Risk Factors Comparison 2024-01-31 to 2023-02-01 Form: 10-K

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The factors described below represent the Company' s principal risks. CLIMATE CHANGE- RELATED RISKS Climate Change: Climate change- related risks and uncertainties, legal or regulatory responses to climate change and failure to meet the Company' s climate change commitments could negatively impact the Company' s results of operations, financial condition and / or reputation. The Company is subject to increasing climate- related risks and uncertainties, many of which are outside of its control. Climate change may result in more frequent **and damaging** severe weather **and weather- related** events, potential changes in precipitation patterns and extreme variability in weather patterns ~~, which~~ **. These short- and long- term weather and weather- related events** can disrupt the operations of the Company as well as those of its customers, partners and vendors **due to damage to local infrastructure and other property damage limiting site access, and causing water scarcity and lack of access to high- quality water, among other factors. These risks and uncertainties may also directly or indirectly impact decisions to invest in the construction and / or renovation of new or existing manufacturing sites and other Company facilities and locations** . The transition to lower greenhouse gas emissions technology, the effects of carbon pricing and changes in public sentiment, regulations, taxes, public mandates or requirements and increases in climate- related lawsuits, insurance premiums and implementation of more robust disaster recovery and business continuity plans could increase costs to maintain or resume the Company' s operations or achieve its sustainability commitments in the expected timeframes, which would negatively impact the Company' s results of operations. In 2020, the Company announced commitments to reduce its net annual ~~greenhouse gas~~ **Scope 1 and 2 CO2e** emissions by an additional 5 million metric tons, or 15 percent compared with its 2020 baseline, by 2030 (the 2020 baseline represents a 15 percent reduction in greenhouse gas emissions since 2005) and its intention to be carbon neutral by 2050 (Scope 1 2 3, as defined by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, plus product benefits). **In November 2023, the Board approved the final investment decision to build the world' s first net- zero Scope 1 and 2 CO2e emissions integrated ethylene cracker and derivatives facility in Alberta, Canada, a key element for the Company to achieve its 2030 greenhouse gas emissions reduction commitment. The commitments reflect the Company' s current plans and targets and are not guarantees that it will be able to achieve them. The** ~~Execution~~ **execution** and achievement of ~~these~~ -- **the Company' s** commitments within ~~the currently~~ projected ~~costs~~ - **cost estimates** and expected timeframes **, including the success of the Company' s integrated ethylene cracker and derivatives facility in Alberta, Canada,** are ~~also~~ subject to risks and uncertainties which include, but are not limited to: advancement, availability, development and affordability of technology necessary to achieve these commitments; unforeseen design, operational and technological difficulties; availability **and cost** of necessary materials and components; adapting products to customer preferences and customer acceptance of sustainable supply chain solutions; changes in public sentiment and political leadership; **and** the Company' s ability to comply with changing regulations, taxes, mandates or requirements related to greenhouse gas emissions or other climate- related matters ~~; and the pace~~ **, including prescriptive reporting** of **climate** ~~regional and global recovery from the pandemic caused by coronavirus disease 2019 (" COVID - 19")~~ **related matters. In addition, standards for tracking and reporting on sustainability matters have not been harmonized, continue to evolve and may change over time, which could result in significant revisions to the Company' s performance metrics, commitments or reported progress in achieving such commitments** . Given the focus on sustainable investing, if the Company fails to meet its climate change commitments within the committed timeframe **, coupled with its significant investments to meet those commitments,** and adopt policies and practices to enhance sustainability, the Company' s reputation and its customer and other stakeholder relationships could be negatively impacted **, reducing demand for the Company' s products,** and it may be more difficult for the Company to compete effectively or gain access to financing on acceptable terms when needed, which ~~would~~ **could negatively impact** ~~have an adverse effect on~~ the Company' s **financial condition,** results of operations **and cash flows** . PANDEMIC- RELATED RISKS Public Health Crisis: A public health crisis or global outbreak of disease could have a negative effect on the Company' s manufacturing operations, supply chain and workforce, creating business disruptions that could have a substantial negative impact on the Company' s results of operations, financial condition and cash flows. A public health crisis, including a pandemic similar in nature to ~~COVID- 19~~ **coronavirus disease 2019** , could impact all geographic regions where Dow products are produced and sold. The global, regional