TCFD REPORT

2022 | CLEVELAND-CLIFFS INC.

CLIFFS

ABOUT CLEVELAND-CLIFFS INC.

Cleveland-Cliffs Inc. (Cliffs or the Company) is the largest flat-rolled steel producer and the largest manufacturer of iron ore pellets in North America. The Company is vertically integrated from mined raw materials, direct reduced iron and ferrous scrap to primary steelmaking and downstream finishing, stamping, tooling and tubing. Cliffs is the largest supplier of steel to the automotive industry in North America and it serves a diverse range of other markets due to its comprehensive offering of flat-rolled steel products. Headquartered in Cleveland, Ohio, we employ approximately 27,000 people across our operations in the United States and Canada.

Cleveland-Cliffs is committed to operating its business in an environmentally responsible manner and continually seeks ways to minimize its impacts. One of the most important issues impacting our planet is climate change, and we are doing our part to reduce our greenhouse gas (GHG) emissions and mitigate climate risks through decarbonization. While this is the first TCFD Report that Cliffs has developed and published, we have been reporting information and data aligned to the TCFD framework in other Company reports for several years. For more information about Cleveland-Cliffs and its sustainability programs and initiatives, please visit our website at **clevelandcliffs.com.**

Direct Reduction plant in Toledo, Ohio

ABOUT TCFD

The Financial Stability Board (FSB) created the **Task Force for Climate-related Financial Disclosures** (TCFD) to develop recommendations on the types of information that companies should disclose to support investors, lenders and insurance underwriters in appropriately assessing and pricing certain risks—specifically climate-related risks.

In 2017, the TCFD released climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation. The TCFD recommendations are structured around four thematic areas that represent core elements of how companies operate: governance, strategy, risk management, and metrics and targets. The four thematic areas are interrelated and supported by 11 recommended disclosures that build out the framework with information that should help investors and others understand how reporting organizations think about and assess climate-related risks and opportunities.

Core Elements of Recommended Climate-Related Financial Disclosures

Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning

Risk Management

The process used by the organization to identify, assess and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

GOVERNANCE

Board Oversight

The Cleveland-Cliffs Board of Directors (the Board), oversees our enterprise risk management (ERM) process. The Board executes its risk oversight role in a variety of ways and regularly discusses the key strategic risks facing Cliffs. The Board delegates oversight responsibility for certain areas of risk to its committees. Generally, each committee oversees risks that are associated with the purposes and responsibilities delegated to that committee. For example, the Strategy and Sustainability Committee oversees, advises on, and monitors risks and opportunities relating to our strategic plan and environmental, social and governance (ESG) matters, including sustainability goals and initiatives, climate-related risks and decarbonization opportunities. The Strategy and Sustainability Committee meets at least quarterly, and in 2022 the committee met five times. For more information on the Board's role in risk oversight, please see our most recent **Proxy Statement.** For more information on the Strategy and Sustainability Committee, please see the **Committee Charter.** As appropriate, the respective committees' Chairpersons provide reports to the full Board.

Management's Role

Cleveland-Cliffs' management is responsible for the day-to-day management of our risks. The ERM process includes the involvement of management in the identification, assessment, mitigation and monitoring of a wide array of potential risks, from strategic to operational to compliance-related risks throughout the Company. Executive management regularly reports to the Board or relevant committees regarding Cliffs' key risks and the actions being taken to manage these risks. For example, the Strategy and Sustainability Committee is supported in its risk oversight duties by Cliffs' Executive Vice President, Environmental & Sustainability, who oversees the Company's environmental affairs and compliance obligations, as well as sustainability management activities and reporting. Our Executive Vice President, Environmental & Sustainability works collaboratively with departments across the Company, including operations, research and development, government relations, and communications, to keep the broader executive management team well informed to be able to develop strategy and effectively respond to climate-related risks and opportunities. For more information on management's role in risk oversight, please see our most recent **Proxy Statement.**

Representatives from Cleveland-Cliffs' Board of Directors and executive management team rang the closing bell at the New York Stock Exchange on May 3, 2022, to celebrate the Company's 175th anniversary.

