the most significant risk management activities ALLETE has undertaken is the reduction of consumptive and non-consumptive water use at Minnesota Power's thermal facilities. Since 2005,

Minnesota Power has reduced total water use by 90%, for an average water reduction of over 150 billion gallons per year since 2005. This has been the result of decreased cooling water use following the idling of Taconite Harbor Energy Center, the natural gas conversion of the Laskin Energy Center, and the retirement of Boswell Energy Center Units 1 and 2.

The remaining large thermal generation facilities at Minnesota Power require much less water to operate. This is a result of, among other things, the use of cooling towers rather than once-through cooling water for Boswell Units 3 and 4. A proposed dry cooling technology is also planned for the Nemadji Trail Energy Center partnership. Additionally, the HVDC facilities in Center, North Dakota, and Hermantown, Minnesota, are planned to be converted to dry cooling within the next five to six years.

Minnesota Power uses a proactive planning approach to help predict and manage watershed dynamics for our renewable hydroelectric facilities. Each winter, Minnesota Power convenes a technical panel of public agency meteorological and natural resource experts, residents of the hydroelectric reservoirs watershed, and Minnesota Power operations to discuss current and forecasted temperature and precipitation conditions for Island Lake Reservoir, Minnesota Power's largest hydropower reservoir. Based off the current and predicted conditions, Minnesota Power selects a plan for subsequent hydropower operations to manage various requirements and expectations around reservoir levels, river flows and operational needs. This approach has been successful in accounting for variable and uncertain weather patterns, with Minnesota Power hydropower operations typically reaching desired refill targets for our reservoirs.

Finally, one of the most important aspects of our water risk management is the water abundance at and around our utility operations' geographic locations. For example, SWL&P's drinking water withdrawal is sourced from Lake Superior, one of the world's largest sources of high-quality surface water. In addition, Minnesota Power's Boswell Energy Center is located on the Mississippi River, with the river elevations controlled by numerous federal and privately-owned dams and reservoirs, factors which significantly mitigate water scarcity risks. In conjunction with these abundant water resources, utility water appropriations are prioritized by regulators in Minnesota and Wisconsin, including long-term and/or perpetual water appropriation permits for our operations.

Wildfire Risks – Vegetation Management and Rajala Woods Initiative

Changes to precipitation, temperature and other factors from climate change are expected to impact flora and fauna health, distribution and abundance, including in the areas in which we do business. Shifts in tree species health and/or abundance can create risks from wildfires, as well as exacerbate the impacts from storms. In 2022, extensive wildfires in Canada and northern Minnesota highlighted the need to maintain a healthy, diverse forests to mitigate risks of wildfire.

Minnesota Power's and SWL&P's vegetation management program enables safe and reliable transmission and distribution of electricity by controlling growth of non-compatible species and encouraging growth of compatible species under, on or adjacent to its transmission and distribution facilities, rights-of-way or easements. Non-compatible species are defined as those trees that mature at a height that allows them to grow into the electric facilities and cause outages. The management of non-compatible species is accomplished through adherence to integrated vegetation management principles, which include mechanical and chemical methods of control. Our cyclical vegetation management approach ensures periodic maintenance on distribution and transmission lines, ultimately reducing the risks of outages to our energy delivery systems and more severe wildfire risks in our service territory.

Additionally, Minnesota Power has proactively adapted progressive forest management goals for company-owned lands through our Rajala Woods initiative, harvesting shorter-lived tree species more vulnerable to weather-induced disruptions, insect infestations and altered forest management activities. Rather than allowing all harvested lands to return to the existing cycle of short-lived tree species, Minnesota Power is planting millions of native, long-lived conifer species, such as white, red and jack pines.

To date, Minnesota Power has planted more than 2 million long-lived tree species, over two-thirds of its goal of 3 million trees. Minnesota Power's forest management activities, including pest control and managing competing vegetation, have resulted in high survival rates for the new, more resilient tree species planted.

Volunteers protect seedling trees with bud caps as part of Rajala Woods, an initiative of Minnesota Power to plant millions of native, long-lived conifer species.

Transitional Risk Management

The transition to a low or net-zero carbon future represents significant risks and opportunities for most companies, and this is particularly relevant for energy companies. While ALLETE has committed to reducing carbon emissions consistent with pathways designed to limit climate change, uncertainty regarding additional environmental or economic regulations and/or legislation can still present risks to our business model(s) at our different business units.

ALLETE tracks, reports and communicates transitional risks through a combination of internal subject matter expert monitoring along with engagement with trade groups, peer organizations and governmental/nongovernmental entities to identify and assess transitional risk and opportunities for the company.

Environmental Strategy Group

The Environmental Strategy Group (ES Group) consists of executive and nonexecutive leaders from various disciplines within ALLETE. The ES Group meetings and topics are designed to function primarily in a risk assessment and risk-management role for our most pressing environmental matters. Regulatory risk assessments are typically prepared by the Environmental and Land Management department, in coordination with company operations staff. The ES Group then holistically evaluates the company's environmental risk for the relevant issues at each meeting, with the intent to guide actions that minimize risks and uphold the company's environmental stewardship values.

The ES Group is designed to have representation from a wide range of disciplines that can evaluate the risks and benefits of environmentally-related actions. The ES Group brings forward the benefit and risk assessments across multiple functions to allow for fully informed risk management decision making.

Depending on the type of environmental/climate risk or opportunity, certain issues are then elevated to management at the subsidiary board. Depending on the stage of the issue, strategy and risk management activities then commence, as described in other sections of this report. This can include a range of activities, from participating in external working groups or advisory panels to ensure reasonable regulatory outcomes, to planning for installation of treatment technology, renewable generation or transmission upgrades.

The ES Group meets approximately two to three times per year. Meeting topics are based on regulatory developments, a determination by the ES Group chair that a meeting on a certain topic is warranted and timely, a request by ALLETE business unit management to address a particular issue, and/or a request by a leader/sponsor of a working group to present an issue for approval or guidance.

Climate Risk/Opportunities Working Group

While the ES Group is largely focused on environmental regulatory risk management, there are also numerous other economic, legislative and policy-driven initiatives at the company regarding climate change and carbon emissions. To ensure these risks are identified and managed, the Climate Risks/Opportunities (CRO) working group, consisting of leaders from environmental, regulatory affairs and legislative affairs, meets quarterly to discuss and track local, state, national and international activities regarding climate change. While the CRO's focus is primarily on transitional risk, trends in physical impacts from climate change are also included in the quarterly agenda.

Based on development on these various fronts, a climate risk/opportunity dashboard is updated and the most significant climate-related issues are communicated to the Enterprise Risk Management's Signposts group on a quarterly basis.

Enterprise Risk Management – Signposts

ALLETE has a strong process in place for evaluating climate-related risks through a COSO-based Enterprise Risk Management (ERM) program. Quarterly ERM Signpost meetings evaluate the strategic landscape in five-year outlooks, focusing on a variety of risk factors including the economy, financial and capital markets, fuel commodities, environmental regulation, technology changes, regulatory and legislative developments, and regional economic indicators.

Risks presented from climate change are evaluated as part of the ERM Signpost monitoring. The risks monitored are primarily transitional. The ERM Signpost risk-management summaries are sent to the ALLETE board of directors on a quarterly basis.

A crew attaches blades to a turbine nacelle at the Glen Ullin Energy Center in North Dakota.

Metrics and Targets

ALLETE has numerous targets and initiatives in place to mitigate climate-related risks and implement solutions to reduce the impacts of climate change. Because our companies provide essential services to our customers, and because goals set for our regulated operations are often subject to approval from economic regulators, setting definitive quantitative targets that are too specific often can be detrimental in providing the flexibility required to meet the needs of our customers.

However, ALLETE recognizes that setting goals and establishing metrics to track our progress is a powerful tool to ensure our commitment to manage climate-related risks and opportunities. Our proposed carbon vision for Minnesota Power is one example of a goal we have set that is designed, in part, to mitigate climate-related risks. ALLETE has a strong emphasis on environmental performance for all of our businesses, including linking environmental performance and sustainability reporting progress to executive compensation.

In 2022, AIP performance key goals included establishing a framework for all ALLETE sustainability dimensions, and increasing transparency and clarity of our sustainability journey through sustainability reporting. Future goals and metrics may include establishing more refined climate scenarios to measure the resiliency of our businesses, as recommended in the TCFD and CDSB, bolstering our process for evaluating climate-related risks and opportunities, and linking other sustainability goals to executive compensation.

ALLETE's CO_2 Equivalent (CO_2e) Emissions

Carbon Accounting Methodology

ALLETE recognizes there are different ways to conduct carbon accounting. For some companies, carbon accounting can involve a fairly straightforward analysis of fuels consumed onsite and applying emission factors. For more complex organizations like ALLETE, the unique role of our utilities require a more detailed accounting methodology and description. Throughout this process, ALLETE is committed to transparency in how we track and report our carbon emissions. This is especially important when accounting for the carbon emissions associated with Minnesota Power, a vertically integrated utility that generates, purchases, and sells power to both the retail and wholesale markets.

For reporting year 2022, ALLETE has established organizational and operational boundaries for each ALLETE business unit for carbon accounting based on the World Resource Institute's (WRI) Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard (Corporate Standard). CO_2e emissions are calculated using an emission factor based on carbon dioxide (CO_2) emissions; separate emissions values are not calculated for all individual greenhouse gases. At this time, methane leakage from upstream or downstream sources are not included in ALLETE's GHG reporting, which may change depending on the role natural gas plays in our energy portfolio in the future.

ALLETE uses internal processes to confirm emissions and renewable percentages, and currently does not conduct independent third-party verification.

minnesota power
AN ALLETE COMPANY

Organizational Boundaries: Financial Control

In scope: As a utility, Minnesota Power has equity control in generation and energy delivery infrastructure, as well as significant financial control over operations. Minnesota Power also has control over the power purchase agreements (PPAs) it enters into to serve retail customers with renewable power, such as PPAs with Manitoba Hydro and the Nobles II wind facility.

Out of scope: Minnesota Power has set an organizational boundary for calculating GHG emissions to include carbon emissions associated with energy used to serve our retail customers. Wholesale transactions to non-Minnesota Power retail customers are reported for transparency, but are not included in calculations for total carbon emissions nor Minnesota Power's carbon intensity.

The rationale for this boundary is based on several factors. First, Minnesota Power's ability to recover costs for investments in generation, either renewable or fossil fuel-based, is subject to oversight and approval by Minnesota Public Utilities Commission (MPUC). Therefore Minnesota Power, like other utilities, does not have complete ability or authority to independently determine its exact resource mix.

Secondly, Minnesota Power's resource mix provides critical reliability support to the grid, where the energy may be used to support non-Minnesota Power retail customers. Minnesota Power is not able to restrict generation when called upon to serve these non-Minnesota Power retail customers, and therefore is not able to exert full control over aspects of energy generation or delivery, which can and does create carbon emissions. Because Minnesota Power is not allowed to restrict energy sales when called upon to dispatch energy from thermal resources by the Midcontinent Independent System Operator (MISO), it does not have full control over the amount of carbon emissions associated with wholesale market energy sales.

Organizational Boundaries: Equity Share

While Minnesota Power has complete equity share in most of our generating units, WPPI Energy has a 20% equity share in Minnesota Power's largest thermal unit, Boswell Unit 4. Therefore, Minnesota Power removes an equivalent amount of carbon from the overall Unit 4 emissions when conducting carbon accounting.

Summary: At this time both financial control and equity share criteria are used to define the organizational boundary of Minnesota Power's Scope 1, 2, and 3 emissions reporting for GHGs.

Operational Boundaries

Scope 1: At this time, Minnesota Power has set its primary operational boundary to include those emissions from thermal generation units, which we define as Scope 1a. At this time, vehicle use is excluded from the Scope 1 operational boundary.

Scope 2: Minnesota Power's largest generating facilities are primarily served by station service (power produced onsite and included in Scope 1a emissions). Minnesota Power also has field offices, service centers, and other facilities. The purchased energy used to power and heat those facilities are excluded from the Scope 2 operational boundary at this time.

Scope 3: Minnesota Power has included market purchases to serve Minnesota Power's retail customers (Scope 3, Category 3). Upstream and downstream emissions, including for methane leakage, are currently set outside of our operational boundary.

Based on the guidance in the GHG Protocol , and given the organizational and operational boundaries established above, Minnesota Power subdivides emissions scopes to provide additional clarity and transparency on the role Minnesota Power plays for both retail customers and to support energy needs for entities within MISO.

Minnesota Power's 2022 greenhouse gas emissions within organizational and operational boundaries were **3,574,426 metric tons CO_2e**, which results in a carbon intensity of **0.380 metric tons CO_2e/net MWh**, or **838 lbs CO_2e/MWh**.

Scope	Definition	Within Current Organizational Boundaries?	Rationale for Inclusion/ Exclusion	Within Current Operational Boundaries?	Value in metric tons CO_2e	Detail on GHG calculations
1a	GHGs associated with owned generation to serve retail customers.	Yes	Minnesota Power has equity share in thermal generating facilities and significant financial control over operations used to serve retail customers.	Yes	1,764,555	Includes CO_2e from coal and natural gas generation at owned thermal generation facilities used to serve retail customer load. Based on equity approach, with WPPI's share of Boswell Unit 4 CO_2e emissions excluded.
1b	GHGs associated with owned generation of electricity that is used to serve wholesale energy needs.	No	Minnesota Power does not have full control over the dispatch of this energy and its associated CO_2e.	No	3,109,556	Includes CO_2e from coal and natural gas generation at owned thermal generation facilities used to serve wholesale energy needs.
1c	GHGs associated with fuel consumption and vehicle use.	Yes	Minnesota Power has control over these purchases.	No	Not reported	Emission factors based off of fuel use.
2	Purchased electricity for own use.	Yes	Minnesota Power has financial control over these purchases.	No	Not reported	Includes station services and purchased energy used for operations.
3 Cat. 3	GHGs associated with purchased energy to serve retail customers.	Yes	Minnesota Power has financial control over energy purchases dispatched to retail customers.	Yes	1,809,871	Minnesota Power assumes a typical blended MISO carbon intensity rate for coal and natural gas generation to calculate CO_2e intensity for this scope. Renewable PPAs are also included.
3 (Up)	Extraction, production and transportation of fuels consumed in the generation of electricity.	No	There is a lack of operational and some financial control over these emissions.	No	Not reported	These emissions are considered upstream emissions.
3 (Down)	Downstream emissions.	No	Mostly outside of Minnesota Power's financial or operational control.	No	Not reported	These emissions would include line loss, end product use, etc.

SWL&P
AN ALLETE COMPANY

Organizational Boundaries: Financial Control

In scope: As a utility, SWL&P has control over the PPAs it enters into to provide electricity to retail customers.

Out of scope: SWL&P does not have financial control over the downstream uses of the gas or water it provides customers, and those functions of SWL&P are set outside the organizational boundary at this time.

Operational Boundaries

Scope 1: SWL&P does not have onsite generation, except for a community solar garden inside SWL&P's service territory. At this time, vehicle use is excluded from SWL&P's Scope 1 operational boundary.

Scope 2: Purchased electricity used to power and heat SWL&P facilities are set outside of SWL&P's Scope 2 operational boundary at this time.

