



2021

Environmental, Social, and Governance Report

A Sustainability Accounting Standards Board and
Task Force on Climate-related Financial Disclosures Report

Posted July 21, 2022

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE REPORT
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ENVIRONMENTAL, SOCIAL, AND GOVERNANCE REPORT

Glossary

Company Abbreviations

KMI	=	Kinder Morgan, Inc., its operated subsidiaries, and its operated investees	PHP	=	Permian Highway Pipeline
KML	=	Kinder Morgan Canada Limited, and its operated subsidiaries, and its operated investees	TGP	=	Tennessee Gas Pipeline
KMAP TM	=	Kinder Morgan Assessment Protocol TM			

Unless the context otherwise requires, references to “KMI,” “Kinder Morgan,” “we,” “us,” “our,” or “the company” are intended to mean Kinder Morgan, Inc., and its operated subsidiaries, including its consolidated subsidiary, KML, and operated investees. All dollar amounts in U.S. dollars. Where applicable, values have been rounded to the nearest whole number. Unless stated otherwise, our reporting boundary for the data in this report is for the assets where we have operational control. For this Report, we do not consider the Jones-Act-qualified product tankers operated by Intrepid Ship Management to be under our operational control.

Common Industry and Other Terms

°C	=	degrees Celsius	CCUS	=	carbon capture, utilization, and storage
/d	=	per day	CDC	=	Centers for Disease Control and Prevention
/yr	=	per year	CDP	=	CDP, formerly Carbon Disclosure Project
ACC	=	American Chemistry Council	CEO	=	Chief Executive Officer
AGA	=	American Gas Association	CER	=	Canadian Energy Regulator
AOPL	=	Association of Oil Pipe Lines	CFO	=	Chief Financial Officer
API	=	American Petroleum Institute	CFR	=	Code of Federal Regulations
AR5	=	IPCC Fifth Assessment Report, 2014	CGA	=	Common Ground Alliance
ARPA-E	=	U.S. Advanced Research Projects Agency-Energy	CH ₄	=	methane
ASEA	=	National Agency for Safety, Energy and Environment of Mexico	CO ₂	=	carbon dioxide
BBbl	=	billion barrels	CO ₂ e	=	carbon dioxide equivalent
bbl or bbls	=	barrel or barrels	COO	=	Chief Operating Officer
Bcf	=	billion cubic feet	COVID-19	=	Coronavirus Disease 2019, a widespread contagious disease, or the related pandemic declared and resulting worldwide economic downturn
BLS	=	U.S. Bureau of Labor Statistics	CRT	=	Climate Reserve Tonnes
Board	=	Board of Directors	DOE	=	U.S. Department of Energy
BOE	=	barrel of oil equivalent	DOT	=	U.S. Department of Transportation
Bscf	=	billion standard cubic feet	DRA	=	drag reducing agent
CAO	=	Chief Administrative Officer	EBDA	=	earnings before depreciation, depletion, and amortization expenses, including amortization of excess cost of equity investments
CCATF	=	Climate Change Adaption Task Force			

Common Industry and Other Terms (continued)

EBITDA	= earnings before interest, income taxes, depreciation, depletion and amortization expenses, including amortization of excess cost of equity investments	IT	= information technology
EDGAR	= Electronic Data Gathering, Analysis, and Retrieval	kg	= kilogram
EHS	= environmental, health, and safety	LDAR	= leak detection and repair
EIA	= U.S. Energy Information Administration	LED	= light-emitting diode
EJ	= environmental justice	LEED	= Leadership in Energy and Environmental Design
EOR	= enhanced oil recovery	LMS	= Learning Management System
EPA	= U.S. Environmental Protection Agency	LNG	= liquefied natural gas
ESG	= environmental, social, and governance	LTIR	= lost time incident rate
EV	= electric vehicle	MMBbl	= million barrels
ft ³	= cubic feet	MMBtu	= million British thermal units
FERC	= U.S. Federal Energy Regulatory Commission	MMcf	= million cubic feet
GAAP	= generally accepted accounting principles	MWh	= megawatt-hours
GDP	= gross domestic product	N ₂ O	= nitrous oxide
GHG	= greenhouse gas	NETL	= U.S. National Energy Technology Laboratory
GHGRP	= Greenhouse Gas Reporting Program	NGA	= U.S. Natural Gas Act
GIS	= geographical information system	NGOs	= non-government organizations
GRI	= Global Reporting Initiative	NO _x	= nitrogen oxides
GWh	= gigawatt-hours	OGI	= optical gas imaging
GWP	= global warming potential	OMS	= Operations Management System
HFC	= hydrofluorocarbon	ONE	= Our Nation's Energy
HMSDC	= Houston Minority Supplier Development Council	OSG	= Operations Support Group
HR	= Human Resources	OSHA	= U.S. Occupational Safety & Health Administration
IAB	= Industrial Advisory Board	PHMSA	= U.S. Pipeline and Hazardous Materials Safety Administration
ICA	= U.S. Interstate Commerce Act	PM ₁₀	= particulate matter 10 micrometers or less in diameter
IEA	= International Energy Agency	PPP	= purchasing power parity
ILI	= in-line inspection	PRCI	= Pipeline Research Council International, Inc.
ILO	= International Labor Organization	PTO	= paid time off
IMP	= integrity management program	PV	= photovoltaic
INGAA	= Interstate Natural Gas Association of America	PwC	= PricewaterhouseCoopers LLP
IPCC	= United Nations Intergovernmental Panel on Climate Change	QMRV	= quantification, monitoring, reporting, and verification
ISAE	= International Standard of Assurance Engagements	RCP	= Representative Concentration Pathway
ISO	= International Organization for Standardization	RNG	= renewable natural gas