RISK MANAGEMENT

Cleveland-Cliffs takes a comprehensive approach to managing risk at all levels of the Company. At the enterprise level, our experienced team utilizes a proven approach of extensive risk management policies, practices and procedures that are aimed to mitigate risks to our business, including climate-related risks. As mentioned previously in this report, the Board as a whole oversees our ERM process and fulfills its risk oversight role in a variety of ways. The Board regularly discusses the key strategic risks facing Cliffs and delegates oversight responsibility for certain areas of risk to its committees. The Strategy and Sustainability Committee monitors risks and opportunities relevant to Cliffs' strategy, including operational, safety, and ESG risks, as well as climate-related risks and decarbonization opportunities.

The ERM process includes the involvement of management in the identification, assessment, mitigation and monitoring of a wide array of potential risks, from strategic to operational to compliance-related risks throughout the Company. Although the Board oversees our ERM process and has ultimate oversight, risks and opportunities can be identified at any level or department within the Company. Responses to risks and opportunities are dependent on the type and source of risk, as well as the potential impact. Relative to climate-related risks and opportunities, these can be identified, monitored and managed by a variety of corporate departments, including environmental, sustainability, government relations, commercial, finance, and legal. These specific departments have high visibility into forthcoming potential climate-related risks and opportunities regarding impending environmental regulation, climate legislation, financial reporting implications, trade policy, market trends, and customer demand. We monitor and manage these potential risks and opportunities in a number of ways, including through our trade associations, union partnerships and advocacy efforts.

CLIMATE-RELATED RISKS AND STRATEGY

The TCFD divides climate-related risks and opportunities into two major categories: risks related to the transition to a lower-carbon economy and risks related to the physical impacts of climate change.

Transition Risks

Transition risks may entail policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change, which in turn can pose varying degrees of financial and reputational risk to our Company.

Policy and Legal Risks

As our customers, competitors and investors seek to reduce their carbon footprint, transition toward carbon neutrality and enhance the sustainability of their respective businesses, we face increased financial, regulatory, legal and reputational risks and potential loss of business opportunities because our operations utilize carbon-based energy sources and produce GHG emissions. Due to the nature of Cliffs' operations, we are subject to a number of risks relating to decarbonization initiatives being undertaken by regulators and other stakeholders as part of global efforts to address the potential impacts of climate change. For example, as part of climate change mitigation strategies, federal, state or local governmental authorities may introduce mandatory carbon pricing obligations, carbon emissions limitations, carbon taxes or carbon trading mechanisms, any of which could impose significant costs on our operations, including causing us to incur higher energy and supplier costs, invest in costly and potentially unproven emissions control or reduction technologies, and engage in more intensive environmental monitoring and reporting efforts.

Complying with current or future international treaties and federal, state or local laws or regulations concerning climate change and GHG emissions could negatively impact Cliffs' ability, and that of our customers and suppliers, to compete with companies located in areas not subject to or not complying with such constraints. We may also face more limited access to, or increased costs of, capital to the extent financial institutions and investors increase expectations relating to lowering GHG emissions or reduce investments in carbon-intensive businesses or industries.

Market and Reputation Risks

Increased pressure from customers or other business partners seeking to reduce their indirect carbon footprints and achieve certain overall decarbonization targets, may shift a greater portion of their steel product sourcing toward recycled steel, which could potentially result in a loss of business opportunities for Cliffs if we are unable to meet the carbon, GHG emissions or sustainability expectations of those customers or business partners, or if we are perceived as having higher GHG intensity than our competition. As part of our decarbonization strategy, Cliffs is investigating and from time to time considers investments in or other relationships with various renewable and clean energy initiatives. For example, we are engaged in various discussions with other companies, universities and national research laboratories with the goal of leveraging potential funding available under the U.S. Department of Energy's (DOE) Regional Clean Hydrogen Hubs initiative to develop and implement clean hydrogen solutions for our industrial applications in place of carbon-based natural gas.

