

# Sustainable. Innovative. Responsible.

2023 ESG Report

TSX | MEG

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# Land Acknowledgement

At MEG, we provide land acknowledgements to show gratitude and appreciation to the Indigenous communities who have lived on Turtle Island since time immemorial. Along with a deep understanding of its context, history and meaning, making a land acknowledgment is a small but important first step in the reconciliation process between all treaty people.

# **Regional Land Acknowledgements**

### Our Head Office is in Calgary

We acknowledge the traditional Treaty 7 territory of the Blackfoot Confederacy: Siksika, Kainai, Piikani, as well as the Îyâxe Nakoda and Tsuut'ina nations. We are situated on the land where the Bow River meets the Elbow River, and the traditional Blackfoot name of this place is "Mohkinstsis" which we now call the City of Calgary. We acknowledge that this territory is home to the Métis Nation of Alberta, Region 3 within the historical Northwest Métis homeland.

# Our Site Operations are at Christina Lake

We acknowledge Treaty 8 territory — the traditional and ancestral territory of the Cree and Dene. We acknowledge that this territory is home to the Métis Settlements and the Métis Nation of Alberta, Regions 1, 4, 5 and 6 within the historical Northwest Métis Homeland. We acknowledge the many First Nations, Métis and Inuit who have lived in and cared for these lands for generations.



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of ESG

Calgary, Alberta



Christina Lake, Alberta

# **About This Report**

The ESG Report ("the report") and associated disclosures represent MEG's ongoing commitment to transparency and the disclosure of Environmental, Social and Governance (ESG) topics and performance metrics relevant to our business and our stakeholders.

The report focuses on ESG topics our stakeholders have identified as important and that have potential impact on MEG's success as identified in our ESG Materiality Assessment (conducted in early 2023). For more details on MEG's approach to managing ESG topics, see relevant pages or sections in this report.

#### Scope

The report covers the ESG performance of MEG's 100 per cent owned and operated asset, the Christina Lake Regional Project (CLRP), unless explicitly stated otherwise. All other assets are currently not developed. MEG does not hold any operated or nonoperated joint venture interests. This report focuses on performance and activities from January 1 to December 31, 2022, and significant events early in 2023.

The accompanying **ESG Performance Data** (EPD) Report provides historical data, where available and appropriate, to share trends. Data exclusions or additions are noted throughout the report. Financial data is stated in Canadian dollars and in a manner consistent with our 2022 reports and regulatory filings. Environmental data is reported in metric units.

#### Framework

Where applicable, indicators used in this report align with internationally recognized standards and frameworks relevant to the energy industry.

This report is aligned to the Sustainability Accounting Standards Board (SASB) and Task Force on Climate-Related Financial Disclosures (TCFD) reporting frameworks and, where applicable, reflects the TCFD pillars: governance, strategy, risk management, and metrics and targets.

The report references the Global Reporting Initiative (GRI) Standards; however, it does not include all requirements to be considered in accordance with GRI Standards. Refer to the EPD Report on our website at www.megenergy.com.

We support the United Nations Sustainable Development Goals (SDG) and believe our actions contribute to the 2030 global development priorities. This report includes references to the SDGs.

For additional detail on our financial performance and information about our business, refer to our financial statements, our Management's Discussion and Analysis and Annual Information Form (AIF) which are also filed on SEDAR+. In most cases, we use standard industry calculation methodologies and definitions. We aim for continuous improvement of these standards, as well as our internal tracking and measurement systems, to improve the accuracy of the performance data. If, as a result, adjustments to previously reported performance data are required, they are noted in the footnotes of the EPD Report and SASB Index.

#### **Forward-Looking Statements**

Certain statements contained in the report may contain forward-looking statements and forwardlooking information within the meaning of applicable securities laws. Refer to the notice regarding **Forward-Looking Information** in this report.

#### Assurance

As part of MEG's continued commitment to standardize our reporting methodology, we engage a third party to perform assurance on select performance indicators included in the report. To read the complete assurance statement, see page 21 of our EPD Report.



# **About Us**

We are a leading pure play in situ thermal oil producer.

MEG is an energy company focused on sustainable in situ thermal oil production in the southern Athabasca oil sands area of Alberta, Canada. MEG transports and sells thermal oil (known as Access Western Blend or AWB) to customers throughout North America and internationally. With proven, proprietary innovative technologies, we are reducing our energy and water use, capital and operating costs and greenhouse gas (GHG) emissions.

MEG is a proud member of the Pathways Alliance, a group of six oil sands producers working together to achieve the ambitious national goal of net zero<sup>(1)</sup> GHG emissions by 2050.

MEG is proud to be part of a vital industry promoting responsible resource development and fueling our economy.

MEG is actively developing innovative enhanced oil recovery projects that use steam-assisted gravity drainage ("SAGD") extraction methods to improve the responsible economic recovery of oil and to lower carbon emissions.

(1) Scope 1 and 2 GHG emissions

(2) Reserve Life Index ("RLI") is calculated by taking the Company Gross Reserves from the GLJ Report and dividing them by the projected 2023 production as estimated in the GLJ Report.

(3) At production of appropriately 103,000 bbls/d

MEG owns approximately 1,100 square kilometres of leases in two key areas.



### Christina Lake

The Christina Lake Regional Project is currently the focus of MEG's oil development.

#### Surmont

The Surmont Project is a potential future multi-phased development.



# Beneath the surface of MEG's Christina Lake leases are an estimated two billion barrels

of proved plus probable reserves. This large resource base is the foundation of our current production and future growth plans with greater than a 50-year reserves life index.<sup>(2)(3)</sup>

### ALBERTA



#### Pathways Alliance Proposed Foundational Project

- 1 Oil sands upgrading, mining and in situ area
- **2** 400+ km CO<sub>2</sub> transportation line
- **3** Oil sands in situ recovery area
- 4 Joint carbon storage hub

# **Our Purpose**

Our purpose is to supply the world with environmentally and socially responsible energy, while generating long-term value for all our stakeholders.



We are proudly Canadian. Our operations are located in Canada, which ranks #1 for its environmental, social and governance practices among the world's top proved plus probable oil reserve holders.



We are committed to supplying the world with affordable, secure, environmentally and socially responsible energy.



We are a founding Pathways Alliance member and are committed to providing sustainable energy while meeting our net zero<sup>(1)</sup> GHG emissions targets by 2050. **Our Values** 

#### We are MEG to the Core

What does that mean to us? It means we have pride in who we are and where we are going. Safety is foundational in every value, as our people are at the core of our success.

MEG to the Core anchors our five values. Every business decision we make, no matter how big or small, aligns with our values and how we are moving forward.



# **Our Operating Priorities**

At MEG, we get it right because we follow our priorities in this order:





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We care for the environment and communities in which we live and operate.

We care for ourselves

and all others.



We care for our business and long-term performance.



(1) Scope 1 and 2 GHG emissions

# 2022 Highlights



Divest Idle Material program reduced 20 surplus storage sites to seven

One of 19 carbon capture and storage (CCS) proposals chosen to

proceed to next stage of evaluation by the Alberta government

Working collaboratively with the Federal and Provincial governments on fiscal and regulatory support

**System** based on responsible operating principles

(1) Scope 1 and 2 GHG emissions

Pathways

Alliance

in situ average<sup>(5)</sup>

(4) Alberta Oil Sands Greenhouse Gas Emission Intensity Analysis, AEP. 2020-2022 is estimated.

Founding member of

the Pathways Alliance

(5) In Situ industry average water intensity obtained from AER Water Use Report.

Fresh water use intensity is less than half the

# **CEO Message**

Since the release of our 2021 ESG report, MEG has continued to advance our strategies to deliver safe and reliable energy to Canadians and the world while balancing the interests of our stakeholders and the communities where we live and work. As with our 2021 report, we conducted a materiality assessment with key stakeholder groups to help us identify areas of focus to advance our ESG activities.

Balancing the trilemma of ensuring energy security, providing affordable energy and reducing GHG emissions, requires a comprehensive approach that includes investing in clean technologies, diversifying our energy portfolio, enhancing energy efficiencies, and supporting the innovative projects that will get us there. As Canadians, our pursuit of a sustainable energy future requires collaborative efforts, smart policy and a longterm vision for balancing these competing interests.

With energy demand continuing to rise and the global events of 2022, we are reminded that energy security and affordability remain equally important considerations while working to achieve net zero<sup>(1)</sup> GHG emissions. Recent world events, including trade disputes, the COVID-19 pandemic and conflict in Russia and Ukraine, raise concerns about the stability and access to critical energy resources. We cannot let energy supplies be weaponized, and we must remain focused on energy affordability, security and supply, alongside our impact on the environment.

Industry is facing complex energy challenges which demand strategic solutions to address these areas. In 2021, MEG and five other oil sands producers, together representing about 95 per cent of oil sands production, put our commitment into action by forming the Pathways Alliance, to work collaboratively to reach net zero<sup>(1)</sup> GHG emissions from our collective operations by 2050. Our work to advance the Pathways Alliance continues, and we made meaningful progress in 2022 towards Pathways' proposed foundational Carbon Capture and Storage (CCS) project, which will transport CO<sub>2</sub> via a 400-kilometre pipeline from oil sands facilities to an underground storage hub in the Cold Lake region of Alberta.

Achieving net zero<sup>(1)</sup> operations by 2050 requires stakeholder engagement, partnerships with all levels of government, and transparency around our progress. Our transition to sustainable energy depends on our ability to advance emerging technologies that complement our assets and allow us to reach our net zero<sup>(1)</sup> GHG emissions target by 2050. We are committed to making this not only a company-wide effort, but also working with other producers to achieve this ambitious goal.

We advanced other key ESG activities, with a continued focus on our people. In 2022, we published our new Diversity, Equity & Inclusion Policy, solidifying our commitment to ensuring MEG is a place where all of our team members are respected, valued and heard. This focus on amplifying the voices of every team member will improve our decision-making, innovation, employee engagement and retention, and enhance the long-term success of our organization. From a governance perspective, I am pleased to share that in 2022, we reached our Board composition targets of 30 per cent female and 40 per cent diverse persons ahead of our 2025 target.

Maintaining safe, sustainable and reliable operations is key to our success. We continue to advance safety management programs and systems to further enhance these practices. In 2022, we launched our Safety Leadership Program to reinforce our safety practices, take immediate corrective action when necessary, and share key learnings. We also launched Stop–Think–Plan, our safety awareness program, to encourage everyone to proactively think about safety planning before starting work. Together with our Operations Excellence Management System (OEMS) elements, these focus areas help to ensure that everyone goes home safely each and every day.

I am proud of the efforts our team at MEG has demonstrated to make meaningful progress in ESG activities across our business.



We are committed to continuous improvement while remaining dedicated to providing sustainable, innovative and responsible energy solutions.

On behalf of our leadership team, we thank you for your continued support.



**Derek Evans** President and Chief Executive Officer



(1) Scope 1 and Scope 2 GHG emissions

# **Our ESG Approach**

Business Model Resilience and ESG Governance are foundational commitments at MEG. They reinforce our drive for strong financial discipline and good governance with the highest ethical standards. Generating attractive returns and integrating ESG matters into our business strategies ensures value creation today and tomorrow.

# **Our Foundational Commitments**



Business Model Resilience



Governance

Business model resilience is underpinned by our 100 per cent-owned, high-quality, low-decline, long reserve life (greater than 50-year reserves life index) assets, which is the foundation of our current production and future growth plans. This asset, combined with best-in-class operating capabilities, delivers low full-cycle breakeven costs and a strong competitive position globally. In addition:

allows for strong partnerships

with local and Indigenous

communities for decades



**Our geographic density** permits us to economically develop the resource while minimizing environmental impacts

**Our asset longevity** 

to come



**Our marketing strategy** provides access to affordable energy to highvalue markets in Canada and around the world



# **ESG** Materiality Assessment

The success of our business requires input and feedback from our stakeholders and the communities in which we operate. In early 2023, we conducted a formal ESG materiality assessment to identify, prioritize and validate the ESG topics most likely to impact the long-term value of our business. Our materiality assessment was a three-step process:

### Identify

First, we developed a list of potential priority ESG topics and a framework for engagement that drew upon the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI) frameworks, peer benchmarking and industry trends and best practices.

### Prioritize

Second, we gathered feedback from stakeholders through surveys and interviews. We asked select members of the Board of Directors, employees and neighbouring Indigenous communities to assess the topics in terms of "Stakeholder Interest" and "Impact on Business Success from a Financial Perspective" relative to time horizons.

### Validate

Third, we sought third-party expertise to weigh the results of the assessment and prioritize ESG topics based on risk to our business. We validated six primary topics for focused reporting. The results were used to develop MEG's priority ESG topics and drive our ESG strategy.

# **MEG's Priority ESG Topics**

The following topics are discussed in this report within the relevant **Environment**, **Social** and **Governance** sections. **These six priority topics are deemed critical to our business success:** 



) Health ) and <u>Safety</u> Climate Change and GHG Emissions

Water Management Energy Security S Energy Affordability

# Other significant ESG topics we are monitoring

- » Biodiversity Impacts
- » Air Quality
- » Waste Management
- » Critical Incident Management
- » Talent Management

- » Diversity, Equity & Inclusion (DE&I)
- » Supply Chain Management
- » Business Ethics and Transparency
- » Cybersecurity

This report provides a detailed assessment of MEG's six priority ESG topics. Those identified as secondary ESG topics are also discussed.

### Risk Management

We incorporate these risks within our Enterprise Risk Management (ERM) system, which is discussed in greater detail under Risk Management.

### United Nations Sustainable Development Goals

The 17 United Nations Sustainable Development Goals (SDGs), which represent a framework for a sustainable future by 2030, emphasize that economic growth must go hand in hand with social responsibility and protecting our planet. Our industry is a pillar of the global energy system and a key component of the economy. In our **ESG Performance Data (EPD) Report** we map the SDGs most relevant to our ESG goals and summarize our progress. We also include relevant SDGs at the beginning of each ESG topic throughout the report.

# Environment

We are committed to minimizing and mitigating environmental impacts associated with our business and respecting the natural resources of the communities where we work. Our operations are in a jurisdiction with stringent environmental regulations, climate policy and carbon pricing, so strong environmental stewardship is a critical component of our business model resilience.

**Relevant SDGs** 

CLEAN WATER

6

13 CLIMATE ACTION

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# **Climate Change and GHG Emissions**

# Why is This Important?

We understand the importance and momentum behind the energy transition, and recognize the increasing demand from shareholders, policy-makers and society at large for responsibly developed, low-carbon energy.

With energy demand continuing to rise and the global events of 2022, we are also reminded that energy security and affordability remain equally important considerations while working to achieve net zero<sup>(1)</sup> GHG emissions.

Canada has a climate policy in place and global trends point toward increasing stringency in climaterelated regulation. The oil and gas sector's response to climate change risks is in the spotlight, including enhanced disclosure aligned with the Task Force on Climate-Related Financial Disclosures (TCFD).

### **Our Approach**

We are proud of our significant progress in reducing the GHG intensity of our production. With the use of cogeneration, increased energy efficiency and various proprietary reservoir technology advancements that reduce the steam to oil ratio (SOR), we have decreased our bitumen GHG intensity by more than 15 per cent below the in situ industry average<sup>(4)</sup>.

We are committed to supporting global and national climate change objectives, in particular the Paris Agreement goals to limit the average global temperature increase to well below 2°C and pursue efforts to limit it to 1.5°C.

This includes the Government of Canada's direction to establish domestic targets under the Paris Agreement, namely, achieving net zero GHG emissions by 2050, by way of a framework that promotes transparency and accountability.

We continue to strengthen the alignment of our disclosures with TCFD, with the ultimate objective of providing disclosure on all 11 recommendations. Through these efforts, we believe we are well positioned to seize climate-related opportunities and play our part in addressing climate change.



Christina Lake Regional Project



Scope 1 and 2 GHG emissions
 Alberta Oil Sands Greenhouse Gas Emission Intensity Analysis, AEP. 2020-2022 is estimated.

### **Our Commitments and Targets**

We have set a target to achieve net zero<sup>(1)</sup> GHG emissions by 2050. In addition, we have revised our mid-term target to focus on reducing our absolute GHG emissions by 0.63 megatonnes by year-end 2030. This target is approximately a 30 per cent reduction from our 2019 emissions levels.



Our first milestone will be to achieve a mid-term target of reducing our absolute GHG emissions by 0.63 megatonnes per annum by yearend 2030, which is why we are invested in several collaborative and innovative advancements today that will lead to future success.







The path to net zero<sup>(1)</sup> GHG emissions by 2050 is not without its challenges and will require a series of improvements and the deployment of CCS technology. We expect that we will achieve reductions through a variety of measures that may include:



Offset opportunities and nature-based solutions that are aligned with our business

(1) Scope 1 and 2 GHG emissions

### Governance

#### Board Oversight of Climate-Related Risks and Opportunities

The Board of Directors is responsible for the oversight of ESG, including climate-related risks and opportunities. Climate change is built into our ERM process, the results of which are reviewed at the Board's annual strategy meeting. The Health, Safety and Environment and Reserves Committee (HSERC) is responsible for overseeing the implementation of policies and procedures to monitor and mitigate environmental risks, including climate change. The Board and HSERC receive updates from the CEO and representatives of our internal ESG and Health, Safety & Environment (HSE) Committees quarterly on our GHG performance, climate strategy, advancement of emissions-reducing technology solutions, climate policy developments (including carbon pricing mechanisms) and other climate-related topics as applicable.

The Board previously approved MEG's support of the Paris Agreement and the 2050 net zero<sup>(1)</sup> GHG emissions target and in early 2023, approved our updated 2030 mid-term absolute GHG reduction target.

The Board also approves the annual Corporate Performance Scorecard, long-term incentive metrics and CEO objectives, which include climate performance and strategy metrics. The Board is committed to supporting the continuous improvement of our GHG performance and climate change disclosure in alignment with the TCFD recommendations.

For more information on our Board Skills Matrix, including skill descriptions and governance structure, visit our Management Information Circular.

Individual Board members have also received resources and training related to climate change education. For more detail on Board oversight of ESG, please see the Governance section of this report.



#### Management's Role in Assessing and Managing Climate-Related Risks and Opportunities

The Board and its committees oversee management, who is responsible for executing our corporate strategy including the assessment and management of ESG, including climate-related risks and opportunities; the ultimate responsibility within management rests with our CEO. A portion of the CEO and management team's incentive compensation is tied to our ESG performance. This ensures a strategic focus on material ESG and climaterelated risks and opportunities across the organization.

The ESG committee, which consists of senior management, assists the CEO in assessing and managing climate-related risks and opportunities and provides guidance on our climate change strategy and disclosure when they meet on a quarterly basis. The CEO reports to the Board quarterly on our ongoing ESG performance and status of climate initiatives. In 2023, the ESG Committee oversaw and validated our second formal ESG Materiality Assessment, which identified Climate Change and GHG emissions as a priority ESG topic.



The Board's Governance and Nominating Committee assesses the skill

set held by each Board and Committee member on an annual basis to ensure they meet the needs of our business, operations and strategic objectives.

(1) Scope 1 and 2 GHG emissions

# **Climate Strategy**

### **Climate-Related Risks and Opportunities**

Transitional and physical climate-related risks and opportunities that have the potential to impact our business are summarized below.