and local spread of a public health crisis could result **in** , and in the past has resulted in **,** significant global mitigation measures, including government- directed quarantines, social distancing and shelter- in- place mandates, travel restrictions and / or bans, mask and vaccination mandates, restrictions on large gatherings and restricted access to certain corporate facilities and manufacturing sites. Business disruptions and market volatility resulting from a public health crisis could have a substantial negative impact on the Company' s results of operations, financial condition and cash flows. The adverse impact of a pandemic could include, and in the past has included **,** without limitation, fluctuations in the Company' s stock price due to market volatility; a decrease in demand for certain Company products; price declines; reduced profitability; supply chain disruptions impeding the Company' s ability to ship and / or receive product; temporary idling or permanent closure of select manufacturing facilities and / or manufacturing assets; asset impairment charges; interruptions or limitations to manufacturing operations imposed by local, state or federal governments; reduced market liquidity and increased borrowing costs; workforce absenteeism and distraction; labor shortages; customer credit concerns; increased ~~cyber security~~ **cybersecurity** risk and data accessibility disruptions due to remote working arrangements; workforce reductions and fluctuations in foreign currency markets. Additional risks may include, but are not limited to: shortages of key raw materials; potential impairment in the carrying value of goodwill; additional asset impairment charges;

increased obligations related to the Company’ s pension and other postretirement ~~benefitplans~~ **benefit plans** ; and tax valuation allowance; and may also have the effect of heightening many of the other risks described in this" Risk Factors" section. MACROECONOMIC RISKS Financial Commitments and Credit Markets: Market conditions could reduce the Company' s flexibility to respond to changing business conditions or fund capital needs. Adverse economic conditions **, such as high interest rates,** could reduce the Company’ s flexibility to respond to changing business and economic conditions or to fund capital expenditures or working capital needs. The economic environment could result in a contraction in the availability of credit in the marketplace and reduce sources of liquidity for the Company. This could result in higher borrowing costs. Global Economic Considerations: The Company operates in a global, competitive environment which gives rise to operating and market risk exposure. The Company sells its broad range of products and services in a competitive, global environment, and competes worldwide for sales on the basis of product quality, price, technology and customer service. Increased levels of competition could result in lower prices or lower sales volume, which could have a negative impact on the Company’ s results of operations. Sales of the Company' s products are also subject to extensive federal, state, local and foreign laws and regulations; trade agreements; import and export controls; taxes; and duties and tariffs. The imposition of additional regulations, controls, taxes and duties and tariffs or changes to bilateral and regional trade agreements could result in lower sales volume, which could negatively impact the Company’ s results of operations. Economic conditions around the world, and in certain industries in which the Company does business, also impact sales price and volume **and affect the efficacy of the Company' s supply chain** . **For example** ~~As a result~~ , market uncertainty ~~or~~ **and** an economic downturn driven by inflationary pressures ~~;~~ **have recently reduced demand for the Company' s products, resulting in decreased sales volume. Adverse economic conditions also caused supply chain constraints. These factors have had a negative impact on the Company' s results of operations. Additionally,** political tensions; war, including the ongoing ~~conflict~~ **conflicts in the Middle East and** between Russia and Ukraine ~~and~~ **with** the related sanctions and export restrictions; terrorism; epidemics; pandemics; or political instability in the geographic regions or industries in which the Company sells its products could **also** reduce demand for ~~these~~ -- **the Company' s** products and result in decreased sales volume **or supply chain disruptions** , which could have a negative impact on the Company’ s results of operations. In February 2022, Russia invaded Ukraine resulting in the United States, Canada, the European Union and other countries imposing economic sanctions on Russia. Dow suspended ~~all~~ purchases of feedstocks and energy from Russia and has significantly reduced its operations and product offerings in the country. Dow has also stopped all investments in Russia and is only supplying limited essential goods to Russia. These actions have not had and are not expected to have a material impact on the Company' s financial condition or results of operations. However, the fluidity and continuation of the conflict may result in additional economic sanctions and other impacts which could have a negative impact on the Company’ s financial condition, results of operations and cash flows. These include decreased sales; supply chain and logistics disruptions; volatility in foreign exchange rates and interest rates; inflationary pressures on and availability of raw materials and energy, most notably in Europe; and heightened cybersecurity threats. **Further, the intensity and duration of the conflict in the Middle East and potential expansion of the hostilities in the region are difficult to predict and could disrupt the Company' s supply chain operations, which could have a negative impact on the Company' s results of operations.