Scope 3: SWL&P has included market purchases to serve SWL&P's retail customers (Scope 3, Category 3). Upstream and downstream emissions are currently set outside of SWL&P's operational boundary.

SWL&P's 2022 greenhouse gas emissions within organizational and operational boundaries were **303,445 metric tons CO_2e**, which results in a carbon intensity of **0.380 metric tons CO_2e**, or **838 lbs CO_2e/MWh.**

Scope	Definition	Within Current Organizational Boundaries?	Rationale for Inclusion/ Exclusion	Within Current Operational Boundaries?	Value in metric tons CO_2e	Detail on GHG calculations
1	GHGs associated with owned generation and vehicles.	Yes	SWL&P has significant financial control over operations used to serve retail customers.	No	Not reported	
2	Purchased electricity for own use.	Yes	SWL&P has financial control over these purchases.	No	Not reported	Includes purchased energy used for operations.
3 Cat. 3	GHGs associated with Purchased Energy to serve retail customers.	Yes	SWL&P has financial control over energy purchases dispatched to retail customers.	Yes	303,445	SWL&P uses Minnesota Power's carbon intensity rate of 0.380 MT/CO_2e intensity for this scope.
3 (Up)	Extraction, production and transportation of fuels consumed in the generation of electricity.	No	There is a lack of operational and some financial control over these emissions.	No	Not reported	These emissions are considered upstream emissions.
3 (Down)	Downstream emissions.	No	Mostly outside of SWL&P's financial or operational control.	No	Not reported	

ALLETE clean energy™

Organizational Boundaries: Financial Control

In scope: ALLETE Clean Energy has control over the projects it builds, owns, and constructs, as well as the PPAs it enters into.

Out of scope: ALLETE Clean Energy does not have financial control over the upstream emissions associated with the materials used to build and operate renewable energy facilities, nor does it have ability to control the downstream uses of the electricity it provides customers. Those aspects of ALLETE Clean Energy are set outside the organizational boundary at this time.

Operational Boundaries

Scope 1: ALLETE Clean Energy does not have GHG emissions from its owned electrical generating facilities. At this time, vehicle use is excluded from Scope 1 operational boundaries.

Scope 2: Purchased electricity used to power and heat ALLETE Clean Energy facilities are set outside of ALLETE Clean Energy's Scope 2 operational boundary at this time.

Scope 3: Upstream and downstream emissions are currently set outside of ALLETE Clean Energy's operational boundary.

Scope	Definition	Within Current Organizational Boundaries?	Rationale for Inclusion/ Exclusion	Within Current Operational Boundaries?	Value in metric tons CO_2e	Detail on GHG calculations
1	GHGs associated with owned generation and vehicles.	Yes	ALLETE Clean Energy has significant financial control over these operations.	No	Not reported	
2	Purchased electricity for own use.	Yes	ALLETE Clean Energy has financial control over these purchases.	No	Not reported	Includes purchased energy used for operations.
3a	Extraction, production and transportation of materials used for wind development projects.	No	There is a lack of operational and some financial control over these emissions.	No	Not reported	These emissions are considered upstream emissions.
3b	Downstream emissions.	No	Mostly outside of ALLETE Clean Energy's financial or operational control.	No	Not reported	

BNI energy

AN ALLETE COMPANY

Organizational Boundaries: Financial Control

In scope: As a lignite coal mining operation, BNI has control over its mining operations and the type of equipment it uses for mining purposes.

Out of scope: BNI does not have financial control over the upstream emissions associated with the equipment and materials used to build and operate mining equipment, nor does it have ability to control the downstream uses of the lignite coal it provides customers. Those elements of BNI's functions are set outside the organizational boundary at this time.

Operational Boundaries

Scope 1: Vehicle use is included in Scope 1 operational boundary.

Scope 2: Purchased electricity used to power and heat BNI facilities are set outside of BNI's Scope 2 operational boundary at this time.

Scope 3: Upstream and downstream emissions are currently set outside of BNI's operational boundary.

Scope	Definition	Within Current Organizational Boundaries?	Rationale for Inclusion/ Exclusion	Within Current Operational Boundaries?	Value in metric tons CO_2e	Detail on GHG calculations
1	GHGs associated with vehicles and mining equipment.	Yes	BNI has significant financial control over these operations.	Yes	30,153	Diesel and gasoline mobile sources calculated using EPA's GHG Equivalencies conversions.
2	Electricity acquired for own use.	Yes	BNI has financial control over these electrical agreements.	Yes	14,501	Includes purchased/ acquired energy used for operations.
3a	Extraction, production and transportation of materials used for coal mining operations.	No	There is a lack of operational and some financial control over these emissions.	No	Not reported	These emissions are considered upstream emissions.
3b	Downstream emissions.	No	Mostly outside of BNI's financial or operational control.	No	Not reported	

NEW ENERGY EQUITY
AN ALLETE COMPANY

Organizational Boundaries: Financial Control

In scope: New Energy Equity has control over the projects it builds, owns, and constructs, as well as the PPAs it enters into.

Out of scope: New Energy Equity does not have financial control over the upstream emissions associated with the materials used to build and operate renewable energy facilities, nor does it have ability to control the downstream uses of the electricity it provides customers. Those aspects of New Energy Equity are set outside the organizational boundary at this time.

Operational Boundaries

Scope 1: New Energy Equity does not have GHG emissions from owned electrical generating facilities. At this time, vehicle use is excluded from New Energy Equity's Scope 1 operational boundary.

Scope 2: Purchased electricity used to power and heat New Energy Equity facilities are set outside of New Energy Equity's Scope 2 operational boundary at this time.

Scope 3: Upstream and downstream emissions are currently set outside of New Energy Equity's operational boundary.

Scope	Definition	Within Current Organizational Boundaries?	Rationale for Inclusion/ Exclusion	Within Current Operational Boundaries?	Value in metric tons CO_2e	Detail on GHG calculations
1	GHGs associated with owned generation and vehicles.	Yes	New Energy Equity has significant financial control over these operations.	No	Not reported	
2	Purchased electricity for own use.	Yes	New Energy Equity has financial control over these purchases.	No	Not reported	Includes purchased energy used for operations.
3a	Extraction, production and transportation of materials used for solar development projects.	No	There is a lack of operational and some financial control over these emissions.	No	Not reported	These emissions are considered upstream emissions.
3b	Downstream emissions.	No	Mostly outside of New Energy Equity's financial or operational control.	No	Not reported	

Waste Management, Recycling, and Disposal

ALLETE, Inc. facilities are typically minimal to small-quantity generators, and manage all hazardous waste in accordance with applicable state and federal regulations. Day-to-day operations and maintenance activities most commonly generate used oil, bulbs, batteries and electronic waste (E-waste). To minimize landfilled material, only qualified waste contractors recycle universal and E-waste, and recycle or convert used oil for energy recovery. Hazardous waste is disposed of in appropriately permitted landfills. To ensure compliance, internal audits are conducted of waste transport, disposal and recycling vendor facilities. ALLETE employees also receive training on an annual basis to ensure waste is properly characterized and stored until it is transported for recycling or disposal. Compliance support is provided by designated environmental staff who perform site visits, track vendor shipments and complete regulatory reporting.

406,374 lbs.

Total non-hazardous waste recycled in 2022.

2022 Estimated Waste Disposal & Recycling Summary:

- **10,029 lbs.** Hazardous Waste Disposed
- **30,406 lbs.** Electronic Waste Recycled
- **21,142 lbs.** Universal Waste Recycled
- **5,060 kg.** PCB Waste Disposed
- **35,651 gal.** Used Oil Recycled
- **90,000 lbs.** Oily Debris & Sediment Recycled

Universal Waste Recycled:

- **12,139 lbs.** Batteries
- **5,032 lbs.** Bulbs
- **3,947 lbs.** Non-PCB Ballast/ Capacitors
- **14 lbs.** Equipment Containing Mercury
- **10 lbs.** Lead

ENVIRONMENTAL POLICY STATEMENT AND ENVIRONMENTAL MANAGEMENT SYSTEM

ALLETE Environmental Policy Statement

Environmental stewardship is one of ALLETE's core values and the people of ALLETE are committed to being responsible corporate citizens. We support the concepts of environmental stewardship and believe they are good for business. Consistent with this value, we:

+ Protect the environment as we carry out our responsibilities.
+ Limit the environmental impacts of our activities.
+ Demonstrate and promote conservation of land, air, water and energy resources.
+ Meet environmental regulatory requirements and company commitments.
+ Stress efficiency, recycling and pollution prevention.
+ Advocate reasonable and practical environmental laws, regulations, policies and practices.
+ Strive to continually improve our environmental performance.

ALLETE balances the environmental impact of our activities with our obligations to shareholders, customers, communities and future generations.

Environmental Management System (EMS)

As a core element of its environmental performance improvement strategy, ALLETE's Environmental and Land Management department has implemented an Environmental Management System (EMS) to manage its environmental activities.

ALLETE's EMS improves the consistency of environmental management activities by reducing our overall environmental impacts.

The EMS is designed to provide a solid foundation for performance of environmental and land management work at the company. Established work practices and policies are memorialized in procedures, guidance documents and policies, which are subject to frequent review and adjustment due to both planned and unplanned changes. The combination of a solid foundation and structured, disciplined adaptability create a culture of continuous improvement for ALLETE's overall performance, even in times of frequent and substantial change.

ALLETE's EMS consists of the following components:

Documentation

Procedures, forms, guidance documents and policies clearly outline how we perform critical activities, where we record data, and what our standards are for various requirements. Department leadership ensures document owners keep department records current and applicable. Simultaneously, a structured compliance document system was developed to store all documentation.

Management of Change (MOC)

A list of potential events that could disrupt normal business operations has been developed by department experts. These events are used as trigger events that require staff to conduct an MOC evaluation. MOC triggers include changes in operations, regulations, staffing or outside intervention, and the list of triggers is updated periodically to reflect different emerging event types. After an MOC is triggered, staff uses a pre-built assessment questionnaire to ensure appropriate steps are taken to mitigate unwanted impacts.

Incidents

In order to learn from past incidents and prevent future events, incidents are documented, ranked by severity and tracked to characterize trends. Incidents that reach a certain threshold of risk or impact are subject to a formal incident review process to identify operational changes to reduce or prevent future occurrences.

Communication

All critical changes to the EMS, including new or modified procedures, policies or forms; new management of change activities; new significant incidents or learning team reviews; and the results of incident investigations are all communicated via emails, phone conversations, or virtual or in-person meetings.

ENERGY EFFICIENCY

Energy efficiency is an integral part of the business strategy at Minnesota Power and SWL&P as well as ALLETE's sustainability in action strategy.

The two utilities offer a wide range of products and services and work with their customers to help them understand, manage and reduce their energy use.

Minnesota

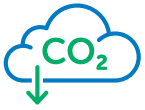
Minnesota Power continues to have a successful track record of exceeding the state energy savings goal.

The company's Conservation Improvement Program works with business and residential customers to find specific ways to reduce energy usage.

Customers saved about 76,400,000 kilowatt-hours in 2022

That's enough energy to:

power about **9,081 homes** for a year



reduce carbon emissions by **42,679 tons**

take **8,435 cars** off the road for a year

Total energy saved in 2022 was 2.9% of net retail energy sales, well above the state goal of 1.5%. Conservation Improvement Program expenditures were $9,635,730 for 2022.

Wisconsin

SWL&P partners with Focus on Energy to provide customers with information, resources and financial incentives to help manage energy use. This program is managed by the state of Wisconsin and SWL&P contributes 1.2% of its annual retail utility revenue (electricity and natural gas) to help fund it. The company contributed $967,360 in 2022. Program goals and initiatives are established on a statewide basis working with all participating utilities and publicly reported on the Focus on Energy website.

Electric vehicles/mine truck electrification

Minnesota Power is expanding its support for electric vehicles and helping to accelerate the shift to electric power in the transportation sector through support of residential and business customers. The Minnesota Public Utilities Commission approved the company's proposal to install 16 fast-charging EV stations across its service territory to support EV travel across the region. Minnesota Power has also announced plans to switch a significant portion of its own vehicle fleet to electric in the next 10 years. SWL&P also plans to expand its support of transportation sector electrification.

Charging network

The Company recognizes that access to reliable public charging infrastructure is a major barrier to EV adoption, particularly in more rural areas. In 2020 and 2021, Minnesota Power donated Level 2 electric vehicle charging stations to business customers at 21 sites in 19 communities. The company will also be installing 16 EV fast-charging stations throughout its service territory in 2024. In 2021, Superior Water, Light & Power donated a Level 2 electric vehicle charging station to a business customer in Superior, Wisconsin.

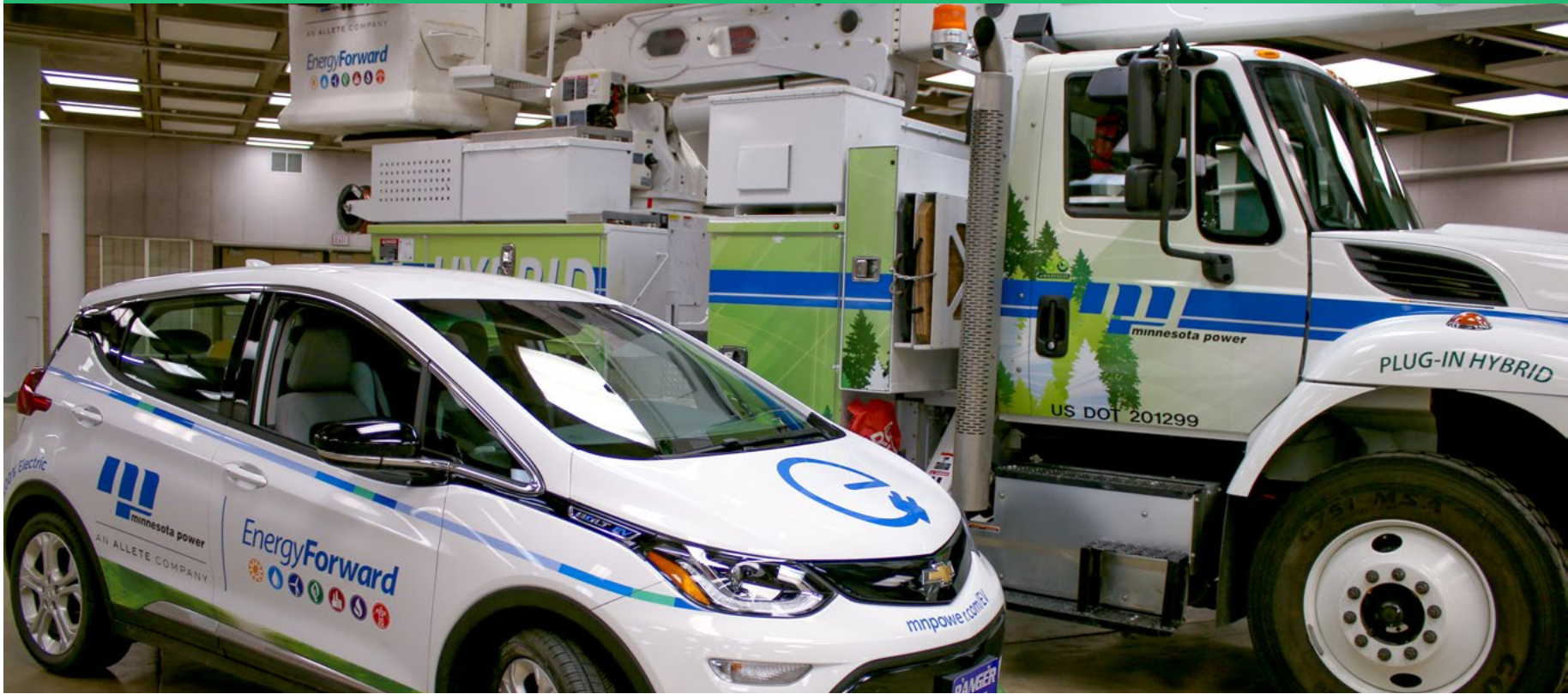
Fleet transformation

Minnesota Power and SWL&P have set a goal of having 50 percent of its light-duty vehicles, such as pickups, be transitioned to electric by 2030 and 25 percent of medium- and heavy-duty vehicles, including line trucks, be transitioned to electric plug-in technology by 2030.

