Climate Risk and Opportunities Report (2023 TCFD Report)

The Task Force on Climate-related Financial Disclosures (TCFD) provides a framework of recommended disclosures for corporate reporting on climate-related risks and opportunities, categorized by Governance, Strategy, Risk Management, and Metrics and Targets. Based on the climate scenario analysis we conducted, this index references Covia's reporting against TCFD's voluntary guidelines for universal disclosures and cross-industry, climate-related metrics.

IMPORTANT INFORMATION ABOUT THIS REPORT

This report contains information relevant to both the Energy and Industrial segments of our organization. Please note that as the organization undergoes separation into two distinct companies, you will find updated disclosures for each company on our website. We encourage you to visit our website for the latest information on both entities post-separation.

Governance

Board Oversight

The Covia Board of Managers oversees the operational performance and strategic direction of the organization with support from our Audit and Compensation committees. The Board is the ultimate decision-making body of the Company and advises our Executive Leadership Team ("ELT"), who is responsible for developing and executing our business strategy and objectives. Together with the Board, the ELT oversees climate risk management, informed with details from our Director of Environmental, Social and Governance ("ESG") and the ESG Steering Committee.

Our Board of Managers meets at least quarterly to assess the Company's financial and operational performance and evaluate progress against strategic plans. During these meetings, the Board has the opportunity to review and discuss progress against ESG goals and initiatives, including the Company's management of climate-related risks and opportunities.

Management's Role

The iterative and integrated approach of assessing and managing climate-related risks and opportunities is a responsibility shared by the ELT, Director of ESG, and ESG Steering Committee. The Director of ESG leads the Company's environmental sustainability initiatives and holds ultimate responsibility over climate-related risk management activities.

The Director of ESG reports to the Chief Administrative Officer, who ensures climate considerations are integrated into the ELT and Board's strategic go-forward vision for the Company as communicated to Team Members and external stakeholders.

The Director of ESG participates in the ESG Steering Committee, which also includes functional leaders representing various stakeholder groups and departments across the Company. The ESG Steering Committee discusses progress toward short- and long-term ESG goals and identifies areas of continued ESG progress. Committee members are the primary individuals responsible for identifying and assessing the risk and impact level of climate-related hazards through risk scoring activities and workshop discussions.

Our ESG Steering Committee consists of 12 individuals with expertise in relevant and varied disciplines including, but not limited to, engineering, environmental management, strategy and business development, accounting, finance and economics, legal, operations, and supply chain management. We pride ourselves on having a multi-disciplined ESG Committee, enabling us to assess climate risk through a cross-functional lens and assign risk management activities to stakeholders at the level and in the format best suited for effective control. As appropriate, the Committee shares topics for further discussion and approval with the ELT.

The ESG Steering Committee is supported by five additional subcommittees that are organized around the Company's 2030 ESG goals (**Goals That Inspire**). Each of the five subcommittees has oversight of topics that pertain to climate-related risks and opportunities. As we look toward 2030, these subcommittees will play a more active role in ensuring we are making progress against stated goals and considering climate-related risks and opportunities in the process.

CORPORATE SUSTAINABILITY GOVERNANCE

Board of Managers	Serves as the ultimate decision-making body of the Company and has final oversight of climate-related issues.
Executive Leadership Team (ELT)	Assumes responsibility for developing and executing the business strategy and objectives and expediting activities to ensure successful management of climate-related risks and opportunities.
Director of ESG	Responsible for leading and enhancing the Company's approach to climate-related risk and opportunity management.
ESG Steering Committee	Consisting mostly of functional leaders, the ESG Steering Committee is responsible for day-to-day identification and management of climate-related risks and opportunities through its members' respective roles and department activities.

Strategy

Risk Identification

Climate issues have been considered for many years as we have formulated our business strategy and in 2021 we furthered our commitment through the development of our **Goals That Inspire**. Many of these goals are directly related to and dependent on the Company's management of climate-related risks and opportunities, and therefore, we considered it critical to conduct a formal climate-related risk assessment, including scenario analysis.