** In addition, volatility and disruption of financial markets could limit customers’ ability to obtain adequate financing to maintain operations, which could result in a decrease in sales volume and have a negative impact on the Company’ s results of operations. The Company’ s global business operations also give rise to market risk exposure related to changes in inflation, foreign currency exchange rates ~~(especially in~~ **, including the impact of foreign currency exchange rates resulting from** highly inflationary economies such as Argentina ~~)~~ , interest rates, commodity prices and other market factors such as equity prices. To manage such risks, the Company enters into hedging **and other investment** transactions, where deemed appropriate, pursuant to established guidelines and policies. If the Company fails to effectively manage such risks, it could have a negative impact on its results of operations. Pension and Other Postretirement Benefits: Increased obligations and expenses related to the Company' s defined benefit pension plans and other postretirement benefit plans could negatively impact its financial condition and results of operations. ~~The~~ **While the** Company has **frozen its defined benefit plans and other postretirement benefit plans in the United States, the Company continues to sponsor these plans as well as** defined benefit pension plans and other postretirement benefit plans **in a number of other countries** (**together with U. S. plans,** the “ plans ”) ~~in the United States and a number of other countries~~ . The assets of the Company' s funded plans are primarily invested in fixed income securities, equity securities of U. S. and foreign issuers and alternative investments, including investments in real estate, private equity and absolute return strategies. Changes in the market value of plan assets, investment returns, discount rates, mortality rates ~~,~~ **and** regulations ~~and the rate of increase in compensation levels~~ may affect the funded status of the Company' s plans and could cause volatility in the net periodic benefit cost, future funding requirements of the plans and the funded status of the plans. A significant increase in the Company' s obligations or future funding requirements could have a negative impact on the Company' s results of operations and cash flows for a particular period and on the Company' s financial condition. Supply / Demand Balance: Earnings generated by the Company' s products vary based in part on the balance of supply relative to demand within the industry. The balance of supply relative to demand within the industry may be significantly impacted by the addition of new capacity, especially for basic commodities where capacity is generally added in large increments as world- scale facilities are built. This may **result in excess capacity which can** disrupt **regional** industry **supply and demand** balances **, particularly in Europe, Middle East, Africa** and **India (" EMEAI") and Asia Pacific,** ~~result~~ **resulting** in downward pressure on prices **and decreased operating rates** ~~due to the increase in supply~~ , which could negatively impact the Company’ s results of operations. LEGAL AND REGULATORY RISKS Environmental Compliance: The costs of complying with evolving regulatory requirements could negatively impact the Company' s financial results. Actual or alleged violations of environmental laws or permit requirements could result in restrictions or prohibitions on plant operations, substantial civil or criminal sanctions, as well as the assessment of strict liability and / or joint and several liability. The Company is subject to extensive federal, state, local and foreign laws, regulations, rules and ordinances relating to pollution, protection of the environment, climate change, greenhouse gas emissions, and the generation, storage, handling, transportation, treatment, disposal and remediation of hazardous substances and waste materials. In addition, the Company may have costs related to environmental remediation and restoration obligations associated with past and current sites as well as related to its past or current waste disposal practices or other hazardous materials handling. Although management will estimate and accrue liabilities for these obligations, it is reasonably possible that the Company' s ultimate cost with respect to these matters could be significantly higher, which could negatively impact the Company' s financial condition and results of operations. Costs and capital expenditures relating to environmental, health or safety matters are subject to evolving regulatory requirements and depend on the timing of the promulgation and enforcement of specific standards which impose the requirements. Moreover, changes in environmental regulations could inhibit or interrupt the Company' s operations, or require modifications to its facilities. Accordingly, environmental, health or safety regulatory matters could result in significant unanticipated costs or liabilities. For