Mine truck electrification

Minnesota Power continues to explore a potential mine truck electrification pilot. While policy-makers have focused on the electrification of transportation and buildings, electrification of industry is a key interest of Minnesota Power and its mining customers. The company is evaluating the potential for a pilot project that could include support for a site-specific analysis, replacement or retrofitting of a portion of an existing haul truck fleet, engineering and installation of the catenary system and substations, and service extension to a trolley line.

Minnesota Power has set a goal of transitioning 50% of its light-duty vehicles to electric and 25% of medium- to heavy-duty vehicles to plug-in technology by 2030.



CYBER AND PHYSICAL SECURITY

ALLETE regards grid reliability, security and resilience as the highest priority to support our customers, communities, employees and their families.

In order to keep pace with the ever-changing and emerging threats to our operations, ALLETE uses a team approach and technology as a force multiplier. Through cyber and physical security programs, along with emergency preparedness, our efforts greatly increase our situational awareness and readiness and are key components of operating the power grid in a reliable and safe manner.

ALLETE formed a Cyber Security department in 2011 that focuses solely on cybersecurity and cyber regulatory compliance for ALLETE and its subsidiaries. This department continues to enhance its capabilities to mitigate vulnerabilities and defend against threats. The threats are constantly evolving and require continual vigilance to the changing threat landscape. The cybersecurity program uses a defense-in-depth strategy coupled with a risk-based approach using industry accepted standards and best practices as a guide to protect, defend and respond. Training personnel, hardening systems, and addressing single points of failure are undertaken to increase our preparedness and mitigate vulnerabilities.

The ALLETE Security and Emergency Management (ASEM) department provides services across the ALLETE family of companies. The department utilizes a comprehensive physical security and emergency management framework composed of several different process cycles that fall within the core national-level emergency management planning framework shared by both public and private entities to provide grid reliability, security and resilience. Through the emergency and security operations center, ASEM services include 24/7 hour monitoring of specific access control systems, door alarms, fire alarms, camera viewing, and the initiation of emergency response for multiple corporate business units across seven states.

The team is committed to improving cybersecurity tools, open-source sharing of capabilities with other cybersecurity professionals, and using security orchestration automation and response tools to more effectively tie disparate systems together, allowing effective response to detected events. ALLETE is a firm believer that sharing our cybersecurity preparedness with our peers helps improve the cybersecurity effectiveness of the energy industry and our cross-sector partners.

ALLETE also has large and diverse information-sharing relationships and response partnerships including federal, state, regional, tribal, local and industrial entities in both the private and public sectors.

ALLETE's cyber and physical security programs are also subject to North American Electric Reliability Corporation (NERC) reliability standards. To provide broad oversight in the areas of Bulk Electric System reliability compliance, the NERC Compliance Steering Committee (NCSC) regularly reviews effectiveness of compliance program controls, recommends actions for continuous program improvements, and facilitates and ensures engagement of internal teams with industry partners and regulators on matters such as incidences of non-compliance, compliance enforcement activities, and industry issues.

The Great Northern Transmission Line

ENERGY RELIABILITY

ALLETE is an energy company, and all of our business units have an unwavering commitment to a reliable supply of energy through all manner of disruptions.

In recent years, power outages have underscored the importance of a resilient and reliable energy supply. Extreme weather events are part of our daily life in most of the regions in which ALLETE operates. We are committed to a resilient grid, which requires different sources of energy when primary sources disappear. Our considerable investment in renewable energy is reinforced by our baseload power sources, while our energy delivery system continues to improve grid resiliency to address a variety of weather, generation mix and other challenges.

This balanced approach helps protect our customers from both emergency interruptions and the shock of price spikes. We will continue to make investments to prevent outages, such as replacing overhead wiring with underground wiring in many areas, maintaining electric service stability through investments in our transmission system, and investing in technology to restore customer outages more rapidly through both automated switching and faster crew response to system problems.

Grid Resiliency and Energy Delivery

Reliability and delivered electricity information reporting via SASB standards is summarized below.

Accounting Metric Inclusive of major event days (minutes)	**Minnesota Power** 2022 Data	**SWL&P** 2022 Data
System Average Interruption Duration Index (SAIDI)	496.57	99.56
System Average Interruption Frequency Index (SAIFI)	2.05	0.64
Customer Average Interruption Duration Index (CAIDI)	242.27	155.11
Total electricity delivered in megawatt hours (MWh):		
Residential	1,020,682	94,378
Commercial	1,181,863	106,382
Industrial	6,045,708	597,782
Wholesale	14,821.62	0

WORKFORCE CULTURE AND ENGAGEMENT

ALLETE differentiates itself on people, culture, leadership and values, and the strength and resilience of these have been tested and proven in 2022. With all of the opportunities and challenges, these differentiators have never been more critical to our future success.

ALLETE Values

+ Integrity
+ Safety
+ People
+ Planet

Diversity, Equity and Inclusion Focus Areas

+ Workforce
+ Supply Chain
+ Community Citizen
+ Communications
+ Customers

Diversity, Equity and Inclusion

For more than a century, ALLETE has been attracting and retaining high-quality people who demonstrate our shared values. Our shared values are integral to our culture and guide our decisions on how we will achieve continued growth and success. Sustainability in action includes nurturing a more diverse workforce that helps build stronger and more equitable communities. We respect and value individuals and their differences, and we know we are stronger together when we include diverse backgrounds and perspectives in decision-making at all levels.

ALLETE embraces and encourages diversity, equity and inclusion among our employees and in our communities. We are committed to creating a more equitable society for all.[1]

+ Gender Diversity

As of December 31, 2022, 50% of ALLETE executive officers are women. The 2022 Minnesota Census of Women in Corporate Leadership named ALLETE as an Honor Roll company with Special Distinction for its commitment to executive and board gender diversity. ALLETE also earned Special Distinction status in 2021, 2020 and 2019.

+ Diversity, Equity and Inclusion framework

We make diversity, equity and inclusion part of everything we do – from how we deliver energy and build our workforce to creating opportunities for communities to thrive. ALLETE's chair, president and CEO remains committed to advancing DE&I efforts with other EEI companies and supports our multidimensional framework of companywide focus areas. Our DE&I steering committee focuses on strengthening our DE&I efforts in our five focus areas: workforce, supply chain, corporate citizenship, communications, and customers. Additionally, we have an employee-led subcommittee that identifies and shares learning and engagement opportunities; develops and maintains communication platforms to raise awareness, educate, inspire and engage employees; features employees, retirees, customers and community partners who are advancing DE&I; and is an ally for DE&I initiatives. We continue to foster our Respect in the Workplace initiative which requires annual discrimination and harassment training for all employees.

+ Veteran Outreach and Support

The state of Minnesota designated Minnesota Power and ALLETE Clean Energy as Beyond the Yellow Ribbon Companies for their long-term commitment to service members, military families and veterans, in 2016 and 2019 respectively. An employee-led committee comprising of veterans, active service members, military family members and civilians from all ALLETE companies executes the program's mission to contribute to the company's unique culture by proactively recruiting and retaining the best and supporting an environment in which military-connected employees can thrive. In 2022, we raised over $40,000 for veteran organizations; supported employees, families and service members during deployments and activations by providing care packages; assisted local veterans through employee donations and volunteer work; and educated and created awareness through online and in-person events.

[1]See ALLETE's Human Rights Policy

Employee Demographics

Total ALLETE Employees: 1,492
As of December 31, 2022 (full-time, part-time, temporary)

Veteran	6.1%

Gender

Female	23.3%
Male	76.7%

Race/Ethnicity

American Indian or Alaska Native	0.5%
Asian	0.6%
Black or African American	0.7%
Hispanic or Latino	0.5%
Not disclosed	13.1%
Native Hawaiian or Other Pacific Islander	0.1%
Two or more races/ethnicities	0.5%
White	84.0%

Age

Under 29	11.3%
30-39	27.3%
40-49	31.6%
50-59	23.1%
60-64	5.6%
65+	1.2%

2022 Turnover

The average employee turnover in 2022 was 7.4% for employees. Approximately 33.3% of employee turnover involved retirements, 59.3% resulted from resignations and the remaining 7.4% includes turnover for other reasons, such as unsatisfactory performance. Temporary/intern employees are not included in these turnover rates as they have planned exits.

Development and Engagement

ALLETE is committed to creating a learning environment for employees to provide them opportunities to develop their strengths, broaden their experiences, and take on new roles and responsibilities within the company. Employees have the opportunity to attend internal educational offerings; gain experiences through on-the-job learning and apprenticeships; advance education through our tuition reimbursement program; gain professional certification and licensure; and engage in external professional networks, nonprofit organizations and our communities. Additionally, ALLETE provides required safety, cyber security, ethics and anti-corruption training for all employees, including management. Together, our employees strengthen our organization through a culture that sustains our commitment to core values with solid leadership that inspires excellence and unity.

Health and Well-being

ALLETE values the well-being of every employee. We know that the success of our business is fundamentally connected to the health, safety, and well-being of our employees and their families. With support through benefits and resources like the Employee Assistance Program and Vimocity, our employees can enhance their families' physical, mental, emotional, social, professional, and financial well-being both at home and at work. We continue to highlight mental health resources and are working to help end stigma associated with utilizing these resources.

Collective Bargaining and Labor Relations

ALLETE is proud of its longstanding relationship with the International Brotherhood of Electrical Workers (IBEW). As part of our shared interests, we are committed to constructive dialogue and good-faith negotiations with legally recognized unions. As of the end of 2022, 41% of ALLETE employees were covered by collective bargaining agreements. We look for opportunities to work collaboratively with the IBEW to advance joint goals, including our Zero Injury safety culture and employee skill development.

Future Workforce

ALLETE recognizes the rapid rate of change in the energy industry, which guides how we prepare our current and future workforce. We are focusing initiatives on programs to expand the diversity of new hires, including programs designed to build a strong talent pipeline through intentional internships and engagement with local schools and colleges; and updating our on-the-job trainings including apprenticeships. We are increasing the number of job fairs and community recruiting events we attend and developing strategies to hire mid-career employees.

Employee and Contractor Safety

At ALLETE we commit to be injury free at work, at home and in our communities. Our safety value is based on the belief and commitment that everyone can go home unhurt each day.

I AM ZERO INJURY.

Safety strategy

Our safety strategy is built on the three planks of culture, system and awareness:

+ **Culture**

  We strive for employee engagement and participation through the use of safety improvement teams, family safety days, safety committees, safety conversations, and a culture that focuses on learning and improving rather than blaming and punishing.

+ **Systems**

  We commit to safety compliance and strive to go beyond compliance to implement robust safety and health programs that protect employees, contractors, visitors and the public.

+ **Awareness**

  We continually seek out industry best practices by participating in industry groups and organizations as well as regular benchmarking. We also learn from our own experiences. We continually look to the latest safety research for emerging trends and improvements in the safety field.

Programs and Management

The ALLETE safety journey is one of "wanting to" be safe rather than "having to" be safe. Employee engagement and participation are critical elements in the promotion and maintenance of safety. ALLETE strives to provide a workplace where safety engagement and participation are part of the daily routine.

The ALLETE Safety Strategy Group consists of managers, employees and IBEW representatives who meet monthly to develop and assess safety strategy, provide direction, and review safety progress and initiatives.

Safety Improvement Teams (SIT) meet regularly at all sites. These teams identify hazards, promote safety and interact with the Safety Strategy Group regularly. Each SIT develops yearly safety plans for their areas and works to achieve initiatives that both align with broader safety goals as well as meet the needs of their individual company or site.

Safety Focus Areas

+ **Serious Injury and Fatality (SIF) preventions**
  SIF prevention is an emerging field in safety. ALLETE has worked with the Edison Electric Institute, and leading academic researchers like Dr. Hallowell of the University of Colorado, on the identification of SIF precursors, creation of a Safety Classification & Learning Model, and pursuing safety metrics that better account for SIF events. This research has shaped our process for determining SIF potential and the training, communication and leadership prevention activities. These concepts are built into our pre-jobs briefs, safety conversations, and event learnings to address the presence of hazards known to be associated with SIF.

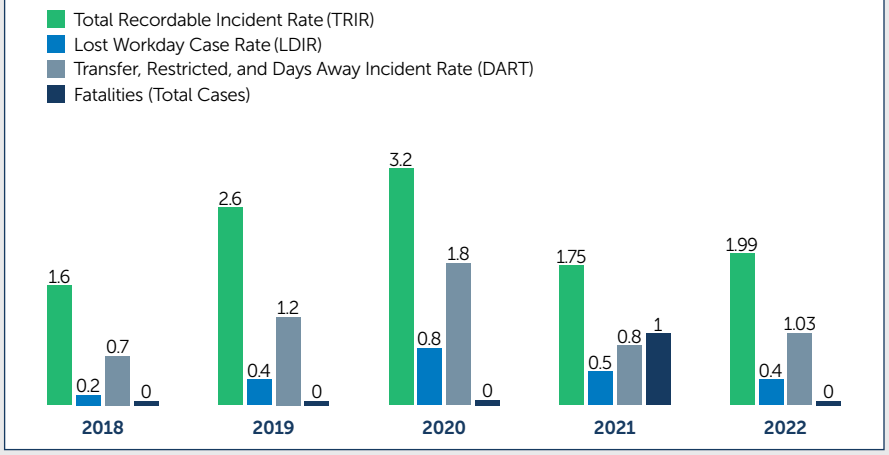
+ **ALLETE Moves by Vimocity**
  ALLETE continues to address soft tissue and musculoskeletal injuries by partnering with Vimocity to help employees improve mobility and reduce pain. The program provides an online platform based on the three areas of daily muscle and joint care, body positioning and ergonomics.

+ **Human performance improvement and operational learning**
  ALLETE uses practices and principles developed by the Department of Energy and others recognizing that human beings are fallible and will make errors and that human error is predictable, manageable and preventable. Through the use of human performance tools, a culture of learning, the use of learning teams and a focus on systemic improvements, we seek to build resilient systems that are not negatively affected by inevitable human error.

+ **Data analytics**
  ALLETE tracks both leading and lagging metrics and uses Microsoft Power BI to display and analyze injury trends, safety participation and other data to make better decisions on safety practices.

+ **Contractor Safety Management**
  A cross-functional team works together to ensure that contractors receive and understand our safety expectations. Contractors go through training when they arrive onsite to ensure that they are aware of policies and expectations as well as local hazards.