Common Industry and Other Terms (continued)

RP	= recommended practice	STEM	= science, technology, engineering, and math
RROG	= reporting-regulated-only gathering	TCFD	= Task Force on Climate-related Financial Disclosures
RSG	= responsibly sourced natural gas	TRIR	= total recordable incident rate
SASB	= Sustainability Accounting Standards Board	U.S.	= United States of America
SCADA	= supervisory control and data acquisition	USD	= U.S. Dollar
Scf	= standard cubic feet	USCG	= U.S. Coast Guard
SDGs	= United Nations Sustainable Development Goals	USFWS	= U.S. Fish and Wildlife Service
SDS	= Sustainable Development Scenario	VOCs	= volatile organic compounds
SEC	= U.S. Securities and Exchange Commission	VP	= Vice President
SIM [®]	= Safety In Motion [®]	WDPA	= World Database on Protected Areas
SO _x	= sulfur oxides		

Important Information about Policies, Procedures, Practices, and Forward-Looking Statements

Our Report includes descriptions of our vision, mission and values, and various policies, standards, procedures, processes, systems, programs, initiatives, assessments, technologies, practices, and similar measures related to our operations and compliance systems (“Policies and Procedures”). References to Policies and Procedures in our Report do not represent guarantees or promises about their efficacy, or any assurance that such measures will apply in every case, as there may be exigent circumstances or other factors or considerations that may cause implementation of other measures or exceptions in specific instances.

Our Report includes forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and Section 21E of the Securities Exchange Act of 1934 (“Exchange Act”). Forward-looking statements include any statement that does not relate strictly to historical or current facts and include statements accompanied by or using words such as “anticipate,” “believe,” “intend,” “plan,” “projection,” “forecast,” “strategy,” “outlook,” “continue,” “estimate,” “expect,” “may,” “to,” “will,” “shall,” and “long-term” or comparable terms. In particular, express or implied statements, concerning the occurrence, timing or impact of future actions, conditions, or events, including our Policies and Procedures and their efficacy, long-term demand for our assets and services, our future operating results, our ability to generate revenues, income, or cash flow or to pay dividends, or energy transition-related opportunities, including the role of natural gas in the energy transition and opportunities related to lower carbon fuels and CCUS, are forward-looking statements.

Forward-looking statements are not guarantees or assurance of performance. Forward-looking statements are included for the purpose of providing management’s current expectations and plans for the future, based on the beliefs and assumptions of management and the information currently available to management. Forward-looking statements are subject to risks, uncertainties, and assumptions. There is no assurance that any of the actions, events or results of the forward-looking statements will occur, or if any of them do, what impact they will have on our results of operations or financial condition. Because of these uncertainties, you are cautioned not to put undue reliance on any forward-looking statement.

