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Introduction

Since MEG's inception in 1999, MEG has worked diligently to deliver on our purpose:

to supply the world with environmentally and socially responsible energy, while generating long term value for our stakeholders. The Targets section provides a snapshot of our ESG performance over the past year – demonstrating our commitment to our purpose as well as transparency, accountability and continuous improvement.



ARGETS

Targets



Climate Change & Greenhouse Gas Emissions

Target

Net Zero GHG Emissions by 2050 (Scope 1 and 2)

Progress in 2021

- Joined the Pathways Alliance and actively participated in the development of the consortium's CO₂ capture, transportation and storage scope and project development activities.
- Created the new Chief Technology Officer position to champion MEG's path to Net Zero.

Target

30% Reduction in Bitumen GHG emissions intensity from 2013 levels by 2030 (scope 1 and 2)

Progress in 2021

- Experienced a slight increase in bitumen GHG intensity from the year prior due to increased production from new well pads.
- 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.

Near Term Targets

Further deployment of subsurface technology, Evaluation of CCS opportunities, >99% methane conservation and year over year decrease in fugitive emissions

Progress in 2021

- Methane conservation rates remained above 99%.
- Continued technical and economic evaluations of CCS including evaluation of local storage opportunities.
- 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.
- Maintained fugitive emissions through continued efforts of the internal taskforce which monitors and repairs equipment.



Water & Wastewater Management

Target

Maintain zero fresh (potable) water use in thermal operations

Progress in 2021

Zero fresh water used in thermal operations.

Target

Maintain in situ industry-leading (top decile) total make-up water use intensity, with non-saline make-up water use intensity less than $0.1 \text{m}^3/\text{m}^3$ oil production.

Progress in 2021

- Maintained in situ industry leading total make-up water use intensity that was approximately 70 per cent below the industry average.
- Achieved a historical low non-saline water use intensity of 0.08 m³/m³ oil production, well below the target of 0.1.
- Commissioned new steam generation capacity and evaporator unit which reduced overall water disposal volumes while increasing production.
- Identified and implemented opportunities to reconfigure water treatment processes to optimize chemical use.



Land & Biodiversity

Target

Strives to bring all abandoned wells to reclamation status within 5 years.

Progress in 2021

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.

Target

Invest at least \$300,000 in annual caribou habitat restoration efforts between 2021 and 2025.

Progress in 2021

 Invested \$300,000 to complete 22 kilometers of linear disturbance restoration.

Targets



Health & Safety

Target

Our ultimate goal is continuous improvement towards the goal of zero incidents and injuries at work and at home.

Progress in 2021

- Invested in new Safety Leadership Development Training for supervisors leveraging advances in Behavioral Sciences.
- Prioritized more supervisor interaction at the work front to leverage Stop-Think-Plan Program.
- Continued priority of providing Mental Health Program resources to employees.



Our People

Target

We aspire to attain a 40% Board composition of Diverse Persons by 2025.

Progress in 2021

• 40% of board membership is composed of Diverse Persons.

Target

Source a diverse potential candidate pool when recruiting which is representative of the communities in which we operate.

Progress in 2021

- Approved and rolled-out Inclusion & Diversity Policy.
- Named Executive Officer gender diversity increased to 20%.
- Appointed the new Manager, Inclusion & Diversity role to advance Inclusion & Diversity related initiatives



Indigenous Relations

Target

Rollout of Indigenous Awareness training to all employees by the end of Q1 2022.

Progress in 2021

- Created an Indigenous Awareness e-learning tool in collaboration with communities nearby MEG's operations.
- Launched Indigenous Awareness Training for all employees and directors. It is now a required component of employee onboarding.

Target

MEG will evaluate and implement opportunities to increase participation of Indigenous businesses and businesses that employ Indigenous peoples throughout our business.

Progress in 2021

Significant action taken in 2021 through the development of an established processes of Indigenous inclusion in approaching the market, quarterly Indigenous community meetings and development plan meetings.

Target

Prioritize and evaluate infrastructure equity opportunities with Indigenous groups.