This initiative, spearheaded in the first quarter of 2024, involved members of the ESG Steering Committee, Financial Planning & Analysis (FP&A), Risk, and Strategic Marketing to identify the climate-related risks and opportunities most impactful to our operations and customers. This took the form of stakeholder interviews and culminated in two workshops where physical risks, transition risks, and opportunities were identified and prioritized as those most material to Covia over the short, medium, and long term. For this analysis, we defined short term as present day to 2030, the year set forth by our ESG-related **Goals That Inspire**; medium term as 2030-2040; and long term as 2050, as a societally recognized milestone year.

In our assessments, we considered acute and physical risks as well as transition risks, including existing and proposed regulation, legal risks, market risks, technology risks, and reputational risk. We also analyzed climate-related opportunities associated with expansion into new markets, brand reputation, and access to tax credits and incentives.

We relied on both internal and external expertise to identify and assess the risks and opportunities posed by climate change, including:

- Participation from the ESG Steering Committee, FP&A, Risk, and Strategic Marketing in workshop discussions and risk scoring activities;
- Third-party consultants providing guidance on potential risks and opportunities;
- Physical climate models demonstrating the likelihood and impact of specific risks on each of our sites;
- Existing and proposed legislation that may impact the Company's products and/or operations;
- International Sustainability Standards Board (ISSB) guidelines and recommendations on potential risks and opportunities; and
- Existing environmental risk register protocols and previously identified risks and opportunities managed through our Enterprise Risk Management (ERM) function.

Scenario Alignment

We conducted scenario analysis utilizing three Representative Concentration Pathways (RCPs) identified by the Intergovernmental Panel on Climate Change to consider the impact of climate change on Covia's business. These are the "Orderly," "Disorderly," and "Hot House World" scenarios. These scenarios respectively highlight the difference in

expected climate responses if the world adopts an approach of aggressive climate mitigation, moderate climate mitigation, or climate inaction:

- **Orderly Scenario | RCP 2.6 | Mitigation Scenario**: RCP 2.6 is likely to keep global temperature rise below 2°C by 2100. In RCP2.6 warming scenario, carbon dioxide emissions start declining immediately and reach zero by 2100, methane emissions are halved by 2100, and negative carbon dioxide emissions average 2 gigatons per year.
- **Disorderly Scenario | RCP 4.5 | Stabilization Scenario**: RCP 4.5 is likely to keep global temperature rise between 2°C and 3°C by 2100. In this warming scenario, carbon dioxide emissions start declining by approximately 2045 and reach roughly half of the levels of 2050 by 2100. Methane emissions stop increasing by 2040 and represent about 75% of 2040 levels by 2100, while negative carbon dioxide emissions average 2 gigatons per year.
- **Hot House World Scenario | RCP 8.5 | Adaptation Scenario**: In RCP 8.5, emissions continue to rise, and warming is estimated to reach 4.3°C by 2100. This is commonly viewed as either a "worst-case" or "inaction" scenario.

We analyzed nine acute physical risks (heat wave, severe storm, extreme precipitation, drought, river flood, cold stress, wildfire, landslide, and coastal flooding) and two chronic physical risks (precipitation change, temperature change) across all three scenarios. For each of the climate-related transition risks and opportunities, we modeled the likelihood and impact under the Orderly and Hot House World scenarios and discussed how the material risks and opportunities may change.

The tables below highlight the potential risks and opportunities identified through our analysis. Note that we have modeled the Orderly and Hot House World scenario in these tables to highlight the differences. Most climate science predictions suggest that the fully realized scenario will likely fall between the two more extreme scenarios.