Technology Risks

While Cliffs is pursuing these energy-related projects with the aim of contributing to a greener power grid and lowering our GHG emissions in alignment with our announced target of a 25% reduction from 2017 levels by 2030, there are no guarantees that sufficient funding or the necessary advanced technology will be available to commence and/or complete any of these projects under currently anticipated timeframes or at all. Additionally, we may not be successful in achieving our current or any future short, medium or long-term GHG emissions reduction goals, including any near-zero goals, due to adverse changes in business conditions over time, unanticipated financial challenges, efforts like carbon capture and sequestration projects at certain of our facilities that may not be as successful as originally forecasted, or regulatory developments arising after such goals were initially announced. For more information on climate-related transition risks to Cleveland-Cliffs, please see our **2022 Form 10-K.**

Physical Risks

Physical risks related to climate change impacts can be event driven (acute), such as a flood, or longer-term shifts in climate patterns (chronic), such as sea level rise. Physical risks may have financial implications for organizations such as direct damage to assets or indirect impacts from supply chain disruption.

Physical Risk Assessment

Cleveland-Cliffs' most recent physical climate risk assessment was conducted in 2022. We used a third-party leading provider of carbon and environmental data and risk analysis to identify climate-related physical risks to our operating footprint under two climate scenarios, RCP 4.5 and RCP 8.5 (representative concentration pathways), over decadal intervals from the 2020s to the 2090s.

This risk assessment modeled seven physical climate hazards for RCP 4.5 and RCP 8.5 using asset level data to quantify potential climate hazard exposure and financial impact. **Based on the results of the risk assessment, physical climate hazard exposure and associated financial impacts were determined to be "Low" overall, even under the RCP 8.5 scenario.**