ALLETE Safety Performance (per 100 employees per year)



Safety and Health Programs and Management

Leadership
+ Safety Strategy Group
+ Local Safety Improvement Teams

Management
+ Workplace accident and injury prevention program
+ Safety strategy culture, systems, awareness
+ On-site safety hazard audits
+ Industrial hygiene program

Employees
+ Annual safety training
+ Family Safety Days
+ ALLETE Moves—soft tissue injury prevention
+ Regional safety meetings

Preventative
+ Safety conversations
+ Human performance improvement tools
+ Pre-job brief process
+ Leading metrics
+ Incident learning and Learning Teams
+ Stop work authority

Contractors
+ Safety orientation
+ Safety onboarding

Public
+ Public safety information available on ALLETE websites and through targeted messaging

$1,165,710

Total contributed by ALLETE and its family of businesses and the Minnesota Power Foundation in the past year.

Community Giving and Engagement

ALLETE and its companies have a long history of supporting the communities where their employees live and work. Typically, these efforts take place through a combination of corporate donations, grants from the Minnesota Power Foundation, and employee giving and volunteerism.

United Way

The employees and retirees of ALLETE, Minnesota Power, SWL&P, ALLETE Clean Energy, New Energy Equity and BNI Energy consistently open their hearts and wallets to help others. In 2022, they gave $222,701 to 19 United Ways in seven states during the United Way fall payroll pledge campaign.

In addition to the individual pledges, the Minnesota Power Foundation contributed $200,000 and donations from individual business units totaled $25,000. The Icy Dip Challenge, in which representatives of each company jumped into a cold lake after earning pledges from employees, raised $13,415 to bring ALLETE's total United Way contribution to $461,116.

Other donations

Overall, ALLETE and its family of businesses and the Minnesota Power Foundation contributed $1,165,710 in 2022 to support vibrant and sustainable communities, close opportunity gaps, and help people of all ages live with purpose and passion.

In addition to its $200,000 United Way donation, the Minnesota Power Foundation contributed $475,000 in grants to programs and nonprofits focused in the areas of education, community enrichment, health and human services, and arts and culture.

$675,000
Foundation Giving Total

+

ALLETE Subsidiary Giving Totals	
Minnesota Power	**$226,927**
+ ALLETE Clean Energy	**$95,549**
+ New Energy Equity	**$74,373**
+ BNI Energy	**$62,600**
+ SWL&P	**$31,261**

=

$1,165,710
ALLETE Total

Minnesota Power Foundation Giving Totals

$200,000
United Way

$170,962
Community Enrichment

$152,000
Health & Human Services

$138,538
Education

$13,500
Team Participation Grants

$675,000
Total

Feeding Our Communities

Supporting organizations that fight food insecurity has long been a priority for ALLETE and its companies. The Feeding Our Communities campaign raised $11,532 to fight hunger and support five food banks in four states. The Minnesota Power Foundation matched employee contributions during the month-long initiative for a total contribution of $23,065.

In addition to the employee matching gift campaign, the Foundation granted $21,500 to 34 food shelves and donated to various related initiatives apart from typical food shelf or food bank contributions. Gifts were made to the College of St. Scholastica for the annual Community Thanksgiving Dinner in Duluth, to Second Harvest North Central Food Bank for backpack meals for elementary school children, to Arrowhead Economic Opportunity Agency for improvements at the new Aurora Food Shelf location and to the Pine-River Backus Family Center for community meals.

Volunteering

Employees at ALLETE are engaged in their communities in many ways. Each year, ALLETE recognizes outstanding volunteers among its employees with the Don Shippar Community Leadership Award. Recipients have included first responders, a woman dedicated to bringing medical supplies and clean water to people in her native Cameroon, and a volunteer who organized a community festival to support a cancer crisis fund.

The Minnesota Power Foundation also recently established an award honoring employees who serve as a volunteer firefighter, EMT, EMS or in rescue services. The Jim Gibeau Volunteer First Responder Award will be given annually in honor of Jim Gibeau, a Minnesota Power substation technician who passed away in March 2021 as a result of a workplace accident.

Learn more about the community giving efforts of ALLETE and the Minnesota Power Foundation at positivelypowerful.org

Supply Chain

ALLETE values its relationships with suppliers. We strive to ensure that every business decision is guided by our mission, vision, values and our commitment to operate with high ethical standards. We expect our suppliers to share this commitment. This includes promoting sustainability through environmental stewardship, upholding human and workplace rights, and ensuring safety culture and reporting.

+ **Conduct and ethics**
We are committed to ethical business conduct and compliance with applicable laws, regulations and policies, and we expect our suppliers to share this commitment and adhere to ALLETE's Code of Business Conduct and ALLETE's Supplier Code of Conduct. We require our suppliers to engage in fair dealing by not taking unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts or any other unfair dealing practice.

+ **Safety requirements**
The safety and security of employees, contractors and visitors is of the utmost importance to ALLETE. Suppliers will be held responsible for the actions of their employees and any sub-contractor employees. All applicable rules, laws, regulations and ALLETE policies shall be observed. Suppliers are required to complete contractor safety orientation and conduct work in a safe manner, stop work immediately to correct unsafe work conditions or unsafe work practices, take corrective action and proceed in a safe manner.

+ **Supplier diversity**
ALLETE continues to expand and partner with diverse suppliers, including minority-owned, women-owned, veteran-owned, LGBT-owned, disability-owned, small disadvantaged, and HUBZone businesses. We continue to build these partnerships to better reflect the diversity of the communities we serve. In 2022, we went through a data enrichment process and reviewed all active suppliers in our database. We found over 200 diverse businesses and over 500 small businesses in our list of active suppliers. ALLETE provides and encourages equal access for all qualified businesses at the Tier 1 and Tier 2 levels. Along with direct and indirect partnerships through contracting and subcontracting, we also support diverse suppliers in growing their business via our corporate membership and sponsorships. Organizations that ALLETE has annual memberships or supports through sponsorships are: Women's Business Development Center, North Central Minority Supplier Development Council, Minnesota Tribal Contractor's Council and Latino Chamber of Commerce Minnesota.

+ **Digital supply chain**
ALLETE utilizes electronic document processing in almost all areas of the supply chain including new supplier forms, request for proposals questions, purchase orders and payments. Going digital has many benefits including improving operational efficiency, providing flexible virtual access, streamlining processes, eliminating costs and reducing environmental impacts.

+ **Procurement best practices**
Suppliers are required to participate in bid and procurement processes in accordance with best practices. Best practices include communicating only with named ALLETE representatives during contract negotiations or bid evaluation and refraining from attempts to influence ALLETE employees or senior managers in order to obtain work.


Duluth, Minnesota

Economic Development

ALLETE is an advocate for the communities we serve and operate in, frequently acting as a catalyst in regional economic development initiatives and providing long-standing support for our economic development partners.

When businesses are retained, expanded or attracted to our service area, the economic activity benefits the entire region through the creation of jobs, tax base and spin-off benefits. Our economic development investments focus on partnerships and initiatives that support a diversified and sustainable local economy, and our professional team offers extensive knowledge and experience to advance a wide range of industrial and large-scale commercial projects.

The company contributes over $100,000 annually to support local, regional and state-level organizations focused primarily on economic development in the communities we serve. Our team dedicates their time and talent to economic and community development related boards, committees and advisory groups and the company has helped fund key projects throughout our region such as workforce development studies, shovel ready sites and broadband feasibility.

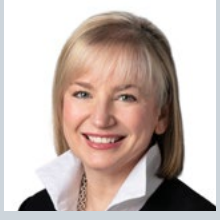
ALLETE also focuses on a thoughtful and just transition for power plant host communities. This includes transition plans for our own businesses, as well as those of our large customers. The company has helped fund technical support for host communities seeking federal grant opportunities for economic transition and is an active participant in initiatives focused on targeted development in communities historically reliant on coal-fired power plants.

CORPORATE GOVERNANCE

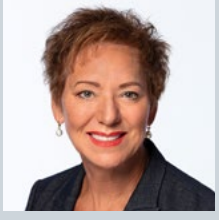
Our commitment to sustainability is led and supported through strong board leadership, intentional focus by the executive management team and sound governance practices.

The board oversees ALLETE's strategy, including sustainability-related risks and opportunities, actively ensures that the company is managed in a way that builds long-term value for shareholders, and assures ALLETE's vitality for its customers, communities and employees, as well as other stakeholders.

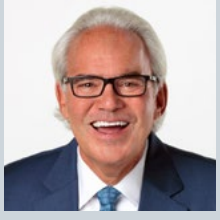
ALLETE's Board of Directors



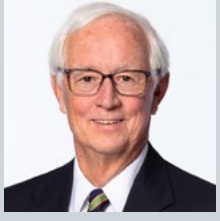
Bethany M. Owen
President, CEO, Chair



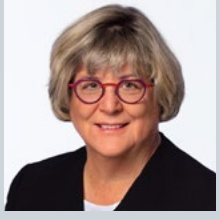
Susan K. Nestegard
Lead Director



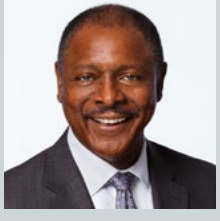
George G. Goldfarb
Director



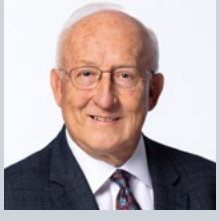
James J. Hoolihan
Director



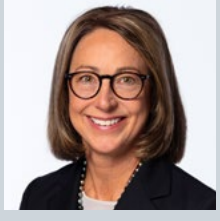
Madeleine W. Ludlow
Director



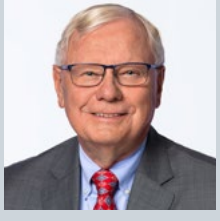
Charles R. Matthews
Director



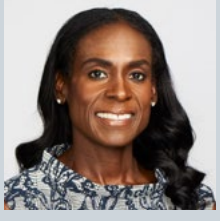
Douglas C. Neve
Director



Barbara A. Nick
Director



Robert P. Powers
Director



Charlene A. Thomas
Director

ALLETE's board of directors has three standing committees:

Corporate Governance and Nominating Committee

+ Oversees ALLETE's sustainability reporting process.
+ Reviews ESG issues quarterly.
+ Consists solely of independent directors.

Executive Compensation and Human Capital Committee

+ Ensures compensation practices align with company goals to attract and retain talent.
+ Links sustainability to executive compensation.
+ Consists solely of independent directors.
+ Assists the Board in its oversight of the Company's policies and strategies relating to culture, safety, and human capital management, including diversity, equity, and inclusion.

Audit Committee

+ Ensures sustainability-related SEC financial disclosures receive appropriate levels of review and assurance.
+ Consists solely of independent directors.

Our board consists of directors who have demonstrated ethical conduct and have a diversity of skills, backgrounds, age, tenure and gender. All directors, except our CEO, are independent. The corporate governance and nominating committee regularly reviews the skills, expertise and attributes that are important for effective governance of the company and identifies priorities for recommending candidates to the board. Since 2019, Moody's Investors Service has recognized ALLETE for having the most gender diverse board among 45 publicly traded utilities. The board of directors includes five directors who are women. ALLETE remains committed to actively seeking candidates who will enhance the board's racial and ethnic diversity.

Our board of directors as of the date of this publication:

+ 9 of 10 directors are independent.
+ Lead director is independent with clearly defined responsibilities.
+ Executive sessions of independent directors held at each regularly scheduled meeting.
+ Annual board and committee self-assessments.
+ Share ownership guidelines encourage directors to act as owners and focus on long-term, sustained performance when making business decisions.

At a Glance

Recognized by Moody's Investors Service since 2019 as having **the most gender diverse board** among 45 publicly traded utilities.

As of Dec. 31, 2022

50% of directors are women

20% of directors are racially diverse

50% of directors joined in the last 5 years

The data in this section encompasses data from January 1, 2022 through December 2022.

2022 SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB)

Minnesota Power

Electric Utility and Power Generators SASB Standard

Greenhouse Gas Emissions & Energy Resource Planning			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-110a.1	(1) GHG emissions (includes Scope 1a and Scope 3, Category 3)	3,574,426 metric tons CO_2e	Includes only direct GHG emissions of CO_2e from owned and purchased generation of electric power used to serve retail customers. Excludes emissions from sales. Omits GHG emissions from minor sources such as mobile sources and offices which are estimated to be negligible (<0.5% of total)
	(2) Percentage covered under emissions-limiting regulations, and	0%	State RPS goals exist, but no federal or state regulations limiting CO_2e are currently in place
	(3) Percentage covered under emissions-reporting regulations	~100%	Virtually all reported emission sources are subject to state and federal reporting requirements such as EPA's GHG Rules (Title 40, Chapter I, Subchapter C, Part 98 of the Code of Federal Regulation)
IF-EU-110a.2	Power-delivery related GHG emissions	3,574,426 metric tons CO_2e	Please see IF-EU-110a.1
IF-EU-110a.3	Short/long term plans to manage emissions	See Minnesota Power's Corporate Sustainability Report (CSR) for further detail on Minnesota Power's GHG reduction plans, including Minnesota Power's *"Vision for 100 Percent Carbon-Free Energy by 2050"*	
IF-EU-110a.4	(1) Number of customers served in markets subject to renewable portfolio standards (RPS), and	150,464 customers	Retail customer count reported to the MPUC in Minnesota Power's 2022 Annual Electric Utility Report
	(2) percentage fulfillment of RPS target by market	100%	Minnesota Power is in full compliance with the Minnesota RPS (Minn. Stat. §216B.1691)

Air Quality			
SASB Code	**Accounting Metric**	**2022 Data**	
	Air emissions of the following*:	**Metric tons**	**Percentage within or near urbanized areas**
IF-EU-120a.1	NOx	2755	14%
	SOx (SO_2)	661	17%
	PM10	607	5%
	Lead	0.40	7%
	Mercury	0.013	10%

*Data includes reported emissions sources such as electrical power boilers, emergency generators, paint booths, & material handling. Emissions from mobile sources, office buildings, etc. are not reported.

Water Management			
SASB Code	**Accounting Metric**	**2022 Data**	
		Thousand cubic meters (m^3)	**Percentage of each in regions with High or Extremely High Baseline Water Stress**
IF-EU-140a.1	(1) Total water withdrawn	179,065	10% (High)
	(2) Total water consumed	16,690	86% (High)
SASB Code	**Accounting Metric**		**2022 Data**
IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations		0
IF-EU-140a.3	*Description of water management risks and discussion of strategies and practices to mitigate those risks*: Minnesota Power environmental values include promoting water conservation and recycling, as well as full compliance with the numerous existing state and federal requirements regulating water withdrawal, consumption, and discharge. These regulations include both quantitative and qualitative restrictions on the amount, source, and constituents of the water used for operations. Water use information and water quality data is actively collected and reported in adherence with operating permits. Water management risks include emerging or increased limitations on both the quality and quantity of local water resources. Minnesota Power is proactive in monitoring and mitigating these risks through our participation in industry, scientific, and regional workgroups responsible for tracking and regulating water resources. Strategic internal teams focus on reducing or eliminating water use while leveraging water recycling opportunities. External partnerships with industry and regulatory agencies help to explore, evaluate, and ultimately establish water quality protections while remaining mindful of scientific, technical, and economic limitations. Furthermore, our water withdrawal permits are typically long-term approvals from state resource agencies, ranging from 30-50 years in duration, with sufficient water withdrawal volumes to ensure uninterrupted operations. As a result of this water management approach, Minnesota Power has reduced water usage by approximately 90% from 2005 levels, with additional water use reduction projects planned in the future. Minnesota Power's water withdrawal rates and water discharge rates will continue to decrease significantly due to conversion to dry handling and storage of coal combustion residuals, installation of a thermal evaporation unit at Boswell, and transition away from cooling water use at our Arrowhead and Center high-voltage direct current conversion facilities. As we reduce overall water usage, our water quality for discharges are designed to continue to meet or exceed state and national water quality standards.		