Progress in 2021

Through the participation in the Pathways Alliance, MEG is exploring the possibilities of enhanced Indigenous participation.

About this Report

The 2022 ESG Performance Data Report "the EPD report" covers the ESG performance of MEG's 100 per cent owned and operated asset, the Christina Lake Regional Project (CLRP), unless explicitly stated otherwise¹. All other assets are currently not developed. MEG does not hold any operated joint venture interests.

The report summarizes our ESG performance for the period January 1, 2021 through to December 31, 2021 and when available, provides data for the preceding five years.

Financial data is stated in Canadian dollars and in a manner consistent with 2021 regulatory filings. Environmental data is reported in metric units.

For additional detail on our financial performance and information about our business, refer to our financial statements, our Management's Discussion and Analysis and our Annual Information Form ("AIF") for the year ended December 31, 2021, which is available at www.megenergy.com and filed on SEDAR at www.sedar.com.

Within this report, the terms "MEG", "MEG Energy.", the "Company", the "Corporation", "our", "us", "we", and other similar terms, refer to MEG Energy Corp. In most cases, we use standard industry calculation methodologies and definitions. Continuous improvement of these standards, as well as our internal tracking and measurement systems to improve the accuracy of the performance data, is expected. If, as a result, adjustments to previously-reported performance data are required, they are noted in the footnotes. Footnotes also provide information regarding definitions, changes in methodology, and reasons for significant changes, where applicable. Terms, definitions, and abbreviations are available in the Glossary of Terms & Abbreviations section.



Frameworks

The EPD report is aligned with the Sustainability Accounting Standards Board's Extractives & Minerals Processing Sector: Oil and Gas-Exploration & Production Sustainability Accounting Standard. Refer to the SASB Index section of this report. The report includes disclosure around climate change which aligns with the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD). Refer to the Climate Change & Greenhouse Gas Emissions section of the <u>2021 ESG Report</u> and the <u>TCFD Index</u>. The report references the Global Reporting Initiative ("GRI") Standards, however, does not include all requirements to be considered in accordance with GRI Standards.



Assurance

We are committed to disclosing accurate and complete information and therefore perform third-party assurance on select performance indicators included in the report. Refer to Data Assurance.







¹ The ESG report does address some efforts (wellsite reclamation and caribou habitat restoration) in other areas: Duncan, Surmont and May River, Alberta, and the head office as relevant.

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Activity									
Production of:									
(1) oil	bbl/day	80,774	87,731	93,082	82,441	93,733		EM-EP-000.A	
(2) natural gas	bbl/day	0	0	0	0	0		EM-EP-000.A	
(3) synthetic oil	bbl/day	0	0	0	0	0		EM-EP-000.A	
(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	bbl of								
Steam-oil ratio	steam/bbl of bitumen	2.31	2.19	2.22	2.32	2.43			
Common Shares Outstanding	millions	294	297	300	303	307			
Market capitalization	\$ millions	1,512	2,289	2,213	1,347	3,572	102-7		
Gross sales	\$ millions	2,497	2,771	3,976	2,301	4,397			
Adjusted funds flow	\$ millions	371	175	724	275	799			EC-1
Annual capital investments	\$ millions	502	622	198	149	331	201-1		EC-2
Operating expenses	\$ millions	222	210	238	232	309			
Total assets	\$ millions	9,363	8,410	7,866	7,224	7,593	102-7		EC-3
Royalties, taxes and fees	\$ millions	23	38	45	9	76	201-1		
Net debt to capitalization ratio	%	49	45	43	44	39	102-7		
Debt to capitalization ratio	%	54	49	45	45	44	102-7		