Future actions, conditions, or events and future results of operations may differ materially from those expressed in or implied by these forward-looking statements. Many of the factors that will determine these outcomes are beyond our ability to control or predict. These statements are necessarily based upon various assumptions involving judgments with respect to the future, including, among others: the timing and extent of changes in the supply of and demand for the products we transport and handle; national, international, regional and local economic, competitive, political, and regulatory conditions and developments, including, among others, near- and long-term effects of the COVID-19 pandemic; the timing and success of business development efforts; the timing, cost, and success of expansion projects; technological developments; commodity prices; counterparty financial risk; the condition of capital and credit markets; inflation rates; interest rates; the political and economic stability of oil-producing nations; energy markets; federal, state or local income tax legislation; weather conditions; environmental conditions; business, regulatory and legal decisions; terrorism; cyber-attacks; and other uncertainties. The foregoing and the other risks and uncertainties described in this Report and in our most recent Annual Report on Form 10-K and subsequent Exchange Act reports filed with the SEC, including under the headings “Risk Factors,” “Information Regarding Forward-Looking Statements,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and elsewhere, could cause actual results to differ materially from those expressed in or implied by forward-looking statements. Our

SEC reports are available through the SEC's EDGAR system at <https://www.sec.gov>, and on our website at <https://www.kindermorgan.com>.

Forward-looking statements speak only as of the date they were made, and except to the extent required by law, we undertake no obligation to update any forward-looking statement because of new information, future events, or other factors.

Our Report contains references to KMI's website. These references are for readers' convenience only. We are not incorporating our Report by reference into any other document posted on <https://www.kindermorgan.com> or <https://www.sec.gov> and are not incorporating any other document posted on either website into this Report.

Our Report also includes links to websites owned and operated by third parties, which are provided for readers' information and convenience only. We are not responsible for these websites or their content.

Certain data included in our Report has been derived from a variety of sources, including independent industry publications, government publications, and other published independent sources. Although we believe that such third-party sources are reliable, we have not independently verified, and take no responsibility for, the accuracy or completeness of such data.

Except where and how specified in *Appendix D – Third-Party Assurance Statement*, our Report and the data presented in it have not been externally audited, assured, attested, or verified by a third party. We make no warranty, express or implied, regarding the accuracy, adequacy, completeness, legality, reliability, or usefulness of our Report.



A Message from Our CEO

2021 was a very strong year for Kinder Morgan. The continuation of the pandemic created hardships, but our people and our businesses were resilient. We continued to get the job done; building projects and developing new business. We added a gas storage asset to our portfolio with the acquisition of Stagecoach; started our energy transition ventures group; and acquired Kinetrex, a renewable natural gas, or RNG, operator with one facility in operation and three shovel-ready projects that are currently being built out.

As we entered 2022, the tragic conflict between Russia and Ukraine, and the resulting price increases and disruptions to energy supply, caused many nations to focus on energy security – rethinking both their reliance on traditional fuels and the provenance of their fuel supplies. Kinder Morgan’s traditional LNG exports and new RNG business deliver fuel from reliable and sustainable sources, helping to reduce vulnerabilities to disruption. As a major energy transportation and storage company, we take pride in doing our part to deliver safe, reliable, affordable, and sustainable energy to our customers and the communities that depend on it.



Reducing Our Emissions

We are making enhancements to our operations and business practices to reduce our emissions footprint. For example, we are adding five vapor recovery units at our terminals on the Houston Ship Channel. These units are projected to reduce GHG emissions by approximately 34,000

metric tons of CO₂e annually – equivalent to approximately 38 million pounds of burned coal.

We continue to work with other sectors of the natural gas industry to improve the efficiency of the natural gas value chain. In 2021, we joined three pilot projects that bring together participants across the value chain to transport responsibly sourced natural gas to communities in Colorado and the Northeast U.S. Another example is our recently announced collaboration with a number of midstream operators, methane detection technology providers, and leading academic institutions on a project to quantify, monitor, report, and verify GHG emissions associated with natural gas gathering, processing, transmission and storage system operations. We believe industry-led projects like these will help expand the responsible delivery of lower carbon energy.

Lower Carbon Energy Future

We are exploring opportunities in the energy transition space, both in our traditional lines of business and through our energy transition ventures group. Increasingly, our customers have been setting climate targets and, consequently, seeking to transport and store lower emission products. We have been able to handle these lower emission products for our customers with our existing infrastructure and expect this infrastructure to remain essential to moving liquid and gaseous fuels in a lower carbon future. While moving these lower carbon fuels may not reduce our own operational GHG emissions, our assets are critical in facilitating the end-use of these products, which ultimately helps reduce global GHG emissions.

We are expanding our customer-serving businesses for natural gas transmission, responsibly sourced natural gas, RNG, and LNG. We are also investing in midstream infrastructure in support of renewable fuels and fuel feedstocks, sustainable aviation fuel projects and evaluating

CCUS and hydrogen opportunities. Our TCFD report details some of these initiatives.

Our Products Pipelines business segment is working on two renewable diesel hubs in California, which will receive renewable diesel into California by rail or marine vessel and distribute it to California end-use markets by pipeline and truck.