Minnesota Power

Electric Utility and Power Generators SASB Standard

Coal Ash Management

SASB Code	Accounting Metric							2022 Data
IF-EU-150a.1	(1) Amount of coal combustion residuals (CCR) generated							214,264 metric tons
	(2) Percentage recycled							21%
IF-EU-150a.2	(1) Total number of CCR impoundments,							10 *
IF-EU-150a.2	(2) 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	5	2	3	0	0	
		Fair	0	0	0	0	0	
		Poor	0	0	0	0	0	
		Unsatisfactory	0	0	0	0	0	
		Not Applicable	0	0	0	0	0	

*per SASB, the total number (10) includes all owned/operated active, inactive, and closed impoundments

Energy Affordability

SASB Code	Accounting Metric	2022 Data
IF-EU-240a.1	Average retail electric rate for (1) residential customers,	13.60 cents / KWh
	(2) commercial customers, and	13.35 cents / KWh
	(3) industrial customers	8.76 cents / KWh
IF-EU-240a.2	Typical monthly electric bill for residential customers for: (1) 500 kWh and,	$71.76 / month
	(2) 1,000 kWh	$134.61 / month
IF-EU-240a.3	Number of residential customer electric disconnections for non-payment, and	2,027
	percentage reconnected within 30 days	84.85%
	Discussion of how policies, programs, and regulations impact the number and duration of residential customer disconnections: Minnesota Power believes it is important to work with customers to avoid disconnection of service and, in the event that disconnection does occur, to work with customers on timely reconnection. Minnesota Power follows the disconnection rules and processes as outlined in Minnesota Rules and Statutes. Procedures are described in the Electric Service Regulations of Minnesota Power.	

IF-EU-240a.4	*Discussion of impact of external factors on customer affordability of electricity including economic conditions of the service territory:* As energy affordability is a shared priority between Minnesota Power, its customers, and other stakeholders, the Company has a number of programs and services in place to manage the affordability of electric service for its customers. The Company works closely with area fuel assistance and weatherization agencies, landlords, and housing authorities, low-income advocacy groups, fellow energy providers, and local community agencies and leaders to collaborate on service offerings and outreach. In fact, there are numerous programs in place today to help customers save energy, have flexible payment options, and/or receive energy assistance. These programs and services often provide for cross-program referrals and include: • ***Customer Affordability of Residential Electricity ("CARE") Discount Program:*** Minnesota Power has offered its CARE Program to its residential customers since November 1, 2011 and continues to improve outreach and support for low-income customers. Under CARE, those who qualify under the federally-funded Low Income Home Energy Assistance Program (LIHEAP), as determined by application through Energy Assistance Program Service Providers, are eligible. In October 2022, Minnesota Power further enhanced the CARE program through expanded funding that increased flat discounts on CARE customer bills and increased eligibility through a self-declaration process. • ***Energy Efficiency Programs:*** Provide energy efficiency resources to customers, including on-site energy analysis and direct installation of energy efficient technologies. Low cost/no cost efficiency programs are available to income-eligible customers through the Energy Partners conservation program offering delivered in collaboration through fuel and weatherization assistance agencies. • ***Payment Plans and Arrangements:*** Work with customers to identify mutually-agreeable payment terms for keeping accounts current or catching up on past due balances. Special provisions are available for military service personnel as well as those with medically necessarily equipment. • ***Budget Billing:*** Customers can spread a year's electricity bills evenly across twelve months to simplify monthly payments and budgeting and smooth out higher-than-average bills that may be experienced in colder-weather months. • ***Energy Assistance:*** Connecting customers with fuel or heating assistance resources, including the opportunity for customers to support the Salvation Army HeatShare program through one-time or monthly contributions when paying their electric bill. Minnesota Power also contributes to the Salvation Army HeatShare program through the Minnesota Power Foundation. • ***Community Involvement:*** Employees actively engage in communities, volunteering time and talent, and contributing to agencies such as United Way.

Minnesota Power

Electric Utility and Power Generators SASB Standard

	In addition to a multitude of program services, some of the most meaningful and impactful ways to ensure affordability are to support a thriving, diverse regional economy with competitive rates for businesses, continued economic development efforts, community investment through employee volunteerism and giving, and ongoing collaboration with community leaders and stakeholders to identify shared solutions that meet the needs of communities and customers. Minnesota Power's electric rates remain slightly below the U.S. Average, and the Bureau of Labor Statistics data show the regional unemployment rate began the year (2022) around 4.0%, and has remained below the historical normal rate of about 4.7%. As of August 2023 (the last month with available data for Duluth MSA), the unemployment rate was 3.6%.

Workforce Health & Safety

SASB Code	Accounting Metric	2022 Data
IF-EU-320a.1	(1) Total recordable incident rate (TRIR),	2.33
	(2) fatality rate, and	0
	(3) near miss frequency rate (NMFR)	Not Reported

End-Use Efficiency & Demand

SASB Code	Accounting Metric	2022 Data	Description
IF-EU-420a.1	Percentage of electric utility revenues that (1) are decoupled and	0%	Minnesota Power is not required to have a decoupling program, and currently has no decoupling mechanism in place
	(2) contain a lost revenue adjustment mechanism (LRAM)	0%	Minnesota Power currently has no LRAM rates in place
IF-EU-420a.2	Percentage of electric load served by smart grid technology	100%	Per SASB, a smart grid is defined as an electricity network that uses *digital and other advanced technologies* to monitor and manage the transport of electricity from all generation sources to meet the varying electricity demands of end users
	Discussion of opportunities and challenges associated with the development and operations of a smart grid: Minnesota Power has a continuing commitment to delivering safe, reliable, and affordable energy across a smarter grid able to adjust to the transitioning baseload fleet, respond to renewable energy production, and provide greater resiliency through increased situational awareness and capability. To this end, Minnesota Power works with customers to deploy smart grid technology such as Advanced Metering Infrastructure (AMI) and Automated Meter Reading (AMR). At the end of 2023, 99.68 percent of customers had smart meters, and the company considers full deployment to be now completed, excepting meters with access issues or those at customers who self-selected to opt-out of the program. Minnesota Power also operates a variety of "smart grid" technologies at the distribution level, including line sensors and other automated intelligence gathering devices. Please see Minnesota Power's February 1, 2021 Integrated Resource Plan Appendix G: Distribution Planning Activities for further information about MP's efforts to improve grid technology, including a discussion of challenges and opportunities. For instance, one of the known challenges of grid transformation is to identify and access flexible customer loads to help optimize the integration of variable renewable energy production.		
IF-EU-420a.3	Customer electricity savings from efficiency measures, by market	76,400 MWh	Represents total savings achieved at the busbar through Conservation Improvement Programs (CIP).
	Discussion of customer efficiency regulations relevant to operational markets: Energy conservation regulations and related reporting/compliance activities are outlined in Minnesota Power's 2022 CIP Consolidated Filing dated April 3, 2023. Relevant regulations include, but are not limited to: Minn. Stat. §§ 216B.2401, 216B.241, 216B.2411 and 216C.412; and Minn. Rule 7690.0550. 2022 was the 13th consecutive year in which Minnesota Power met or exceeded Minnesota's 1.5% energy savings goal established in Minn. Stat. § 216B.241. Minnesota Power achieved energy savings of 2.9% of gross annual retail energy sales. The Company also achieved energy savings totaling 76,400,068 kilowatt hours, which is 115% of the approved energy-savings goal for the year. The Company also achieved demand savings of 8,195 kilowatts, which is 82% of the approved demand-savings goal.		

Minnesota Power

Electric Utility and Power Generators SASB Standard

Nuclear Safety & Emergency Management			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-540a.1	Total number of nuclear power units	0	Minnesota Power does not own or operate *any* nuclear power units
IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A	

Grid Resiliency		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Confidential*
IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI),	496.57 minutes
	(2) System Average Interruption Frequency Index (SAIFI), and	2.05
	(3) Customer Average Interruption Duration Index (CAIDI) inclusive of major event days*	242.27 minutes

*Further detail about MP's cyber and physical security efforts may be found within this Corporate Sustainability Report.

**System interruptions are also discussed at greater detail within Minnesota Power's annual Safety Reliability and Service Quality (SRSQ) Report, data here from April 1, 2023 filing

Activity Metrics Section

Activity Metrics			
SASB Code	**Accounting Metric**		**2022 Data**
IF-EU-000.A	Number of customers served*: (1) residential,		125,423
	(2) commercial, and		24,846
	(3) industrial		375
IF-EU-000.B	Total electricity delivered to: (1) residential,		1,053,658 MWh
	(2) commercial,		1,181,683 MWh
	(3) industrial and		6,045,708 MWh
	(4) all other retail customers, and		52,688 MWh
	(5) wholesale customers**		4,605,241 MWh
IF-EU-000.C	Length of transmission and distribution lines		14,821.62 km
IF-EU-000.D	Total electricity generated,	[MP owned/operated only]	6,969,319 MWh
	Percentage by major energy source,	Proportions scaled to reflect electricity generation from MP *owned/operated assets* only – no purchases	64.9% coal 23.4% wind 7.8% hydro 1.8% natural gas 1.9% biomass 0.2% solar
	Percentage in regulated markets***	[MP owned/operated only]	100%
IF-EU-000.E	Total wholesale electricity purchased**		6,361,601 MWh

*Based on actual number of customers per category; a small number of customers have multiple meters

**The wholesale customers and wholesale purchases categories include short-term market purchases in the MISO market and from other power suppliers.

***All MP-generated electricity occurs in the traditionally rate regulated electricity markets of the State of Minnesota and the State of North Dakota.

ALLETE Clean Energy

Wind Technology and Project Developers SASB Standard

Workforce Health & Safety				
SASB Code	**Accounting Metric**	**2022 Data**		
RR-WT-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	**Personnel Type**	**TRIR**	**Fatality Rate**
		Direct employees	1.2	0
		Contract employees	Not Reported	

Ecological Impacts of Project Development		
SASB Code	**Accounting Metric**	**2022 Data**
RR-WT-410a.1	Average A-weighted sound power level of wind turbines, by wind turbine class	Not Reported
RR-WT-410a.2	Backlog cancellations associated with community or ecological impacts	0
RR-WT-410a.3	*Description of efforts to address ecological and community impacts of wind energy production through turbine design:* ALLETE Clean Energy operates and develops new projects under a wide variety of national, state, county and local requirements. ALLETE Clean Energy is committed to stakeholder outreach to understand the views and expectations of a variety of parties, including landowners, regulators, and indigenous communities, as well as applicable agencies.	

Materials Sourcing	
SASB Code	**Accounting Metric**
RR-WT-440a.1	*Description of the management of risks associated with the use of critical materials:* ALLETE Clean Energy does not have a critical material sourcing policy and relies on our equipment suppliers to manage this portion of the supply chain. ALLETE Clean Energy does manage its supply chains to ensure timely delivery of equipment and services required to build and maintain its projects.

Materials Efficiency		
SASB Code	**Accounting Metric**	**2022 Data**
RR-WT-440b.1	Top five materials consumed, by weight	Not Reported
RR-WT-440b.2	Average top head mass per turbine capacity, by wind turbine class	Not Reported
RR-WT-440b.3	*Description of approach to optimize materials efficiency of wind turbine design:* ALLETE Clean Energy does not currently have an approach to optimize material efficiency of wind turbine design, instead it relies on the supply chain to effectively manage this risk.	

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
RR-WT-000.A	Number of delivered wind turbines, by wind turbine class	45
RR-WT-000.B	Aggregate capacity of delivered wind turbines, by wind turbine class	121.8 MW
RR-WT-000.C	Amount of turbine backlog	28
RR-WT-000.D	Aggregate capacity of turbine backlog	91.6 MW

ALLETE Clean Energy

Electric Utility and Power Generators SASB Standard

Greenhouse Gas Emissions & Energy Resource Planning			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-110a.1	(1) Gross global Scope 1 emissions	Not Reported	ALLETE Clean Energy GHG emissions would be limited to vehicles and heating fuels.
	(2) Percentage covered under emissions-limiting regulations, and	0%	State RPS goals exist, but no federal or state regulations limiting CO_2e are currently in place.
	(3) Percentage covered under emissions-reporting regulations	0%	ALLETE Clean Energy is not currently required to report GHG emissions under existing U.S. regulations.
IF-EU-110a.2	Power-delivery related GHG emissions	0 metric tons CO_2e	All energy is delivered at the busbar – no power delivery-related GHG emissions.
IF-EU-110a.3	Short/long term plans to manage emissions	Not Reported	
IF-EU-110a.4	(1) Number of customers served in markets subject to renewable portfolio standards (RPS), and	7	BPA, Xcel, Alliant, MidAmerican, Delmarva, ODEC, Seattle City Light. Also sell voluntary RECs to 8 customers. We also sell energy only to one customer excluding RECs in addition to the 7 listed. We also sell renewable energy credits to 6 commercial customers not subject to portfolio standards.
	(2) percentage fulfillment of RPS target by market	N/A	

Air Quality			
SASB Code	**Accounting Metric**	**2022 Data**	
	Air emissions of the following*:	**Metric tons**	**Percentage within or near urbanized areas**
IF-EU-120a.1	NOx	Not Reported	
	SOx		
	PM10		
	Lead		
	Mercury		

*Emissions are limited to office buildings, vehicles, etc., and are anticipated to be minimal.

Water Management			
SASB Code	**Accounting Metric**	**2022 Data**	
		Thousand cubic meters (m^3)	**Percentage of each in regions with High or Extremely High Baseline Water Stress**
IF-EU-140a.1	(1) Total water withdrawn	Not Reported	
	(2) Total water consumed		
SASB Code	**Accounting Metric**		**2022 Data**
IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations		Not reported
IF-EU-140a.3	*Description of water management risks and discussion of strategies and practices to mitigate those risks:* ALLETE Clean Energy water use is minimal and related to domestic use in operations and maintenance (O & M) facilities – no cooling or process water is required. Current buildings codes are followed at O & M facilities for water reduction strategies.		

Coal Ash Management		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-150a.1	(1) Amount of coal combustion residuals (CCR) generated	N/A*
	(2) Percentage recycled	
IF-EU-150a.2	(1) Total number of CCR impoundments,	
IF-EU-150a.2	(2) broken down by hazard potential classification and structural integrity assessment	

*ALLETE Clean Energy does not generate or store CCR.