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Climate Change 8	& GHG Er	missions	6						
Direct GHG emissions (Scope 1)	tonnes CO ₂ e	2,048,121	2,140,537	2,304,490	2,113,450	2,439,106	305-1	EM-EP-110a.1	GHG-1, GHG-2, GHG-3
Scope 1 by GHG Type:	Scope 1 by GHG Type:								
(1) CO ₂	tonnes CO ₂	2,026,908	2,119,323	2,286,737	2,100,396	2,420,766	305-1		GHG-3
(2) CH ₄	tonnes CH ₄	467	543	377	218	396	305-1		GHG-4
(3) N ₂ O	tonnes N ₂ O	32	26	28	26	28	305-1		
Amount of Gross Global Scope	1 Emissions from	m:							
(1) flared hydrocarbons	tonnes CO ₂ e	_	_	8,325	6,708	7,362	305-1	EM-EP-110a.2	GHG-1
(2) other combustion	tonnes CO ₂ e	_	_	2,289,787	2,103,994	2,424,749	305-1	EM-EP-110a.2	GHG-1
(3) process emissions	tonnes CO ₂ e	_	_	N/A	N/A	N/A	305-1	EM-EP-110a.2	GHG-7
(4) other vented emissions	tonnes CO ₂ e	_	_	867	512	4,510	305-1	EM-EP-110a.2	GHG-1, GHG-8
(5) fugitive emissions	tonnes CO ₂ e	_	_	5,510	2,236	2,427	305-1	EM-EP-110a.2	GHG-1
Percentage methane	%	_	_	0.41	0.26	0.41		EM-RM-110a.1	GHG-9
Percentage covered under emission-limiting regulations	%	_	_	100	100	100		EM-MM-110a.1	GHG-5
Indirect GHG Emissions (Scope 2)	tonnes CO ₂ e	90	20	0	16	0	305-2		GHG-6
Bitumen GHG Emissions Intensity	kg CO ₂ e/bbl	57	56	57	59	60	305-4		
Electricity GHG Emissions Intensity	kg CO ₂ e/ MWh	350	353	350	351	361	305-4		

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Water & Wastewa	ter Mana	gemen	t						
Total water withdrawal	thousand m³	1,336	1,134	653	660	736	303-3		W-6, W-7
Water withdrawal by type:									
(1) Non-saline water withdrawal	thousand m³	1,096	986	583	512	557	303-3	EM-EP-140a.1	W-1, W-8
(2) Saline water withdrawal	thousand m³	240	148	71	148	180	303-3		W-8
Water withdrawal by source:									
(1) Surface water withdrawal	thousand m³	126	134	53	33	79	303-3		W-2, W-
(2) Groundwater withdrawal	thousand m³	1,210	1,000	600	626	657	303-3		W-3
Total Non-Saline Water Consumed	thousand m³	_	_	36	30	47	303-3	EM-EP-140a.1	W-7, W-11
Recycled Water – percentage recycled	%	91	93	96	96	96	303-3		W-5
Produced Water Volume:	thousand m³	11,150	11,627	13,244	12,458	14,907	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	90	88	86	87		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-12
Total Make-up water withdrawal:	thousand m³	1,143	905	543	568	593	303-3		
(1) Saline make-up water withdrawal	thousand m ³	240	148	71	148	180	303-3		W-8
(2) Non-saline make-up water withdrawal	thousand m³	903	756	472	421	413	303-3		W-1, W-8
Total make-up water intensity	m³/m³ oil production	0.24	0.18	0.10	0.12	0.11			W-9
Non-saline make-up water intensity	m³/m³ oil production	0.19	0.15	0.09	0.09	0.08			W-10
Land & Biodiversi	ty								
Active Commercial Footprint	hectares	1,055	1,094	1,087	1,085	1,103			LB-1
Total Land Undergoing Reclamation	hectares	68	93	100	104	97			LB-2
Cumulative Caribou Habitat Restoration	hectares	2,154	3,803	5,871	6,347	8,197			LB-3
Cumulative Caribou Habitat Restoration Program Spend	\$	408,704	1,241,882	1,664,711	1,965,999	2,268,152			LB-4
Percentage of: (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	%	_	_	_	84	84		EM-EP-160a.3	LB-5