Transitional risks	Policy and Legal Risks	<ul> <li>The uncertainty associated with current and emerging provincial and federal government policy relating to GHG emissions could potentially require changes to facility design and operating requirements and impair our ability to meet regulatory requirements. Government regime changes can contribute to uncertainty.</li> <li>Changes to GHG regulations over time, including more stringent benchmarks and higher carbon prices, could impact our ability to meet regulatory requirements and maintain cost competitiveness.</li> </ul>	Chronic S. Physical Risks	» Chronic risks from climate change could impact the long-term operating environment for MEG by altering precipitation and temperature patterns and changing the severity of weather patterns. These changes can affect our direct operations or result in disruptions along the supply chain, impacting our ability to produce or transport product.
			Acute Physical Risks	» Acute risks include catastrophic events such as fires, lightning, extreme cold weather, or storms, which may cause damage to our infrastructure, impact accessibility to our properties and cause interruptions to production.
	Market Risks	<ul> <li>Constrained availability of transportation infrastructure to the highest-value markets, as a result of negative public perception of oil sands and delayed regulatory approvals for infrastructure.</li> <li>Decreased market demand due to legislation or policies that limit the purchase of oil sands products.</li> </ul>	Resource Efficiency	<ul> <li>» Significant cost savings due to efficiency gains realized from the expansion of our reservoir technology.</li> <li>» Meeting and exceeding emissions performance regulations in Alberta can result in the generation of surplus emissions performance credits.</li> </ul>
	Technology Risks       » Availability, feasibility and/or cost effectiveness of current and future GHG emissions reduction technologies may impact our ability to achieve our medium-term and long-term targets and maintain cost competitiveness.       » The pace of technological advancements and innovations associated	ie.	Energy Source	» Climate legislation is driving the demand for low-carbon energy generation, creating a demand for our cogeneration-produced electricity and potential for future increase and expansion.
		Markets	» The transition to a less carbon-intensive economy creates technological development opportunities, including access to capital and government funding. We continue to receive support to advance several technological strategies and accelerate development of CCS.	
	Reputational Risks	<ul> <li>with the energy transition may impact demand for our products.</li> <li>Negative public perception of the oil sands and evolving decarbonization policies of investors, lenders and insurers could impact our ability to access capital or attract employees</li> </ul>	O Resilience	<ul> <li>The location and design of our facilities allows us to operate under various climate conditions, and any potential climate-related acute and chronic physical risks are mitigated through engineering design and operational procedures which are continually reassessed to maintain resilience as risk levels change.</li> <li>The localized nature of our operations, including one facility and the second second</li></ul>
L.		implet our dointy to decess cupital or attract employees.		a small number of combustion stacks, allows us to focus efforts on CCS deployment.

We incorporate these risks within our Enterprise Risk Management (ERM) system, which is discussed in greater detail under Risk Management.

#### Impact on Strategy

As the world moves toward a low-carbon future, our corporate strategy recognizes and addresses the business risks arising from climate change concerns. Although the timing and impact of the energy transition is highly uncertain, we are focused on proactively enhancing our position as a sustainable low-cost producer while economically achieving net zero<sup>(1)</sup> GHG emissions from our operations and creating long-term value for our stakeholders.

Climate change concerns and the growing shift to low-carbon energy, as well as opportunities for technological innovation and efficiency improvements, have influenced our business strategy. We believe collective efforts from governments, industry and financial institutions are required to support the development of carbon reduction technologies and ensure a successful transition. There will be an economic cost associated with mitigating the impacts of climate change. The impacts of these expected costs are subject to many uncertainties, particularly as they relate to the influence of financial markets and carbon pricing. We continually model various business strategies, financial scenarios, carbon prices and potential outcomes that support the achievement of our long-term net zero<sup>(1)</sup> GHG emissions 2050 target.

We also review sensitivities to potential regulatory changes and cost estimates of carbon-reducing technologies, such as CCS, considering financing risk and the potential impact to business model resiliency. We continue to allocate additional growth capital to maintain current carbon-reduction initiatives, such as our proprietary enhanced modified steam and gas push (eMSAGP).

We recognize the value of climate scenario analysis in our strategy and have conducted an updated analysis, aligned with TCFD recommendations, in 2023. One key pillar of our strategy is the advancement of innovative technology through research and development, and collaboration.





(1) Scope 1 and 2 GHG emissions

### **Climate Scenario Analysis**

MEG assessed our business resilience in a lowercarbon world through climate scenario analysis using the International Energy Agency (IEA) Stated Policies Scenario (STEPS) and Announced Policies Scenario (APS). We used this analysis to determine whether we would generate sufficient cash flow to meet our ESG, operating and financial objectives through to 2050. This analysis considered both quantitative and qualitative factors in assessing energy transition risks and opportunities.

The two scenarios MEG selected consider a range of variables, including the supply and demand outlook for oil, electric vehicle penetration rates, transportation infrastructure, behavioural changes, technological availability, and climate regulations in various jurisdictions. The IEA scenarios are widely recognized, which provides comparability across organizations. They provide a baseline for analysis and do not represent MEG's predictions of what will take place in the future.

STEPS uses only policies currently in place to achieve existing targets and objectives. Alternatively, under the APS it is assumed governments meet all aspirational climate targets on time and in full, which results in significantly lower future oil demand. The APS is in alignment with the Paris Agreement to hold the global average temperature increase below 2°C by 2050.

The results of our analysis provide us confidence that MEG's business plans are achievable under the STEPS and APS demand and pricing assumptions. As the world transitions to a lower-carbon economy, our long-life assets with low decline rates, coupled with our steadfast commitment to reducing GHG emissions, position MEG to be a resilient business and preferred supplier of responsibly produced oil. Stated Policies Scenario (STEPS) (Existing Policies and Commitments)



Announced Policies Scenario (APS) < 2.0°C scenario

Global oil demand peaks in the mid-2020s

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New upstream projects are still needed to offset existing field declines and long-term oil price stabilizes around US\$60/bbl

This scenario keeps global temperature rise to approximately 1.7°C

# Path to Net Zero<sup>(1)</sup>

The path to net zero<sup>(1)</sup> GHG emissions by 2050 is not without its challenges and will require improvements across a variety of pathways and the deployment of CCS technology.

Undeniably, there will be additional work to reach our target of net zero<sup>(1)</sup> GHG emissions, but we believe the collaborative and innovative advancements in progress today will lead to future success. We expect to achieve reductions through a variety of measures that may include:



As we evaluate major opportunities and execute on our path to net zero<sup>(1)</sup> GHG emissions, we will continue to evaluate technology advancements to assess commercial scalability and explore the GHG emission reduction potential of those technologies.

(1) Scope 1 and 2 GHG emissions

# **Pathways Alliance**

As one of Canada's largest carbon dioxide  $(CO_2)$  emitters, the oil sands industry has a key role to play in helping Canada meet its 2030 emissions reduction commitment and 2050 net zero goal. Canada's six largest oil sands producers are working together with governments on an ambitious and actionable plan.

Pathways' plan involves industry and government working together to reduce  $CO_2$  emissions by 22 million tonnes per year from oil sands operations by 2030 and achieve net zero<sup>(1)</sup> GHG emissions from operations by 2050.

Pathways' proposed foundational project is a carbon capture and storage (CCS) network and transportation line that will have the capacity to transport captured  $CO_2$  from more than 20 oil sands facilities in northern Alberta to a hub in the Cold Lake area of Alberta for permanent underground storage.

The line would also be available to other industries in the region interested in capturing and storing  $CO_2$ .

Pathways' CCS project alone could reduce annual net  $CO_2$  emissions from operations by about 10 to 12 million tonnes by 2030 which is the equivalent of taking more than 2 million cars off the road. The early engineering and environmental assessment work, along with engagement with local stakeholders, is well underway.

Partnerships with the federal and provincial governments can position Canada as a world leader in emissions reductions though fiscal incentives and efficient regulatory processes that enable the building of carbon capture, transportation and storage infrastructure. Pathways is also pleased to have been awarded evaluation rights from the Government of Alberta for our proposed carbon storage hub.

The first phase of the Pathways plan, including the CCS project, is estimated to generate more than \$24 billion in investment and create an estimated 15,000 to 20,000 construction jobs between now and 2030.

Carbon capture and storage is a proven, effective and ready technology. The geology in Alberta is ideally suited for storing  $CO_2$ . This, coupled with the expertise gained through long-standing CCS projects in Alberta, Canada and around the world, provides a competitive advantage for the province to enhance its standing as a world leader in CCS.

Achieving net zero<sup>(1)</sup> GHG emissions from oil sands production will require multiple paths, including existing technologies such as carbon capture, while also advancing process improvements and several other technologies such as hydrogen, direct-air capture and possibly the safe deployment of emissions-free small modular nuclear reactors to generate steam and power.

Pathways Alliance is a model for all sectors within Canada and globally to demonstrate how competing peer companies can work together for a common goal. Achieving Pathways' ambitious goals will help address climate change, provide energy security, and ensure the sector can significantly contribute to the Canadian economy and support hundreds of thousands of jobs from coast to coast to coast.



Launched in 2021, the Pathways Alliance is made up of Canadian Natural Resources, Cenovus Energy, ConocoPhillips Canada, Imperial Oil, MEG Energy and Suncor Energy, and represents approximately 95 per cent of oil sands production.





# Pathways Alliance Progress



Formal consultation with about 25 Indigenous groups along the proposed CO<sub>2</sub> transportation and storage network corridor is underway; committed to meaningful engagement throughout the full cycle of the network's operations

Selected by the Government of Alberta to continue exploratory work on the Alliance's ambitious CCS hub to safely and permanently store CO<sub>2</sub> captured from 20+ oil sands facilities and other interested industries in Alberta; working to conclude a carbon sequestration agreement with Alberta by year-end 2023

captured CO<sub>2</sub> to the storage hub; awarded contract in Q1 2023 to global engineering and consulting company to develop detailed plans such as pipe size, materials, design of monitoring stations and route

Conducting engineering studies for the phase 1 CO<sub>2</sub> capture facilities

» Nine carbon capture feasibility studies involving member companies have been completed on oil sands sites with engineering work advancing

Environmental field programs are underway to support regulatory application submissions for the proposed CO<sub>2</sub> transportation line and storage network

Canadian federal government announced measures in its 2023 budget to provide greater policy certainty to support and incentivize investment in clean technologies including carbon capture, through an Investment Tax Credit; Alberta government considering support through a financial incentive program

#### We need multiple parallel pathways. These include improvements to the current process as well as emerging

technologies. Other avenues include electrification, fuel substitution and improved energy efficiency.

Pathways Three-phased Approach

No one solution will get us to net zero<sup>(1)</sup> GHG emissions.



• CCS

• Process Improvements

- Electrification and Fuel Substitution
- Energy Efficiency
- Other Levels
- Emerging Tech (e.g., Direct Air Capture) of Offsets



Additional information can be found at pathwaysalliance.ca

(1) Scope 1 and 2 GHG emissions

# Management of Climate Risks and Opportunities

### Advancement of Subsurface Technology

An important aspect of our strategy is the continued advancement of subsurface technologies. Our eMSAGP technology can reduce the steam to oil ratio (SOR), GHG emissions and water use while maintaining or improving oil recovery. The technology involves co-injecting a non-condensable gas into the reservoir with steam. The non-condensable gas helps maintain reservoir pressure and free up steam to be redeployed into new SAGD well pairs. This improves capital efficiency and reduces emissions intensity.

The application of subsurface technologies has helped MEG lower our GHG emissions intensity more than 15 per cent below the in situ industry average<sup>(4)</sup>. MEG achieved an average SOR of 2.36 in 2022 compared to the in situ industry volume weighted average of 3.0<sup>(7)</sup> and a decrease from 2.43 in 2021.



# Low-carbon Energy from Cogeneration

Cogeneration is an integral component of our operating model. It was adopted to fully meet our internal demand for power, which reduces our reliance on an external power supply, offsets operating costs and allows us to provide excess power back to the provincial power grid.

Our power is generated through natural gas combustion, which has an emissions intensity roughly 40 per cent that of coal. In addition, waste heat is recovered from power generation and used for steam generation to supply approximately 40 per cent of our steam. The net effect is lower overall emissions than if the two products are produced independently. In 2022, we exported approximately 70 per cent of our total generated power onto the provincial power grid, thereby reducing the overall GHG intensity of provincial power supply.

### Gas Conservation Facility Design

The unnecessary venting and flaring of gas (primarily methane) has been virtually eliminated through facility design, enabling us to direct gas from the reservoir into fuel to generate steam. Our facility captures gas from various streams and recycles it into the process, which reduces GHG emissions. In 2022, gas conservation at MEG was 99.6 per cent, which is above the provincial average for crude oil and bitumen facilities of 97 per cent as of 2021.

### Carbon Capture and Storage Technology

We will continue to evaluate and deploy technologies to decrease the GHG emissions of our business. However, we have determined through technological and economic analysis that carbon capture and storage (CCS) is the single-biggest lever to deploy on our long-term path to net zero<sup>(1)</sup> GHG emissions. Alberta is well positioned to continue its leadership in CCS deployment due to the centralized nature of GHG emissions at oil sands operations, and the depth and capacity of the Western Canada Sedimentary Basin to store CO<sub>2</sub> safely and permanently.

We advanced carbon capture planning for our Christina Lake facilities and selected capture technology to proceed with our first phase. We are currently advancing the design of the carbon capture plant and are optimizing both capital and operating costs via integration with the existing facilities.

The carbon capture plant will feed into the 400-kilometre Pathways Alliance CO<sub>2</sub> pipeline connecting oil sands facilities in the Fort McMurray, Christina Lake, and Cold Lake regions of Alberta to a carbon sequestration hub near Cold Lake.



In 2022, MEG introduced enhanced completion designs and optimized inter-well spacing focused on further reducing SOR.

(1) Scope 1 and 2 GHG emissions

(4) Alberta Oil Sands Greenhouse Gas Emission Intensity Analysis, AEP. 2020-2022 is estimated.
 (7) Annual 2022 data as per the Alberta Energy Regulator ST53

### Digital Technology, Artificial Intelligence and Automation

We continue to innovate with new digital technology across our organization. We believe the latest advancements in visual data analytics, automation and artificial intelligence will add many benefits. We are currently undertaking several digital projects specific to climate that will positively impact GHG emissions performance. One specific project combines artificial intelligence with automation to improve well performance through the optimization of produced fluids. The target will be reduced SOR which in turn drive overall improvements in our GHG emissions intensity.

### Bitumen Value Upgrade and Non-Combustion Usage Technology

This includes hosting a demonstration pilot at MEG's facilities and supplying feedstock to a bench-scale pilot. We are examining opportunities to reduce Scope 3 emissions through the development of alternative, non-combustion uses for bitumen such as asphalt and carbon fibre. These activities include supplying feedstocks and other support for Alberta Innovates Carbon Fibre Grand Challenge and investigating market opportunities for other bitumen-derived products.

#### **Market Access**

We use a network of pipelines, storage facilities, and marine export capacity to optimize market access for the transport and sale of AWB to current and emerging crude oil markets throughout North America and internationally. This combination of physical marketing assets advances our strategy of having long-term, broad and reliable market access to world oil prices, and mitigates risks associated with reputational, regulatory and physical impacts of climate change.

### Facility Resiliency to Physical Risk

We operate in a northern climate and our operations are designed to withstand a wide range of temperature extremes (-40°C to +40°C). We do not operate in a water-stressed environment and the water we use for our operations includes non-potable water from deep underground sources and recycled produced water, which are not susceptible to drought. These factors, along with engineering design and operational procedures, mitigate the chronic and acute physical risks from climate change on our operations.

We actively explore innovative technologies to partially upgrade MEG's bitumen product to maximize pipeline capacity and decrease diluent requirements.





### **Our Performance**

We continue to achieve one of the lowest GHG emissions intensities in the in situ industry and in 2022 our GHG emissions intensity was more than 15 per cent below the industry average<sup>(4)</sup>.

On a year-over-year basis, our GHG emissions intensity decreased by approximately 3 per cent due primarily to a reduction in SOR that resulted from a broader development strategy that focused on enhanced completions design and optimized inter-well spacing.

#### **Scope 1 GHG Emissions**





### **Bitumen GHG Intensity** kg CO<sub>2</sub>e/bbl Thousand barrels per day 80 60





• In Situ Average Industry Bitumen GHG Intensity<sup>(4)</sup>

#### **Electricity GHG Intensity**

kg CO<sub>2</sub>e/MWh



Alberta Average Grid Electrical Intensity<sup>(6)</sup>

(4) Alberta Oil Sands Greenhouse Gas Emission Intensity Analysis, AEP. 2020-2022 is estimated. (6) National Inventory Report (2022 edition), 2021/22 are estimated.

# **Special Focus: Methane Management**

# Why is This Important?

The global warming potential of methane  $(CH_4)$  is more than 25 times that of carbon dioxide  $(CO_2)$  and its management is an important aspect of addressing climate change. As a result of our investments in gas conservation and fugitive emissions management, we are able to conserve 99.6 per cent of methane (a component of our produced gas). As a result, methane comprises less than 0.5 per cent of our total site wide GHG emissions and remains a top priority at MEG.



### **Our Approach**

We proactively manage methane emissions through facility design, flare and vent controls, and a robust Fugitive Emissions Management Program (FEMP). A cross-functional team meets regularly to implement our methane management program and identify reduction opportunities.

Our operational focus on minimizing methane releases is further supported by annual methane reduction targets, in line with Alberta's methane emissions reduction framework, which aims to reduce methane emissions by 45 per cent by 2025 through progressive reduction measures.

Our approach includes the following:

We operate a gas-conserving facility by design, where all produced gas is recycled as fuel for steam generation and reservoir co-injection.

#### ¢

We use our flare and vapour recovery system to control the release of process gases that would otherwise be vented to the atmosphere.

Process valve set points are monitored and carefully configured to maintain safe operations and limit over-pressuring events that can result in releases to the atmosphere. In addition to the design controls listed above, our FEMP uses several inspection techniques, including optical gas imaging, direct measurement of flow rate, permanent instrument monitoring, and targeted monthly and quarterly trending. Comprehensive FEMP surveys are completed by a third-party provider and include annual facility and triannual tank top monitoring.

All identified leaks are consolidated in a central tracking system, where they are analyzed to identify trends and inform proactive methane reduction planning decisions. Most leaks are repaired at the time of identification. If they cannot be fixed upon identification, we arrange a device repair or replacement program within 30 days.

With the execution of this program, we have reliable information and have achieved significant fugitive emission reductions over the past four years. We are evaluating alternative detection technologies, such as drone surveys, that provide an aerial enhancement to identify leaks.

# **Our Performance**

#### **MEG Emission Breakdown**

g CO<sub>2</sub>e/MJ Production



# Water & Wastewater Management

# Why is This Important?

Canada is celebrated for its clean and abundant supply of water resources that provide immeasurable social, economic and environmental value. Our in situ operations rely on a supply of water that is strictly regulated. These regulations limit withdrawal volumes, require monitoring and reporting, and determine water disposal limits. We use water responsibly to preserve both the quality and abundance in the areas where we operate. Efficient water use is a measure of our long-term success and it is our obligation to ensure our operations do not adversely affect this vital shared resource.

# Our Approach

Our thermal operations require water as an input for steam generation. When selecting a water source for our process, the quality and quantity of the supply is considered. At no point is fresh water sourced from streams, rivers or lakes for thermal operations. Most of the water we use in the steam generating process is recycled produced water (non-potable water that was previously injected into the reservoir as steam to heat the bitumen).

The remaining water needed for our thermal operations comes from sources deep underground, which are unsuitable for human consumption or agricultural purposes. This make-up water comes from two sources: a saline water source and a non-saline water source. Saline water is sourced from wells drilled into the McMurray Formation approximately 400 metres deep and used for steam generation. Non-saline water is sourced from wells drilled into the Clearwater Formation approximately 300 metres deep. This water is used first for utility purposes, such as cooling to pumps, then recycled for steam generation. Our operations are located in the Mackenzie River Basin. We do not operate in a stressed watershed, but we recognize that changes in climate or other restrictions could affect the availability of water in the future. We are focused on advancing technology solutions to decrease our water use and increase our ability to recycle water within our operations. This includes incorporating technologies that reduce make-up water demand and enhanced recovery methods that lower the SOR in our operations.

Surface water is not used in thermal operations, but it is used for dust suppression, winter road construction and drilling. All surface water diversion is conducted under applicable Alberta Water Act Licenses. Surface water use management includes water level monitoring to ensure allocated volumes do not draw down water levels in the area and do not impact aquatic life or vegetation.







Zero fresh water used in thermal operations.

### Water Conservation, Recycling, Treatment and Disposal

In support of Alberta's Water for Life strategy, we are committed to water conservation and protecting aquatic ecosystems. Our Water Policy outlines our corporate commitment to support sustainable water use practices and the protection of water resources.

We continually assess opportunities to conserve water resources and optimize recycling. To maintain our high water-recycle rates, we treat produced water returned from the reservoir to a quality suitable for steam generation. Excess produced water and water not suitable for treatment are re-injected into the McMurray Formation, a deep saline reservoir that is isolated by caprock from other aquifers and aquatic ecosystems.

In 2021, we started operation of our mechanical vapour compressor (MVC) unit, which takes the waste stream from our steam generators, concentrates its impurities five-fold in the disposal stream while producing a high-quality water stream that is used as boiler feedwater. The result is less disposal and more effective use of circulating water within our processes.

### **Industry Collaboration**

To promote efficient use of resources at our operations, MEG supports sharing water sources with other operators (within water use limits) and provides road access to man-made sources, such as borrow pits, to reduce the impact of water withdrawal from natural wetlands. MEG is also part of the Christina Lake Regional Water Management Agreement with other operators who work together on water use and disposal management.