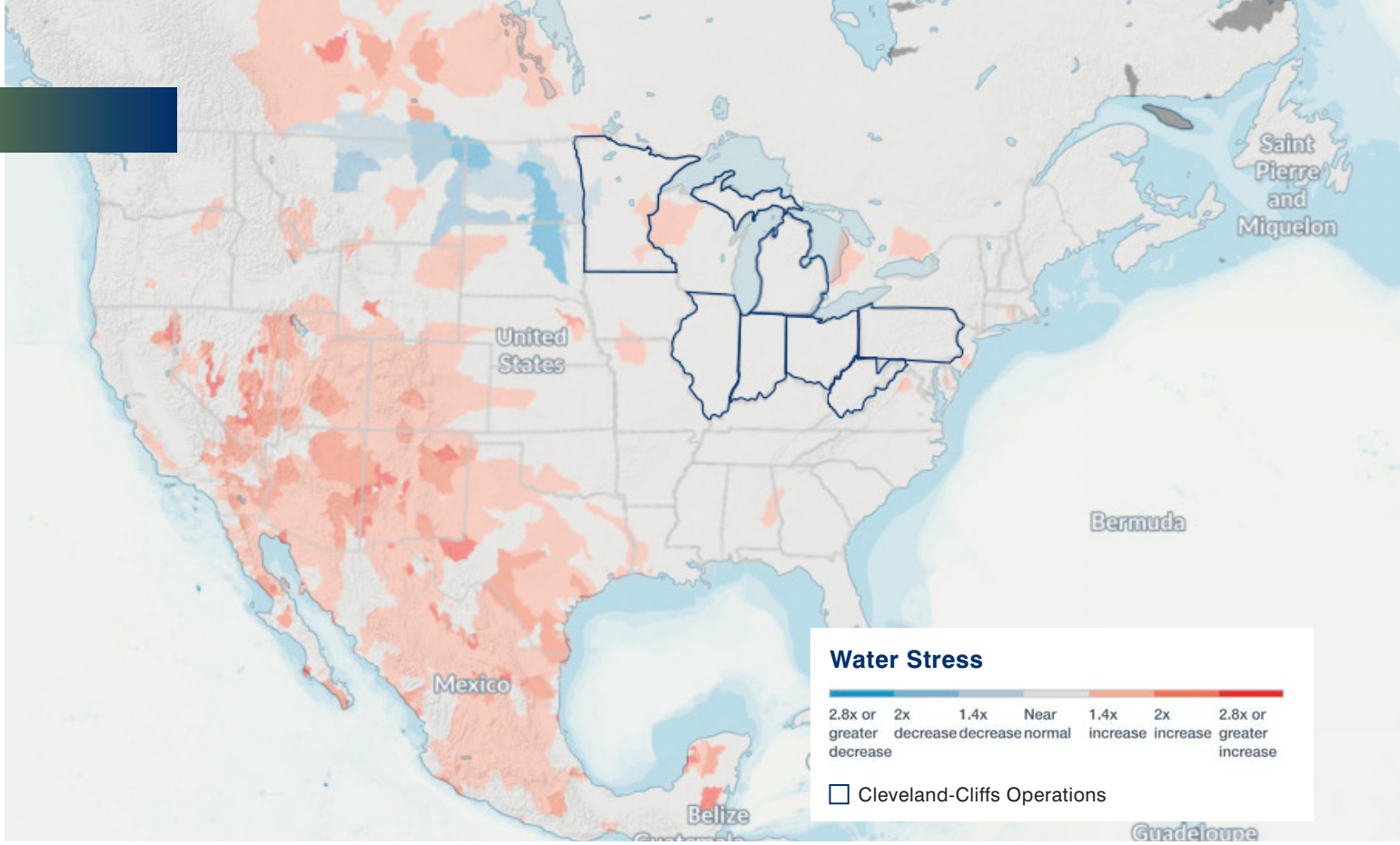
Representative Concentration Pathways

RCP 4.5
Moderate Emissions

Strong mitigation actions to reduce emissions to half of current levels by 2080. This scenario is more than likely not to result in warming in excess of 2 degrees Celsius by 2100.

RCP 8.5
High Emissions

Continuation of business as usual with emissions at current rates. This scenario is expected to result in warming in excess of 4 degrees Celsius by 2100.



WRI Aqueduct map showing areas of increased water stress in 2040 according to a 2020 baseline under RCP 8.5. States where Cleveland-Cliffs has major operational hubs are outlined on this map.

Physical Risks	Risk Description	Assessment for Cliffs' Assets
Temperature Extremes	Changes in frequency of occurrence of temperature extremes. A temperature extreme event is generally defined as the occurrence of the temperature variable above (or below) a threshold value near the upper (or lower) ends (tails) of the range observed values of the variable.	**Low**
Coastal Flooding	Changes in frequency of coastal flooding of various magnitudes. Extreme coastal high water depends on average sea level, tides and regional weather systems. Extreme coastal high water events are usually defined in terms of the higher percentiles of a distribution of hourly values of observed sea level at a station for a given reference period.	**Low**
Drought	Changes in frequency of drought conditions contributing to a period of abnormally dry weather long enough to cause a serious hydrological imbalance.	**Low**
Wildfire	Changes in annual probability of the 90th percentile wildfire conditions, as compared to the baseline period (1980-2000).	**Low**
Tropical Cyclone	Changes in location and intensity of hurricanes or tropical cyclones, the general term for a strong, cyclonic-scale disturbance that originates over tropical oceans.	**Low**
Water Stress	Changes in World Resources Institute (WRI) Aqueduct water stress index from current values to future values out to the 2040s.	**Low**
Fluvial Flooding	Annual probability of a 100-year riverine flood, relative to the historical baseline of 1950-1999.	**Low**