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Spills									
Reportable spill	m³	7	5	4	8	5	306-3	EM-EP-160a.2	S-1
Total volume of reportable spills	m³	37	34	34	123	831	306-3	EM-EP-160a.2	S-1, S-2, S-4
Total volume of reportable spills – Hydrocarbon	m³	33	15	8	13	65	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills – Hydrocarbon	count	3	2	2	2	2	306-3	EM-EP-160a.2	S-1
Total volume of reportable spills – Non-Hydrocarbon	m³	4	20	26	110	766	306-3	EM-EP-160a.2	S-1, S-4
Count of reportable spills – Non-Hydrocarbon	count	3	3	2	6	3	306-3		S-1
Total volume of hydrocarbons recovered	m³	_	_	_	_	-		EM-EP-160a.2	S-3
Reportable Spill Intensity	m³ of volume released per 10 ⁶ m³ OE Total Production	2.28	1.98	1.78	6.92	40	306-3		S-1, S-2, S-4
Air Quality & Was	te Manaq	ement							
NO _x emissions	tonnes	901	917	846	797	990	305-7	EM-EP-120a.1	AQ-1
NO_x emissions intensity of oil production	kg/bbl	0.029	0.028	0.027	0.028	0.028	305-7		
SO ₂ emissions	tonnes	306	361	845	709	582	305-7	EM-EP-120a.1	AQ-2
SO ₂ emissions intensity of oil production	kg/bbl	0.010	0.011	0.025	0.023	0.017	305-7	EM-EP-120a.1	AQ-2
VOC emissions	tonnes	147	146	102	89	99	305-7	EM-EP-120a.1	
VOC emissions intensity of oil production	kg/bbl	0.005	0.005	0.003	0.003	0.003	305-7		
Total Particulate Matter	tonnes	78	80	54	83	85	305-7	EM-EP-120a.1	
Total Particulate Matter intensity of oil production	kg/bbl	0.003	0.003	0.002	0.003	0.002	305-7		
Particulate Matter (PM¹º)	tonnes	_	_	39	46	49	305-7	EM-EP-120a.1	
Flared Gas	e ³ m ³	791	790	1,598	958	1,100	305-7		
Vented Gas	e ³ m ³	_	47	55	30	332	305-7		AQ-3

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Health & Safety									
Total Recordable Incident Rate (TRIF)	# per 200,000 hours worked	0.74	0.43	0.26	0.22	0.31	403-9	EM-EP320a.1	HS-1
Total Recordable Injury Frequency Rate (TRIFR) – Employees	# per 200,000 hours worked	0.36	0.37	0.00	0.26	0.21	403-9		HS-1
Total Recordable Injury Frequency Rate (TRIFR) – Contractors	# per 200,000 hours worked	0.94	0.65	0.30	0.20	0.37	403-9		HS-1
Lost-time injury frequency:									
a) Employee	# per 200,000 hours worked	0.18	0.19	0.00	0.00	0.00	403-9	EM-EP320a.1	
b) Contractor	# per 200,000 hours worked	0.28	0.19	0.15	0.20	0.00	403-9	EM-EP320a.1	
c) Short-service employee	# per 200,000 hours worked	_	-	_	_	0.00	403-9	EM-EP320a.1	
Recordable injury frequency:									
a) Employee	# per 200,000 hours worked	0.36	0.37	0.00	0.26	0.21	403-9	EM-EP320a.1	HS-2
b) Contractor	# per 200,000 hours worked	0.94	0.65	0.30	0.20	0.37	403-9	EM-EP320a.1	HS-3
c) Short-service employee	# per 200,000 hours worked	_	-	_	_	0.08	403-9	EM-EP320a.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 employee	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	403-9	EM-EP320a.1	
b) Contractor	rate	-	7.18	5.13	2.95	4.23	403-9	EM-EP320a.1	
c) Short-service employee	rate	-	_	-	_	-	403-9	EM-EP320a.1	HS-4
Average hours of health, safety	and emergency	response traii	ning for:						
a) Employee	hours	-	-	-	_	-	403-9	EM-EP320a.1	HS-4
b) Contractor	hours	-	-	-	_	-	403-9	EM-EP320a.1	HS-4
c) Short-service employee	hours	-	-	_	_	-	403-9	EM-EP320a.1	HS-4
Critical Incident R	isk Manag	gement							
Tier 1	# per 200,000 hours worked	0.06	0.00	0.09	0.22	0.20		EM-EP-540a.1	PSM-1
Tier 2	# per 200,000 hours worked	0.12	0.10	0.09	0.11	0.00			PSM-1
Serious Incident Frequency (SIF)	# per 200,000 hours worked	7.00	4.50	1.30	1.20	0.20			PSM-2