MEG's mechanical vapour compressor (MVC)

# **Our Performance**

In 2022, greater than 97 per cent of the water used for steam generation was recycled water, up from 96 per cent in 2021. We also continued to maintain zero fresh water use in our thermal operations in 2022.

MEG's non-saline water use intensity in 2022 was 0.08 m<sup>3</sup>/m<sup>3</sup> oil production, less than the in situ producer average<sup>(5)</sup> and a fraction of that used in other resource recovery technologies.

#### Make-up Water Withdrawals Intensity

m<sup>3</sup> Water per m<sup>3</sup> Oil Production



Since 2015, MEG's non-saline water use intensity has decreased by 75 per cent, while total make-up water withdrawal intensity has decreased by approximately 76 per cent. These reductions leave more water in the ground untouched and decrease the operational costs of water withdrawals.

#### Recycle Percentage and Annual Water Use Volume for Steam Generation



- MEG Recycled Water Volume
- MEG Non-Saline Make-up Water Withdrawal Volume
- MEG Saline Make-up Water Withdrawal Volume
- MEG per cent Recycled Water

Our total water withdrawal, as well as our surface water and ground water usage, has decreased since 2021.



(5) In Situ industry average water intensity obtained from AER Water Use Report.

# Land & Biodiversity

# Why is This Important?

Our operations create a temporary footprint in Alberta's boreal forest, an immense natural resource with a diverse wilderness that is integral to the province's biodiversity. Effective management of our environmental impact and asset retirement obligations are important in limiting our exposure to regulatory and liability costs, as well as reputational risk. We also recognize that we operate within a local herd range of boreal woodland caribou and require targeted management plans to be in place. We acknowledge the land on which we conduct our operations is Treaty 8 territory and shared with citizens of Alberta. As such, it is our obligation to return the ecosystem to its original, fully functioning ecological state.

### **Our Approach**

Proactive land and biodiversity management is integrated throughout our entire project lifecycle and follows the guiding principles of our HSE Policy. Our approach mitigates potential costs while we re-integrate areas back into the surrounding ecosystem in a proactive and responsible manner, returning the land for stakeholder use and stewardship. We consider land and biodiversity implications in the early planning stages of a project.

As each project approaches the end of its operational life, our teams prepare a detailed reclamation plan including landform, drainage, soil placement, revegetation, wildlife habitat enhancements, and maintenance. These plans consider current regulations and guidelines, industry-leading practices, stakeholder feedback, monitoring results and academic research. KO

Before the start of any work, we undertake soil, vegetation and wildlife surveys so the unique conditions are understood and captured in construction plans.





### Reduced Footprint and Efficient Land Use Design

Thermal SAGD projects like our Christina Lake Regional Project are characterized by high-recovery, low-decline production and wells with production life spans of more than 10 years. This means we require fewer well pads over the lifetime of our project to sustain production. In addition, we can consolidate multiple surface pad locations into a "Super Pad" design, further reducing potential habitat fragmentation associated with well pad access roads and pipeline infrastructure.





Using innovative approaches, our well pad surface footprint is less than four per cent of the accessed underground reservoir area.





With the use of multi-well pads, horizontal wells, innovative well pad design and advanced drilling technology, we have decreased the surface well pad footprint in parallel with increasing the resource accessed, thereby being more efficient with our surface disturbance.

# Land Management

#### **Progressive Reclamation**

The intent of progressive reclamation is to initiate ecosystem re-establishment on the portions of our disturbance that we no longer require for immediate operations. This avoids costs associated with management of disturbed areas such as erosion control, weed management, and soil degradation and demonstrates strong footprint management. We undertake progressive reclamation at our facilities as they are decommissioned and abandoned throughout the life of the project.

We continually assess all areas of our operations to identify where we can initiate reclamation efforts.

In the past five years, we have reclaimed five large borrow pits (areas where we source clay to build stable platforms for our facilities and well pads) and are working on a five-year plan to bring two more large borrow pits to reclamation status.

Our reclamation practices, including progressive reclamation, minimize environmental impacts and aim to achieve equivalent land capability. Long-term monitoring of various reclamation techniques is used to inform and improve future reclamation design and procedures.



# Traditional Knowledge and Reclamation

Where possible, we incorporate Indigenous traditional knowledge practices and learnings into our reclamation plans. Based on specific input, we have expanded our reclamation seeding stock to include various important shrub species, and have planted Osier Dogwood, an Indigenous-used plant, in select locations based on knowledge of its traditional uses within surrounding Indigenous communities. Moreover, we have modified specific reclamation methods, based on Indigenous input, to account for wildlife concerns, which has improved and expanded the practices we are implementing.

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Since 2011, we have worked to move more than 135.6 hectares of land to reclamation status, which represents 12.2 per cent of our current active commercial footprint and have planted approximately 480,000 trees.

# **Case Study**

#### Legacy Assets and Area-Based Closure

While MEG has always placed importance on expediting reclamation wherever possible, we have prioritized reclaiming our legacy assets since we voluntarily opted into the Government of Alberta's Area Based Closure (ABC) program in 2019.

The program mandates a minimum annual spend toward liability closure. Since the inception of the ABC program, MEG has exceeded the annual mandatory spend by 50 per cent through closure work, including facility abandonment, well abandonments, pipeline abandonment, environmental site assessments, and well site remediation and reclamation. Abandonment ensures the safe closure of infrastructure and can include isolation and plugging of wells, purging pipelines and dismantling surface facilities; it is considered the step before reclamation.



Since 2019, this closure work has resulted in:

- » the abandonment and reclamation of a large legacy gas facility,
- » 53 legacy gas well abandonments,
- **» 37** kilometres of legacy gas pipelines abandoned,
- **» 59** legacy gas wells moved to reclamation status, and
- **» 11** gas wells achieving reclamation certification.

We expect to continue to exceed the minimum mandatory spend amounts allocated to closure over the next five years as we reduce our legacy inventory.



#### Wildlife Monitoring and Mitigation

Our Wildlife Monitoring and Mitigation Plan and Caribou Monitoring Mitigation Plan ensure potential effects from our projects on surrounding biodiversity are temporary and mitigated. We limit new land disturbances and use existing clearings where possible to minimize impacts to wildlife.

Our in situ operations require above-ground pipelines to take steam to well pads and bitumen back to our plant facility. To allow for wildlife movement across our project, we construct wildlife crossings along existing movement corridors and ensure other areas have enough room below the lines for wildlife to cross. As of 2022, we have 61 wildlife crossings. New well pads built in 2021 and 2022 had pipelines constructed at a height to allow wildlife to travel freely under the pipes. An employee-driven Wildlife Sighting Program, wildlife camera program and acoustic recording units collect data on the movement, diversity, and behaviour of key species native to the area. This information allows us to better understand seasonal wildlife use patterns and how wildlife respond to our disturbances, which helps improve our land and biodiversity management plans.

#### **Industry Collaboration**

We are a long-standing member of the Regional Industry Caribou Collaboration (RICC), a group of energy and forestry companies working collaboratively and led by the government sector to mitigate impacts on northeastern Alberta caribou ranges. Mitigations undertaken by individual companies are important to minimize local impacts on individual animals; however, population-level benefits stem from range-level actions that require collaboration beyond individual company boundaries.





# **Case Study**

#### Wildlife Habitat Council – Certified Gold Member

MEG has been a certified gold member of the Wildlife Habitat Council (WHC) since 2016.

The Wildlife Habitat Council's certification program is the only voluntary sustainability standard designed for broad-based biodiversity enhancement and conservation education activities on corporate landholdings. It provides third-party credibility and an objective evaluation. Gold membership recognizes meaningful wildlife habitat management and conservation that goes beyond basic regulatory requirements and demonstrates a long-term commitment to managing quality habitat for wildlife, conservation education and community outreach initiatives.

We have an array of biodiversity programs that are certified through the WHC. The largest is the caribou habitat restoration program which we undertake in support of the threatened species; it earned an award from the WHC in 2020. We also run a bat enhancement program with bat boxes placed at our site, as well as a Canadian Toad habitat project in support of that species, which may be at risk in Alberta.

A new project we implemented in 2021 that is certified as a WHC-eligible project is a biochar trial, undertaken in a partnership between MEG, and researchers and students from Saskatchewan Polytechnic. Biochar is a substance made from organic biomass that has been thermochemically converted to charcoal. This product is highly regarded for its ability to increase soil productivity. Biochar permits improved soil health through various pathways including the ability to selectively make up for nutrient and microbial deficiencies. Additionally, the proposition of sequestering large volumes of soil organic carbon has direct relevance for a solution-based approach to anthropogenic climate change. This research being conducted at our site will examine biochar's role in revitalizing stockpiled soils by conducting a three-year assessment of black spruce growth and survival on a disturbed borrow pit site.



Researchers at Pit 31 Biochar trial area.



MEG employees at the Canadian Toad habitat enhancement site.



MEG receives Wildlife Habitat Council award in the Mammal Project category in recognition of our successful caribou habitat restoration program at Christina Lake.

In June 2023, MEG again received an award from the WHC in the mammals category for continued excellence in conservation efforts through our caribou habitat restoration program. MEG maintains our gold member status through accreditation from the WHC which signifies that all our conservation programs are within the top percentile of those submitted while maintaining the highest standards of environmental stewardship.

# **Case Study**

#### **Caribou Habitat Restoration and Stewardship**

Woodland caribou is a federally-listed Species at Risk in Canada. Caribou herds play a key role in maintaining a healthy and diverse landscape, and MEG has been committed to help recovery efforts to achieve self-sustaining populations of caribou in Alberta — specifically, the local Christina herd which inhabits the area around our operations.

We have been implementing habitat management and restoration within and adjacent to our lease with the intent to increase the amount of effective caribou habitat. Since 2016, we have allocated \$2.6M to caribou restoration and are committed to investing at least \$300,000 in annual caribou habitat restoration efforts until 2025 in support of the local Christina herd. We have taken voluntary measures to restore and reclaim areas adjacent to our operations in the Dillon River Wildland Park. Restoration in this area will assist in caribou recovery efforts being promoted by the Province of Alberta.

To date, we have restored more than 8,600 hectares of contiguous high-quality caribou habitat within the East Side Athabasca Range (ESAR). For comparison, our current active footprint is 1,103.5 hectares. In 2021 and 2022, we surrendered over 12,000 hectares of oil sands leases within caribou ranges back to the Province of Alberta for consideration in ongoing caribou range planning initiatives. Our current commercial footprint within the ESAR is 9,836 hectares.



Woodland Caribou in Christina Lake, AB

#### **MEG Caribou Restoration Program**



MEG is committed to continually dedicating resources towards the recovery efforts of the local caribou herd through habitat restoration, monitoring and participating in regional initiatives.



Since 2016, MEG has spent over \$2.6M towards restoring over 185 kilometres of disturbed linear features within the Christina Herd Caribou Range.



MEG's restoration efforts have contributed to creating over 8,600 hectares of contiguous high-quality caribou habitat.

#### MEG Caribou Restoration Program



# Spills

Spills are one of the most common environmental incidents that may be encountered in our operations. Spills can damage the environment, impact our employees and surrounding communities, and result in additional costs to our business. Our goal is spill prevention.

Spill targets make up a portion of our annual Corporate Performance Scorecard to drive strong spill prevention practices across MEG. Incidents may still occur despite our initiatives to mitigate risks.

Our SAGD well pads and facility infrastructure are engineered and constructed to minimize environmental consequences of a spill, and to catch and control precipitation.

We respond promptly when a spill is identified, using appropriate containment and clean-up measures to minimize severity and mitigate impact. Our investment in spill response includes membership in the Western Canadian Spill Services co-operative, which specializes in critical spill training and equipment, spill response trailers and spill response kits that are available throughout our operations. We prepare to manage spill events through response plans and drills, which are a vital component of our Emergency Response Program (ERP). We use a site incident response team (SIRT) as part of our ERP, made up of employees with various backgrounds and targeted incident response training. We evaluate spill risk across our operations, and ensure adequate measures are in place to prevent spills. Facility design, engineering controls, hazard assessments, proactive inspections, preventive maintenance programs, incident investigations, contractor requirements, procedures, and targeted spill prevention campaigns are all key components of these efforts.

#### **Tom Gear** Vice President, Operations

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The number of reportable spills in 2022 continues to remain low, including year-over-year decreases in both hydrocarbon and non-hydrocarbon reportable spills. Compared to 2021, our spill metric values have all decreased, including reportable spill counts, volumes, and spill intensity.

As part of ongoing spill prevention practices, we undertake targeted and topical communication programs increasing focus on spill prevention and management actions, including routine maintenance, equipment inspections, enhanced risk assessments, and updated procedures where spill risks are identified. All spills are reported to appropriate regulatory agencies as required, and thoroughly cleaned up in a timely manner, ensuring no adverse impact to the environment or aquatic ecosystems.

Our commitment to continuous improvement in spill performance is reflected in the 2022 Corporate Performance Scorecard which impacts incentive compensation of executives and other employees. We have decreased the annual number of reportable spills since 2020 and focused on decreasing the volumes of reportable and non-reportable spills in 2022. We have not received any fines associated with spills, compliance, or any other environmental governance incidents in the last five years.

#### Reportable Spill<sup>(8)</sup> Volume and Count



(8) Reportable spills includes spills that met the reporting threshold of a regulatory agency. A reportable spill does not necessarily indicate that the released material entered the environment or caused adverse effects.

# Air Quality & Waste Management

# Why is This Important?

We are committed to minimizing and mitigating environmental impacts associated with our operations. Our operations are in a jurisdiction with stringent environmental regulations, climate policy and carbon pricing, and therefore strong environmental stewardship is a critical component of our business model resilience.

# We directly measure

releases to air from our operations with continuous emission monitoring systems (CEMS), stack testing, fuel flow measurement and fuel analyzers. Real-time monitoring and notification alarms ensure we continuously operate within emission limits.

# Our Approach

### Air Quality

Emissions of nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), volatile organic compounds (VOCs) and particulate matter (PM) in our operations are air pollutants, the majority of which arise from fuel combustion. Fuel is mainly combusted for steam generation and bitumen production. This fuel is made up of produced gas returned from the reservoir and purchased sweet natural gas. We treat the produced gas before combustion to remove a portion of sulphur compounds, which reduces SO<sub>2</sub> emissions.

We also employ engineered controls, such as low-NO<sub>x</sub> burners, vapour recovery, gas conservation and sulphur recovery to minimize air emissions and meet regulatory standards.

We report on our emission performance under provincial and federal regulations, and internally. We also conduct ambient air monitoring in collaboration with the Wood Buffalo Environmental Association (WBEA). Their continuous air monitoring trailer is situated at our CLRP site for six months each year to collect air quality data, which is reported live as part of a larger regional air monitoring network. We also have passive air monitoring stations located throughout our facility. Both continuous and passive ambient data is compared against the Alberta Ambient Air Quality Objectives.

# **Our Performance**

 $NO_x$  emissions have increased year over year, which can be attributed to an increase in production and addition of steam generation capacity. Since 2019,  $SO_2$  emissions have decreased by 35 per cent, which can be attributed to the revision of our sulphur recovery strategy.

#### Air Emission Trends





Our scheduled and prioritized preventive maintenance and inspection programs optimize equipment performance.

#### Waste Management

Our waste strategy focuses on reduction, reuse, recovery, recycling, treatment and disposal. Our operations, camps and corporate office have specific plans for responsible waste management. The amount of waste generated varies with maintenance requirements, development plans and drilling activity. Process waste generated by our operations is our main waste stream. All process waste is characterized, handled, stored and disposed of in compliance with our operating approvals and regulatory requirements. In addition, our internal waste guideline communicates waste management responsibilities to employees and contractors. Process waste is disposed of at Alberta Energy Regulator-approved facilities to minimize safety, health and environmental concerns associated with disposal.

Given the remote nature of our operations, we factor in GHG emissions associated with transporting waste to waste management facilities. We focus on reducing, recycling and disposing locally, when possible, to minimize these emissions. Campaigns aimed at our camps and corporate office promote reduction and recycling of batteries, electronic waste, cardboard containers, lightbulbs and reduction of single-use plastics. We provide visibility of recycling performance to bring awareness and to continue to improve waste reduction practices.



We have a waste-tracking system in place to track waste from generation to disposal. We continually evaluate opportunities to reduce waste generation or find more efficient waste management opportunities.



# Social

As a responsible energy producer, MEG has a duty to contribute to society's continued progress and provide a reliable and secure supply of affordable energy to the world. We are committed to keeping our people and the communities where we live and work safe, while maintaining reliable operations. We are focused on contributing to society by providing meaningful employment, caring for the well-being of our people, adhering to high human-rights standards, and supporting organizations in the communities where we live and work. We value our people's talents, celebrate their diversity, and aspire to build a culture that enables them to achieve their full potential.

**Relevant SDGs** 

3 GOOD HEALTH AND WELL-BEING

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TSX | MEG
# **Energy Security**

## Why is This Important?

Increasing geopolitical tensions (notably the war in Ukraine), inflationary pressures, supply chain disruptions and significant fluctuations in commodity demands due to the COVID-19 pandemic, highlight the growing need to ensure reliable and secure access to energy. There is risk associated with significant reliance on one type of energy, or reliance on energy from regions experiencing instability, highlighting the need for diversification in both energy type and source.

Oil is expected to remain a significant component of global energy demand for decades to come, particularly due to the rise of global population, increased consumption of goods and services, and countries transitioning away from the use of coal as an energy source. Over the past several decades, the share of fossil fuels in the global energy mix has persisted at around 80 per cent; however, future energy demand for fossil fuels is uncertain as we transition to a lower-carbon world.

Canada has the third-largest oil reserves in the world and is committed to climate action. The increased concern over climate change and the expanding focus on ESG factors means stakeholders will look to the companies and countries with the highest ESG standards and performance to supply future energy demand.

#### **Our Approach**

MEG has a history rooted in collaboration and innovation with government, industry players, technology companies, lenders and local communities. The integration of ESG factors, along with traditional financial considerations, is critical to MEG's business success and will help navigate through a time of change. MEG is a reliable, responsible energy producer, committed to sustainability. We have set a target of approximately a 30 per cent absolute reduction in Scope 1 and Scope 2 GHG emissions by 2030, and net zero<sup>(1)</sup> GHG emissions by 2050. We benefit from operations in Canada where the rule of law is paramount and the regulatory regime for energy and the environment is among the world's best. We are a secure supplier of energy to the world.



We firmly believe the world needs more sustainable, reliable and secure Canadian energy to support a transition to a low-carbon economy.

**Derek Evans** President and Chief Executive Officer

> Pathways Alliance

Our commitment to the Pathways Alliance and the goal to have net zero<sup>(1)</sup> GHG emissions from operations by 2050 is designed to ensure that we produce the most environmentally and socially responsible oil for the world.

(1) Scope 1 and 2 GHG emissions

# **Energy Affordability**

### Why is This Important?

Energy affordability is an increasingly important issue for a large portion of the world, which makes finding a balance between affordability and the other two dimensions of the energy trilemma, sustainability and security, ever more challenging.

#### **Our Approach**

MEG, along with our partners in the Pathways Alliance, are making unprecedented collaborative efforts to improve the sustainability of the energy we produce, with a target of net zero<sup>(1)</sup> GHG emissions from operations by 2050. At the same time, the security of Canadian energy supplies is high. Finally, while Canadians are middle of the pack in terms of the prices we pay for transportation fuels, we enjoy some of the lowest electricity and natural gas prices in the world. We also have abundant supplies of oil and natural gas that can help alleviate energy security and affordability issues in other countries around the world.

Energy affordability is clearly a risk to the political and economic stability of many countries around the world. Canada has an opportunity to help address those risks, through the provision of responsibly produced Canadian oil and natural gas to the world. In many countries, this will also result in decreased emissions as other fuels, like coal, are displaced. We can help to drive global emissions downward by meeting our national commitment to reducing and eventually eliminating GHG emissions from energy production.



According to the Carnegie Endowment for International Peace, global protests driven by economic anger "soared" in 2022 and while European countries saw many of the largest protests, nearly every region of the globe saw economic demonstrations. Food and energy prices have been driven higher and higher, first by the COVID-19 pandemic, and most recently, by the war in Ukraine.