METRICS AND TARGETS

Emissions Reduction Initiatives

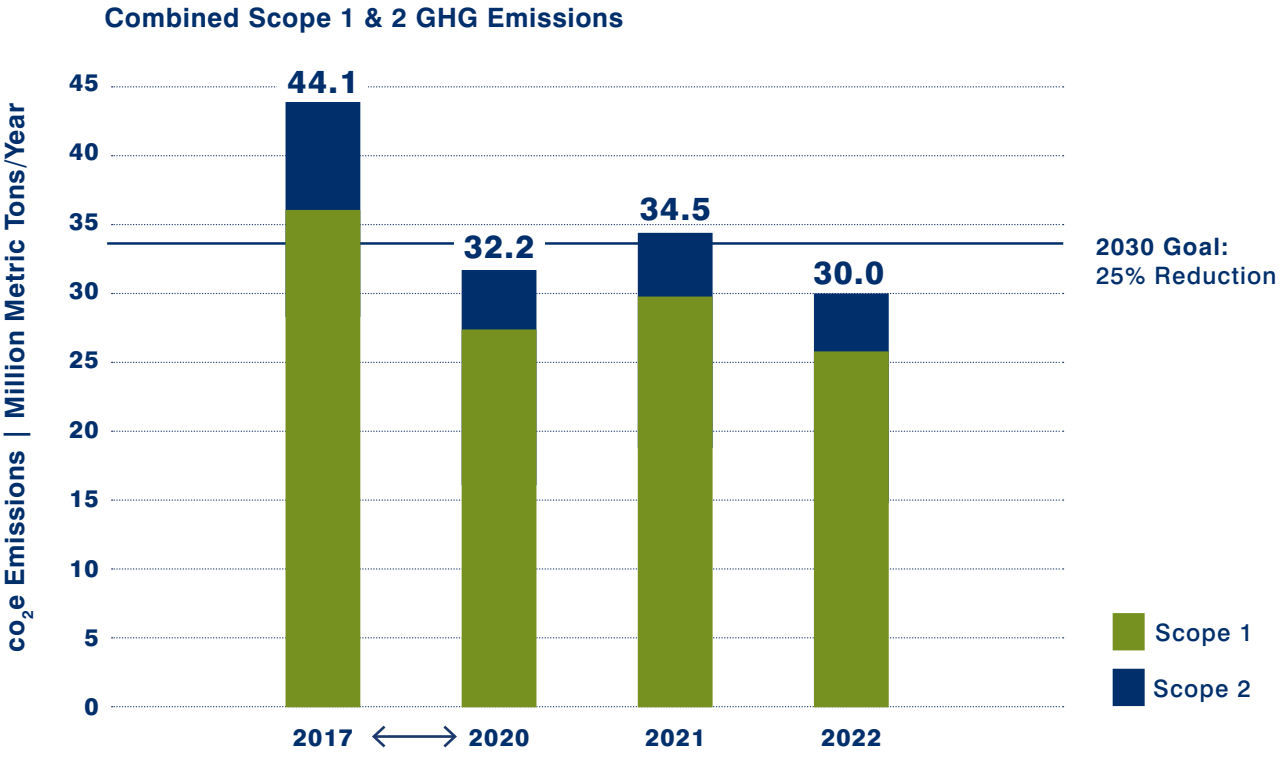
In 2021, Cleveland-Cliffs published its Climate Commitment Plan, which outlined five strategic priorities:

1. Developing domestically sourced, high quality iron ore feedstock and utilizing natural gas in the production of hot briquetted iron (HBI)
2. Implementing energy efficiency and clean energy projects
3. Investing in the development of carbon capture technology
4. Enhancing our GHG emissions transparency and sustainability focus
5. Supporting public policies that facilitate GHG reduction in the domestic steel industry

Along with our Climate Commitment Plan, Cliffs announced a goal to reduce Scope 1 and 2 GHG emissions 25% by 2030 from 2017 levels. To help us achieve this goal, we joined the DOE's Better Climate Challenge, where we committed to 25% reduction in GHG emissions over 10 years. Cliffs also participates in the DOE's Better Plants program, where we have committed to a 10% reduction in energy intensity over 10 years. In 2022, our Scope 1 and 2 GHG emissions were already below our target year. This was achieved through strategic actions such as optimizing our asset footprint and raw material mix, particularly our unique practice of using significant amounts of HBI in our blast furnaces to reduce our coke rates, along with production levels of crude steel. Previously announced upgrades to existing onsite energy recovery for power generation and the addition of renewable energy are important to manage Cliffs' emissions levels below our GHG goal.

Energy Efficiency and Clean Energy

Our Direct Reduction (DR) plant, which makes HBI using our mined iron ore pellets and 100% natural gas, has been online for more than two years. This was a $1 billion investment to domestically produce and consume a high quality feedstock in all of our furnaces. Relative to energy efficiency and clean energy, Cliffs has a target to purchase 2 million megawatt hours (MWh) of renewable power annually that is newly developed or additional power to the grid. We continue to pursue relevant projects to support this target, including the initiatives such as executing a power purchase agreement for 180 megawatts (MW) of the 200-MW Headwaters III Wind Farm in Indiana, and participating in renewable energy programs.