Metric	Units	2017	2018	2019	2020	2021	GRI	SASB	Footnote
Indigenous Relation	ons								
Indigenous business spend	\$	83,991,794	92,778,667	37,781,190	36,691,668	55,560,079			IR-1, IR-2
Percentage of: 1) proved and 2) probable reserves in or near areas of conflict	%	-	-	-	0	0		EM-EP-210a.1	
Percentage of: 1) proved and 2) probable reserves in or near Indigenous land	%	_	_	_	100	100		EM-EP-210a.2	IR-3
Number of non-technical delays	count	_	_	0	0	0		EM-EP-210b.2	IR-4
Duration of non-technical delays	days	_	_	0	0	0		EM-EP-210b.2	IR-4
Our People									
Number of Employees Total	count	516	515	447	391	410	102-7		
Age by range:									
30 years and younger	count	49	38	29	24	32	405-1		
30 – 50 years old	count	343	345	316	269	274	405-1		
over 50 years old	count	124	132	102	98	104	405-1		
Women Total	%	23	22	21	19	20	102-8; 405-1		
Men Total	%	77	78	79	81	80	102-8; 405-1		
Women in Management	%	22	22	25	27	27	405-1		WF-1
Women in Senior Management	%	21	24	25	18	18	405-1		WF-2
Location of Employees:									
Office	count	285	280	217	188	197	102-7		WF-3
Field	count	231	235	230	203	213	102-7		WF-3
New employee hires:	%	2	7	9	8	7	401-1		
Male	%	60	82	67	67	73	401-1		
Female	%	40	18	33	33	27	401-1		
New employee hires age range:	:								
30 years and younger	%	0	9	12	13	24	401-1		
30 – 50 years old	%	60	47	67	54	62	401-1		
over 50 years old	%	40	44	21	33	14	401-1		
Employee Turnover Rate	%	15	7	22	21	4	401-1		
Ratio of permanent to temporary employee contracts		34:1	29:1	28:1	39:1	26:1			
Community Invest	ment								
Total contribution to charitable, non-charitable and community groups	\$	1,565,487	3,511,891	2,949,918	1,761,263	1,839,959	201-1		CI-1

Metric	SASB Code	MEG Disclousre
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	2021 ESG Report pg. 24
Management of the Legal & Regulatory Enviro	onment	
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. 2021 ESG Report pg. 19
Business Ethics & Transparency		2021 230 Report pg. 17
Percentage of: (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	EM-EP-510a.1	(1) Proved: 0% (2) Probable: 0%
Description of the management system for prevention of corruption and bribery throughout the value chain	EM-EP-510a.2	2021 ESG Report pg. 19

Metric	SASB Code	MEG Disclousre
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	2021 ESG Report pg. 24-30
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 Riks (1-2). MEG does not currently operate in water stressed areas 2021 ESG Report pg. 31
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 Riks (1-2). MEG does not currently operate in water stressed areas 2021 ESG Report pg. 31
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

Metric	SASB Code	MEG Disclousre
Biodiversity Impacts		
Description of environmental management policies and practices for active sites	EM-EP-160a.1	2021 ESG Report pg. 38, 60
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 (2) probable reserves in or near sites with protected conservation status or endangered species habitat	EM-EP-160a.3	"Land & Biodiversity" in EPD
Air Quality		
NO_x emissions	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
SO ₂ 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 (PM¹º)	EM-EP-120a.1	"Air Quality & Waste Management" in EPD
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