additional information, see Part II, Item 7. Other Matters, Environmental Matters in Management' s Discussion and Analysis of Financial Condition and Results of Operations. Health and Safety: Increased concerns regarding the safe use of chemicals and plastics in commerce and their potential impact on the environment ~~has~~ **have** resulted in more restrictive regulations and could lead to new regulations. Concerns regarding the safe use of chemicals and plastics in commerce and their potential impact on health and the environment reflect a growing trend in societal demands for increasing levels of product safety and environmental protection. These concerns could manifest themselves in stockholder proposals, preferred purchasing, delays or failures in obtaining or retaining regulatory approvals, delayed product launches, lack of market acceptance and continued pressure for more stringent regulatory intervention and litigation. These concerns could also influence public perceptions, the viability or continued sales of certain of the Company' s products, its reputation and the cost to comply with regulations. In addition, terrorist attacks and natural disasters have increased concerns about the security and safety of chemical production and distribution. These concerns could have a negative impact on the Company' s results of operations. Local, state, federal and foreign governments continue to propose new regulations related to the security of chemical plant locations and the transportation of hazardous chemicals, which could result in higher operating costs. Litigation: The Company is party to a number of claims and lawsuits arising out of the normal course of business with respect to product liability, patent infringement, employment matters, governmental tax and regulation disputes, contract and commercial litigation, and other actions. Certain of the claims and lawsuits facing the Company purport to be class actions and seek damages in very large amounts. All such claims are contested. With the exception of the possible effect of the asbestos- related liability of Union Carbide Corporation (" Union Carbide ") as described below, it is the opinion of the Company' s management that the possibility is remote that the aggregate of all such claims and lawsuits will have a material adverse impact on the Company' s consolidated financial statements. Union Carbide is and has been involved in a large number of asbestos- related suits filed primarily in state courts during the past four decades. At December 31, ~~2022~~ **2023** , Union Carbide' s total asbestos- related liability, including future defense and processing costs, was $ ~~947~~ **867** million ($ **947** ~~1, 016~~ million at December 31, ~~2021~~ **2022**). Plastic Waste: Increased concerns regarding plastic waste in the environment, ~~consumers~~ **resulting in the demand for substitute materials; brand owners** selectively reducing their ~~consumption~~ **use** of plastic products ~~,~~ **;** a lack of plastic waste collection and recycling infrastructure ~~,~~ **and a failure to develop circular plastic materials or a circular economy** ~~or~~ **for plastics; and / or the development of** new or more restrictive regulations and rules related to plastic waste **and related emissions** could reduce demand for the Company' s plastic products and could negatively impact the Company' s financial results. **Plastics have faced increasing public scrutiny due to low recycling rates and the presence of plastic waste in the environment, including the world' s oceans and rivers, and pollution associated with the manufacture of plastics. Accordingly, regulators, manufacturers, brand owners and consumers are driving demand for materials made with recycled content, bio- based materials and materials made with low or zero carbon emission options, and** ~~Local~~ **local** , state, federal and foreign governments **are** ~~have been increasingly~~ proposing **and implementing** regulations to address the global plastic waste challenge, including, but not limited to, extended producer responsibility fees, ~~a Global~~ **recycled content mandates, taxes on** ~~Plastics~~ **plastics** ~~Treaty~~ **at the national level** and bans on non- essential items. ~~These regulations~~ **Further, an intergovernmental negotiation committee is in the process of negotiating an international legally binding instrument to end plastic pollution. Dow is** ~~on~~ **one of the world' s largest plastics producers and sells plastic products that continue to enable increasing quality and standards of living and offer significant greenhouse gas reductions compared with alternative solutions. In order to both maintain the benefits of plastics, meet growing demand for circular and renewable plastics and advance efforts to end plastic pollution in the environment, the Company is partnering with other organizations to bring the waste back into the circular economy. The Company' s Transform the Waste target (announced in October 2022) aims to transform** plastic waste ~~drive demand toward plastic~~ **and other forms of waste to commercialize 3 million metric tons of circular and renewable** solutions **by 2030** ~~that are recyclable, reusable, made with recycled content and / or renewable raw materials~~ . **Further** ~~In addition~~ , **the Company has committed to reducing its net annual greenhouse gas emissions and intends to be carbon neutral by 2050 (Scope 1 2 3, as defined by the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, plus product benefits).