PHYSICAL RISKS

TYPE	RISK	POTENTIAL IMPACT TO COVIA	IMPACTED DEPARTMENTS	SCENARIO	LIKELIHOOD/IMPACT IN THE		
					SHORT TERM	MEDIUM TERM	LONG TERM
Acute	Wildfire	Wildfires may damage/destroy company assets and pose increased health and safety risk for Covia employees due to potential air quality concerns	Environmental, Health & Safety	Orderly	Low	Low	Low
				Hot House World	Low	Low	Medium
Acute	Heat Wave	Rising temperatures could create safety concerns and productivity losses for Covia employees, specifically in regions where high levels of heat stress are predicted; may decrease water availability, thereby reducing production allowances	Environmental, Health & Safety, Operations	Orderly	Low	Medium	Medium
				Hot House World	Medium	Medium	High
Acute	River Flood	River flooding may require temporary shutdown of mining processes, lowering production volumes and increasing labor production costs for employees working overtime (if plants are not running at 100% capacity already)	Environmental, Operations	Orderly	Low	Low	Low
				Hot House World	Low	Low	Medium
Acute	Extreme Precipitation	Extreme precipitation may cause temporary shutdown of mining processes, thereby minimizing production and causing labor production costs for employees working overtime (if plants are not running at 100% capacity already)	Environmental, Operations	Orderly	Low	Low	Medium
				Hot House World	Low	Medium	Medium
Acute	Severe Storm	Extreme weather storms such as hurricanes may pose a threat to Covia's infrastructure; damaged infrastructure will decrease production rates, accelerate depreciation charges, and may increase insurance premiums	Environmental, Finance, Operations	Orderly	Low	Medium	Medium
				Hot House World	Medium	Medium	High
Acute	Drought	Drought conditions may lower the availability of water, increasing cost per ton of production as water deliveries may be required, or the investment in new low- or no-water technologies	Environmental, Innovation, Procurement	Orderly	Low	Medium	Medium
				Hot House World	Medium	Medium	High
Chronic	Temperature Change	A long-term shift in temperatures may increase cost per ton over time; sustained high temperatures may pose a threat to the health and safety of Covia employees	Environmental, Finance, Health & Safety, Operations	Orderly	Low	Medium	Medium
				Hot House World	Medium	Medium	High
Chronic	Precipitation Change	A long-term shift in precipitation may increase cost per ton over time; an increase in the magnitude and frequency of precipitation will increase downtime, lowering production volumes	Environmental, Finance, Operations	Orderly	Low	Low	Medium
				Hot House World	Low	Medium	Medium

TRANSITION RISKS

RISK	POTENTIAL IMPACT TO COVIA	IMPACTED DEPARTMENTS	SCENARIO	LIKELIHOOD/IMPACT IN THE		
				SHORT TERM	MEDIUM TERM	LONG TERM
Reputation	Failure to assess climate-related risks and demonstrate sustainable risk mitigation activities may paint the company in a negative light compared to its peers, which may result in the loss of contracts to competitors	Sales & Marketing	Orderly	Low	Medium	Medium
			Hot House World	Low	Low	Low
Customer Demands	Customer demand for sustainability disclosure and advancement may put revenue from key customers at risk, which may result in the loss of contracts to competitors	Sales & Marketing	Orderly	Low	Medium	Medium
			Hot House World	Low	Low	Low
Electricity Costs	A nationwide push toward electrification may cause electricity demand to exceed supply, suggesting increased electricity costs; the introduction of renewable electricity supply to the grid may increase transmission and transportation costs for utility providers also, thereby driving up the cost of electricity	Finance, Operations, Procurement	Orderly	Low	Medium	Medium
			Hot House World	Low	Low	Low
Carbon Tax	A regulated carbon price (e.g., a carbon tax) may result in an increase in Covia's operating expenses; these costs may or may not be possible to pass through to customers	Finance, Operations	Orderly	Low	Medium	High
			Hot House World	Low	Low	Low
Regulatory Reporting	Expansion of climate reporting requirements in Covia's operational boundary could result in a major increase in Covia's legal spend and expose the company to potential penalties for noncompliance	Finance, Operations	Orderly	Low	Medium	Medium
			Hot House World	Low	Low	Low
Market Risk	A global shift toward renewable energy may impact demand for Covia's products; in the event of decreased demand, Covia may be required to idle or stop production at some of its plant locations	Innovation, Operations, Sales & Marketing	Orderly	Low	Medium	High
			Hot House World	Low	Low	Low

OPPORTUNITIES

RISK	POTENTIAL IMPACT TO COVIA	IMPACTED DEPARTMENTS	SCENARIO	LIKELIHOOD/IMPACT IN THE		
				SHORT TERM	MEDIUM TERM	LONG TERM
Brand Reputation	Perception of Covia as a sustainable, climate-conscious brand could positively increase brand reputation and potentially lower its cost of capital	Environmental, Sales & Marketing	Orderly	Medium	Medium	High
			Hot House World	Low	Low	Low
Access to Markets	Climate considerations present an opportunity for Covia to expand into new markets, attract new customers, and access new revenue streams	Innovation, Sales & Marketing	Orderly	Medium	Medium	High
			Hot House World	Low	Low	Medium
Tax Incentives	Covia may qualify for potential tax credits and incentives, supported by governments globally that are making funds available for transition technology	Finance, Operations	Orderly	Low	Low	Medium
			Hot House World	Low	Low	Medium