Metric	SASB Code	MEG Disclousre
Workforce Health & Safety		
Near miss frequency rate:		
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
Average hours of health, safety and emergency response training for:		
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
Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	EM-EP-320a.2	2021 ESG Report pg. 47, 61
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	2021 ESG Report pg. 46
Security, Human Rights & Rights of Indigeno	us People	
Percentage of: 1) proved and 2) probable reserves in or near areas of conflict	EM-EP-210a.1	"Indigenous Relations" in EPD
Percentage of: 1) proved and 2) probable reserves in or near Indigenous land	EM-EP-210a.2	"Indigenous Relations" in EPD
Percentage of: 1) proved and	EM-EP-210a.2 EM-EP-210a.3	"Indigenous Relations" in EPD 2021 ESG Report pg. 48-51
Percentage of: 1) proved and 2) probable reserves in or near Indigenous land Discussion of engagement processes and due diligence practices with		
Percentage of: 1) proved and 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		
Percentage of: 1) proved and 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 Community Relations Discussion of process to manage risks and opportunities	EM-EP-210a.3	2021 ESG Report pg. 48-51

- **EC-1** The increase in adjusted funds flow for 2021 reflects an increase in cash operating netbacks as a result of higher AWB pricing resulting from a significant increase in commodity prices. 2015 to 2020 adjusted funds flow was restated to reflect the current presentation of decommissioning costs.
- **EC-2** The increase in capital investment for 2021 reflects the increase in spending as the prior year's spending was impacted by the company's efforts to preserve financial liquidity in response to the COVID-19 pandemic.
- EC-3 Total assets at December 31, 2021 increased compared to December 31, 2020, mainly as a result of higher cash flow which increased cash and accounts receivable.
- GHG-1 Global Warming Potential from Fourth Assessment Report (AR4) applied.
- GHG-2 Scope 1 totals may not sum due to rounding.
- GHG-3 Emission increase in 2021 associated with increased annual production and activity associated with steaming of new wells.
- $\label{eq:GHG-4} \textbf{GHG-4} \ \ \text{The increase in Scope 1 CH}_4 \ \ \text{emissions is largely due to a one-time operational} \\ \text{event. Excluding the event, the Scope 1 CH}_4 \ \ \text{emissions are 270 tonnes CH}_4.$
- GHG-5 In 2021 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-6** 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.
- GHG-7 There are no process emissions associated with our operations.
- **GHG-8** The increase in other vented emissions is largely due to a one-time operational event. Excluding the event, the other vented emissions are 1,280 tonnes CO₂e
- **GHG-9** The increase in percentage methane is largely due to a one-time operational event. Excluding the event, the percentage methane is 0.28% tonnes CO_2e
- 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 4000 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 2021, 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 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 Increased steam generation of the facility directly corresponds to the higher water withdrawal and additional steam plant capacity was commissioned in 2021 to support increased bitumen production resulting in higher water withdrawal. Overall recycling rates remained high in 2021 at a rate of 96 per cent.
- W-7 Surface water withdrawals increased as a result of increased need for road dust suppression related to seasonably drier conditions and increased drilling activity in 2021.
- W-8 Non-saline water withdrawals were relatively steady in 2021 compared to previous year. As a result of optimization projects implemented in previous years, the increased steam production does not result in increases in non-saline demand as some make-up water use was replaced with saline and produced water volumes. For this reason, in addition to adoption of a zero-blowdown process, saline water withdrawal increased in 2021.
- W-9 The decrease in total make-up water intensity was a result of lower saline water withdrawal associated with zero blowdown technology for the commissioning of additional steam generation equipment and evaporator.
- W-10 MEG's 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 non-saline water intensity remained at the lowest level in operational history as a result of these strategies.
- **W-11** Potable water consumption increased as a result of higher worker camp occupancy associated with commissioning activities.
- W-12 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 2021 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 confirming 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.
- 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. MEG's 2021 caribou restoration program successfully restored 22 kilometers of linear disturbance, both in the Wandering River and Christina Caribou Herd Ranges. With the 500 meter disturbance buffer accounted for, this restoration was able to add a significant positive outcome to the amount of contiguous hectares of caribou habitat created.
- 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 on the 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.
- **5-1** 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.
- 5-3 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 increase in total volume of reportable spills, total volume of reportable spills hydrocarbon, total volume of reportable spills non-hydrocarbon and reportable spill intensity is largely due to a one-time operational event. Excluding the event, thet total volume of reportable spills is 14m³, total volume of reportable spills in 5.005m³, total volume of reportable spills non-hydrocarbon is 14m³ and the reportable spill intensity is 0.68 m³ of volume released per 106m³ OE Total Production.
- AQ-1 Emissions of NO increased in 2021 compared to the year prior as production volume increased and additional steam generation capacity was commissioned.
- AQ-2 In 2021, MEG increased the sulphur recovery rate of produced gas which lowered overall facility-wide SO_2 emissions.
- AQ-3 The increase in vented gas is largely due to a one-time operational event. Excluding the event, vented gas $75e^3m^3$.
- **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** Decrease from 2020 to 2021 was reflective of 1 employee Medical Aid incident in 2021, but increased exposure hours.
- HS-3 Increase from 2020 reflects 3 contractor recordable medical aids and no LTI's.
- **HS-4** We do not have the ability to track this value at the current time.
- **HS-5** MEG encourages reporting near misses of any severity from our workforce.
- PSM-1 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.
- PSM-2 MEG began classifying incidents using the SIF metric as of 2017.
- **IR-1** "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-2 In 2021, our Indigenous spend increased due to overall increased expenditures.
- IR-3 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.
- IR-4 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-1 Management workforce includes employee workforce in the following management levels: Manager, Sr. Manager, Director, VP, SVP or C-Suite.
- WF-2 Senior Management workforce includes: Director, VP, SVP or C-Suite.
- WF-3 The 2020 field and office values have been corrected.