According to research published by the Friedrich-Ebert-Stiftung (FES), "People took to the streets in over 12,500 protest events between 1 November 2021 and 31 October 2022, aggrieved about the rising cost of living as well as shortages of fuel, gas and electricity. Protests erupted across world regions, in all political regime types, and in rich, middle- and low-income countries alike. A total of 148 countries experienced such protests in 4,630 unique locations. Protests against fossil fuel use dominated news headlines, but far more people in far more places protested because they lacked the access to the energy they needed to live a decent life.<sup>(9)</sup>"



(1) Scope 1 and 2 GHG emissions

(9) Food, energy and cost of living protests, 2022, Naomi Hossain and Jeffrey Hallock, The Friedrich-Ebert-Stiftung, December 2022

# **Health & Safety**

### Why is This Important?

The safety of our employees, contractors and the residents of the communities where we live and operate is foundational to our Operating Priorities. Our safety programs prioritize taking responsibility for our own safety, and that of our colleagues, by focusing on hazard identification, communication and active engagement with our work teams.

#### **Our Approach**

Our first operating priority is to care for ourselves and all others. The safety of our employees and contractors is integral to what we do and who we are.

This aligns with our Health, Safety and Environment (HSE) Policy which speaks to the shared responsibility for health and safety across the organization and describes the actions we take to ensure ongoing excellence toward managing our health, safety and environmental performance. The HSERC of the Board oversees all health and safety matters, while the Corporate HSE Committee, comprised of leaders from each unit of our business, is responsible for providing guidance and oversight to all employees.

Our programs align with ISO 14001, Alberta Association of Safety Partnerships and the Alberta Certificate of Recognition (COR) requirements, which includes annual audits to ensure Alberta Occupational Health and Safety standards are met. In 2022, MEG once again received COR certification.



Everyone at MEG is responsible for fostering an environment where each person accepts responsibility for their own safety and is encouraged to actively intervene and engage with others to ensure their safety, security and wellbeing.



We conduct internal audits and assessments throughout the year on many systems and programs to capture any opportunities for improvement. Equipment inspections, workplace inspections, spot audits and compliance inspections are just a few of the verifications we conduct.

#### **Our Operations Excellence Management System**

Our commitment to health, safety and environmental performance is reflected in our corporate Health, Safety & Environment (HSE) Policy. This Policy describes specific actions required to ensure ongoing excellence. In 2022, we updated the policy to include our modernized loss-avoidance system: MEG's Operations Excellence Management System (OEMS).

OEMS is an integrated, risk-based loss avoidance system that establishes the ways in which MEG works to eliminate serious incidents and pursue our vision of 'Nobody Gets Hurt'.

**CE MEG**<sup>operations</sup> excellence

OEMS represents an evolution from our heritage safety management system to a more comprehensive and agile system based on responsible operating principles, addressing issues that affect us across the entire risk spectrum. OEMS is founded on a number of core elements (OEMS Elements), each with Standards which ensure that we fulfill the performance commitments within our HSE Policy. OEMS Elements are informed by industry best practices and maintain our commitment to having an Alberta Certificate of Recognition (COR) safety program. Our Senior Leadership Team oversees the execution of OEMS and resulting HSE performance.

#### Operations Excellence Management System (OEMS)



#### Safety Leadership

V S T Ie

We continue to invest in extensive Safety Leadership Development Training for supervisors to leverage advances in Behavioural Sciences and continue to drive our safety culture throughout the

organization. We also continue to upgrade our tools, data analysis, campaigns and programs to ensure leaders have what they need to support their teams effectively. The delivery of our Safety Leadership Development Training and implementation of OEMS enables the competencies required to progress our vision of 'Nobody Gets Hurt'.



Part of our focus on safety leadership in 2022 included continued supervisor interaction at the front lines to assure that utilization of key indicators around Stop-Think-Plan, Hazard Identification, Communication, 'Trust and Verify', and our Safety Vision are prevalent in our workplace.

#### **Our Commitments**

#### **Greenhand Worker Program**

We are committed to upgrading our existing Greenhand worker program. In 2022, this revised program introduced the Short Service Worker category alongside the Greenhand category to recognize workers who are experienced in the hazards present in their trade, but who still may be new to specific hazards in our operating facility. The program includes new visual indicators that all MEG employees, contractors, and third-party service providers will use at our facility to indicate which category they fall into. In addition to identifying workers who may not be familiar with the hazards present, our Greenhand program emphasizes the expectation of support from more experienced workers both informally, and where appropriate, through a formal mentoring process. We will continue to make improvements based on experience and feedback from those involved in the program.



A Greenhand worker is any worker who is new and inexperienced with their assigned job, task, or trade. Greenhand workers are understood to require an increased level of supervision or coaching to be able to identify all potential hazards and complete their work safely and to the quality required.



#### Stop-Think-Plan

In 2022, a number of focus areas aligned with our philosophy of Stop-Think-Plan. This included further engagement of our workforce by continuing to enhance the existing skill sets of our safety leaders and incorporating the 'Trust and Verify' model throughout the organization. We adjusted our existing inspection process to drive conversations around hazard identification in the field, and we also developed new guidance around Toolbox and Handover meetings to ensure these conversations are shared with all the workforce. This aligns with our number-one Operating Priority, 'We Care for Ourselves and All Others,' by ensuring we have proper controls and mitigations in place for identified hazards.



The Stop-Think-Plan card is a physical interrupter that creates opportunities to stop and reassess risks.

#### **OEMS Element 4 – People Safety**

Our occupational health and safety management is focused on eliminating risks to prevent injury and limit harmful exposure. This is a collective responsibility, and we work closely with our employees, contractors and vendors to bring this to life. By leveraging our existing Joint Worksite Committee, we are bringing leaders and workers together to identify and resolve health and safety concerns at our work sites. This committee also provides overall health and safety awareness across MEG by supporting the three basic rights of workers: the Right to know, the Right to participate, and the Right to refuse unsafe work.

Effective HSE management requires an aware, competent and well-trained workforce that supports the right to know and participate in their own health and safety. We ensure all workers who come to our site receive a site-specific orientation and onboarding which covers their HSE responsibilities, job hazards/ controls, incident notification and hazard reporting, and emergency procedures. This, coupled with ongoing communication by MEG leaders, ensures that timely safety information is shared with the workforce. We support our leaders in this effort using safety bulletins, toolbox talks, safety alerts and other formats to keep our people informed and aware of any developments, changes, trends and learnings.

All health and safety-related documents such as standards, guidelines and procedures are readily available to workers, regularly reviewed, updated and maintained through our document management system. Hazard identification and assessments are performed before any work is conducted and we implement the identified controls to reduce exposure.



#### **OEMS Element 6 – Contractor** and Supplier Management

MEG is committed to protecting the health and safety of our contractors and suppliers. Element 6 of our OEMS establishes the standards for the lifecycle of Contractor & Supplier Management and sets the requirements and expectations for how we select them and manage their performance. Element 6 ensures we pre-qualify our contractors and suppliers based on HSE performance, assess them for adequate qualifications and competencies prior to commencing work, and routinely engage with them to collaboratively improved HSE performance. Our contractors and suppliers provide HSE performance data into the ISNetworld (ISN) platform and we conduct annual audits for verification.

#### **OEMS Element 5 – Process Safety**

Process Safety is covered under Element 5 of our OEMS which establishes the standards for how MEG manages Process Safety across the organization. This ensures:

- » Engineered safety devices are identified and proactively managed for safe and reliable operation.
- » Procedures for non-routine work activities that could cause significant loss are established and used, and safe work practices are available for routine work. Operating interfaces like alarm management and operating envelopes are managed to ensure equipment is operated within safe zones or limits.
- » The integrity of hazardous operating systems is managed by designing to code and applying engineering and operating practices to prevent and control incidents that have the potential to release hazardous materials or energy.

These objectives are met through the application of robust engineering and operations practices throughout the asset life-cycle in six core elements, combined with proactive verification that these practices are effective.



The overall objective is to assure that systems are in place to manage loss of containment risk and in-turn avoid serious incidents.

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GOVERNANCE



## **Our Performance**

We continue our efforts to improve health and safety performance at our worksites. 2022 marks a year with zero employee recordable incidents and four years with zero employee lost-time injuries. The 2022 Contractor Total Recordable Incident Frequency (TRIF) reflects a total of six medical aid incidents and one lost-time occurrence. In each case, a detailed investigation and corrective actions were implemented to prevent recurrence.

In 2022, we implemented our Safety Leadership Development Program, including the completion of Safely Leadership Training, the rigorous application of the Stop-Think-Plan safety tool and the establishment of MEG Operating Priorities. We also completed a safety culture survey and assessment, implemented continuous improvements in system integrity, incident investigation and emergency response.



Greenhand worker on site at MEG's Christina Lake
Regional Project

(10) Total Recordable Incident Rate (TRIF) is the total # of recordable injuries experienced by MEG employees/contractors per 200,000 hours worked.

#### Highlights

Through the year we also took the opportunity to enhance our existing campaigns and programs within HSE including:

र्िंेस्ट्रेस्ट्रे Roll-out
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Greenhand and Short Service Worker program
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Stop-Think-Plan card program
4
Enhanced hazard identification and verification field auditing
9
Targeted spill prevention training focused on human factors
9
Toolbox Talks and learning from events sharing
<b></b>
Emergency Response tools and processes

#### Total Recordable Incident Rate (TRIF)<sup>(10)</sup>

Number per 200,000/Total Hours



#### Tier 1 and 2 Process Safety Event (PSE) Performance

Number per 200,000 Hours Worked



## **Our People**

### Why is This Important?

At MEG, we believe our greatest strength is our people. Their perseverance, creativity, commitment and innovation are critical to achieving our foundational commitment of business model resilience while working toward being a sustainable, innovative and responsible company. We attract, develop and retain the best talent and ensure a culture that supports their success, which are all important aspects of talent management.

#### **Our Approach**

We recognize that a highly engaged workforce elevates business performance. Our pursuit of creating an employee experience where everyone feels respected, valued and heard is anchored by our Core Values and Operating Priorities.

We have a variety of communications channels that employees use to connect, share experiences, highlight achievements and provide feedback:

#### The Link

MEG's intranet and source for corporate communications. This site highlights news, employees' achievements, community engagement, corporate events and regular business updates from our leaders.

#### Coffee Time with Derek

Our CEO hosts regular coffees to share news, answer questions and keep access to our executive team open and available to all.

#### **MEG Connects**

Company-wide events where learning and sharing knowledge takes place on initiatives and projects to help all employees stay engaged with the business and their colleagues.

#### Ask MEG

Employees can ask questions through an anonymous intranet site. Questions and responses are posted for all employees.

#### Town halls

Our senior management team hosts town hall events to provide updates on our goals and objectives, as well as key financial, operations and employee updates.







### **Our Commitments**

## Employee and Leadership Development

MEG is committed to the ongoing development of our people, with a focus on leadership development, safety training, and technical and professional development. Training and development opportunities at MEG can include on-the-job experience, coaching, e-learning and formal education.

Our ongoing focus at MEG is to accelerate skill development and application through targeted learning and development programs as well as opportunities to ensure people are equipped for current and future business needs.

#### **Employee Benefits Programs**

MEG's success depends on our ability to attract individuals with market-competitive compensation. Our compensation design supports a "pay for performance" culture and creates alignment with corporate strategic objectives and long-term shareholder value.

We offer competitive compensation, vacation and wellness benefits, which we call our Total Rewards Program. The program is competitive within our industry and ensures our people have peace of mind and the means to build a secure and healthy future. In addition to base salary and performance-based short-term and long-term incentives, our Total Rewards Program includes a savings plan that matches employee contributions up to 12 per cent of an employee's salary and the MEG-A-FITS Benefits Program. The MEG-A-FITS Benefits Program provides comprehensive medical and dental coverage, income protection for sick leaves, and allows employees to direct a portion of their benefits to support personal fitness or well-being goals.

#### A Culture of Open Feedback

Promoting a culture of open feedback is a top priority at MEG. Our employees complete a formal annual performance review process where they set individual performance goals that align with team and organizational objectives in support of their career development. Throughout the year, employees meet with their leaders, who provide feedback on the employees' goals and performance. At yearend, employee performance is evaluated and communicated to them in a way that motivates each employee to continue to strive for excellence and set ambitious goals for the following year.

## Talent Attraction, Development and Retention

Attracting, developing and retaining the best talent is critical to the organization's long-term success. We have established a culture based upon our shared values, MEG to the Core, which captures the fabric of what makes us MEG and supports how we work together. These values are supported by MEG's Operating Priorities, which guide the actions and behaviours of our leaders and employees.





### **Our Performance**

Our achievements in 2022 include:



for the future.

spend of \$1.2 million.

# **Diversity, Equity & Inclusion**

## Why is This Important?

The business case for Diversity, Equity & Inclusion (DE&I) is clear. When everyone feels valued, respected, and heard it creates belonging. This benefits our culture, business, innovation and employees' experiences.



DE&I at MEG is about progress; embracing discomfort to learn more as an organization and as individuals.

#### **Our Approach**

MEG strives to create a workplace that embraces employees' diversity of thought by creating opportunities for all to contribute, innovate, collaborate, and develop ideas to build a stronger business.

We continue to build an inclusive work environment that celebrates the differences of our employees, ensures everyone feels valued, respected, and heard, and enhances the connections we have in the communities where we live and work. Our DE&I efforts are a company-wide initiative focused on accelerating our organization's performance by developing, attracting, retaining, and leveraging the skill sets of our most important asset — our employees.



## **Case Study**



MEG launched its inaugural DE&I education and awareness campaign, MEG Belonging, beginning with information sessions with people leaders and employees to ensure everyone is equipped with the "strategic why" behind our MEG Belonging efforts. Each people leader was tasked with creating an "I will" statement to identify one action they will take to demonstrate inclusive leadership behaviours and our MEG Belonging commitment.

After running leadership information sessions, we developed in-person events, e-learns and microlearning opportunities to equip employees with practical guidance on managing biases in the workplace, creating an inclusive environment for women, allyship in the workplace, microaggressions, business case for DE&I, accessibility inclusion, respectful LGBTQ2S+ interactions and inclusive leadership, among other DE&I topics.

The impact of our in-person DE&I events is captured in post-session surveys, providing us with a data-driven understanding of how attendees can translate the session's learning into practical, inclusive behaviours they can adopt immediately. Survey results show, on average, for each event, more than 95 per cent of attendees identified that our events helped them become inclusive employees or leaders.

This framework demonstrates MEG's innovative approach to distilling complex DE&I topics into various learning formats that align with our employees' diverse learning needs and strategic objectives.

### **Our Commitments**

We have set the following Board diversity targets

Maintain a Board composition in which at least 30 per cent of directors are women

Maintain a Board composition in which at least 40 per cent of directors are diverse persons

Develop a DE&I strategic plan to provide a road map for improving employee experience and advance DE&I within MEG

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Establish baseline information within the organization with respect to DE&I through an employee experience survey for a data-driven understanding of employees' experience

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Conduct a self-identification survey by year-end 2023 to provide robust insight into talent diversity within MEG

#### **Our Performance**

We met our Board diversity targets in 2022, significantly ahead of schedule.



We established a DE&I strategic plan that identifies specific actions in the next three years to drive DE&I. The strategy is built around four pillars:



People, Employment & Education



Governance & Leadership



Values & Culture



Community Engagement & Partnerships

We established a self-identification step within our hiring process process to gather a data-driven understanding of which talent we are attracting into our candidate pool.

# **Indigenous Relations**

## Why is This Important?

MEG's operations fall within, and are adjacent to, Indigenous Peoples' traditional territory. We understand our projects have effects on local and surrounding communities, and it is critical to create and maintain relationships founded on respect and trust throughout the lifecycle of our projects, for Indigenous Peoples and MEG to find mutual benefit.

#### **Our Approach**

Corporate Indigenous reconciliation is supported by our Indigenous Peoples Policy, our Diversity, Equity & Inclusion Policy, our Human Rights Policy Statement, Consultation and Community Affairs efforts, Local Recruitment Strategies, Community Investment Programming, Indigenous Awareness Education and Economic Inclusion Initiatives.

### **Our Commitments**

We are committed to the inclusion of Indigenous Peoples throughout the design, development, operation and reclamation of MEG's operations.



Elder Ron Janvier, a Chipewyan Prairie Dene First Nation community member, at MEG's site for an event celebrating National Indigenous Peoples Day.



In 2023, MEG employees participated in a drumming circle celebrating Dene cultural reclamation and revitalization at the Christina Lake Regional Project.

While we have worked to expand Indigenous inclusion within our operations

and across our

reconciliation.

company, we recognize there is more work to meaningfully advance

#### **Consultation and Community Affairs**

MEG acknowledges the importance of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) within the Canadian legal and constitutional framework and recognizes the role that the corporate sector can play in the path towards reconciliation. MEG is committed to seek free, prior and informed consent of Indigenous Peoples impacted by MEG's operations.

The consultation process for our operations is directed through the Aboriginal Consultation Office (ACO) of the Government of Alberta, to consult with a number of First Nations and Métis Settlements. Additionally, MEG engages with non-settlement Métis communities who may be impacted by our operations.

The Indigenous Relations team works to not only meet consultation and regulatory requirements, but also to meet the needs of each unique community. We provide consultation capacity funding for Indigenous communities to help ensure they have the resources to effectively engage with us on our proposed activities.

Although MEG's operations are on Indigenous Peoples' traditional territory, it is important to note that no resettlement has occurred as a result of MEG's activities and that MEG is committed to avoiding involuntary resettlement of Indigenous Peoples. Our operations can have an impact on Indigenous Peoples' ability to practice their traditional rights, so we work with Indigenous Peoples and communities to find agreeable solutions and mitigations, where possible.

MEG has working agreements with neighbouring Indigenous communities that are impacted by our operations. These agreements are unique to the needs of each community.



We develop and maintain a constructive dialogue with Indigenous communities throughout the life of our projects.

## **Case Study**

#### **Chastity Stamp**

MEG Energy commemorates National Day for Truth and Reconciliation, to educate and remind Canadians about the history of residential schools, honouring the victims and celebrating the survivors. Annually, MEG hears insights from local Indigenous Elders and their reflections of reconciliation, including the origins of Orange Shirt Day. To further participate in the national movement, MEG employees wore Every Child Matters orange t-shirts as a commitment to personal awareness and support for those affected by the legacy of residential schools in Canada.

Chastity Stamp created the design for these orange shirts. She is a resident of Lac La Biche and is from Whitefish Lake First Nation #128, a First Nations community near MEG's operations. The tree in Chastity's drawing represents life, with the roots connected to Mother Earth. The image signifies the connection and the important message that the children who have been forgotten are surfacing and coming to life. Chastity herself is an inspiration as she is a daughter of a survivor and has witnessed and felt her own intergenerational trauma from the Canadian residential school system.

MEG is honored to showcase Chastity's design, which conveys an important message for all of us in our efforts to advance truth and reconciliation.





Chastity Stamp

The cycle stops with me, my generation and the younger generations to come.

**Chastity Stamp** 

#### **Economic Inclusion Initiatives**

MEG recognizes that providing economic opportunities for Indigenous Peoples is an important part of reconciliation and aligns with the United Nations Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission's Call to Action for Canadian corporations. We are committed to promoting the socio-economic development of Indigenous Peoples and to seek the effective representation and participation of Indigenous Peoples whenever possible.



Panelists at the Fort McMurray #468 First Nation Economic Development 2023 Trade Show. From left to right: Andrew Rosser, Syncrude-Suncor; FMFN468 Councillors Samantha Whalen and Angela Ross; Chief Neil Cheecham; Kim Fox, Imperial; Derek Evans, MEG Energy.



Indigenous economic inclusion criteria are embedded in every single bid opportunity at MEG.

## Recent developments to advance our success include:

## Continued focus on a vendor's commitment to Indigenous employment when evaluating bids

#### Actively engaging Indigenous communities on opportunities to increase awareness of MEG's development plans through increased outreach and monitoring

#### Maintaining a list of qualified Indigenous businesses categorized by scope. We ensure these businesses are pre-qualified on all commercial proposals that we release for market tests

Membership in the Canadian Council for Aboriginal Business (CCAB)

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Renewed membership of Resource One Aboriginal Business Association (ROABA)

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Ensuring attendance at Indigenous career and trade fairs

#### **Our Performance**

In 2022, MEG spent approximately \$72 million on goods and services provided by Indigenous businesses.

This is largely due to an increased overall business spend, but also due to further Indigenous awareness training that we developed and delivered in 2022 for select employees focused on economic reconciliation. We are excited that we have spent 1 billion dollars with Indigenous businesses since 2007.

#### Indigenous Business Spend



Cumulative Indigenous Business Spend

# Supply Chain Management

## Why is This Important?

Supply chain management is a critical component of our business activities, and it consists of various elements that are interconnected.

These elements include supplier qualification and selection, materials procurement, supplier engagement, transportation, storage, and warehousing. Building relationships with like-minded suppliers drives innovation and accelerates sustainability performance in our industry.