Our Terminals business segment has begun work on the initial phase of a potential renewable fuel feedstock storage and logistics hub at our Harvey, Louisiana facility. Upon completion, the facility will be used by a leading provider of renewable and circular solutions to store a variety of raw materials such as used cooking oil.



Cybersecurity

Safeguarding the security of our part of the nation's energy infrastructure through cyber risk management is an operational imperative. Our cybersecurity processes are an integral part of our business continuity planning and emergency preparedness and response plans.

Community Engagement, Indigenous Peoples, and Environmental and Energy Justice

We consider stakeholder engagement a priority. Our policies are designed to help build trust and foster collaboration with the communities in which we operate. We are committed to engaging with various stakeholder groups in accordance with our core values of integrity, accountability, safety, and excellence; treating everyone with respect; being transparent in our interactions and being responsive to community questions and concerns.

Our operations groups and Land and Right-of-Way personnel strive to deal fairly with local governments, business owners, farmers, ranchers, residents, and others in communities that may be impacted by our operations.

We respect the diversity of culture and unique history of Indigenous Peoples; recognizing their legal and constitutional protected rights. We also recognize there are vulnerable communities that can be at greater risk from the impacts of industrial activities. We are committed to the fair treatment and involvement of people affected by our operations, including environmental justice communities.

Diversity and Employee Development

We value and take a strategic approach to building a diverse, inclusive and respectful workplace. We monitor and work to improve our hiring practices to ensure a fair and equitable process that produces a workforce reflective of the communities in which we operate. In this report, we have added a breakdown of participants in our leadership training programs, to illustrate our investment in diverse leaders. We are also committed to paying our employees a fair, living wage and have a number of policies and programs to help promote a healthy work-life balance.

Conclusion

As we celebrate our 25th year in business, we are certain that adhering to our values of integrity, accountability, safety and excellence will become even more important in the face of changing circumstances, new lines of business and new ways of thinking. As you read this report, you will not only learn about our approach to ESG, you will also gain insight into how we run this company. We remain dedicated to doing business the right way, every day – serving our investors, our colleagues, our customers, and our neighbors to improve lives and create a better world.

A handwritten signature in black ink that reads "Steven J. Kean".

Steve Kean, Chief Executive Officer

Part 1 – Sustainability Report

1.0 Introduction

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, SASB Marine Transportation TR-MT-110a.2, GRI 2-3, GRI 2-9, GRI 2-13, GRI 2-14, GRI 3-1, CDP Cl.1b, CDP Cl.2, CDP Cl.2a)

Our ESG Strategy

Our vision is to deliver energy to improve lives and create a better world. We do this by pursuing our mission to provide energy transportation and storage services in a safe, efficient, and environmentally responsible manner for the benefit of people, communities, and businesses. Our ESG strategy is consistent with our vision and mission.

Environmental

While delivering the secure and reliable energy the world needs, we also pursue opportunities that contribute to the global effort to address climate change. We continue to support a low carbon future and enable our downstream customers to meet their GHG goals through:

- expansion of our natural gas transmission, responsibly sourced natural gas, RNG, and LNG businesses;
- investments in midstream assets supporting the transportation and handling of renewable fuels, including renewable diesel and sustainable aviation fuel, and associated feedstocks;
- the formation of our energy transition ventures group, tasked with pursuing lower carbon commercial opportunities; and
- evaluation of CCUS and hydrogen opportunities.

We seek to minimize our environmental impacts by:

- reducing methane and other GHG emissions from our operations; and
- employing a variety of strategies to lessen our impact on areas such as:
 - sensitive habitats and conservation areas for threatened or endangered species,
 - wetlands, and
 - waterbodies.

Social

It is important to us to build and maintain healthy relationships with our employees, contractors, suppliers, and other stakeholders throughout the communities where we operate and have expansion projects. We work to attract, develop, and retain a diverse, inclusive, and respectful workforce. We support our employees' career development goals through workforce training, tuition reimbursement, and other development programs. We look for opportunities for our employees to get involved in community programs and strengthen their relationships with our stakeholders. We expect our consultants, contractors, suppliers, vendors, and business partners to adhere to standards of conduct consistent with our Code of Business Conduct and Ethics and our Supplier Code of Conduct when conducting company-related business activities. We recognize that it is important to identify project stakeholders, determine and monitor their needs and expectations, and then work with them to address those needs and expectations as appropriate before, during, and after project completion.