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
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 ₂ 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.
eMVAPEX	the Corporation's proprietary recovery process known as enhanced modified vapour extraction which involves the injection of solvent 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.

Glossary of Terms & Abbreviations

NO₂ Nitrogen Dioxide. NOx Nitrogen Oxide. NOx is produced from the reaction of nitrogen and

oxygen gases in the air during combustion.

Non-Saline Water Water having total dissolved solids content of 4,000 mg/L or less.

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 $35,000\ bbls/d.$

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 GasGas 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 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:

(i) analysis of drilling, geological, geophysical and engineering data;

(ii) the use of established technology; and

(iii) specified economic conditions, which are generally accepted as being reasonable. Reserves

are classified according to the degree of certainty associated with the estimates.

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.

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.

Glossary of Terms& Abbreviations

\$ dollars (Canadian)

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)

CH₄ methane

CO₂e carbon dioxide equivalents

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

NOx nitrogen oxides

PM particulate matter

SO₂ sulphur dioxide

Tcf trillion cubic feet

VOC volatile organic compound

Advisories

MEG has taken care to ensure that the information in this document is accurate; however, we disclaim any liability whatsoever for errors or omissions. Further, some information in this document may have been disclosed previously in other MEG public disclosure, and such disclosure is not intended in any way to be qualified, amended, modified or supplemented by information in this document. This document includes certain metrics, including emissions intensity (also referred to as GHG intensity, Bitumen GHG intensity and Electricity GHG intensity in this document), which do not have standardized meanings or standard methods of calculation and therefore such measures may not be comparable to similar measures used by other companies and should not be used to make comparisons. Such metrics have been included herein to provide readers with additional information to evaluate the MEG's performance; however, such measures are not reliable indicators of the future performance of the company and future performance may not compare to the performance in previous periods.



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MEG's Confidence Line

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A confidential reporting line for reports of ethics violations of MEG's Respectful Workplace Policy or Business Conduct Charter.

Stock Exchange Listing

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







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