### **Our Commitments**

We are committed to respecting human rights, promoting ethical business practices, and protecting the environment and communities in which we live and operate. We actively engage with our key suppliers to ensure they share our commitment to sustainability and ethical practices.

### **Our Approach**

Our supply chain management approach is centered around responsible, ethical, and sustainable practices. It is guided by our Operating Priorities and focuses on both our internal and external stakeholders.

### **Our Performance**

We understand the importance of reducing waste and managing resources efficiently. Through our program to divest idle surplus material, our efforts to reuse and recycle these materials have a positive impact on reducing carbon footprint in steel manufacturing. This is significant given that most of the industry's surplus is composed primarily of steel. We reduced 20 surplus offsite storage sites to seven between 2020 and 2022. This eliminated 31 acres of outdoor space and 8,991 square feet of indoor space.



## Transportation and Reduction of Scope 3 Emissions

Consolidating transportation of goods to our operations is a crucial step toward reducing Scope 3 emissions and improving sustainability. By optimizing travel routes, minimizing empty or partially loaded vehicles and utilizing more efficient modes of transport, we can significantly reduce our carbon footprint.

We have achieved these synergies by optimizing our logistics network, partnering with local carriers to drive efficiencies and decrease our transportation-related emissions. For example, in 2020 we consolidated our carriers, awarding contracts to two Indigenousaffiliated freight carriers to handle most of our deliveries to our site. This approach aligns with our broader sustainability goals and helps us create a resilient logistics network and ultimately, a more sustainable supply chain.



MEG began optimizing our transportation program in July 2021 and to date we have seen a reduction of approximately 10 per cent in overall loads, which has saved more than 5,000 kilometres travelled.





## **Community Investment**

## Why is This Important?

Community Investment at MEG is about purpose and making a difference in the communities where we operate. Developing strong relationships with communities is key to the execution of MEG's business objectives. We take a long-term view and invest in the communities where we work and live to help communities thrive through shared social and economic benefits.

#### **Our Approach**

MEG's Community Investment program includes elements of strategic corporate giving, employee volunteerism and employee philanthropy.

Our employee-led Community Investment Committee shapes our corporate giving program by making investments in community programs that support mental health and wellness programs, youth and education, food insecurity and Indigenous communities where we live and work.

### 2022 Employee Support

MEG has three programs to support employees who volunteer their own time or donate funds to charitable organizations in their communities. MEG also offers opportunities to volunteer with our community partners like Trellis, The Calgary Zoo and Brown Bagging for Calgary Kids.

#### (\$) **MEG**Match **MEG**Volunteers MEG Match MEG matches employee donations to approved charitable organizations as an incentive for employees to contribute to organizations that are meaningful to them. Donations of \$20 or more are matched by MEG with no annual limit.

In 2022, MEG made more than 470 matches to eligible community organizations totaling over \$185,000 and increased our employee participation to 65 per cent up from 42 per cent in 2021.

### **MEG Volunteer** Grants

MEG encourages employees to give back to communities by volunteering their time as volunteers or as coaches for vouth athletic teams. In 2022, we awarded 49 volunteer grants to MEG employees.



MEG employees also volunteered over 360 hours in 2022 through company volunteer initiatives including Trellis Society, Brown Bagging for Calgary Kids, and Easter Seals Camp Horizon.



#### **Employee Service Award Program**

In 2022, MEG revised its employee service award program by awarding employees who reach five, 10, 15 and 20 years of service a grant to direct to local social impact organizations.



In 2022, MEG employees directed more than \$22,000 in donations through the Service Award program.

### **Our Commitments**



In 2022, we provided support to a number of programs in the communities where our employees live and work.



MEG employees make school lunches in the Brown Bagging for Calgary's Kids kitchen.



MEG employees volunteer at Easter Seals' Camp Horizon preparing the site for summer campers.





Trellis Society's Emergency Youth Housing program, which supports over 300 children and youth by providing space for them to build capacity and deal with life's challenges.



Mount Royal University's Indigenous Student Emergency bursaries to provide critical funding to students when they need it most.



Development of THE SUMMIT: Marian & Jim Sinneave Centre for Youth Resilience, a resource to support youth struggling with mental health issues.



Brown Bagging for Calgary's Kids, who provide school lunches for Calgary students to ensure that no child goes hungry.



Arts Commons' National Geographic Live program, supporting the Student Engagement series and giving Calgary students the opportunity to see National Geographic Explorers speak and share their stories of adventure live in Calgary.



Chipewyan Prairie Dene First Nation's mental health and suicide prevention community program.



Alberta Children's Hospital Foundation's Indigenous Healing Garden.

# Governance

We are committed to delivering value to all our stakeholders, including shareholders, employees, customers, suppliers, and the communities in which we operate, by prioritizing transparency, accountability, ethical conduct, and respect in the workplace. Our Board is driving strategic direction, anticipating and mitigating risks, and governing our operations to ensure they are undertaken in an ethical, safe, reliable, and responsible manner.

**Relevant SDGs** 



TSX | MEG

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# **Board Oversight of ESG**

Sustainability is a key element of our long-term strategy. Addressing issues and managing ESG matters in the short, medium, and long term is critical to our business model resilience and overall success.

The Board, in conjunction with management, establishes our ESG strategy to appropriately address ESG risks and capture opportunities, and ensures we set ambitious standards. maintain compliance with laws and regulations, and adopt policies and execution plans to progress ESG matters.

Every year, each director completes a confidential effectiveness survey for the Board and for each committee to which that director is assigned. The Board survey includes an assessment of the Board's responsibilities and operations, assessment of the Chair of the Board, and individual director self-assessments.

The Board committee surveys include an assessment of each committee's responsibilities and operations, an assessment of each committee chair, and individual self-assessments of the committee members. The Governance and Nominating Committee also considers the composition of the Board's committees to ensure they possess an appropriate balance of the skills necessary for such committees to discharge their roles. This process uses a skills matrix, which helps identify gaps in skills, expertise and industry experience.



In 2021, an assessment of the Board and committees by senior management of the Corporation was added to the annual Board assessment process.

(1) Scope 1 and 2 GHG emissions

The Board has direct responsibility and oversight of ESG, and delegates responsibility for certain ESG matters to the four Board committees from time to time, based on mandate and expertise:



The HSERC, for example, provides oversight of the Corporation's health, safety and environmental metrics set out in our annual corporate performance scorecard, while the HRCC ensures a strong linkage between compensation and attainment of ESG measures (35 per cent of our corporate scorecard key performance indicators — KPIs — are linked to ESG performance). Similarly, the GNC and HRCC are responsible for oversight of the application of our Diversity, Equity & Inclusion Policy to the Board, and our executives and employees respectively (see Mandates, Charters and Position Descriptions). ESG matters are discussed at quarterly Board meetings, Board committee meetings and strategic planning sessions, which are held at least annually.

In 2021, the Board approved our long-term target of net zero<sup>(1)</sup> GHG emissions by 2050 and our first medium-term target of a 30 per cent reduction in bitumen GHG emissions intensity from 2013 levels by 2030. In early 2023, the Board supported our new medium-term target of reducing our absolute GHG emissions by 0.63 megatonnes per annum by year-end 2030, representing an absolute reduction of approximately 30 per cent of Scope 1 and Scope 2 emissions from 2019 levels.



ESG strategy is guided by our ESG Materiality Assessment which identified ESG priority areas, and by risk assessments conducted within our ERM program (see Risk Management). ESG skills and expertise are key qualifications considered when selecting new Board members.

#### Management Accountabilities for ESG

Our management team is accountable for integrating ESG into our business and day-to-day operations with the ultimate responsibility belonging to our CEO. Our CEO is supported by two committees as outlined below.

#### **Executive ESG** Committee

The Executive ESG Committee (ESG Committee) provides guidance and oversight with respect to ESG strategy, priorities and corporate disclosure, and is responsible for embedding ESG into our practices and behaviours.

Comprising senior leadership including but not limited to the CEO, CFO and COO, the ESG Committee reports to the CEO, who ultimately reports to the Board on ESG matters. Meetings are held at least guarterly to discuss ESG policies, practices and disclosure, current and emerging ESG trends and regulations, the identification, assessment and management of ESG risks and opportunities, and ESG metrics and targets to advance strategy. This past year, the work of the ESG Committee included identifying and approving our ESG priorities, approving ESG disclosure and performance enhancements, and most notably, evaluating 2030 climate targets and potential technological developments.

#### **Corporate Health, Safety and Environment Committee**

The Corporate Health, Safety & Environment Committee (HSE Committee) oversees matters related to potential environmental impacts, the health and safety of our workers, and the strength of our security programs.

It consists of senior interdisciplinary subject matter experts from across MEG. The HSE Committee ensures proper due diligence in the development, implementation and functioning of HSE and security programs. The HSE Committee meets monthly where they discuss potential issues, trends, enhancement opportunities, and performance against objectives and targets. The HSE Committee reports and makes recommendations on key HSE and security matters to the HSERC and communicates learnings across MEG to drive continuous improvement. Please refer to the Climate Change & GHG Emissions section for additional information on Governance of Climate Change at MEG.

#### **Executive Compensation**

Our executive compensation program and policies are designed to attract and retain talented individuals, and ensure they are motivated to pursue our goal of delivering long-term value. We maintain a strong and direct link between financial and operating results, shareholder value creation and executive compensation. Our Corporate Performance Scorecard and our Performance Share Unit (PSU) performance measures reflect the integration of ESG into executive and employee compensation.

Our executive and employee compensation program is directly linked to a combination of financial, operational and ESG-related metrics that make up our Corporate Performance Scorecard. The ESG-related metrics account for 35 per cent of the 2022 and 2023 MEG scorecard. In addition, CEO compensation is linked to performance on the following ESG objectives: Health, Safety & Environment, decarbonization, Diversity, Equity & Inclusion, and talent development.

Our executive compensation and corporate performance indicators are set by the HRCC and HSERC, and approved by the Board.

Our shareholders can vote for or against our approach to executive compensation with a non-binding annual advisory vote at our Annual General Meeting. In 2023, our approach to executive compensation received the support of 95.72 per cent of the votes cast by shareholders.

For more information on Executive Compensation, see MEG's Management Information Circular.

#### Corporate Performance Scorecard



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Corporate performance indicators are reviewed annually for alignment with our ESG priorities and for stringency to drive continuous improvement.





#### **Risk Management**

The Board is responsible for oversight of risk management at MEG, including identifying and managing risks that impact our ability to pursue strategic objectives, such as those relating to sustainability and climate change. We rely on an Enterprise Risk Management (ERM) system, which uses a risk matrix based on likelihood and impact severity to identify, assess, and prioritize strategic risks, including ESG and climate-related risks. This process is integrated into existing processes within MEG including strategic planning, business planning, operating practices, marketing, compliance monitoring, delegation of authority, operating performance measurement, and facility design.



We define key enterprise risks as those which, if they materialize, have the potential to materially negatively impact the value of our business or assets.

Our leadership team is engaged in evaluating and ranking risk areas across the organization. They present and discuss ERM risk and mitigation strategies at least annually with the Board, with guarterly updates provided on changing dynamics, assessment of risk exposure, and mitigation activities. ESG-related risks include, but are not limited to, climate-related risks, transitional risks (policy and legal, regulatory, reputational, technology, market) and physical risks (acute and chronic). Risks are evaluated considering potential severity and likelihood of occurrence and potential financial, operational, health, safety, environmental and reputational impacts. ESG-related risks and opportunities have been included in our ERM and strategic plan for over a decade and have been considered in the implementation of strategic initiatives. In 2023, we completed climate scenario analysis to support the assessment of risks related to low-carbon energy transition and climate change. Material risks for the organization are reported in our Annual Information Form and other public disclosures.

#### **ESG-related** Policies

We have the following ESG-related policies, which are reviewed and approved by our Board of Directors:

**Business Conduct Charter Respectful Workplace Policy** Lobbying & Advocacy Policy **Diversity, Equity & Inclusion Policy** Human Rights Policy Statement Health, Safety & Environment Policy **Indigenous Peoples Policy** Water Policy



#### GOVERNANCE

## **Cybersecurity**

#### Why is This Important?

Organizations recognize the importance of cybersecurity for the protection of sensitive information, regulatory compliance, reducing financial risk and maintaining reputation and trust. While cyber risks can never be eliminated, MEG has been proactive in our approach to mitigating cyber risks which can interrupt our business or harm the organization's finances and reputation.



#### Our Approach

MEG, through its Cybersecurity Framework, ensures processes, practices, and technologies are effectively designed and implemented to help detect, identify, protect and respond to threats as they emerge and evolve.

We employ a holistic security model, based on the National Institute of Standards and Technology (NIST) and the International Organization for Standardization (ISO), that:

Uses enterprise class perimeter and network infrastructure, best-practice network segregation, and multi-factor authentication

Provides ongoing cybersecurity and technology education and awareness training to all end users of the Corporation at least annually; testing is performed frequently, and cybersecurity policies are internally available to all employees

Uses security monitoring and alerting, including artificial intelligence and machine learningbased behaviour analytics to identify potential malicious activities or attacks

Regularly performs security control testing and vulnerability assessments to ensure information technology systems are up to date and properly configured

Establishes incident response procedures to isolate and mitigate potential attacks

Implements data backup and recovery processes to minimize the risk of data loss and disruption of business

Uses third-party experts to perform annual penetration testing and security assessments of MEG's IT infrastructure and cybersecurity procedures

#### HOME INTRODUCTION ENVIRONMENT SOCIAL

#### **Our Commitments**

We are consistently focused on enhancing our people's abilities through cybersecurity awareness and improved process and technology strategies.



#### **Our Performance**

MEG's cybersecurity awareness performance has improved among our employees and contractors.

#### Simulated Phishing Testing



Our simulated phishing testing success improved from an average of 93.3 per cent in 2021 to 96.7 per cent in 2022.

Peter Collins Director, Information Technology



Raising Cybersecurity Awareness is a continuous process. MEG posts quarterly communications on its intranet with the latest threats, tips, and best practices. In September 2022, Peter Collins, Director, Information Technology, presented Healthy Habits for Online Security.



## Transparency

## Business Conduct Charter & Confidence Line

Our Business Conduct Charter applies to all directors, officers, employees and consultants, suppliers and service providers, and addresses issues such as conflicts of interest, fair dealing, insider trading, privacy matters and disclosure.

All new directors, officers, employees and consultants are required to complete an online training program. In addition, directors, officers, employees, and consultants are required to acknowledge annually that they have read the charter and have disclosed any potential conflicts through a formal sign-off process. Our Confidence Line is a confidential and anonymous whistleblowing line for employees, contractors and other stakeholders to raise concerns. The Board's Audit Committee, made up of independent directors only, oversees our Confidence Line, and submissions are received and tracked by an independent third-party service provider. All submissions are investigated with the results reported to the full Board.

#### Insider Trading & Disclosure Policy

We have adopted an Insider Trading & Disclosure Policy to ensure all MEG employees and Board members understand and comply with their legal obligations relating to trading in MEG securities and the disclosure of information, and to provide for procedures governing the disclosure of information by any of MEG's representatives.

The policy applies to all of MEG's directors, officers, employees, contractors and consultants.

#### **Related Party Transactions Policy**

In addition to the provisions of the Business Conduct Charter relating to potential conflicts of interest, we have adopted a Related Party Transactions Policy which is intended to supplement the Business Conduct Charter.

The Related Party Transactions Policy requires the approval or ratification by the GNC of any transaction or series of transactions exceeding \$120,000 in which MEG is a participant and any related person has a direct or indirect material interest. Once a related party transaction has been identified, the GNC will review all the relevant facts and circumstances and approve or reject the transaction.

#### **ESTMA**

Annually, we publicly disclose payments to all governments in Canada and abroad as required by the Extractive Sector Transparency Measures Act (ESTMA) and have done so since 2016. **MEG's annual ESTMA** filings can be found on our website.



## Lobbying

MEG is committed to maintaining and enforcing the highest standards of ethics and professionalism. This applies to governance practices in general, and MEG's activities relating to public policy, including our participation in industry groups, lobbying and political contributions.

Our Lobbying & Advocacy Policy ensures that all stakeholders and representatives understand and comply with our policies related to lobbying and to industry memberships and associations. All directors, officers and employees are required to acknowledge their understanding of, and compliance with, MEG's Lobbying & Advocacy Policy on an annual basis.

Our goal is to align our participation in industry groups with our public policy positions. However, this does not mean that we will agree on every position taken by the industry group. Memberships and associations with industry groups are approved by either our CEO or General Counsel. We disclose a list of industry group memberships where we pay annual dues greater than \$5,000 and which may participate in lobbying activities.

We comply with all applicable laws respecting lobbying, including the Lobbying Act (Canada) and the Lobbyists Act (Alberta). In connection with applicable laws and regulations, we maintain the required registrations for lobbying communications with public office holders, including reporting employees who are lobbyists for, or on behalf of, MEG. We maintain internal procedures and protocols for ensuring this compliance.

MEG does not make contributions, financial or in kind, to political parties, committees, or candidates, and does not expressly support or advocate on behalf of such political parties, committees or candidates.



# ESG Performance Data (EPD) Report

2023

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# Land Acknowledgement

At MEG, we provide land acknowledgements to show gratitude and appreciation to the Indigenous communities who have lived on Turtle Island since time immemorial. Along with a deep understanding of its context, history and meaning, making a land acknowledgment is a small but important first step in the reconciliation process between all treaty people.

### **Regional Land Acknowledgements**

#### Our Head Office is in Calgary

We acknowledge the traditional Treaty 7 territory of the Blackfoot Confederacy: Siksika, Kainai, Piikani, as well as the Îyâxe Nakoda and Tsuut'ina nations. We are situated on the land where the Bow River meets the Elbow River, and the traditional Blackfoot name of this place is "Mohkinstsis" which we now call the City of Calgary. We acknowledge that this territory is home to the Métis Nation of Alberta, Region 3 within the historical Northwest Métis homeland.

#### Our Site Operations are at Christina Lake

We acknowledge Treaty 8 territory — the traditional and ancestral territory of the Cree and Dene. We acknowledge that this territory is home to the Métis Settlements and the Métis Nation of Alberta, Regions 1, 4, 5 and 6 within the historical Northwest Métis Homeland. We acknowledge the many First Nations, Métis and Inuit who have lived in and cared for these lands for generations.