ALLETE Clean Energy

Electric Utility and Power Generators SASB Standard

Energy Affordability		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-240a.1	Average retail electric rate for (1) residential customers,	N/A*
	(2) commercial customers, and	
	(3) industrial customers	
IF-EU-240a.2	Typical monthly electric bill for residential customers for: (1) 500 kWh and,	
	(2) 1,000 kWh	
IF-EU-240a.3	Number of residential customer electric disconnections for non-payment, and	
	percentage reconnected within 30 days*	
IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity including economic conditions of the service territory	

*Not applicable to ALLETE Clean Energy because, as an independent power producer, ALLETE Clean Energy sells energy at wholesale, not retail.

Workforce Health & Safety		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-320a.1	(1) Total recordable incident rate (TRIR),	1.2
	(2) fatality rate, and	0.0
	(3) near miss frequency rate (NMFR)	Not Reported

End-Use Efficiency & Demand		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-420a.1	Percentage of electric utility revenues that (1) are decoupled and	N/A*
	(2) contain a lost revenue adjustment mechanism (LRAM)	
IF-EU-420a.2	Percentage of electric load served by smart grid technology* (meters)	
IF-EU-420a.3	Customer electricity savings from efficiency measures, by market*	

* Not applicable to ALLETE Clean Energy because, as an independent power producer, ALLETE Clean Energy sells energy at wholesale, not retail.

Nuclear Safety & Emergency Management			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-540a.1	Total number of nuclear power units	0	ALLETE Clean Energy does not own or operate *any* nuclear power units
IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A	

Grid Resiliency		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Not Reported
IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI),	N/A**
	(2) System Average Interruption Frequency Index (SAIFI), and	
	(3) Customer Average Interruption Duration Index (CAIDI) inclusive of major event days*	

*ALLETE cyber and physical security efforts are described in greater detail in the Corporate Sustainability Report (CSR).

**Not applicable to ALLETE Clean Energy because, as an independent power producer, ALLETE Clean Energy sells energy at wholesale, not retail and is not engaged in the ownership or operation of transmission or electrical lines.

ALLETE Clean Energy

Electric Utility and Power Generators SASB Standard

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-000.A	Number of customers served*: (1) residential,	0
	(2) commercial, and	0
	(3) industrial	0
IF-EU-000.B	Total electricity delivered* to: (1) residential,	0 MWh
	(2) commercial,	0 MWh
	(3) industrial and	0 MWh
	(2) wholesale customers	0 MWh
IF-EU-000.C	Length of transmission and distribution lines**	0 km
IF-EU-000.D	Total electricity generated,	Not Reported
	Percentage by major energy source,	100% wind
	Percentage in regulated markets***	91%
IF-EU-000.E	Total wholesale electricity purchased	0 MWh

*ALLETE Clean Energy's customer base is 100% wholesale delivery (no wholesale purchases).

**ALLETE Clean Energy does not own or operate transmission and distribution lines.

**In 2022, 91 percent of sales occurred in the traditionally rate regulated states of Minnesota, Iowa, Oklahoma, Montana and North Dakota. 9 percent of sales occurred in states that allow some level of retail choice including Oregon and Pennsylvania, however sales in these states are to rate regulated utilities.

Superior Water, Light & Power

Electric Utility and Power Generators SASB Standard

Greenhouse Gas Emissions & Energy Resource Planning			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-110a.1	(1) GHG emissions from Scope 3, Category 3	303,445 metric tons CO_2e SWL&P purchases electrical energy for resale from Minnesota Power– see Minnesota Power disclosures for GHG information.	
	(2) Percentage covered under emissions-limiting regulations, and		
	(3) Percentage covered under emissions-reporting regulations		
IF-EU-110a.2	Power-delivery related GHG emissions		
IF-EU-110a.3	Short/long term plans to manage emissions	Not Reported – SWL&P Scope 1 emissions are minimal. SWL&P purchases electrical energy for resale from Minnesota Power– see Minnesota Power disclosures for GHG information.	
IF-EU-110a.4	(1) Number of customers served in markets subject to renewable portfolio standards (RPS), and	14,755	Reflects SWL&P electric customer count
	(2) percentage fulfillment of RPS target by market	100%	SWL&P is currently in full compliance with the Wisconsin RPS (Stat. §196.378) and last reported at 84% of the RPS for calendar year 2022. SWL&P has a percentage below its RPS requirement, but it has used banked RECs and/or purchased RECs from another provider.

Air Quality			
SASB Code	**Accounting Metric**	**2022 Data**	
	Air emissions of the following*:	**Metric tons**	**Percentage within or near urbanized areas**
IF-EU-120a.1	NOx	Not Reported – SWL&P does not have direct emissions associated with the production or distribution of electrical energy.	
	SOx (SO_2)		
	PM10		
	Lead		
	Mercury		

Water Management			
SASB Code	**Accounting Metric**	**2022 Data**	
		Thousand cubic meters (m^3)	**Percentage of each in regions with High or Extremely High Baseline Water Stress**
IF-EU-140a.1	(1) Total water withdrawn	Not Reported – SWL&P does not withdraw or consume water for electrical generation or distribution.	
	(2) Total water consumed		
SASB Code	**Accounting Metric**		**2021 Data**
IF-EU-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations.		Not Reported – SWL&P does not withdraw or consume water for electrical generation or distribution.
IF-EU-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks: Not Reported – SWL&P does not withdraw or consume water for electrical generation or distribution.		

Coal Ash Management		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-150a.1	(1) Amount of coal combustion residuals (CCR) generated	Not applicable – SWL&P does not generate CCR.
	(2) Percentage recycled	
IF-EU-150a.2	(1) Total number of CCR impoundments,	
IF-EU-150a.2	(2) broken down by hazard potential classification and structural integrity assessment	

Superior Water, Light & Power

Electric Utility and Power Generators SASB Standard

Energy Affordability		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-240a.1	Average retail electric rate for (1) residential customers,	14.17 cents / KWh
	(2) commercial customers, and	11.40 cents / KWh
	(3) industrial customers	8.08 cents / KWh
IF-EU-240a.2	Typical monthly electric bill for residential customers for: (1) 500 kWh and,	$57.50 / month
	(2) 1,000 kWh	$124.00 / month
IF-EU-240a.3	Number of residential customer electric disconnections for non-payment, and	508
	percentage reconnected within 30 days*	Not Reported
IF-EU-240a.4	Discussion of impact of external factors on customer affordability of electricity including economic conditions of the service territory.	Not Reported

Workforce Health & Safety		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-320a.1	(1) Total recordable incident rate (TRIR),	2.37
	(2) fatality rate, and	0.0
	(3) near miss frequency rate (NMFR)	N/A*

*NMFR is not a parameter that SWL&P reports externally.

End-Use Efficiency & Demand			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-420a.1	Percentage of electric utility revenues that (1) are decoupled and	0	SWL&P has not yet been required to have a decoupling program, and currently has no decoupling mechanism in place.
	(2) contain a lost revenue adjustment mechanism (LRAM)	0%	SWL&P currently has no LRAM rates in place.
IF-EU-420a.2	Percentage of electric load served by smart grid technology* (meters)	100%	Represents the percent of total electric customers with smart meters at year-end.
IF-EU-420a.3	Customer electricity savings from efficiency measures, by market*	2,707 MWh	Focus on Energy is Wisconsin utilities' statewide energy efficiency and renewable resource program funded by the state's investor owned energy utilities and participating municipal and electric cooperative utilities.

Nuclear Safety & Emergency Management			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-EU-540a.1	Total number of nuclear power units	0	SWL&P does not own or operate *any* nuclear power units.
IF-EU-540a.2	Description of efforts to manage nuclear safety and emergency preparedness	N/A	

Grid Resiliency		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-550a.1	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Confidential*
IF-EU-550a.2	(1) System Average Interruption Duration Index (SAIDI),	17.96 minutes
	(2) System Average Interruption Frequency Index (SAIFI), and	0.12 minutes
	(3) Customer Average Interruption Duration Index (CAIDI) inclusive of major event days*	147.4 minutes

*Further detail about SWL&P's cyber and physical security efforts may be found within this Corporate Sustainability Report.

Superior Water, Light & Power

Electric Utility and Power Generators SASB Standard

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
IF-EU-000.A	Number of customers served: (1) residential,	12,765
	(2) commercial, and	1,968
	(3) industrial	22
IF-EU-000.B	Total electricity delivered to: (1) residential,	94,378 MWh
	(2) commercial,	106,382 MWh
	(3) industrial and	717,220 MWh
	(2) wholesale customers	0 MWh
IF-EU-000.C	Length of transmission and distribution lines	853 km
IF-EU-000.E	Total wholesale electricity purchased	925,054 MWh

Superior Water, Light & Power

Gas SASB Standard

Energy Affordability		
SASB Code	**Accounting Metric**	**2022 Data**
IF-GU-240a.1	Average retail gas rate for (1) residential customers,	$11.85 / MMBtu
	(2) commercial and	$9.02 / MMBtu
	(3) industrial customers	
	(4) transportation services only	$0.84 / MMBtu
IF-GU-240a.2	Typical monthly gas bill for residential customers for: (1) 50 MMBtu of gas delivered per year and,	$61.39
	(2) 100 MMBtu of gas delivered per year	$115.43
IF-GU-240a.3	Number of residential customer gas disconnections for non-payment, and	39
	percentage reconnected within 30 days	Not Reported
IF-GU-240a.4	Discussion of impact of external factors on customer affordability of gas including economic conditions of the service territory: Not Reported	

End-Use Efficiency			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-GU-420a.1	Percentage of gas utility revenues that (1) are decoupled and	0%	SWL&P has not yet been required to have a decoupling program, and currently has no decoupling mechanism in place
	(2) contain a lost revenue adjustment mechanism (LRAM)	0%	SWL&P currently has no LRAM rates in place
IF-GU-420a.2	Customer gas savings from efficiency measures by market*	12,944 MMBtu	Focus on Energy is Wisconsin utilities' statewide energy efficiency and renewable resource program funded by the state's investor-owned energy utilities and participating municipal and electric cooperative utilities.

Integrity of Gas Delivery Infrastructure		
SASB Code	**Accounting Metric**	**2022 Data**
IF-GU-550a.1	Number of (1) reportable pipeline incidents	0
	(2) Corrective Action Orders (CAO), and	0
	(3) Notices of Probable Violation (NOPV)	8
IF-GU-550a.2	Percentage of distribution pipeline that is (1) cast and/or wrought iron and	0%
	(2) unprotected steel	0%
IF-GU-550a.3	Percentage of (1) gas transmission pipelines inspected),	100%
	(2) gas distribution pipelines inspected	66%
IF-GU-550a.4	Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions: SWL&P's natural gas transmission pipelines deliver gas directly to some large industrial customers and to our company's gate stations, where pressure is lowered for final distribution to utility customers. The distribution systems consist of mains, which are usually located along or under city streets, and smaller service lines that branch off the mains and distribute natural gas service to homes and businesses. None of these pipeline systems are constructed of potentially high-risk materials, such as cast and wrought iron or unprotected bare steel. SWL&P is dedicated to keeping its employees, customers, and communities safe through training, education, and awareness. All SWL&P journeymen crews and service responders are trained on emergency response and are available 24 hours a day, seven days a week. In addition, our company's Transmission and Distribution Integrity Management Programs provide a process for inspecting and assessing the condition of SWL&P-owned natural gas pipelines and establishing a maintenance program based on regulatory requirements and best industry practices.	

*Further detail about SWL&P's cyber and physical security efforts may be found within this Corporate Sustainability Report.

Superior Water, Light & Power

Gas SASB Standard

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
IF-GU-000.A	Number of customers served: (1) residential,	11,594
	(2) commercial, and	1,369
	(3) industrial	29
IF-GU-000.B	Amount of natural gas delivered to: (1) residential customers,	1,142,031 MMBtu
	(2) commercial customers,	803,584 MMBtu
	(3) industrial customers, and	311,050 MMBtu
	(2) transferred to a third party	266,780 MMBtu
IF-GU-000.C	Length of gas (1) transmission pipelines and	12.1 km
	(2) distribution pipelines	482.3 km

Superior Water, Light & Power

Water SASB Standard

Energy Management		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-130a.1	(1) Total energy consumed,	1063 GJ
	(2) percentage grid electricity,	100%
	(3) percentage renewable	59%

Distribution Network Efficiency		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-140a.1	Water main replacement rate	0.54%
IF-WU-140a.2	Volume of non-revenue water losses	271 m^3

Effluent Quality Management		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-140b.1	Number of incidents of non-compliance associated with water effluent quality permits, standards, and regulations	0
IF-WU-140b.2	Discussion of strategies to manage effluents of emerging concern: Nothing Reported	

Water Affordability & Access		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-240a.1	Average retail water rate for (1) residential customers	$10.93/CCF
	(2) commercial customers, and	$7.07/CCF
	(3) industrial customers	$5.19/CCF
IF-WU-240a.2	Typical monthly water bill for residential customers for 10 CCF of water delivered per month	$67.40
IF-WU-240a.3	Number of residential customer water disconnections for non-payment, and	0
	percentage reconnected within 30 days	Not Reported
IF-WU-240a.4	Discussion of impact of external factors on customer affordability of water, including economic conditions of the service territory: Not Reported	

Drinking Water Quality			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-WU-250a.1	Number of (1) acute health-based,	0	
	(2) non-acute health-based, and	0	
	(3) non-health-based drinking water violations	0	
IF-WU-250a.2	Discussion of strategies to manage drinking water contaminants of emerging concern: Nothing Reported		

Superior Water, Light & Power

Water SASB Standard

End-Use Efficiency			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
IF-WU-420a.1	Percentage of water utility revenues from rate structures that are designed to promote conservation and revenue resilience	0%	
IF-WU-420a.2	Customer water savings from efficiency measures by market	NA	SWL&P does not have any programs in place

Water Supply Resilience		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-440a.1	Total water sourced from regions with High or Extremely High Baseline Water Stress,	0%
	percentage purchased from a third party	0%
IF-WU-440a.2	Volume of recycled water delivered to customers	0%
IF-WU-440a.3	Discussion of strategies to manage risks associated with the quality and availability of water resources: Nothing Reported	

Network Resiliency & Impacts of Climate Change		
SASB Code	**Accounting Metric**	**2022 Data**
IF-WU-450a.3	(1) Number of unplanned service disruptions, and	Not Reported
	(2) customers affected, each by duration category	Not Reported
IF-WU-450a.4	Description of efforts to identify and manage risks and opportunities related to the impact of climate change on distribution and wastewater infrastructure: Nothing Reported	

Activity Metrics Section

Activity Metrics			
SASB Code	**Accounting Metric**		**2022 Data**
IF-WU-000.A	Number of customers served, by service provided: (1) residential,		9,461
	(2) commercial, and		808
	(3) industrial		59
IF-WU-000.B	Total water sourced, by source type:	Source Type	Amount (m^3)
		Groundwater	0
		Surface water	2,801,707
		Ocean water	0
		Recycled water	0
		Water purchased from third parties	0
		Other Sources	0
IF-WU-000.C	Total water delivered to: (1) residential customers,		1,478,263
	(2) commercial customers,		715,742
	(3) industrial customers, and		212,490
	(2) all other customers		69,845
IF-WU-000.D	Average volume of wastewater treated per day, by: (1) sanitary sewer,		0
	(2) stormwater, and		0
	(3) combined sewer		0
IF-WU-000.E	Length of (1) water mains and		235.1 km
	(2) sewer pipe		0 km

BNI Energy

Coal Operations Standard

Greenhouse Gas Emissions			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
EM-CO-110a.1	(1) Gross global Scope 1 emissions	30,153.49 metric tons CO_2e	Diesel and gasoline mobile sources; Calculated using EPA GHG Equivalencies conversions.
	Scope 2 emissions from electricity acquired/purchased for operations	14,501.04 metric tons CO_2e	Electricity consumption. Calculated using EPA GHG Equivalencies conversions.
	(2) Percentage covered under emissions-limiting regulations, and	0%	No federal or state regulations limiting CO_2e are currently in place.