** ~~without~~ **Without the expansion of** proper waste collection and recycling infrastructure **and the development of a circular economy for plastics** at scale, **along with** ~~plastics have faced increased public scrutiny due to negative coverage of plastic waste in the environment, including the world' s oceans and rivers. As Dow is one of the world' s largest producers of plastics,~~ increased pressure ~~on~~ **to reduce** the use of plastics, **the Company** ~~despite positive carbon benefits and essential functions such as food preservation and medical uses,~~ could ~~cause~~ **experience** reduced demand for **its** ~~the Company' s~~ polyethylene products **,** which could negatively impact the Company' s financial condition, results of operations and cash flows. OPERATIONAL AND STRATEGIC RISKS Company Strategy: Implementing certain elements of the Company' s strategy could negatively impact its financial results. The Company currently has manufacturing operations, sales and marketing activities, and joint ventures in emerging geographic regions. Activities in these geographic regions are accompanied by uncertainty and risks including: navigating different government regulatory environments; relationships with new, local partners; project funding commitments and guarantees; expropriation, military actions, war, terrorism and political instability; sabotage; uninsurable risks; suppliers not performing as expected resulting in increased risk of extended project timelines; and determining raw material supply and other details regarding product movement. **Additionally** ~~In addition~~ , disruptions to supply chains, distribution chains and / or public and private infrastructure **and services** , including those caused by industry capacity constraints, material availability, global logistics delays **, and third party service and material providers;** and constraints arising from, among other things, the transportation capacity of ocean shipping containers ~~and~~ **; global** labor availability constraints **; and / or disruptions to the Company' s site operations caused by tenant and neighboring manufacturing operations, as well as the Company' s ability to attract and retain a talented workforce** , could materially and adversely impact the Company' s business operations. If the manufacturing operations, supply chains, sales and marketing activities ~~,~~ **are not reliable** and / or **the** implementation of ~~these~~ -- **the Company' s** projects is not successful, it could adversely affect the Company’ s financial condition, cash flows and results of operations. ~~Cyber~~ **Cybersecurity** Threat: ~~The~~ **Disruption of the Company' s information technology, data security, and other operating or third- party systems, including disruption of the ability to safely and reliably operate the Company' s facilities; the** risk of loss of the Company’ s **proprietary information including** trade secrets, know- how or other sensitive business information ~~or disruption~~ **; and the risk** of ~~operations~~ **loss or security of the private data of the Company, its customers and its employees** could negatively impact the Company’ s **business strategy, results of operations,** financial ~~results~~ **condition and reputation** . ~~Cyber~~ **The Company relies on various information systems, including information systems operated by third** - ~~attacks or security breaches could compromise confidential~~ **parties, to support safe, efficient and reliable business and operating processes and activities and to safeguard its proprietary information assets, including trade secrets, know- how and other sensitive** , business critical information **. These systems are critical to the Company' s process to accurately report financial results for management and external reporting purposes and to ensure compliance with financial reporting** , ~~cause~~ **legal and tax requirements in the United States and around the world. These systems may also be used to collect and process sensitive customer and personal employee data the Company may be legally required to protect. Increased global cybersecurity vulnerabilities, threats and more sophisticated and targeted cyberattacks continue to pose risks to the Company’ s products, systems and networks, and the confidentiality, availability and integrity of the Company’ s data. These vulnerabilities also expose the Company’ s customers, suppliers and third- party service providers to loss. In addition, the Company is exposed to similar risks resulting from cyberattacks that are experienced by its suppliers and other vendors. As** a **result, cyberattacks, internal and external security breaches, and attacks and security breaches of third- party systems could** ~~disruption~~ --- **disrupt** ~~in~~ the Company **' s operations, compromise Dow** ’ s **proprietary** ~~operations or harm the Company' s reputation. The Company has attractive information assets, including trade secrets, know- how~~ and **confidential** ~~other sensitive~~ , business critical information **, jeopardize the Company' s ability to safeguard and maintain accurate data, including personal data, and harm the Company' s reputation which could result in litigation, enforcement actions, including fines, penalties and disruption of the Company' s right to operate in certain jurisdictions, and significant remediation costs. Additionally, the Company’ s use of artificial intelligence software may create additional risks related to the unintentional disclosure of proprietary, confidential, personal or otherwise sensitive information** . While the Company has a comprehensive ~~cyber- security~~ **cybersecurity** program that is continuously reviewed, maintained and upgraded, ~~a significant cyber~~ **cyberattacks by nation** - **state organizations, crime organizations and other hackers have become increasingly sophisticated, and it is possible for such** ~~attack~~ **attacks to remain undetected** ~~could result in the loss of critical business information and / or~~ **for** ~~could negatively impact operations, which~~ **an extended period of time. Such attacks** could have a **material** negative impact on the Company’ s **business strategy, results of operations,** financial ~~results~~ **position and reputation. More information on the Company’ s processes for assessing, identifying and managing material risks from cybersecurity threats, including management’ s role and the Board' s oversight of such processes, can be found in Item 1C. Cybersecurity** . Goodwill: An impairment of goodwill could negatively impact the Company’ s financial results. At least annually, the Company assesses goodwill for impairment. If testing indicates that goodwill is impaired, the carrying value is written down based on fair value with a charge against earnings. Where the Company utilizes a discounted cash flow methodology in determining fair value, continued weak demand for a specific product line or business could result in an impairment. Accordingly, any determination requiring the write- off of a significant portion of goodwill could negatively impact the Company' s results of operations. See Note ~~12~~ **11** to the Consolidated Financial Statements for additional information regarding the Company' s goodwill impairment testing. Operational Event: A significant operational event could negatively impact the Company' s results of operations. As a diversified chemical manufacturing company, the Company' s operations **at each site, including maintenance of its facilities** , the transportation of **supplies and** products, **cyberattacks** ~~cyber- attacks~~ , pandemics and other public health- related events or severe weather conditions and other natural phenomena (such as freezing, drought, hurricanes, earthquakes, tsunamis, floods, etc.) could result in an unplanned event that could be significant in scale and could negatively impact operations, neighbors or the public at large, which could have a negative impact on the Company' s results of operations. Major hurricanes and other weather- related events have caused significant disruption in the Company' s operations on the U. S. Gulf Coast, logistics across the region, and the supply of certain raw materials, which had an adverse impact on volume and cost for some of its products. Due to the Company' s substantial presence on the U. S. Gulf Coast, similar severe weather conditions or other natural phenomena in the future could negatively impact the Company' s results of operations. **Other non- weather- related unplanned events have also caused disruptions in the Company’ s operations at various sites. While the Company has processes in place to minimize the risks and impacts of such events, such unplanned future events could negatively impact the Company’ s results of operations.** Raw Materials: Availability of purchased feedstock and energy, and the volatility of these costs, impact Dow’ s operating costs and add variability to earnings. Purchased feedstock and energy costs account for a substantial portion of the Company’ s total production costs and operating expenses. The Company purchases hydrocarbon raw materials including ethane, propane, butane, naphtha and condensate as feedstocks and ~~also~~ purchases certain monomers, primarily ethylene and propylene, to supplement internal production, as well as other raw materials. The Company also purchases natural gas, primarily to generate electricity, ~~and purchases~~ electric power to supplement internal generation **, and steam** . Feedstock and energy costs generally follow price trends in crude oil and natural gas, which are sometimes volatile **. Power prices often follow general energy trends, and are additionally subject to short- term surfeits and shortages related to, for example, intermittent wind and solar generation, and power generation and transmission outages** . While the Company uses its feedstock flexibility and financial and physical hedging programs to help mitigate feedstock cost increases, the Company is not always able to immediately raise selling prices. Ultimately, the ability to pass on underlying cost increases is dependent on market conditions. Conversely, when feedstock and energy costs decline, selling prices generally decline as well. As a result, volatility in these costs could impact the Company’ s results of operations. While the Company expects abundant and cost- advantaged supplies of natural gas liquids (" NGLs") in the United States to persist for the foreseeable future, if NGLs become significantly less advantaged than crude oil- based feedstocks, it could have a negative impact on the Company’ s results of operations and future investments. Also, if the Company’ s key suppliers of feedstock and energy are unable to provide the raw materials required for production, it could have a negative impact on the Company’ s results of operations.