Calgary, Alberta

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Christina Lake, Alberta

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Activity									
Production of: (1) oil	bbl/day	87,731	93,082	82,441	93,733	95,338		EM-EP-000.A	
Production of: (2) natural gas	bbl/day	0	0	0	0	0		EM-EP-000.A	
Production of: (3) synthetic oil	bbl/day	0	0	0	0	0		EM-EP-000.A	
Production of: (4) synthetic gas	bbl/day	0	0	0	0	0		EM-EP-000.A	
Number of offshore sites	count	0	0	0	0	0		EM-EP-000.B	
Number of terrestrial sites	count	1	1	1	1	1		EM-EP-000.C	
Economic									
Steam-oil Ratio	bbl of steam/bbl of bitumen	2.19	2.22	2.32	2.43	2.36			
Common Shares Outstanding	millions	297	300	303	307	291			
Market capitalization	\$ millions	2,289	2,213	1,347	3,590	5,487	102-7		EC-1
Gross sales	\$ millions	2,771	3,976	2,301	4,397	6,343			EC-2
Adjusted funds flow	\$ millions	175	724	281	826	1,934			EC-3
Annual capital investments	\$ millions	622	198	149	331	376	201-1		EC-4
Operating expenses	\$ millions	210	238	232	309	420			EC-5
Total assets	\$ millions	8,410	7,866	7,224	7,593	7,033	102-7		
Royalties, taxes and fees	\$ millions	38	45	9	76	225	201-1		EC-6
Net debt to capitalization ratio		45	43	44	37	23	102-7		EC-7
Debt to capitalization ratio		49	45	45	42	26	102-7		EC-8

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Climate Change & GHG Emis	ssions								
Direct GHG emissions (Scope 1)	tonnes CO <sub>2</sub> e	2,140,537	2,304,490	2,113,450	2,439,106	2,368,081	305-1	EM-EP-110a.1	GHG-1, GHG-2
(1) Scope 1 by GHG Type - $CO_2$	tonnes CO <sub>2</sub>	2,119,323	2,286,737	2,100,396	2,420,766	2,347,212	305-1		GHG-2
(2) Scope 1 by GHG Type - $CH_4$	tonnes CH <sub>4</sub>	543	377	218	396	480	305-1		GHG-3
(3) Scope 1 by GHG Type - $N_2O$	tonnes N <sub>2</sub> O	26	28	26	28	29	305-1		
Amount of Gross Global Scope 1 Emissions fro	m:								
(1) flared hydrocarbons	tonnes CO <sub>2</sub> e		8,325	6,708	7,362	10,157	305-1	EM-EP-110a.2	GHG-4
(2) other combustion	tonnes CO <sub>2</sub> e		2,289,787	2,103,994	2,424,749	2,351,077	305-1	EM-EP-110a.2	GHG-1
(3) Process emissions	tonnes CO <sub>2</sub> e		N/A	N/A	N/A	N/A	305-1	EM-EP-110a.2	GHG-5
(4) other vented emissions	tonnes CO <sub>2</sub> e		867	512	4,510	2,502	305-1	EM-EP-110a.2	GHG-1, GHG-6
(5) fugitive emissions	tonnes CO <sub>2</sub> e		5,510	2,236	2,427	4,346	305-1	EM-EP-110a.2	GHG-1, GHG-7
Percentage methane	%		0.41	0.26	0.41	0.51		EM-RM-110a.1	GHG-8
Percentage covered under emission-limiting regulations	%		100	100	100	100		EM-MM- 110a.1	GHG-9
Indirect GHG Emissions (Scope 2)	tonnes CO <sub>2</sub> e	20	0	16	0	383	305-2		GHG-10
Bitumen GHG Emissions Intensity	kg CO <sub>2</sub> e/bbl	56	57	59	60	58	305-4		
Electricity GHG Emissions Intensity	kg CO <sub>2</sub> e/MWh	353	350	351	361	362	305-4		

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Water & Wastewater Manage	ement								
Total water withdrawal	thousand m <sup>3</sup>	1,134	653	660	736	622	303-3		W-6
Water withdrawal by type:									
(1) Non-saline water withdrawal	thousand m <sup>3</sup>	986	583	512	557	608	303-3	EM-EP-140a.1	W-1
(2) Saline water withdrawal	thousand m <sup>3</sup>	148	71	148	180	14	303-3		W-8
Water withdrawal by source:									
(1) Surface water withdrawal	thousand m <sup>3</sup>	134	53	33	79	81	303-3		W-2
(2) Groundwater withdrawal	thousand m <sup>3</sup>	1,000	600	626	657	540	303-3		W-3, W-7
Total Non-Saline Water Consumed	thousand m <sup>3</sup>		36	30	47	57	303-3	EM-EP-140a.1	W-12
Recycled Water - percentage recycled	%	93	96	96	96	97	303-3		W-5
Produced Water Volume	thousand m <sup>3</sup>	11,627	13,244	12,458	14,907	15,030	303-3	EM-EP-140a.2	W-4
(1) percentage discharged	%	0	0	0	0	0		EM-EP-140a.2	
(2) percentage injected	%	100	100	100	100	100		EM-EP-140a.2	
(3) percentage recycled	%	90	88	86	87	85		EM-EP-140a.2	
(4) hydrocarbon content in discharged water	tonnes	N/A	N/A	N/A	N/A	N/A		EM-EP-140a.2	W-13
Total Make-up water withdrawal:	thousand m <sup>3</sup>	905	543	568	593	622	303-3		
(1) Saline make-up water withdrawal	thousand m <sup>3</sup>	148	71	148	180	14	303-3		W-8
(2) Non-saline make-up water withdrawal	thousand m <sup>3</sup>	756	472	421	413	456	303-3		W-1, W-9
Total make-up water intensity	m³/m³ oil production	0.18	0.10	0.12	0.11	0.09			W-10
Non-saline make-up water intensity	m³/m³ oil production	0.15	0.09	0.09	0.08	0.08			W-11

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Land & Biodiversity									
Active Commercial Footprint	hectares	1,094	1,087	1,085	1,103	1,104			LB-1
Total Land Undergoing Reclamation	hectares	93	100	104	97	103			LB-2
Cumulative Caribou Habitat Restoration	hectares	3,803	5,871	6,347	8,197	8,623			LB-3
Cumulative Caribou Habitat Restoration Program Spend	\$	1,241,882	1,664,711	1,965,999	2,268,152	2,622,267			LB-4
Percentage of: (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	%			84	84	84		EM-EP-160a.3	LB-5
Spills									
Reportable spill	count	5	4	8	5	3	306-3	EM-EP-160a.2	S-1, S-5
Total volume of reportable spills	m <sup>3</sup>	34	34	123	831	65	306-3	EM-EP-160a.2	S-1, S-2, S-4
Total volume of reportable spills - Hydrocarbon	m <sup>3</sup>	15	8	13	65	0	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills - Hydrocarbon	count	2	2	2	2	1	306-3	EM-EP-160a.2	S-1
Total volume of reportable spills - Non-Hydrocarbon	m <sup>3</sup>	20	26	110	766	65	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills - Non-Hydrocarbon	count	3	2	6	3	2	306-3		S-1
Total volume of hydrocarbons recovered	m <sup>3</sup>	-	-	-	-	-	-	EM-EP-160a.2	S-3
Reportable Spill Intensity	m³ of volume released per 10 <sup>6</sup> m³ OE Total Production	1.98	1.78	6.92	40	3.05	306-3		S-1, S-2, S-4

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Air Quality & Waste Manager	nent								
NO <sub>x</sub> emissions	tonnes	917	846	797	990	989	305-7	EM-EP-120a.1	
$NO_x$ emissions intensity of oil production	kg/bbl	0.028	0.027	0.028	0.028	0.028	305-7		
SO <sub>2</sub> emissions	tonnes	361	845	709	582	545	305-7	EM-EP-120a.1	
SO <sub>2</sub> emissions intensity of oil production	kg/bbl	0.011	0.025	0.023	0.017	0.016	305-7	EM-EP-120a.1	
VOC emissions	tonnes	146	102	89	99	160	305-7	EM-EP-120a.1	AQ-1
VOC emissions intensity of oil production	kg/bbl	0.005	0.003	0.003	0.003	0.005	305-7		
Total Particulate Matter	tonnes	80	54	83	85	82	305-7	EM-EP-120a.1	
Total Particulate Matter intensity of oil production	kg/bbl	0.003	0.002	0.003	0.002	0.002	305-7		
Particulate Matter (PM <sub>10</sub> )	tonnes	-	39	46	49	48	305-7	EM-EP-120a.1	
Flared Gas	e <sup>3</sup> m <sup>3</sup>	790	1,598	958	1,100	2,253	305-7		AQ-2
Vented Gas	e <sup>3</sup> m <sup>3</sup>	47	55	30	332	148	305-7		AQ-3

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Health and Safety									
Total Recordable Incident Rate (TRIF)	# per 200,000 hours worked	0.43	0.26	0.22	0.31	0.46	403-9	EM-EP320a.1	HS-1
Total Recordable Injury Frequency Rate (TRIFR) - Employees	# per 200,000 hours worked	0.37	0.00	0.26	0.21	0	403-9		HS-2
Total Recordable Injury Frequency Rate (TRIFR) - Contractors	# per 200,000 hours worked	0.65	0.30	0.20	0.37	0.69	403-9		HS-1, HS-3
Lost-time injury frequency:									
a) employee	# per 200,000 hours worked	0.19	0.00	0.00	0.00	0.00	403-9	EM-EP320a.1	HS-1
b) contractor	# per 200,000 hours worked	0.19	0.15	0.20	0.00	0.1	403-9	EM-EP320a.1	HS-4
c) short-service employees	# per 200,000 hours worked	-	-	-	0.00	0.07	403-9	EM-EP320a.1	HS-5
Recordable injury frequency:									
a) employee	# per 200,000 hours worked	0.37	0.00	0.26	0.21	0.00	403-9	EM-EP320a.1	HS-2
b) contractor	# per 200,000 hours worked	0.65	0.30	0.20	0.37	0.69	403-9	EM-EP320a.1	HS-3
c) short-service employees	# per 200,000 hours worked	-	-	-	0.08	0.00	403-9	EM-EP320a.1	HS-1
Fatalities:									
a) employee	count	0	0	0	0	0	403-9	EM-EP320a.1	
b) contractor	count	0	0	0	0	0	403-9	EM-EP320a.1	
c) short-service employees	count	0	0	0	0	0	403-9	EM-EP320a.1	
Near miss frequency rate:									
a) employee	rate	46.00	26.31	16.01	14.37	3.37	403-9	EM-EP320a.1	HS-5
b) contractor	rate	7.18	5.13	2.95	4.23	0.89	403-9	EM-EP320a.1	HS-5
c) short-service employees	rate	-	-	-	-	-	403-9	EM-EP320a.1	HS-6
Average hours of health, safety and emergency response training for:									
a) employee	hours	-	-	-	-	-	403-9	EM-EP320a.1	
b) contract, and c) short-service employees									

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote		
Critical Incident Risk Manage	ment										
Tier 1	# per 200,000 hours worked	0.00	0.09	0.22	0.20	0.00		EM-EP-540a.1	PSM-1		
Tier 2	# per 200,000 hours worked	0.10	0.09	0.11	0.00	0.00			PSM-1		
Serious Incident Frequency (SIF)	# per 200,000 hours worked	4.50	1.30	1.20	0.20	-			PSM-2		
Indigenous Relations											
Indigenous business spend	\$	92,778,667	37,781,190	36,691,668	55,560,079	72,033,676			IR-1, IR-2		
<ul><li>Percentage of</li><li>1) proved and</li><li>2) probable reserves in or near areas of conflict</li></ul>	%	-	-	0	0	0		EM-EP-210a.1			
Percentage of 1) proved and 2) probable reserves in or near Indigenous land	%	-	-	100	100	100		EM-EP-210a.2	IR-3		
Number of non-technical delays	count	-	0	0	0	0		EM-EP-210b.2	IR-4		
Duration of non-technical delays	days	-	0	0	0	0		EM-EP-210b.2	IR-4		

Metric	Units	2018	2019	2020	2021	2022	GRI	SASB	Footnote
Our People									
Number of Employees Total	count	515	447	391	410	430	102-7		
Age by range - 30 years and younger	count	38	29	24	32	27	405-1		
Age by range - 30 - 50 years old	count	345	316	269	274	291	405-1		
Age by range - over 50 years old	count	132	102	98	104	112	405-1		
Women Total	%	22	21	19	20	21	102-8; 405-1		
Men Total	%	78	79	81	80	79	102-8; 405-1		
Women in Management	%	22	25	27	27	27	405-1		WF-1
Women in Senior Management	%	24	25	18	18	10	405-1		WF-2
Location of Employees - Office	count	280	217	188	197	211	102-7		
Location of Employees - Field	count	235	230	203	213	219	102-7		
New employee hires	%	7	9	8	7	11	401-1		
New employee hires - Male	%	82	67	67	73	65	401-1		
New employee hires - Female	%	18	33	33	27	35	401-1		
New employee hires Age by range - 30 years and younger	%	9	12	13	24	8	401-1		
New employee hires Age by range - 30 - 50 years old	%	47	67	54	62	77	401-1		
New employee hires Age by range - over 50 years old	%	44	21	33	14	15	401-1		
Employee Turnover Rate	%	7	22	21	4	7	401-1		
Ratio of permanent to temporary employee contracts		29:1	28:1	39:1	26:1	29:1			

#### Community Investment

Total contribution to charitable, non-charitable and community groups	\$	3,511,891	2,949,918	1,761,263	1,839,959	2,955,718	201-1		CI-1
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Metric	SASB Code	MEG Disclosure							
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Activity									
Production of:									
(1) oil	EM-EP-000.A	"Activity" in EPD							
(2) natural gas	EM-EP-000.A	"Activity" in EPD							
(3) synthetic oil	EM-EP-000.A	"Activity" in EPD							
(4) synthetic gas	EM-EP-000.A	"Activity" in EPD							
Number of offshore sites	EM-EP-000.B	"Activity" in EPD							
Number of terrestrial sites	EM-EP-000.C	"Activity" in EPD							

#### Reserves Valuation & Capital Expenditures

Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	EM-EP-420a.2	We will evaluate and consider for future disclosure.
Amount invested in renewable energy, revenue generated by renewable energy sales	EM-EP-420a.3	\$0
Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	EM-EP-420a.1	We will evaluate and consider for future disclosure.
Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	EM-EP-420a.4	2023 ESG Report pg. 9

#### Management of the Legal & Regulatory Environment

Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	EM-EP-530a.1	"Relevant regulatory and/or legal risks are discussed throughout the report as relevant and can be found in the "Why is This Important" section for each ESG factor. 2023 ESG Report pg. 60
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#### Business Ethics & Transparency

#### Percentage of

(1) proved and	EM-EP-510a.1	Proved: 0%
(2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	EM-EP-510a.1	Probable: 0%
Description of the management system for prevention of corruption and bribery throughout the value chain	EM-EP-510a.2	2023 ESG Report pg. 60

Metric	SASB Code	MEG Disclosure	
Greenhouse Gas Emissions			
Direct GHG emissions (Scope 1):	EM-EP-110a.1	"Climate Change & GHG Emissions" in EPD	
Percentage methane	EM-RM-110a.1	"Climate Change & GHG Emissions" in EPD	
Percentage covered under emission-limiting regulations	EM-MM-110a.1	"Climate Change & GHG Emissions" in EPD	
Amount invested in renewable energy, revenue generated by renewable energy sales	EM-EP-420a.3	\$0	
Amount of Gross Global Scope 1 Emissions from:			
(1) flared hydrocarbons	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD	
(2) other combustion	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD	
(3) Process emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD	
(4) other vented emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD	
(5) fugitive emissions	EM-EP-110a.2	"Climate Change & GHG Emissions" in EPD	
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-EP-110a.3	2023 ESG Report pgs. 12-20	

Metric	SASB Code	MEG Disclosure
Water Management		
Total Non-Saline Water Withdrawal	EM-EP-140a.1	"Water & Wastewater Management" in EPD
Total Non-Saline Water Consumed	EM-EP-140a.1	"Water & Wastewater Management" in EPD
Percentage of Total fresh water withdrawn in regions with High or Extremely High Baseline Water Stress Management	EM-EP-140a.1	0% The WRI Aqueduct tool classifies overall water risk in the area as a Low to Medium Risk (1-2). MEG does not currently operate in water stressed areas. 2023 ESG Report pgs. 21-23
Percentage of total fresh water consumed in regions with High or Extremely High Baseline Water Stress Management	EM-EP-140a.1	0% The WRI Aqueduct tool classifies overall water risk in the area as a Low to Medium Risk (1-2). MEG does not currently operate in water stressed areas. 2023 ESG Report pg. 23
Produced Water Volume:	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(1) percentage discharged	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(2) percentage injected	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(3) percentage recycled	EM-EP-140a.2	"Water & Wastewater Management" in EPD
(4) hydrocarbon content in discharged water	EM-EP-140a.2	"Water & Wastewater Management" in EPD
Percentage of hydraulically fractured wells for which there Is public disclosure of all fracturing fluid chemicals used	EM-EP-140a.3	N/A MEG does not undertake hydraulic fracturing activities.
Percentage of hydraulically fractured sites where ground or surface water quality deteriorated compared to baseline	EM-EP-140a.4	N/A MEG does not undertake hydraulic fracturing activities

Metric	SASB Code	MEG Disclosure
Biodiversity Impacts		
Description of environmental management policies and practices for active sites	EM-EP-160a.1	2023 ESG Report pgs. 25-27, "Land & Biodiversity" in EPD
Reportable spill:	EM-EP-160a.2	"Land & Biodiversity" in EPD
Total volume of reportable spills	EM-EP-160a.2	"Land & Biodiversity" in EPD
Total volume of reportable spills – Hydrocarbon	EM-EP-160a.2	"Land & Biodiversity" in EPD
Count of reportable spills – Hydrocarbon	EM-EP-160a.2	"Land & Biodiversity" in EPD
Total volume of reportable spills – Non-Hydrocarbon	EM-EP-160a.2	"Land & Biodiversity" in EPD
Count of reportable spills – Non-Hydrocarbon	EM-EP-160a.2	"Land & Biodiversity" in EPD
Total volume of hydrocarbons recovered	EM-EP-160a.2	"Land & Biodiversity" in EPD
Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume impacting shorelines with ESI rankings 8-10, and volume recovered	EM-EP-160a.2	N/A MEG does not operate in the Arctic or near shorelines. This metric is not applicable to MEG.
Percentage of:		
(1) proved and	EM-EP-160a.3	"Land & Biodiversity" in EPD
(2) probable reserves in or near sites with protected conservation status or endangered species habitat		
Air Quality		
NO <sub>x</sub> emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD

NO <sub>x</sub> emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
SO <sub>2</sub> emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
$SO_2$ emissions intensity of oil production	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
VOC emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
Particulate Matter (PM <sub>10</sub> )	EM-EP-120a.1	"Air Quality & Waste Management" in EPD

Metric	SASB Code	MEG Disclosure	
Workforce Health & Safety			
Total Recordable Incident Rate (TRIF)	EM-EP320a.1	"Health & Safety" in EPD	
Lost-time injury frequency:			
Employee	EM-EP320a.1	"Health & Safety" in EPD	
Contractor	EM-EP320a.1	"Health & Safety" in EPD	
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD	
Recordable injury frequency:			
Employee	EM-EP320a.1	"Health & Safety" in EPD	
Contractor	EM-EP320a.1	"Health & Safety" in EPD	
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD	
Fatalities:			
Employee	EM-EP320a.1	"Health & Safety" in EPD	
Contractor	EM-EP320a.1	"Health & Safety" in EPD	
Short-service employee	EM-EP320a.1	"Health & Safety" in EPD	
Near miss frequency rate:			
a) employee	EM-EP320a.1	"Health & Safety" in EPD	
b) contract, and			
c) short-service employees			
Average hours of health, safety and emergency response training for:			
a) employee	EM-EP320a 1	"Health & Safety" in EPD	
b) contract, and	EIN EI OZOG.I		
c) short-service employees			
Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	EM-EP-320a.2	2023 ESG Report pgs. 37-41, "Health & Safety" in EPD	

#### Critical Incident Risk Management

Tier 1	EM-EP-540a.1	"Critical Risk Management" in EPD
Description of management systems used to identify and mitigate catastrophic and tail-end risks.	EM-EP-540a.2	2023 ESG Report pgs. 37-41

Metric	SASB Code	MEG Disclosure		
Security, Human Rights & Rights of Indigenous People				
Percentage of				
1) proved and	EM-EP-210a.1	"Indigenous Relations" in EPD		
2) probable reserves in or near areas of conflict				
Percentage of				
1) proved and	EM-EP-210a.2	"Indigenous Relations" in EPD		
2) probable reserves in or near Indigenous land				
Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	EM-EP-210a.3	2023 ESG Report pgs. 47-49		
Community Relations				
Discussion of process to manage risks and opportunities associated with community rights and interests	EM-EP-210b.1	2023 ESG Report pgs. 47-49		
Number of non-technical delays	EM-EP-210b.2	"Community Relations" in EPD		
Duration of non-technical delays	EM-EP-210b.2	"Community Relations" in EPD		

#### Footnotes

- **EC-1** Increase primarily due to the \$7.15 per share increase in the Corporation's share price as at December 31, 2022 compared to December 31, 2021.
- **EC-2** The increase in gross sales is primarily due to the 41 per cent increase in blend sales price due to higher WTI price and a 15 per cent increase in sales volumes due to increased production.
- **EC-3** Increase primarily due to higher cash operating netback as a result of stronger WTI prices and increased blend sales.
- **EC-4** The increase in capital investment was due to turnaround work performed in the second quarter of 2022 on Phase 2B. No turnaround activities took place in 2021.
- **EC-5** Increase primarily due to inflationary cost increases in combination with higher AECO natural gas prices and an increase in purchased natural gas volumes.
- **EC-6** Higher royalties reflect a 44 per cent increase in Canadian dollar WTI prices which increased the royalty rate and gross royalties.
- **EC-7** Decrease due to the decrease in net debt as a result of 2022 debt payments.
- **EC-8** Decrease due to the decrease in debt as a result of 2022 debt payments.
- **GHG-1** Global Warming Potential from Fourth Assessment Report (AR4) applied.
- **GHG-2** Scope 1 totals may not sum due to rounding.
- **GHG-3** Approximately 20 per cent increase relative to 2021 primarily due to methodology refinement and fugitive releases.
- **GHG-4** Approximately 40 per cent increase relative to 2021 due to intermittent process upsets resulting in additional flared volumes.
- **GHG-5** There are no process emissions associated with our operations.
- **GHG-6** Approximately 45 per cent decrease relative to 2021 when vented volumes were impacted by a single release event.
- **GHG-7** Approximately 80 per cent increase relative to 2021 due to increased volume detection of leaks during routine emission surveys. All leaks are entered into a repair program once identified as part of MEG's fugitives management plan.
- **GHG-8** Approximately 25 per cent increase relative to 2021 primarily due to methodology refinement and fugitive releases.