EM-CO-110a.2	*Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis or performance against those targets:*
	
	BNI Energy is committed to protecting the quality of North Dakota's land, air and water. After all, this is our home - most of our employees are native North Dakotans who care deeply about the environment. BNI Energy has been repeatedly recognized for its industry leading land reclamation and environmental stewardship practices. We have been leaders in developing carbon solutions for more than a decade including our involvement in the Plains CO_2 reduction partnership, Lignite Research Council and funding the research and development of carbon capture and utilization technologies. Our long- and short-term efforts to reduce carbon are focused in three areas.
	
	<u>Long-term carbon management</u>
	• Carbon management
	  ○ ALLETE and BNI Energy conceptualized and initiated project Tundra in 2013 which proposes to capture up to four million tons of CO_2 per year from the Milton R. Young Generating Station that BNI supplies and geologically sequester the CO_2 beneath the land that BNI owns. BNI transitioned leadership and development of Project Tundra to Minnkota Power Cooperative, the owner of the Milton R. Young Generation Station, in 2018. Minnkota is currently developing Project Tundra while BNI Energy continues to support the project in the field and in the community.
	  ○ Mitigation through net positive acres of tree plantings (shelterbelts, woodlands, and conservational tree plantings).
	  ○ Mitigation through net positive acres of reclaimed wetlands.
	  ○ Promoting private ownerships of lands to be reclaimed into native grasslands.
	
	<u>Short-term carbon management</u>
	• Promotion of bio-diversity and productivity
	  ○ Investment in research promoting biodiversity
	  ○ Additions of pollinator plots
	  ○ Promotion of wildlife food plots
	  ○ Annual monitoring programs for grass, crops, wildlife
	• Land Management
	  ○ Diversification of crops, native grassland plantings, and tree plantings

M-CO-110a.2 (Continued)	○ No-till or minimal till management ○ Managed grazing plans that promote diversity and soil health ○ Managed haying plans to promote stand heights and nesting cover

	<u>Protection and Monitoring plans</u>
	• Monitoring of water
	  ○ Quarterly monitoring and reporting of ground water levels
	  ○ Annual monitoring and reporting of our ground water chemistry
	  ○ Programs to monitor ground water wells on adjacent land owners
	  ○ Monthly pond inspections
	  ○ Extensive surface water monitoring and testing prior to discharging of water
	• Air quality
	  ○ Contemporaneous reclamation to minimize disturbed acres
	  ○ Utilize cover crops, minimum till and no-till farming practices on reclaimed lands
	  ○ Include tree plantings, native grasslands and wetlands on reclaimed lands
	  ○ Minimize road grading plans
	  ○ Watering of roadways/work areas
	• Recycle and reuse to minimize waste

Water Management		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-140a.1	(1) Total fresh water withdrawn	196.45 m3, thousands
	(2) Percentage recycled	0%*
	(3) Percentage in regions with High or Extremely High Baseline Water Stress	0%
EM-CO-140a.2	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	0 incidents

*BNI Energy manages water as part of our operations but we do not use water in any mining process. Water is contained in sediment ponds and released after water quality is tested and verified.

BNI Energy

Coal Operations Standard

Waste Management			
SASB Code	**Accounting Metric**	**2022 Data**	**Description**
EM-CO-150a.2	Total weight of non-mineral waste generated	397.87 metric tons	Includes: scrap metal, used oil, tires, batteries, grease, antifreeze, bulbs. An estimated 65 percent of BNI's non-mineral waste was recycled.
EM-CO-150a.3	Total weight of tailings produced	0 metric tons	BNI has no tailings.
EM-CO-150a.4	Total weight of waste rock generated	0 metric tons	BNI has no waste rock.
EM-CO-150a.5	Total weight of hazardous waste generated	0 metric tons	BNI is a conditionally exempt small quantity generator without any permits for hazardous waste.
EM-CO-150a.6	Total Weight of hazardous waste recycled	0 metric tons	
EM-CO-150a.7	Number of significant incidents associated with hazardous waste management	0	BNI has had no incidents.
EM-CO-150a.8	*Description of waste management policies and procedures for active and inactive operations:* BNI Energy's surface lignite coal mining operations in North Dakota has taken significant steps over the years to incorporate sustainability into its waste management. Our approach to the identification, assessment, and application of waste avoidance or reduction relies on outside help from businesses. We have a network of partners, contractors and subcontractors, which help recycle, reuse, repurpose, and safely dispose of waste. Additionally, vendors have been able to exchange some products for biodegradable alternatives. • BNI works closely with scrap metal recycling companies in a mutually beneficial business relationship. BNI utilizes scrap metal dumpsters for day-to-day metal recycling. • Parts cleaners have switched to using biodegradable detergents. • Dragline grease is non-hazardous, recycled, and reused. • Antifreeze is collected and recycled. • Used engine oil is purchased and used as enhancement in adjacent public coal supply company's stoker coal product.		

Workforce Health & Safety		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-320a.1	(1) Total recordable incident rate (TRIR),	2.59
	(2) fatality rate, and	0.0
	(3) near miss frequency rate (NMFR)	Not Reported
EM-CO-320a.2	*Discussion of management of accident and safety risks and long-term health and safety risks:* Safety is a core value at BNI that is deeply engrained in our culture and is foundational to all that we do. The safety of our employees and their families, customers, contractors, and the community is our highest priority. Our zero injury safety vision is aligned with a safety strategy that is driven by culture, systems, and awareness and fueled by employee engagement, continuous learning, monitoring, and the use of data and analytics. To ensure, reinforce, and promote our zero injury safety culture, we leverage the following safety systems and employee engagement: • Safety Improvement Teams (SITs) within our business unit and across ALLETE's subsidiary companies • Participation in corporate Safety Strategy Group • Collection and analysis of leading safety indicators • Tracking and analysis of lagging safety indicators • Incident reporting, investigation, and communication processes • Safety learning teams to review all incidents • Safety alert communications • Stringent onboarding process for new employees • 8+ hours of annual Mine Safety and Health Administration refresher training • Monthly large group safety meetings • Weekly small group safety meetings • Daily work area inspections and safety conversations • Job specific and/or task specific training • Certification and/or qualification training hours • Vision, audio, chest x-ray, and annual physical health monitoring programs • Stretching and soft tissue health programs for at work and home	

BNI Energy

Coal Operations Standard

Biodiversity Impacts		
SASB Code	**Accounting Metric**	**2022 Data**

EM-CO-150a.1	*Description of environmental management policies and practices for active sites:*
	
	Reclamation and land management are key techniques in managing biodiversity impacts. BNI continues to be on the leading edge of agricultural practices. No-till agriculture, cover crops, livestock integration, and rotational grazing are all practices used to increase overall soil health and consequently increase plant production and grassland diversity. These land management practices are critical to returning the land to greater value (empirical and intrinsic) than pre-mining.
	
	Since 2017, BNI has hosted North Dakota State University research plots testing various techniques to increase water infiltration, reduce compaction, and species richness. Soil diversity is achieved through seed mixes, lift thicknesses, and re-spread depths. These data and research conclusions are anticipated to improve short- and long-term land management techniques and subsequent regulations. This has potential to improve our landscape scale biodiversity and land value in the post-mine setting.
	
	• Threatened, Endangered, and/or Species of Concern
	  ○ Critical habitat evaluations
	  ○ Annual monitoring programs
	  ○ Specialized monitoring
	  ○ Focus on biodiversity of reclamation	

EM-CO-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur,	0%
	(2) actively mitigated, and	0%
	(3) under treatment or remediation	0%
EM-CO-160a.3	Percentage of (1) proved and	0%
	(2) probable reserves in or near sites with protected conservation status or endangered species habitat	0%

Rights of Indigenous Peoples		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-210a.1	Percentage of (1) proved and	0%
	(2) probable reserves in or near indigenous land	0%

EM-CO-210a.2	*Discussion of engagement processes and due diligence practices with respect to the management of indigenous rights:*
	
	BNI Energy has a long history of engaging with indigenous people and tribal leaders to preserve and protect indigenous cultural resources and artifacts. Archeological surveys are conducted as part of the permitting process to identify, inventory and mitigate cultural resources. Tribal involvement and consultation occurs throughout this process. While these cultural resource inventories are not limited to indigenous artifacts, the area where BNI mines historically was inhabited by indigenous peoples. BNI engages archeologic consultants to conduct on-the-ground surveys to locate sites, evaluate each site's significance, consult with indigenous leaders and advise whether to avoid the sites or mitigate through a mitigation process. This process has created value for BNI and indigenous peoples through expanded cultural and historic knowledge.
	
	• Cultural resource protections
	  ○ Compliance with state and federal protections
	  ○ Tribal consultations of relative sites and use of on-site monitors
	  ○ Avoidance and protections of cultural sites if achievable
	  ○ Mitigation of sites when necessary	

Community Relations		
SASB Code	**Accounting Metric**	**2022 Data**

EM-CO-210b.1	*Discussion of processes to manage risks and opportunities associated with community rights and interests:*
	
	• Interactive permitting: Local, state, federal government
	• Landowner relations
	  ○ Coordination and planning
	• Local community involvement
	  ○ Supporting employees participation in events, causes, emergency services, military, boards, commissions
	  ○ Donation to local schools, business, events, causes, clubs, emergency services
	  ○ Coordination with county commission to mitigate any negative impacts of the mining operations by relocating or improving infrastructure
	  ○ Contribution to the cost of maintaining infrastructure impacted by our operations	

EM-CO-210b.2	Number of non-technical delays	0
	Duration of non-technical delays	0 days

BNI Energy

Coal Operations Standard

Labor Relations		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-310a.1	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees.	73%
EM-CO-310a.2	Number of strikes and lockouts.	0
	Duration of days of strikes and lockouts.	0 days

Reserves Valuation & Capital Expenditures		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-420a.1	Sensitivity of coal reserve levels to future price projection scenarios that account for a price on carbon emissions.	Not Reported
EM-CO-420a.2	Estimated carbon dioxide emissions embedded in proven coal reserves.	
EM-CO-420a.3	Discussion of how price and demand for coal and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets.	

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
EM-CO-000.A	Production of thermal coal	3.5 million metric tons
EM-CO-000.B	Production of metallurgical coal	N/A*

*BNI does not produce metallurgical coal.

New Energy Equity

Solar Technology and Project Developers SASB Standard

Energy Management in Manufacturing		
SASB Code	**Accounting Metric**	**2022 Data**
RR-ST-130a.1	(1) Total Energy Consumed, Gigajoules (GJ)	N/A*
	(2) Percentage grid electricity, %	N/A*
	(3) Percentage renewable, %	N/A*

*New Energy Equity does no manufacturing.

Water Management in Manufacturing			
SASB Code	**Accounting Metric**	**2022 Data**	
		Thousand cubic meters (m^3)	**Percentage of each in regions with High or Extremely High Baseline Water Stress**
RR-ST-140a.1	(1) Total water withdrawn	N/A*	Not reported
	(2) Total water consumed	N/A*	Not reported
SASB Code	**Accounting Metric**		**2022 Data**
RR-ST-140a.2	*New Energy Equity does no manufacturing.		

Hazardous Waste Management		
SASB Code	**Accounting Metric**	**2022 Data**
RR-ST-150a.1	(1) Amount of hazardous waste generated	Not reported
	(2) Percentage recycled	Not reported
RR-ST-150a.2	(1) Number and aggregate quantity of reportable spills,	Not reported
	(2) Quantity recovered	Not reported

Ecological Impacts of Project Development		
SASB Code	**Accounting Metric**	**2022 Data**
RR-ST-160a.1	Number and duration of project delays related to ecological impacts	0 Delays 0 Days

Management of Energy Infrastructure Integration & Related Regulations	
SASB Code	**Accounting Metric**
RR-ST-410a.2	*Description of risks and opportunities associated with energy policy and its impact on the integration of solar energy into existing energy infrastructure:* Many of the risks and opportunities in the solar industry are based on federal and state government policy. During the first half of the 2022 fiscal year, uncertain political outcomes for federal legislation was compounded by the United States Commerce Department's solar module inquiry, which caused significant supply-chain issues and solar equipment price volatility. This also coincided with a period of high inflation and rising interest rates. However, the Biden administration's emergency action to pause the solar module inquiry, coupled with the Inflation Reduction Act (IRA), provided new opportunities for the solar industry. That said, the details of the IRA's incentive qualifications, as well as uncertainty regarding potential consequences of noncompliance, has required patience and caution when considering the potential to leverage the IRA's substantial incentives.

New Energy Equity

Solar Technology and Project Developers SASB Standard

Product End-of-life Management		
SASB Code	**Accounting Metric**	**2022 Data**
RR-ST-410b.1	Percent of products sold that are recyclable or reusable	Not reported*
RR-ST-410b.2	Weight of end-of-life material recovered	Not reported*
	Percentage recycled	Not reported*
RR-ST-410b.3	Percentage of products by revenue that contain IEC 62474 declarable substances, arsenic compounds, antimony compounds, or beryllium compounds	Not reported*
RR-ST-410b.4	*Description of approach and strategies to design products for high-value recycling:* N/A	

Materials Sourcing	
SASB Code	**Accounting Metric**
RR-ST-440a.1	*Description of the management of risks associated with the use of critical materials:* N/A
RR-ST-440a.2	*Description of the management of environmental risks associated with the polysilicon supply chain:* N/A

Activity Metrics Section

Activity Metrics		
SASB Code	**Accounting Metric**	**2022 Data**
RR-ST-000.A	Total capacity of photovoltaic (PV) solar modules produced	N/A*
RR-ST-000.B	Total capacity of completed solar energy systems	26.1813 megawatts
RR-ST-000.C	Total project development assets	26.1813 megawatts**