Additionally, four of our iron ore mining and pelletizing operations are served by Minnesota Power (MP). As of the most recent estimate available, MP's overall renewables percentage for retail customers in 2021 was 50%, which equates to just over 1 million MWh of renewable energy for the grid that supplies these Minnesota facilities. As previously mentioned in this report, we continue to pursue the use of hydrogen, particularly in applications such as at our DR plant through the Great Lakes Clean Hydrogen coalition, a coordinated hydrogen hub effort to transition the Midwest into a leading low-carbon fuel production center. Our DR plant was designed and constructed to use up to 30% hydrogen without any modifications, and up to 70% hydrogen with some modifications. We are also exploring potential hydrogen use in other applications across our operating footprint.

Carbon Capture

We are also continuing our work to study the feasibility of large-scale carbon capture and sequestration of blast furnace gas at our Burns Harbor integrated facility located in Northwest Indiana. The project aims to capture up to 2.8 million tons of CO_2 per year for permanent geological sequestration. We already completed an initial front-end engineering design study in late 2022 and although much work remains to make carbon capture a viable solution in the future, Cliffs is investing resources into the potential of carbon capture technology and will continue to explore.

Transparency

Along with our Sustainability Report 2022, Cliffs obtained external limited assurance for our consolidated Scope 1 and 2 GHG emissions data for 2022, which is detailed in our Statement of GHG Emissions on pages 76-77 of our **Sustainability Report 2022.** Cliffs tracks and reports our absolute GHG emissions in our annual sustainability report, as well as to government regulatory agencies and third-party sustainability ratings platforms. We also report select GHG intensities for our business. Cliffs discloses these metrics and additional GHG and climate-related information, such as our supplier climate engagement and relevant upstream Scope 3 emissions, in our annual Climate Change submission to CDP, an international nonprofit organization that manages the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. We are pleased to report that Cliffs maintained a 'B' score for our Climate Change response in 2022.

Public Policy and Advocacy

As it relates to public policy and advocacy around climate-related risks and opportunities, Cleveland-Cliffs educates policymakers on matters that could impact the future success of the steel industry in the United States. During 2022, our government relations team conducted direct advocacy at all levels of government on relevant and timely policy matters. As a steel industry leader with respect to our partnership with the DOE toward pursuing our GHG emissions reduction and energy efficiency goals, Cliffs hosted a number of dignitaries from relevant government agencies and offices across its operating footprint throughout 2022.

Since 2021, Cliffs has actively participated in an Expert Advisory Group (EAG), convened by the Science Based Targets initiative to develop a Steel Sectoral Decarbonization Approach (SDA) toward near zero GHG emissions by 2050 in alignment with the Paris Agreement. The SDA intends to outline a methodology for setting science-based targets and a decarbonization pathway. Currently, Cliffs continues to participate in the EAG and looks forward to the finalized SDA for evaluation, which is slated for late 2023.

Additionally, we help advance important sustainability information and data for the American iron and steel industry through our work with industry organizations such as the American Iron and Steel Institute (AISI). Our work with AISI enables us to keep apprised of the most pertinent issues facing the American iron and steel industry, and we work collectively to sustain the message that our industry is among the cleanest and most energy efficient in the world.

For more information about the sustainability initiatives discussed in the Metrics and Targets section, please see our **Sustainability Report 2022.**

FORWARD-LOOKING STATEMENTS

This report contains information that may constitute "forward-looking statements" within the meaning of the federal securities laws. As a general matter, forward-looking statements relate to anticipated trends and expectations rather than historical matters and are subject to risks and uncertainties relating to our operations and business environment that are difficult to predict and may be beyond our control. Such risks and uncertainties may cause actual results to differ materially from those expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to, those described in Part I., Item 1A., "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2022, and those described from time to time in our other reports filed with the U.S. Securities and Exchange Commission. Except to the extent required by law, we do not undertake to update the forward-looking statements included in this report to reflect the impact of circumstances or events that may arise after the date such statements were made, and caution should be taken not to place undue reliance on such statements. Forward-looking and other statements in this report regarding, among other things, our GHG reduction plans and goals, decarbonization efforts, clean energy initiatives, and climate-related risks and opportunities are not an indication that these statements are necessarily material to investors or required to be disclosed. In addition, any such historical, current and forward-looking statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve and assumptions that are subject to change in the future.

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