Business Integration

We understand that failure to respond to the climate-related risks identified during scenario analysis may pose operational, financial, and reputational risks to the business. Simultaneously, we recognize the opportunities available to generate new products, apply for financial incentives, and position the Company as a leader in climate risk mitigation activities. As such, we intend to employ a range of activities to ensure that these considerations are factored into the business strategy and financial planning.

Physical Risks

We assessed the exposure and vulnerability of each Covia site through comprehensive scenario analysis using both historical data and future projections. Findings from the scenario analysis proved that our diversified portfolio footprint provides a natural layer of insulation against acute physical risks and suggest that many of these risks are best managed at a site level. Conversely, chronic physical risks present a risk to the portfolio, while their impacts may be more severe in certain regions. The impact and likelihood of both acute and chronic risks are expected to be more severe under the Hot House World scenario and we have made these stipulations in our business strategy.

Some of the measures we have taken – or plan to take – to effectively manage the likelihood and impact of physical risks include:

- Enhancing our water management practices to ensure efficient use and conservation of water resources, especially in areas prone to drought or water scarcity;
- Investing in renewable energy sources or energy efficiency measures to reduce our greenhouse gas emissions and lower our operational costs, especially in areas with high electricity prices or frequent power outages;

- Implementing disaster preparedness and emergency response plans to protect our Team Members, assets, and communities from the impacts of extreme weather events, such as storms, floods, and wildfires;
- Diversifying our product portfolio and customer base to reduce our dependence on specific markets or regions that may be adversely affected by climate change; and
- Engaging with our suppliers, customers, and other stakeholders to identify and address potential climate-related issues and opportunities along our value chain.

Transition Risks

Scenario analysis findings suggest that nearly all identified transition risks present a similar threat to the business. The consistent risk rating proposes that transition risks can be managed similarly across the organization by improving the Company's sustainability performance, disclosure, and positioning. The impact and likelihood of transition risks will be greater and accelerated under the Orderly Scenario, where there is an aggressive and widespread societal shift toward a low-carbon economy.

Covia's transition risks occur against a backdrop of climate pressures that have, for several decades now, drawn attention to concerns over the global use of fossil fuels as contributors to climate change. Low-carbon scenarios generally presume the direct reduction of fossil fuels or the increase in costs due to technology solutions such as carbon capture and storage at scale. Because a large share of Covia's end products directly relates to oil and gas production, any external factors that reduce the use or raise the price of oil and gas can be expected to have a negative impact on that portion of Covia's sales volumes, pricing, and related cash flows, with potential effects also flowing to other aspects of sand end-markets from possible oversupply conditions. At the same time, prior predictions of reduced fossil fuel use have been frequently disproven by actual supply-demand patterns, as the realities of geopolitical risk, economic growth, and increased global access to energy have outpaced the ability of renewables and other low-carbon energy forms to fill the gap. As of this current report, the United States is producing more oil and gas than at any time in its history, and in fact is the world's largest global supplier of oil and gas. Nonetheless, such market dynamics can change, and we therefore carefully monitor trends in energy and other demand centers.

We are committed to addressing and managing the impact of transition risks on Covia's business through the following activities:

- Prioritizing energy efficiency across our sites and exploring opportunities to procure renewable energy to effectively reduce our greenhouse gas emissions and lower our exposure to carbon pricing and electricity costs;
- Monitoring and assessing technology solutions and trends that could impact our business and decrease our carbon footprint;
- Collaborating with our suppliers and customers to develop partnerships that leverage our strengths and capabilities and support the transition to a low-carbon economy; and
- Developing a thoughtful, transparent, and proactive approach to emerging climate regulation.

Opportunities

We have always viewed innovation as a key growth driver in our business. We continue to invest in resources and capabilities to ensure that we stay in front of emerging markets in mineral and material performance. We understand that a tremendous opportunity exists to further develop low-carbon product offerings to access new revenue streams and customers. For more information on our innovation and R&D activities, see the Product and Process Innovation section of the Corporate Responsibility Report.