* New Energy Equity produces no solar modules

** All New Energy Equity developed assets completed in 2022

Electric Company ESG/Sustainability Quantitative Information

Ref. No.	Refer to the 'EEI Definitions' tab for more information on each metric	Baseline 2005	Last Year 2021	Current Year 2022	Next Year 2023	Future Year 2024	Comments, Links, Additional Information, and Notes
	Portfolio						
1	**Owned Nameplate Generation Capacity at end of year (MW)**						*Provide a link to charts or additional information if available*
							The capacity values are based on Minnesota Power Regulated owned Installed Capacity (ICAP) for dispatchable resource and name-plate capacity for Minnesota Power Regulated owned non-dispatchable renewables.
1.1	Coal	1,545	801	801	804	804	
1.2	Natural Gas	0	99	99	98	98	
1.3	Nuclear						
1.4	Petroleum						
1.5	Total Renewable Energy Resources	192	698	698	714	734	
1.5.1	Biomass/Biogas	72	44	44	60	60	
1.5.2	Geothermal						
1.5.3	Hydroelectric	121	121	121	121	121	
1.5.4	Solar	0	11	11	31	31	Includes 20MW solar in 2023
1.5.5	Wind	0	522	522	522	522	
1.6	Other						
							*Note: All emissions values have been adjusted to only reflect the carbon emissions associated with electricity used to serve Minnesota Power energy customers. See footnote at the bottom
	TOTAL	1,737	1,597	1,597	1,616	1,636	
2.i	**Owned Net Generation for the data year (MWh)**						
2.1.i	Coal	8,595,030	4,460,921	4,536,684	4,011,620	4,137,372	
2.2.i	Natural Gas	0	91,202	123,021	32,336	58,781	
2.3.i	Nuclear						
2.4.i	Petroleum						
2.5.i	Total Renewable Energy Resources	**526,227**	**2,050,500**	**2,309,614**	**2,332,920**	**2,368,956**	
2.5.1.i	Biomass/Biogas	38,064	100,985	117,448	3,783	28,587	
2.5.2.i	Geothermal						
2.5.3.i	Hydroelectric	488,164	344,025	546,876	511,903	516,537	
2.5.4.i	Solar	0	17,264	16,169	61,274	61,262	Includes 20MW solar
2.5.5.i	Wind	0	1,588,226	1,629,120	1,755,960	1,762,571	
2.6.i	Other	0	0	0	0	0	
2.7i	Sales	-2,675,398	-4,372,863	-3,010,863	-1,455,036	-1,518,999	
	TOTAL	6,445,860	2,229,760	3,958,456	4,921,840	5,046,110	
2.ii	**Purchased Net Generation for the data year (MWh)**						*Provide total in this row only if resource types are unknown due to market purchases*
2.1.ii	Coal	2,301,209	663,170	419,334	316,749	207,658	
2.2.ii	Natural Gas	53,243	17,436	14,412	0	0	
2.3.ii	Nuclear						
2.4.ii	Petroleum						
2.5.ii	Total Renewable Energy Resources	**614,057**	**2,782,659**	**3,281,961**	**3,100,538**	3,110,431	
2.5.1.ii	Biomass/Biogas	49,677					
2.5.2.ii	Geothermal						
2.5.3.ii	Hydroelectric	561,346	1,465,107	1,772,874	1,684,670	1,690,758	
2.5.4.ii	Solar	0	1,912	1,749	0	0	
2.5.5.ii	Wind	3,033	1,315,640	1,507,338	1,415,867	1,419,673	
2.6.ii	Other	1,190,608	4,077,608	1,735,355	1,093,484	994,714	
	Sales	0	0	0	0	0	
	Total	4,159,116	7,540,874	5,451,061	4,510,770	4,312,804	
3	**Capital Expenditures and Energy Efficiency (EE)**						
3.1	Total Annual Capital Expenditures (nominal dollars)	$ 52,789,595	$ 157,364,944	$ 149,995,113	$ 177,483,500	$ 289,212,844	*Provide a link to functional CapEx projections if available*
							Actuals from 2022 CIP Consolidated filing April 3, 2023; forecasts from 2024-2026 CIP Triennial filed June 30, 2023: https://efiling.web.commerce.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId=%7bE0500D89-0000-CE13-BA93-6B77D0861190%7d&documentTitle=20236-197124-01
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	40,601	74,539	76,400	67,230	73,174	
							Actuals from 2022 CIP Consolidated filing April 3, 2023; forecasts from 2024-2026 CIP Triennial filed June 30, 2023: https://efiling.web.commerce.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId=%7bE0500D89-0000-CE13-BA93-6B77D0861190%7d&documentTitle=20236-197124-01
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	$ 3,605,706	$ 9,331,962	$ 9,635,730	$ 10,895,915	$ 12,531,684	
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	47%	96%	99.68%	100%	100%	Fully deployed as of end of 2022; just working through AMI opt outs and meters with access issues

Electric Company ESG/Sustainability Quantitative Information

Ref. No.	Refer to the 'EEI Definitions' tab for more information on each metric	Baseline 2005	Last Year 2021	Current Year 2022	Next Year 2023	Future Year 2024	Comments, Links, Additional Information, and Notes
	Portfolio						
4	**Retail Electric Customer Count (at end of year)**						
4.1	Commercial	20,763	24,594	24,846	23,936	24,159	Data from EIA Form 861 and Annual Electric Utility Forecast Report
4.2	Industrial	460	375	375	369	361	Data from EIA Form 861 and Annual Electric Utility Forecast Report
4.3	Residential	116,072	124,691	125,423	125,613	125,939	Data from EIA Form 861 and Annual Electric Utility Forecast Report
	Emissions						
5	**GHG Emissions: Carbon Dioxide (CO2) and Carbon Dioxide Equivalent (CO2e)**						*Consider including carbon reduction targets in qualitative discussion*
	Note: The alternatives available below are intended to provide flexibility in reporting GHG emissions, and should be used to the extent appropriate for each company.						*Note: All emissions values have been adjusted to only reflect the carbon emissions assciated with electricity used to serve Minnesota Power energy customers. See footnote at the bottom.
5.1	**Owned Generation (1) (2) (3)**						
5.1.1	Carbon Dioxide (CO2)						
5.1.1.1	Total Owned Generation CO2 Emissions (MT)	8,944,412	266,445	1,761,033	2,639,442	2,802,556	*If applicable, indicate the inclusion of emissions from sources <25 MW or from other sources*
5.1.1.2	Total Owned Generation CO2 Emissions Intensity (MT/Net MWh)	1.388	0.119	0.445	0.536	0.555	
5.1.2	Carbon Dioxide Equivalent (CO2e)						
5.1.2.1	Total Owned Generation CO2e Emissions (MT)	8,962,301	266,978	1,764,555	2,644,721	2,808,161	
5.1.2.2	Total Owned Generation CO2e Emissions Intensity (MT/Net MWh)	1.390	0.120	0.446	0.537	0.557	
5.2	**Purchased Power (4)**						
5.2.1	Carbon Dioxide (CO2)						
5.2.1.1	Total Purchased Generation CO2 Emissions (MT)	1,234,533	4,193,695	1,806,258	1,203,806	994,783	
5.2.1.2	Total Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.297	0.556	0.331	0.267	0.231	
5.2.2	Carbon Dioxide Equivalent (CO2e)						We estimate the additional GHG equivalents by adding a factor of 1.002 onto the CO2 values
5.2.2.1	Total Purchased Generation CO2e Emissions (MT)	1,237,002	4,202,082	1,809,871	1,206,213	996,772	
5.2.2.2	Total Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.297	0.557	0.332	0.267	0.231	
5.3	**Owned Generation + Purchased Power**						
5.3.1	Carbon Dioxide (CO2)						
5.3.1.1	Total Owned + Purchased Generation CO2 Emissions (MT)	10,178,945	4,460,140	3,567,291	3,843,248	3,797,338	
5.3.1.2	Total Owned + Purchased Generation CO2 Emissions Intensity (MT/Net MWh)	0.960	0.456	0.379	0.407	0.406	
5.3.2	Carbon Dioxide Equivalent (CO2e)						
5.3.2.1	Total Owned + Purchased Generation CO2e Emissions (MT)	10,199,302	4,469,060	3,574,426	3,850,934	3,804,933	
5.3.2.2	Total Owned + Purchased Generation CO2e Emissions Intensity (MT/Net MWh)	0.962	0.457	0.380	0.408	0.407	
5.4	**Non-Generation CO2e Emissions of Sulfur Hexafluoride (SF6) (5)**						
5.4.1	Total CO2e emissions of SF6 (MT)	N/A	3,504	104.87	Not Forecast	Not Forecast	N/A: The 2005 baseline year preceded the EPA Part 98 GHG MRR requiring reporting and tracking. Subject facilities aggregate emissions are below the 40 CFR Part 98 Subpart DD mandatory reporting threshold.
5.4.2	Leak rate of CO2e emissions of SF6 (MT/Net MWh)	NR	NR	NR	Not Forecast	Not Forecast	NR: Parameter not historically tracked or calculated
6	**Nitrogen Oxide (NOx), Sulfur Dioxide (SO2), Mercury (Hg)**						
6.1	Generation basis for calculation (6)	Total					
6.2	**Nitrogen Oxide (NOx)**						
6.2.1	Total NOx Emissions (MT)	18,437	2,558	2,751	2,352	2,655	Includes Boswell (WPPI included), Laskin, Taconite Harbor (2005 only), and Hibbard (=>2021 onl
6.2.2	Total NOx Emissions Intensity (MT/Net MWh)	1.97E-03	4.88E-04	5.12E-04	6.00E-04	5.96E-04	2023 note: rate calculation methodology was updated for all years to include WPPI's 20% in denominator to match "total out of stack" numerators
6.3	**Sulfur Dioxide (SO2)**						
6.3.1	Total SO2 Emissions (MT)	24,528	578	659	550	619	Includes Boswell (WPPI included), Laskin, Taconite Harbor (2005 only), and Hibbard (=>2021 onl
6.3.2	Total SO2 Emissions Intensity (MT/Net MWh)	2.62E-03	1.10E-04	1.23E-04	1.40E-04	1.39E-04	2023 note: rate calculation methodology was updated for all years to include WPPI's 20% in denominator to match "total out of stack" numerators
6.4	**Mercury (Hg)**						
6.4.1	Total Hg Emissions (kg)	168.3	7.9	13.3	6.0	10.6	Includes Boswell (WPPI included), Laskin, Taconite Harbor (2005 only), and Hibbard (=>2021 onl
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	1.80E-05	1.51E-06	2.48E-06	1.52E-06	2.39E-06	2023 note: rate calculation methodology was updated for all years to include WPPI's 20% in denominator to match "total out of stack" numerators

Electric Company ESG/Sustainability Quantitative Information

Ref. No.	Refer to the 'EEI Definitions' tab for more information on each metric	Baseline 2005	Last Year 2021	Current Year 2022	Next Year 2023	Future Year 2024	Comments, Links, Additional Information, and Notes
	Resources						
7	**Human Resources**						
7.1	Total Number of Employees	1,170	990	1,045	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.2	Percentage of Women in Total Workforce	25.0%	27.0%	26.4%	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.3	Percentage of Minorities in Total Workforce	2.4%	2.6%	2.4%	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.4	Total Number on Board of Directors/Trustees	9	11	10	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.5	Percentage of Women on Board of Directors/Trustees	22%	67%	50%	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.6	Percentage of Minorities on Board of Directors/Trustees	NR	9%	20%	Not Forecast	Not Forecast	Not reported (NR) until 2021 - MP/ALLETE Only (no subsidiary companies)
7.7	Employee Safety Metrics						
7.7.1	Recordable Incident Rate	5.0	1.8	2.33	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.7.2	Lost-time Case Rate	1.3	0.70	0.5	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.7.3	Days Away, Restricted, and Transfer (DART) Rate	2.1	0.70	1.26	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
7.7.4	Work-related Fatalities	0	1	0	Not Forecast	Not Forecast	MP/ALLETE Only (no subsidiary companies)
8	**Fresh Water Resources used in Thermal Power Generation Activities**						
8.1	Water Withdrawals - Consumptive (Millions of Gallons)	5,426	2,534	2,582	2,770	2,823	Consumption rates increase over time with water re-use in systems (thermal evap, NID)
8.2	Water Withdrawals - Non-Consumptive (Millions of Gallons)	165,142	31,565	42,778	25,429	25,429	
8.3	Water Withdrawals - Consumptive Rate (Millions of Gallons/Net MWh)	5.80E-04	4.83E-04	4.66E-04	7.06.E-04	6.34.E-04	
8.4	Water Withdrawals - Non-Consumptive Rate (Millions of Gallons/Net MWh)	1.77E-02	6.02E-03	7.72E-03	6.48.E-03	5.71.E-03	
9	**Waste Products**						
9.1	Amount of Hazardous Waste Manifested for Disposal (metric tons)	2	189	4	Not Forecast	Not Forecast	*MP only. Does NOT include PCB wastes, as these are not RCRA Hazardous Wastes*
9.2	Percent of Coal Combustion Products Beneficially Used	0%	22%	21%	31%	31%	

ALLETE's Human Rights Policy

At ALLETE we are committed to upholding the human rights of others. We respect and value individuals and their differences, and we embrace diversity, equity, and inclusion in the workplace. We are committed to equal opportunity, and are intolerant of discrimination, harassment, violence, bullying, retaliation, or intimidation.

Our policies and procedures, Code of Business Conduct, general business practices, and compliance with applicable laws demonstrate our respect for the human rights of all those with whom we interact on behalf of the Company.

We endeavor to respect the human rights of all those who support our business. Our core values reflect this commitment, but more importantly, we demonstrate it through our actions

Our Commitment

At ALLETE, we commit to:

+ Conduct our business in a manner that respects the human rights of all, and in support of the international human rights principles, such as those identified in the United Nations Universal Declaration of Human Rights and the United Nations Guiding Principles on Business and Human Rights.
+ Support individuals' rights to safe and healthy working conditions. We foster a safe and healthy work environment so that we may all remain unhurt at the end of the day.
+ Cultivate a work environment that requires honesty and the highest ethical standards.
+ Respect all applicable labor and employment laws and rules, including those that prohibit child labor or human trafficking and those that govern hours of work and wages.
+ Not participate in the exploitation of workers or use forced or involuntary labor, including human trafficking and child labor.
+ Encourage diversity of thought to foster a culture of mutual respect, trust, and collaboration.
+ Make workplace decisions and actions, including those related to fair wages and benefits, without regard to a person's protected class.
+ Support and encourage employee growth and development.
+ Provide our workers a living wage for their work and ensure that wages comply with local laws regarding minimum wage, wage payment, overtime, and work hours. We provide a competitive wage to our employees, relative to industry standards and labor market drivers, and in accordance with the terms of negotiated collective bargaining agreements.
+ Respect freedom of association and the right to collectively bargain.
+ Encourage and support community engagement.
+ Communicate our human rights expectations and take corrective measure if we believe that supplier products and services are directly related to human rights violations.
+ Support non-profits that serve our communities through donations, foundation grants, scholarship programs, volunteer time off programs, and employee contributions of time, talents, and financial resources.
+ Partner with non-profit organizations to close opportunity and achievement gaps to help individuals and communities grow and thrive.
+ Assist the economic development in our region by capitalizing on resources, connections and experience for expansion and relocation projects in our service areas.

This policy applies to all employees, officers and directors of ALLETE and its subsidiaries and business divisions. It also applies to representatives, agents and contractors doing business on our behalf. We encourage our suppliers, vendors, and others with whom we do business to respect this policy.

References

[i]Source: Company public filings, SNL, press releases, Bloomberg market data as of Feb. 26, 2021. Note: Includes both regulated and unregulated wind and solar net generation capacity.

[ii]Rose, S., and Scott, M., 2020. Review of 1.5°C and Other Newer Global Emissions Scenarios: Insights for Company and Financial Climate Low-Carbon Transition Risk Assessment and Greenhouse Gas Goal Setting. EPRI, Palo Alto, CA. 3002018053.

[iii]Rose, S. and Scott, M., 2018. Grounding Decisions: A Scientific Foundation for Companies Considering Global Climate Scenarios and Greenhouse Gases. EPRI, Palo Alto, CA. 3002014510. Global net CO_2 without negative emissions results assembled by Steven Rose separately from IAMC (2014).

[iv]White House Fact Sheet, 2021: https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean energy-technologies/