- **GHG-9** In 2022 our operational GHG emissions were regulated under the Technology Innovation and Emission Reduction (TIER) Regulation which is an emissions intensity-based regime requiring large emitters to reduce their emissions intensity below a prescribed level and requires third party verification.
- **GHG-10** We generate electricity through the use of cogeneration and sell excess supply to the Alberta electricity grid. Under normal conditions, MEG does not purchase power from the Provincial grid.
- W-1 Non-saline water withdrawal includes non-saline groundwater (defined by The Alberta Water Act (Ministerial) Regulation as water with total dissolved solids (TDS) content less than 4,000 milligrams per liter (mg/L) and surface water. Non-saline water includes groundwater used for oil production, groundwater used for potable water, and surface water used for industrial purposes such as dust suppression, oil sands exploration activities and drilling activities.
- W-2 All water on the surface of the ground, including water in lakes, rivers, streams, wetlands and run-off collection ponds, natural or man-made. This water source is used for industrial purposes such as dust suppression, constructing ice roads and oil sands exploration and drilling activities. This water source is not used for oil production.
- **W-3** Groundwater is water beneath earth's surface and is present in pore spaces or fractures.
- W-4 Produced water is composed mainly of injected steam and water from the reservoir that is produced back along with the bitumen. The majority of water used in our process to generate steam is recycled produced water. The remaining water (termed make-up water which includes saline and non-saline groundwater) comes from water sources located deep underground. These water sources are unsuitable for human consumption or for agricultural purposes. In 2022, produced water volumes increased from the year prior primarily due to increased bitumen production.
- W-5 Calculated in accordance with AER Industry Water Use Report. Recycled water is produced water previously returned from the reservoir and re-injected as a proportion of total make-up water; thus, measuring the ability to re-use produced water; thus, measuring the ability to re-use produced water within the process. This is a measure of total produced water as a proportion of all non-saline, saline and produced water in.
- W-6 Approximately 15 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up withdrawals.

- W-7 Approximately 20 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up withdrawals.
- W-8 Approximately 90 per cent decrease relative to 2021 due to excess produced water returns lowering the demand for make-up water withdrawals.
- **W-9** Approximately 10 per cent increase relative to 2021 due to temporary process disruption requiring the substitution of non-saline for saline make-up water.
- W-10 Approximately 20 per cent improvement relative to 2021 due to lower make-up water demand associated with excess produced water returns and low SOR.
- W-11 MEG continues to reduce water intensities through reservoir technology development such as eMSAGP, optimization of recycling technology and optimization projects such as plant modifications. In 2021, the nonsaline water intensity remained at the lowest level in operational history as a result of these strategies.
- W-12 2022 volumes include exploration activity.
- W-13 MEG does not discharge produced water to the environment. All industrial runoff (i.e. resulting from precipitation) and surface water collected from developed sites must be tested prior to releasing to the surface environment in accordance with MEG's Environmental Operating Approval, the Water Act and the AER's Storage Requirements for the Upstream Petroleum Industry. These requirements ensure that relevant discharge criteria are met and no visible hydrocarbon sheen is present.
- LB-1 MEG's Active Commercial Footprint per the 2022 Conservation and Reclamation Annual Report, reported to the Alberta Energy Regulator on an annual basis. The Commercial Footprint is derived from total of all hectares that are considered under construction and operational under MEG's EPEA approval.
- LB-2 Inclusive of all areas that are under reclamation, meaning that no more work is required and the sites are revegetating in anticipation of applying for a reclamation certificate when the vegetation is sufficiently established. Hectares are moved to being considered permanently reclaimed after inspection and assessment of revegetation confirmation that the cover of native herbaceous and woody species exceed ground cover requirements, woody species meets stem count requirements in forested and peatland reclaimed disturbances, the cover of mosses meets reclamation criteria for peatlands, and noxious weeds are controlled. The reduction in hectares of land under reclamation in 2021 signifies that portions of land have been moved to "Permanently Reclaimed" status.

IR-2

#### **Footnotes**

- LB-3 Includes the cumulative hectares of caribou habitat created by linear disturbance restoration implementation. Per the Federal Recovery Strategy for the Woodland Caribou, land within 500 meters of an anthropogenic disturbance are considered a disturbed area when pertaining to caribou use. Conversely, whenever a linear disturbance is restored, the area within 500 meters on both side of the restored area are then considered as restored caribou habitat. This is how the hectares of restored caribou habitat are calculated along each kilometer of restored linear disturbances on the landscape.
- LB-4 Cumulative annual spend on caribou restoration, commencing with the 2017 spend; inclusive of planning, procurement, execution, reporting, and monitoring. This spend reflects both funding from MEG and federal government grants. Per MEG's ESG commitments, MEG will continue to spend a minimum of \$300k per year towards our caribou restoration program.
- LB-5 Calculated by reporting how much of our commercial footprint is within the East Side Athabasca River caribou range, including an application of a 500 m buffer around all disturbances per the Canadian Federal Recovery Strategy for the Woodland Caribou. Proven and probable reserves do not necessarily dictate the surface disturbance locations of in situ oil sands industrial activities, so MEG has calculated this metric using the actual surface commercial footprint of our industrial site.
- **S-1** Includes spills that met the reporting threshold of a regulatory agency. A reportable spill does not indicate that the released material entered the environment or caused adverse effects.
- **S-2** Totals may not sum due to rounding.
- **S-3** When a spill is identified, we respond promptly, using appropriate containment and clean up measures to mitigate any potential impact. We do not currently track volumes of hydrocarbon recovered.

- **5-4** The reportable spill intensity in 2022 was significantly lower than 2021 as there was a large volume event in 2021. There were less reportable spills, lower reportable spill volume, and higher production in 2022 contributing to lower overall spill intensity.
- **S-5** There was a 40 per cent decrease in reportable spills from 2021 to 2022.
- AQ-1 Approximately 60 per cent increase relative to 2021 due to increased volume detection of leaks during routine emission surveys. All leaks are entered into a repair program once identified as part of MEG's fugitives management plan.
- AQ-2 Increase relative to 2021 due to intermittent process upsets resulting in additional flared volumes.
- AQ-3 Approximately 55 per cent decrease relative to 2021, when vented volumes were impacted by a single release event.
- **HS-1** TRIF and TRIFR calculated by identifying the number of incidents multiplied by 200,000 manhours divided by total number of exposure hours.
- **HS-2** There were no employee recordable incidents in 2022.
- **HS-3** Increase from 2021 to 2022 reflects an increase of 2 recordable contractor incidents.
- **HS-4** The 2022 LTIF reflects 1 contractor lost time incident.
- **HS-5** There was one lost time incident involving a short service worker in 2022 where a worker sustained an injury to their fingertip requiring sutures.
- **HS-6** MEG encourages reporting near misses of any severity from our workforce.
- **PSM-1** MEG does not currently track near misses for shortservice workers.
- **PSM-2** Tier 1 and Tier 2 process safety events rates are classified per American Petroleum Institute (API) Recommended Practice 754 along with the Canadian Association of Petroleum Producers (CAPP) Process Safety Event Reporting guide.
- IR-1 MEG no longer tracks SIF metrics.

- "Indigenous business spend is calculated by taking the sum of MEG's gross spend with:
- (a) Community member-owned business defined as business owned in whole or in part by an individual who self-identifies as Indigenous; plus
- (b) Community-owned business defined as business owned in whole or in part by and Indigenous community; plus
- (c) Joint venture partnership defined as an Indigenous business entering into a partnership with an individual self-identify as Indigenous or with an Indigenous community."
- IR-3 In 2022, our Indigenous business spend increased due to overall increased expenditures and enhanced economic participation engagement. Regularly scheduled meetings with community business entities, internal Indigenous awareness training and presence at community events are cornerstones of our Indigenous business inclusion effort.
- IR-4 In 2020, MEG began tracking this metric with reference to the SASB Oil & Gas - Exploration and Production Standard. MEG uses the same definition of 'Indigenous Lands' as Article 33 of United Nations Declaration on the Rights of Indigenous People, which is land occupied by people who self-identify as Indigenous.
- WF-1 In 2019, MEG began tracking this metric with reference to the SASB Oil & Gas - Exploration and Production Standard. Non-technical delays defined by SASB as shutdowns and project delays including, but not limited to, those resulting from pending regulatory permits or other political delays, community or stakeholder resistance or protest, and armed conflict.
- WF-2 Management workforce includes employee workforce in the following management levels: Manager, Sr. Manager, Director, VP, SVP or C-suite.
- CI-1 Senior Management workforce includes: Director, VP, SVP or C-Suite. Includes Community engagement, corporate donations, corporate matches to employee donations through MEGMatch, and grants through MEGVolunteers.

### **TCFD** Index

The Task Force on Climate-related Financial Disclosures (TCFD) has developed a voluntary, consistent, climate-related financial risk disclosure framework for companies to provide information to investors, lenders, insurers and other stakeholders. MEG is a supporter of TCFD.

Торіс	Disclosure Focus Area	Recommended Disclosures	Source
Governance	Disclose the organization's governance around climate related risks and opportunities.	a) Describe the board's oversight of climate-related risk and opportunities.	ESG Report Governance, Climate Change and Greenhouse Gas Emissions Management Information Circular 2023 Corporate Governance Practices, pages 53-70 Board of Directors Mandate CDP Climate Response (C1.1a) (C1.1b) (C1.2a) (C2.2)
		Describe management's role in assessing and managing climate-related risks and opportunities.	ESG Report Governance, Climate Change and Greenhouse Gas Emissions Management Information Circular 2023 Corporate Governance Practices, page 53-70 CDP Climate Response (C1.2) (C1.2a) (1.3a) (C2.2)
Strategy	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	ESG Report Governance, Climate Change and Greenhouse Gas Emissions Annual Information Form 2022 » pages 15-20, 34-39, 56-62 CDP Climate Response (C2.1a) (2.1b) (C2.2a) (C2.3) (C2.3a) (C2.4) (C2.4a)
		<ul> <li>b) Describe the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning.</li> </ul>	ESG Report Governance, Climate Change and Greenhouse Gas Emissions Annual Information Form 2022 » pages 15-20, 34-39, 56-62 CDP Climate Response (C2.2a) (C2.3a) (C2.4a) (C3.1) (3.3) (3.4) (3.4a)
		c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	ESG Report Climate Change and Greenhouse Gas Emissions CDP Climate Response (3.2) (3.2a)

# **TCFD** Index

Торіс	Disclosure Focus Area	Recommended Disclosures	Source
Risk Management		a) Describe the board's oversight of climate-related risk and opportunities.	<b>ESG Report</b> ESG Materiality Assessment, Governance, Climate Change and Greenhouse Gas Emissions
	Disclose how the organization identifies, assesses, and manages climate-related risks.		CDP Climate Response (C2.1) (C2.2) (C2.2a)
		b) Describe management's role in assessing and	<b>ESG Report</b> ESG Materiality Assessment, Governance, Climate Change and Greenhouse Gas Emissions
		managing climate-related risks and opportunities.	CDP Climate Response (C2.1) (C2.2) (4.3) (C11) (C12)
		c) Describe how processes for identifying, assessing, and managing climate- related risks are integrated into the organization's overall risk management.	ESG Report Governance, Climate Change and Greenhouse Gas Emissions
			CDP Climate Response (C1.1b) (C1.2a) (C2.1) (C2.1a) (C2.1b) (C2.2) (C2.2a)
	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	ESG Report Climate Change and Greenhouse Gas Emissions
			CDP Climate Response (C1.3) (C1.3a) (C4.2) (C4.2b) (C5) (C6) (C7) (C8) (C9) (C11)
Metrics and Targets			Performance Data > Greenhouse Gas Emissions SASB Index > Greenhouse Gas Emissions
			Management Information Circular 2023 2022 Compensation Performance, pages 35-40
			ESG Report Climate Change and Greenhouse Gas Emissions,
		b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	CDP Climate Response (C5) (C6.1) (C6.3) (C6.5) (C7)
			Performance Data > Greenhouse Gas Emissions SASB Index > Greenhouse Gas Emissions
		c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	ESG Report Climate Change and Greenhouse Gas Emissions,
			CDP Climate Response (C4.1) (C4.1a) (C4.1b) (C4.2) (C4.2b) (C4.2c)
			Management Information Circular 2023 2022 Compensation Performance, pages 35-40

### **United Nations Sustainable Development Goals**

UNSDG symbol	Targets	2022 Progress
<b>3</b> GOOD HEALTH AND WELL-BEING	Our ultimate goal is continuous improvement towards zero incidents and injuries at work and at home.	<ul> <li>» Zero employee recordable or lost time injuries in 2022.</li> <li>» Invested in new Safety Leadership Development Training for supervisors leveraging advances in Behavioural Sciences.</li> <li>» Updated the policy to include our modernized loss-avoidance system: MEG's Operations Excellence Management System (OEMS).</li> <li>» Revised Greenhand Worker Program to recognize workers who are experienced in the hazards present in their trade, but who still may be new to specific hazards in our operating facility.</li> </ul>
6 CLEAN WATER AND SANITATION	Maintain zero freshwater (potable) water use in thermal operations. Maintain in situ industry-leading (top decile) total make-up water use intensity, with non-saline make-up water use intensity less than 0.1m <sup>3</sup> /m <sup>3</sup> oil production.	<ul> <li>» Zero fresh water used in thermal operations.</li> <li>» Maintained in situ industry leading total make-up water use intensity that was approximately 70 per cent below the industry average.</li> <li>» Achieved a historical low non-saline water use intensity of 0.08 m<sup>3</sup> /m<sup>3</sup> oil production, well below the target of 0.1.</li> <li>» Fresh water use intensity is less than half the in situ average<sup>(3)</sup>.</li> <li>» Commissioned new steam generation capacity and evaporator unit which reduced overall water disposal volumes while increasing production.</li> </ul>
8 DECENT WORK AND ECONOMIC GROWTH	Rollout of Indigenous Awareness training to all employees by the end of Q1 2022. MEG will evaluate and implement opportunities to increase participation of Indigenous businesses and businesses that employ Indigenous peoples throughout our business. Prioritize and evaluate infrastructure equity opportunities with Indigenous groups.	<ul> <li>» Delivered Indigenous Awareness Training for all employees and directors complete by end of Q1 2022. It is now a required component of employee onboarding.</li> <li>» Developed further Indigenous awareness training for select employees focused on economic reconciliation to drive the quantity and spend with Indigenous businesses.</li> <li>» Cumulative Indigenous business spend since 2007 is over \$1 billion.</li> <li>» Through the participation in the Pathways Alliance, MEG is exploring the possibilities of enhanced Indigenous economic participation.</li> </ul>
10 REDUCED INEQUALITIES	We aspire to attain a 40 per cent Board composition of Diverse Persons by 2025. Source a diverse potential candidate pool when recruiting which is representative of the communities in which we operate.	<ul> <li>We met our Board Diversity targets significantly ahead of schedule. Women currently represent 33 per cent of the corporation's Board and 44 per cent of the Board are diverse persons. 11 per cent of Board members are Indigenous.</li> <li>We established a DE&amp;I strategic plan that identifies specific actions in the next three years to drive Diversity, Equity &amp; Inclusion.</li> <li>Established a self-identification process within our candidate process to gather a data-driven understanding of which talent we are attracting into our candidate pool.</li> </ul>

# **United Nations Sustainable Development Goals**

UNSDG symbol	Targets	2022 Progress
<b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE	Targeting net zero GHG Emissions (scope 1 & 2) by 2050.	» Founding member of the Pathways Alliance in 2021 and actively participated in the development of the consortium's CO <sub>2</sub> capture, transportation and storage scope and project development activities.
13 CLIMATE	Medium-term target of a ~0.63 megatonnes per annum reduction in absolute GHG emissions (scope 1 & 2) by YE 2030. Further deployment of subsurface technology, Evaluation of CCS opportunities, >99 per cent methane conservation and year over year decrease in fugitive emissions.	<ul> <li>» Experienced a slight increase in bitumen GHG intensity from the year prior due to increased production from new well pads.</li> <li>» Partially offset more pronounced intensity increases by commissioning new steam generating units designed for efficient fuel use, ongoing boiler maintenance, well re-drills to improve performance and the implementation of Autonomous Flow Control Devices that optimized overall production.</li> <li>» Methane conservation rates remained above 99.5 per cent.</li> <li>» Continued technical and economic evaluations of CCS including evaluation of local storage opportunities.</li> <li>» Supporting research into alternate bitumen uses with low Scope 3 emissions and development of new technology to convert energy from waste heat streams to zero emission power.</li> <li>» Maintained fugitive emissions through continued efforts of the internal taskforce which monitors and repairs equipment.</li> </ul>
15 Life on Land	Strives to bring all abandoned wells to reclamation status within 5 years. Invest at least \$300,000 in annual caribou habitat restoration efforts between 2021 and 2025.	<ul> <li>» Continued progress on the legacy assets reclamation program with the abandonment of seven additional wells. All seven are on track to receive reclamation status within the 5-year goal.</li> <li>» Utilized 61 wildlife crossings at MEG's Christina Lake Regional Project site to facilitate wildlife movement across our site.</li> <li>» Invested \$300,000 to complete 22 kilometers of linear disturbance restoration.</li> <li>» Since 2016, we have allocated \$2.6MM to caribou restoration.</li> <li>» Since the inception of the AER's Area Based Closure (ABC) program, MEG has exceeded the annual mandatory spend by 50 per cent through closure work.</li> <li>» 53 legacy gas well abandonments, 37 km of legacy gas pipelines abandoned, 59 legacy gas wells moved to reclamation status etc. since 2019.</li> </ul>



Independent practitioner's reasonable and limited assurance report on selected performance metrics in MEG Energy Corp.'s 2023 ESG Performance Data Report

To the Directors of MEG Energy Corp. (the "Company" or "MEG")

We have undertaken a reasonable assurance engagement over the performance metrics outlined in the accompanying Schedule 1 (the "reasonable assurance subject matter") as presented in the Company's 2023 ESG Performance Data Report (the "2023 ESG Data Report") for the year ended December 31, 2022.

We have also undertaken a limited assurance engagement over the performance metrics outlined in the accompanying Schedule 2 (the "limited assurance subject matter") as presented in the Company's 2023 ESG Data Report, for the year ended December 31, 2022.

The reasonable assurance subject matter and the limited assurance subject matter were prepared by the Company's management in accordance with the criteria as outlined in the accompanying Schedule 1 and Schedule 2, as well as the corporate boundaries and policies as outlined in the Company's 2023 ESG Data Report (together, the "applicable criteria").

#### Management's responsibility

Management is responsible for the preparation of the reasonable assurance subject matter and limited assurance subject matter in accordance with the applicable criteria. Management is also responsible for such internal control as management determines necessary to enable the preparation of the reasonable assurance subject matter and the limited assurance subject matter that are free from material misstatement, whether due to fraud or error.

#### Our responsibility for reasonable assurance

Our responsibility is to express a reasonable assurance opinion on the reasonable assurance subject matter based on the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with the Canadian Standard on Assurance Engagements 3410, *Assurance Engagements on Greenhouse Gas Statements*. This standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the reasonable assurance subject matter is free from material misstatement.

PricewaterhouseCoopers LLP PricewaterhouseCoopers Place, 250 Howe Street, Suite 1400, Vancouver, British Columbia, Canada V6C 3S7 T: +1 604 806 7000, F: +1 604 806 7806, www.pwc.com/ca

"PwC" refers to PricewaterhouseCoopers LLP, an Ontario limited liability partnership.



Reasonable assurance is a high level of assurance, but is not a guarantee that an engagement conducted in accordance with this standard will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The nature, timing and extent of procedures selected depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the preparation of the reasonable assurance subject matter in accordance with the applicable criteria.

Our reasonable assurance engagement included, among others, the following procedures performed:

- Made inquiries of management to obtain an understanding of the overall governance and internal control environment, risk management processes relevant to the data metrics in the reasonable assurance subject matter;
- Evaluated the appropriateness of quantification methodology and reporting policies used, and the reasonableness of estimates made by the Company;
- Analytical reviews and trend analysis of the reasonable assurance subject matter;
- Recalculation of the reasonable assurance subject matter;
- Obtained and inspected a sample of underlying documentation to support the reasonable assurance subject matter; and
- Evaluated the disclosure and presentation of the reasonable assurance subject matter.

We believe the evidence we obtained is sufficient and appropriate to provide a basis for our reasonable assurance opinion.