Our Strategic Marketing team, in collaboration with our Director of ESG, plays an integral role in positioning Covia as a sustainable business and ensuring stakeholder engagement. One of our **Goals That Inspire** was developed to continue driving efforts to enhance Covia's reputation as a sustainable and equitable Company with both internal and external stakeholders.

Our FP&A Team regularly assesses the applicability of tax credits and incentives on a local, state, and federal level to ensure the Company is rewarded for its commitment to climate-change mitigation activities. Tax assessments are conducted prior to M&A activities, site expansion activities, or major capital expenditure projects to ensure that government funding opportunities are fully realized.

Resilience

While there are material risks presented by both the Hot House World and Disorderly scenarios, we believe that our business is well-suited to address and adapt to them. Our diverse product offerings and customer base spanning multiple industries, combined with strong risk management function and commitment to innovation, provide Covia with the necessary agility to effectively manage climate-related risks and opportunities.

The findings gained from the scenario analysis activities further exemplify the importance of progressing toward our **Goals That Inspire**. We will continue to monitor the material climate-related risks and opportunities and adjust our mitigation strategies to ensure business resiliency.

Risk Management

Risk Identification and Assessment

Covia has a comprehensive risk Enterprise Risk Management (ERM) function that seeks to identify, assess, prioritize, monitor, and mitigate risks across Covia's business. Covia's Environmental Department, Operations Leadership Team, ESG Steering Committee, and the Director of ESG are tasked with identifying and assessing climate-related risks and opportunities in the business. These stakeholders synthesize a variety of considerations including, but not limited to, existing and emerging regulatory requirements, the competitive technology market as it relates to low-carbon technologies, site-specific climate model predictions for transition and physical risks, climate-related disclosures, and commitments from customers to assign a rating for each physical risk, transition risk, and climate-related opportunity.

Each risk or opportunity is analyzed on a 0-4 scale based on:

a. **Likelihood**: the probability the risk/opportunity will be realized, and

b. **Impact**: how Covia's business operations are affected if the risk/opportunity is realized.

The likelihood and impact ratings are delineated in the tables below.

These ratings systems are used to consider the portfolio-wide likelihood and impact ratings of each risk and opportunity, but the likelihood and impact assessments can also be leveraged to identify and assess site-specific risks and opportunities.

LIKELIHOOD ASSESSMENT

RATING	INDICATOR	DESCRIPTION
0	**Very unlikely**	Risk/opportunity has an extremely low chance of occurring
1	**Unlikely**	Risk/opportunity has a relatively low chance of occurring
2	**Likely**	Risk/opportunity is likely to occur half of the time
3	**Very likely**	Risk/opportunity is very likely to present itself
4	**Near certain**	Risk/opportunity is almost certain to occur

IMPACT ASSESSMENT

RATING	INDICATOR	DESCRIPTION
0	**Not applicable**	Risk/opportunity not applicable; will not impact business
1	**Low**	If realized, the risk/opportunity is expected to have a low impact ($) on the Company; cost/revenue impact is expected to be low; production will not be noticeably impacted; customer sentiment is unlikely to shift
2	**Moderate**	If realized, the risk/opportunity is expected to have a moderate ($$) impact on the Company; cost/revenue impact is noticeable but not high; production is impacted on a moderate scale
3	**High**	If realized, the risk/opportunity is expected to have a high ($$$) impact on the Company; cost/revenue impact is high; production is noticeably impacted; customer sentiment is significantly impacted
4	**Material**	If realized, the risk/opportunity is expected to have a substantial impact ($$$$) to the Company; cost/revenue impact is material; production impact is widespread and significant; customer sentiment shifts are obvious and widespread

Process for Managing Risks

The risk assessment process described above results in an aggregated climate risk score for each physical and transition risk (and climate opportunity). Risks with the highest overall impact and likelihood ratings are assigned a high priority, whereas risks with average likelihood and impact ratings are assigned medium priority, and risks recording low impact and likelihood ratings are deemed low priority. From there, each risk is assigned one of three risk management actions – retention, avoidance/transfer, or reduction.