#### Our responsibility for limited assurance

Our responsibility is to express a limited assurance conclusion on the limited assurance subject matter based on the evidence we have obtained. We conducted our limited assurance engagement in accordance with CSAE 3410, Assurance Engagements on Greenhouse Gas Statements, and Canadian Standards on Assurance Engagements 3000, Attestation Engagements Other Than Audits or Reviews of Historical Financial Information. These standards requires that we plan and perform this engagement to obtain limited assurance about whether the limited assurance subject matter is free from material misstatement.



A limited assurance engagement involves performing procedures (primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures) and evaluating the evidence obtained. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The procedures are selected based on our professional judgment, which includes identifying areas where the risks of material misstatement, whether due to fraud or error, in preparing the limited assurance subject matter in accordance with the applicable criteria are likely to arise.

Our limited assurance engagement procedures included, among others, the following procedures performed:

- Made inquiries of management to obtain an understanding of the overall governance and internal control environment, risk management processes relevant to the data metrics in the limited assurance subject matter;
- Analytical reviews and trend analysis of reporting data for the limited assurance subject matter;
- Obtained and inspected a limited sample of underlying documentation to support the limited assurance subject matter; and
- Considered the disclosure and presentation of the limited assurance subject matter.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement and, consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

#### Our independence and quality management

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Management 1, *Quality Management for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements,* and, accordingly, maintains a comprehensive system of quality management, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



#### Inherent uncertainty

Non-financial data is subject to more inherent limitations than financial data, given both the nature and the methods used for the determining, calculating, sampling or estimating such data. Qualitative interpretations of relevance, materiality and the accuracy of data are subject to individual assumptions and judgments. Greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

#### **Opinion - Reasonable assurance**

In our opinion, the reasonable assurance subject matter for the year ended December 31, 2022 is prepared, in all material respects, in accordance with the applicable criteria.

#### **Conclusion - Limited assurance**

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the limited assurance subject matter for the year ended December 31, 2022 is not prepared, in all material respects, in accordance with the applicable criteria.

#### Purpose of statement and restriction on use of our report

The reasonable assurance subject matter and the limited assurance subject matter have been prepared in accordance with the applicable criteria to assist the Company's management to report to the Board of Directors. As a result, the reasonable assurance subject matter and limited assurance subject matter may not be suitable for another purpose. Our report is intended solely for the Company. We acknowledge the disclosure of our report, in full only, by the Company at its discretion, without assuming or accepting any responsibility or liability to any third party in respect of this assurance report.

Pricewaterhouse Coopers UP

**Chartered Professional Accountants** 

Vancouver, British Columbia September 8, 2023



Schedule 1 - The reasonable assurance subject matter

Performance metric	Level of Assurance	Criteria	Unit of Measure	2022 Value
Direct Scope 1 GHG Emissions	Reasonable	All KPIs included in the reasonable assurance subject matter are prepared in line with the requirements of:	t CO₂e	2,368,081
Direct Scope 1 CO <sub>2</sub> Emissions	Reasonable	<ul> <li>Technology Innovation and Emissions Reduction ("TIER") Regulation; and GRI 305</li> <li>In line with the requirements of the TIER and GRI 305, MEG chooses the operational control approach to determine the organizational boundaries of the GHG inventory. Under this approach, the following asset is included:         <ul> <li>Christina Lake Regional Project (100% owned and operated).</li> </ul> </li> </ul>	t CO <sub>2</sub>	2,347,212
Direct Scope 1 CH <sub>4</sub> GHG Emissions	Reasonable		t CH₄	480
Direct Scope 1 N <sub>2</sub> O GHG Emissions	Reasonable		t N₂O	29
Indirect Scope 2 GHG Emissions	Reasonable	Emission factors used to calculate scope 1 emissions and scope 2 emissions were used from the Environment Canada National Inventory Report.	t CO₂e	383



#### Schedule 2 - The limited assurance subject matter

Performance metric	Level of Assurance	Criteria	Unit of Measure	2022 Value
Bitumen GHG intensity	Limited	GRI 305-4	kg CO2e / bbl	58
Electricity GHG intensity	Limited	GRI 305-4	kg CO2e / MWh	362
Indigenous Business Spend	Limited	<ul> <li>Indigenous business spend is calculated by taking the sum of MEG's gross spend with:</li> <li>(a) Community member-owned business - defined as businesses owned in whole or in part by an individual who self-identifies as Indigenous; plus</li> <li>(b) Community-owned businesses - defines as businesses owned in whole or in part by an Indigenous community; plus</li> <li>(c) Joint venture partnership - defined as an Indigenous or non-Indigenous business entering into a partnership with an individual self-identifying as Indigenous or with an Indigenous community.</li> </ul>	Canadian Dollars	72,033,676
Active Commercial Footprint	Limited	MEG's Active Commercial Footprint per the 2022 Conservation and Reclamation Annual Report, reported to the Alberta Energy Regulator on an annual basis. The Commercial Footprint is derived from the total of all hectares that are considered under construction and operational under MEG's Environment Protection and Environment Act approval.	hectares	1,103.50
Total Land Undergoing Reclamation	Limited	Inclusive of all areas that are under reclamation, meaning that no more work is required, and the sites are revegetating in anticipation of applying for a reclamation certificate when the vegetation is sufficiently established. Hectares are moved to being considered permanently reclaimed after inspection and assessment of revegetation confirmation that the cover of native herbaceous and woody species exceed ground cover requirements, woody species meets stem count requirements in forested and peatland reclaimed disturbances, the cover of mosses meets reclamation criteria for peatlands, and noxious weeds are controlled.	hectares	102.6

# **Glossary of Terms & Abbreviations**

The terms referenced in this glossary reflect their meaning as used by MEG Energy and the in situ thermal oil industry.

Term/Abbreviations	Definition
ABC	Area Based Closure (ABC) is a voluntary, collaborative initiative designed to encourage timely and efficient movement of inactive oil and natural gas infrastructure through the closure process, from abandonment to reclamation certification.
AER	Alberta Energy Regulator
API	American Petroleum Institute
bbls	Barrels of petroleum product. Also often expressed as bpd for barrels per day.
Bitumen	A naturally occurring viscous mixture consisting mainly of pentanes and heavier hydrocarbons. Its viscosity is greater than 10,000 milliPascal seconds (centipoise) measured at original temperature in the reservoir and atmospheric pressure, on a gas-free basis. Crude bitumen may contain sulphur and other non-hydrocarbon compounds.
Bitumen Intensity	greenhouse gas emissions per barrel of bitumen produced (reported in kg CO <sub>2</sub> e/bbl)
Board or Board of Directors	The board of directors of the Corporation.
Christina Lake Project, Christina Lake Regional Project, CLRP	MEG's in situ thermal energy project located in the Province of Alberta as described in greater detail under the heading "Christina Lake Project."
CDP	Carbon Disclosure Project
Cogeneration	A process that uses heat generated from clean burning natural gas to produce both steam and electricity. MEG uses the steam and a portion of the electricity generated in its operations and sells the excess power as a lower-carbon energy source to the Alberta grid.
Diluent	Lighter viscosity petroleum products that are used to dilute bitumen for transportation in pipelines.
Diverse Person	Includes, but is not limited to, women, racialized people, Indigenous people, individuals who identify as LGBTQ2S+, and people with disabilities.
eMSAGP	The Corporation's proprietary reservoir technology of enhanced Modified Steam and Gas Push, which involves the injection of non-condensable gas into the SAGD reservoir.
ESG	Environmental, Social, and Governance
ERM	Enterprise Risk Management
Fresh Water	Any surface water (e.g., lakes, rivers, streams and wetlands) or shallow groundwater from aquifers less than 150m deep. This is consistent with the definition of high-quality non saline water (fresh water) used by the Alberta Energy Regulator in Directive 81.
GHG	greenhouse gas
Groundwater	Water beneath earth's surface and is present in pore spaces or fractures.
In situ	"In place" and, when referring to oil sands, means a process for recovering bitumen from oil sands by means other than surface mining, such as SAGD.
LTIF	Lost Time Injury Frequency
Management	The executive officers of the Corporation (as a noun)(as per AIF.)
McMurray Formation	A succession of sands and shale deposited in a fluvial estuarine environment that developed into a major valley that was cut into Devonian-aged limestone within the Cretaceous-aged Mannville Group.
MW	A unit of electrical power to measure the generating capability of a generating station, 1 million Watts equal 1 MW.
NO <sub>2</sub>	Nitrogen Dioxide
Non-Saline Water	Water having total dissolved solids content of 4,000 mg/L or less.

# **Glossary of Terms & Abbreviations**

Term/Abbreviations	Definition
NO <sub>x</sub>	Nitrogen Oxide. NO <sub>x</sub> is produced from the reaction of nitrogen and oxygen gases in the air during combustion.
Oil Sands	Deposits containing a mixture of bitumen, sand and water.
Phase 2B	The third phase of the Corporation's Christina Lake Project which commenced production in 2013 with an initial bitumen production design capacity of approximately 35,000 bbls/d.
PM	Particulate matter (PM) is made of solid particles and liquid droplets in the air.
Probable reserves	Are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.
Produced Gas	Gas that is produced from the reservoir through the bitumen production process.
Produced Water Recycle	Proportion of the water that is produced in association with hydrocarbon production and is recycled for the purpose of re-injection and further bitumen recovery.
PSE	Process Safety Events
PSM	Process Safety Management
Reclamation	The return of disturbed surface land forms and vegetation to a state similar to that before industrial activity took place.
Reserves	<ul> <li>Are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on:</li> <li>(i) analysis of drilling, geological, geophysical and engineering data;</li> <li>(ii) the use of established technology; and</li> <li>(iii) specified economic conditions, which are generally accepted as being reasonable. Reserves are classified according to the degree of certainty associated with the estimates.</li> </ul>
Recycled water	Water that is reused within the facility for more than one purpose. See produced water recycle.
Reservoir	A subsurface body of rock having sufficient porosity and permeability to store and transmit fluids.
RIF	Recordable Injury Frequency
Saline Water	The Alberta Water Act (Ministerial) Regulation defines saline groundwater as water with total dissolved solids (TDS) content exceeding 4,000 mg/L. Also referred to as brackish water.
SAGD	steam assisted gravity drainage, an in situ process used to recover bitumen from oil sands.
SIF	Serious Incident Frequency
SO <sub>2</sub>	Sulfur dioxide. SO <sub>2</sub> is a colourless gas or liquid with a strong, choking odor. It is produced from the burning of fossil fuels (coal and oil.)
SOR	Steam to Oil Ratio
Steam to Oil Ratio	The ratio of steam required to produce bitumen in equivalent units.
Surface Water	All water on the surface of the ground, including water in lakes, rivers, streams, wetlands and run-off collection ponds, natural or man-made. Note: surface water can be saline (TDS > 4,000 mg/L).
Sweet Natural Gas	Natural gas (primarily methane) that contains very little or no hydrogen sulphide.
TRIF	Total Recordable Incident Rate
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
VOC	Volatile organic compounds are compounds that have a high vapor pressure and low water solubility.
\$	dollars (Canadian)

# **Glossary of Terms & Abbreviations**

Term/Abbreviations	Definition
bbl	Barrel
bbls	Barrels
bbls/d	barrels per day
boe	barrels of oil equivalent (on the basis of one being equal to one barrel of oil or six Mcf of natural gas)
CH <sub>4</sub>	methane
CO <sub>2</sub> e	carbon dioxide equivalents
OE	oil equivalent
M\$	thousand dollars (Canadian)
Mbbls	thousand barrels
Mbbls/d	thousand barrels per day
Mcf	thousand cubic feet
MM\$	million dollars (Canadian)
MMbbls	million barrels
MMbbls/d	million barrels per day
MWh	mega-watt hour
NO <sub>x</sub>	nitrogen oxides
PM	particulate matter
SO <sub>2</sub>	sulphur dioxide
Tcf	trillion cubic feet
VOC	volatile organic compound

### **Forward-Looking Information**

This report contains forward-looking information within the meaning of applicable securities laws. This forward-looking information is identified by words such as "anticipate", "believe", "could", "drive", "expect", "estimate", "focus", "forward", "future", "may", "on track", "outlook", "plan", "position", "potential", "priority", "should", "strategy", "target", "will", "would" or similar expressions and includes statements about future outcomes, including but not limited to: the Corporation's purpose of supplying the world with ethical and responsible energy, while generating long-term value for all stakeholders; the Corporation's business strategy, focus and future plans; the impact of the Corporation's proprietary technologies on the Corporation's energy and water use, capital and operating costs and GHG emissions; the Corporation's reserves estimates and reserves life index; the Corporation's belief that its actions relating to United Nations Sustainable Development Goals contribute to the 2023 global development priorities; the Corporation's long-term target of achieving net zero GHG (Scope 1 and Scope 2) by 2050; the Corporation's mid-term target of reducing our absolute GHG emissions (Scope 1 and Scope 2) by 0.63 megatonnes per annum by year-end 2030; the Corporation's ability to conserve greater than 99.6 per cent of methane; the Corporation's fresh water use intensity; the Corporation's diversity, equity & inclusion targets and efforts; the skillset of the Corporation's board members; the Corporation's ability to maintain safe operations to ensure continuity of its operations, and increasing demand for energy worldwide; the Corporation's expectations regarding the implementation of technologies to reduce emissions intensities and actions to address climate change impacts; the Corporation's ability, in connection with the Pathways to Net Zero initiative, to reach net zero GHG emissions by 2050; the intention of the Pathways Alliance to build a major carbon capture usage and storage trunkline and related infrastructure to achieve net zero emissions

in oil sands production; the Corporation's work to advance climate-related targets and technologies, the Corporation's statements regarding climaterelated opportunities; the Corporation's climate scenario analysis; the Corporation's support of the Paris Agreement; the Corporation's expectations regarding its low decline assets, sustainability business model and opportunities for growth; the Corporation's commitment to transparency, accountability and continuous improvement; the Corporation's approach to ESG, including its foundational commitments to business model resilience and ESG governance; the Corporation's belief regarding Canadian environmental regulation and ethical standards governing energy projects; the Corporation's expectations regarding its business model resiliency and ability to generate attractive returns and integrate ESG matters into its business strategies to ensure value creation; the Corporation's expectations regarding innovation and driving changes to improve capital efficiencies and reduce its cost structures, actively assess carbon capture and storage opportunities, implement digital technologies such as automation and artificial intelligence; the Corporation's stakeholder engagement activities, including relationships with local communities and Indigenous peoples and its actions to meaningfully advance reconciliation; the Corporation's expectations regarding prioritizing safety, minimizing environmental impacts, bringing action on climate change and its commitment to an inclusive and diverse workforce; the Corporation's ESG priorities, ESG oversight and accountability, performance goals and targets to drive continuous improvement; the Corporation's focus on ESG disclosure, including further alignment with the industry's SASB standard and the recommendations of TCFD; the Corporation's commitment to health, safety and environment and impact of its HSE Policy and Operational Excellence Management System; the Corporation's actions regarding the United Nations Sustainable

Development Goals; the Corporation's commitment to strong corporate governance and delivering value to all stakeholders, including shareholders, employees, customers, suppliers and communities in which the Corporation operates, by prioritizing transparency, accountability, ethical conduct, and respect in the workplace; the participation by the Corporation's board members in continuing education programs to advance skillsets and adapt to changing conditions; the Corporation's ESG strategy, including Board oversight and management accountabilities; the Corporation's approach to risk management, including the including of ESG related risk and opportunities in the development of the Corporation's strategy; the Corporation's approach to executive compensation and ability to attract and retain talented individuals; the alignment of executive compensation and the Corporation's ESG priorities; the Corporation's intention to strengthen the alignment of its disclosures with TCFD recommendations; the Corporation's belief that it is well-positioned to seize climate-related opportunities and play a role in addressing climate change; the Corporation's ability to enhance its position as a sustainable low-cost producer while achieving net zero emissions and creating long-term value for its stakeholders; the Corporation's ability to advance innovative technology to drive carbon efficiencies and assess opportunities to achieve net zero emissions from its oil sands operations; the Corporation's expectations regarding actions of governments, industries and financial institutions to support the development of carbon reduction technologies; the Corporation's expectations regarding the costs associating with mitigating the impact of climate change in its business strategy; the Corporation's expectations regarding its path to net zero by 2050; the Corporation's expectations regarding potential innovative mitigative strategies required to meet its ambitious GHG emissions goals and targets; the Corporation's water conservation

targets; the Corporation's expectations regarding the contribution of its mechanical vapour compressor to further reduction in its make-up water requirements and disposal; the Corporation's approach to land and biodiversity; the Corporation's commitment to building strong relationships with Indigenous communities and identifying opportunities for greater economic participation in its operations to meaningfully advance reconciliation; and the Corporation's focus on creating a safer workplace through robust risk identification and reduction programs and its ultimate goal of zero incidents and injuries at work and home. Such forward-looking information is based on management's expectations and assumptions regarding future growth, results of operations, production, future capital and other expenditures, competitive advantage, plans for and results of drilling activity, environmental matters, and business prospects and opportunities.

Forward-looking information contained in this report is based on management's expectations and assumptions regarding, among other things: future crude oil, bitumen blend, natural gas, electricity, condensate and other diluent prices, differentials, the level of apportionment on the Enbridge mainline system, foreign exchange rates and interest rates; the recoverability of the Corporation's reserves and contingent resources; the Corporation's ability to produce and market production of bitumen blend successfully to customers; future growth, results of operations and production levels; future capital and other expenditures; revenues, expenses and cash flow; operating costs; reliability; anticipated sources of funding for operations and capital investments; plans for and results of drilling activity; the regulatory framework governing royalties, land use, taxes and environmental matters, including federal and provincial climate change policies, in which the Corporation conducts and will conduct its business; and business prospects and opportunities. By its nature, such forward-looking information

involves significant known and unknown risks and uncertainties, which could cause actual results to differ materially from those anticipated. These risks and uncertainties include, but are not limited to, risks and uncertainties related to: the oil and gas industry, for example, the securing of adequate access to markets and transportation infrastructure and the commitments therein; the availability of capacity on the electricity transmission grid; the uncertainty of reserve and resource estimates; the uncertainty of estimates and projections relating to production, costs and revenues; health, safety and environmental risks, including public health crises, such as the COVID-19 pandemic, and any related actions taken by governments and businesses; legislative and regulatory changes to, amongst other things, tax, land use, royalty and environmental laws; the cost of compliance with current and future environmental laws, including climate change laws; risks relating to increased activism and public opposition to fossil fuels; assumptions regarding and the volatility of commodity prices, interest rates and foreign exchange rates; commodity price, interest rate and foreign exchange rate swap contracts and/or derivative financial instruments that the Corporation may enter into from time to time to manage its risks related to such prices and rates; timing of completion, commissioning, and start-up, of the Corporation's turnarounds; the operational risks and delays in the development, exploration, production, and the capacities and performance associated with the Corporation's projects; the Corporation's ability to reduce or increase production to desired levels, including without negative impacts to its assets; the Corporation's ability to finance sustaining capital expenditures; the Corporation's ability to maintain sufficient liquidity to sustain operations through a prolonged market downturn; changes in credit ratings applicable to the Corporation or any of its securities and changes in general economic, market and business conditions. Although the Corporation

believes that the assumptions used in such forwardlooking information are reasonable, there can be no assurance that such assumptions will be correct. Accordingly, readers are cautioned that the actual results achieved may vary from the forward-looking information provided herein and that the variations may be material. Readers are also cautioned that the foregoing list of assumptions, risks and factors is not exhaustive. Further information regarding the assumptions and risks inherent in the making of forward-looking statements can be found in the Corporation's Management Discussion and Analysis and its Annual Information Form, along with the Corporation's other public disclosure documents. Copies of the AIF and the Corporation's other public disclosure documents are available through the SEDAR+ website at www.sedarplus.ca.

The forward-looking information included in this report is expressly qualified in its entirety by the foregoing cautionary statements. Unless otherwise stated, the forward-looking information included in this report is made as of the date of this report and the Corporation assumes no obligation to update or revise any forward-looking information to reflect new events or circumstances, except as required by law. The Corporation's common shares are listed on the Toronto Stock Exchange under the symbol "MEG".

### **Contact Information**

#### **Head Office**

Eau Claire Tower 21st Floor, 600 3rd Ave SW Calgary, AB T2P OG5

**T** 403.770.0446 **F** 403.264.1711

megenergy.com

#### **MEG's Confidence Line**

1.800.661.9675

#### **Stock Exchange Listing**

MEG Energy Corp. Shares are traded on the Toronto Stock Exchange under the symbol MEG



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