- **Risk Retention** – Represent low-likelihood, low-impact events; Covia typically chooses to accept these risks and/or implement low-cost activities to lessen the severity of impact if the risk is realized.
- **Risk Avoidance/Transfer** – Represent relatively high impact and likelihood; Covia typically looks to avoid or transfer liability of these risks to isolate the business from their impact if they are realized.
- **Risk Reduction** – Represent a relatively high impact or likelihood and can be actively controlled for; in these cases, Covia can enact strategic activities to reduce the severity of the impact or the likelihood that the risk is realized.

Specific responsibility for managing each of the identified risks is assigned to members of the ESG Committee and elevated to the ELT and Board of Managers as needed. The climate risk ratings are reviewed annually alongside the environmental risk register results.

Integration into Risk Management

Our commitment to ESG and successful management of climate-related risks and opportunities is demonstrated by the integration of these considerations into our existing risk management processes.

Each business unit or department within our operating segments has its own processes to control for the dynamic and specialized nature of risks and their associated impact. Each business unit appoints an individual to oversee the risk management process. This process begins with risk identification, which may involve brainstorming sessions, workshops, interviews with key personnel, review of historical data, or an analysis of industry trends. Once risks are identified, each department assesses and prioritizes the risks based on their likelihood and potential impact, and consequently assigns appropriate risk mitigation actions. From here, department risk leads are responsible for monitoring the effectiveness of risk controls, tracking changes in risk exposure over time, and communicating across departments as necessary. Risk management is an iterative process at Covia, in which each department regularly reviews and updates its risk indicators based on changes in the operating environment.

Climate-related risks are considered within each department's risk management process, consistent with the approach described above. The tables in the Risk Identification section discuss how various climate-related risks may impact different Covia departments. For example, the finance, operations, and procurement teams would all be responsible for assessing and monitoring the risk of rising electricity costs for their department. Risk mitigation and transfer activities would be outlined by each respective team. As necessary, the teams will come together to discuss shared risk items and determine the best approach to manage the risk.

By following this process, Covia ensures that climate-related risks are effectively identified, assessed, mitigated, and monitored within their respective areas of responsibility.

Metrics & Targets

Climate-Related Approach

Covia is committed to meeting or exceeding environmental compliance requirements by creating a high level of environmental awareness, proactively managing environmental risks, promoting more efficient use of resources, encouraging wildlife and habitat conservation, maintaining strong stakeholder relationships, and protecting the land where we operate. We commit to conducting business as a responsible corporate citizen by striving to:

- Conform with applicable environmental requirements and industry standards;
- Understand potential impacts to the environment and minimize risks and liabilities;
- Operate sustainably; and
- Be good stewards of the land under our care.

Scope 1 and 2 Emissions

In 2023, we completed collection of Scope 1 and Scope 2 emission data across our global operations for the prior year. We calculated a value of **410,244 t CO_2e** for Scope 1 emissions and **259,666 t CO_2e** for Scope 2 emissions.

With uniform data collection in place and baseline metrics established, we have started to implement practical objectives and targets to advance our environmental performance across relevant areas. We will regularly evaluate our environmental programs, methods, objectives, and targets, and we will seek to align our approaches with changes in the business and industry best practices, as well as the expectations of our valued stakeholders.

Climate-Related Goals and Targets

Through our **Goals That Inspire**, we have established aggressive commitments with targeted and measurable metrics, which will require innovation, collaboration, and problem-solving from everyone in the organization. Our strategy is designed to not only meet the needs of stakeholders today, but to ensure a sustainable future for generations to come. Our environmental stewardship goals are:

- Implement an Environmental Management System (EMS) at every mining and processing site;
- Reduce greenhouse gas emissions by 20% on a per ton basis from 2021, our baseline year;
- Protect essential water supply by reporting consumption at all sites and recycling 90% of water within stressed areas;
- Implement a conservation biodiversity initiative at all sites, with 50% of our mining and processing sites achieving and maintaining Wildlife Habitat Council (WHC) certification;
- Develop a conservation plan for 100% of our mining and processing sites that have a species-at-risk present; and
- Improve ratio of land rehabilitated to land disturbed.

Additional details around our emissions metrics and targets are disclosed in the Energy Efficiency and Emissions section of our Corporate Responsibility Report.