Governance

Our Board oversees our management of risks and opportunities through recurring meetings of the Board and its committees. Likewise, our management team convenes a series of regularly scheduled meetings to engage our CEO, President, COO, business segment presidents and COOs, corporate function heads, and subject matter personnel on day-to-day issues related to our business. We use these meetings to monitor our progress and performance and to identify, evaluate, and address risks and opportunities, including, where appropriate, climate-related risks and opportunities.

Oversight of ESG Reporting

We regularly report our performance against ESG-related environmental and safety metrics to our Board and investors. These metrics are reviewed and discussed in our regularly scheduled meetings with senior management. Certain ESG metrics are included in performance criteria used to determine incentive compensation for our employees, including executives. The environmental metrics include an incentive to minimize releases of natural gas and CO₂ from our operations, which helps us meet our Natural Gas business segment GHG targets. Our GHG targets and performance against those targets are described in *Section 3.4.3 GHG Targets* of the *Sustainability Report*.

Our EHS leadership includes a standing EHS Committee of our Board. The EHS Committee's charter is available on our website at https://www.kindermorgan.com/WWKMM/media/Documents/Governance/KMI_EHS_COMMITTEE-CHARTER.pdf. This committee assists our Board in overseeing management's establishment and administration of our EHS policies, programs, procedures, and initiatives. Each of these items helps promote the health and safety of our employees, contractors, customers, the public, and the environment.

Our Board has delegated the review and approval of our Report to its EHS Committee. Our Report has also been reviewed by and received input from each business segment and our ESG Disclosure Committee, which consists of our:

- CEO,
- President,
- COO,
- CFO,
- CAO,
- General Counsel,
- Corporate Secretary,
- Treasurer,
- business segment presidents, and
- other corporate officers.

Our Report

Our Report is comprised of our "*Sustainability Report*" and our "*TCFD Report*." We post a summary spreadsheet of our sustainability policies and metrics. This summary spreadsheet also includes the Energy Infrastructure Council/GPA Midstream ESG Reporting template. These disclosures can be found on our ESG/Sustainability webpage at <https://www.kindermorgan.com/Safety-Environment/ESG>.

In this Report, we use SASB's latest final standards and primarily include metrics from the SASB Extractives & Minerals Processing Sector Oil & Gas – Midstream Standard (EM-MD, Version 2018-10) as well as the TCFD recommendations.

We also incorporate metrics from CDP and GRI, as well as other SASB sectors applicable to our business, noting both the topic standard reference number and Oil & Gas Sector Standard reference numbers, where applicable. In addition, we use third-party guidance in developing our Report including:

- *The Ceres Roadmap for Sustainability*, and
- Investor-published guidance on engagement priorities.

We reference the activities where our business contributes to SDGs. The United Nations General Assembly has adopted 17 SDGs to set a global agenda for equitable, socially inclusive, and environmentally sustainable economic development. Our mission aligns with the Assembly's:

- Goal 3: ensure healthy lives and promote well-being for all at all ages; and
- Goal 7: ensure access to affordable, reliable, sustainable, and modern energy for all.

In addition, many of our business and community investment activities support other SDGs such as those relating to:

- Goal 8: decent work and economic growth;
- Goal 9: industry, infrastructure, and innovation;
- Goal 14: life below water; and
- Goal 15: life on land.

New to our Report

In this year's report, we have added a section on our energy and environmental justice initiatives and disclosed new metrics, including a breakdown of diverse participation in our leadership training and property taxes paid.

Description of Appendices

In *Appendix A.1 – ESG Disclosure Topics & Accounting Metrics*, we summarize the ESG metrics included throughout the Report. *Appendix A.2 – GHG Accounting Metrics* summarizes our GHG metrics.

In *Appendix B – Activity Metrics*, we include a set of metrics that quantify the scale of our business. These activity metrics are intended to allow users of our Report to normalize data and facilitate comparisons in conjunction with our ESG accounting metrics.

In *Appendix C – ESG Content Index*, we include a cross-reference table of ESG topics covered in our Report and other Kinder Morgan-published documents, including our Annual Report on Form 10-K for the year ended December 31, 2021 (2021 Form 10-K) and 2022 Annual Meeting Proxy Statement (2022 Proxy Statement), to the corresponding SASB Sustainable Industry Classification System™ code, GRI disclosure code, CDP question number, and SDGs target. This cross-reference table also includes the relevant page number of the Report and other Kinder Morgan published documents.

In *Appendix D – Third-Party Assurance Statement*, we include the Report of Independent Accountants for our Report provided by PwC an independent registered public accounting firm. PwC performed a limited assurance engagement on specific metrics included in our Report for 2021.

As indicated in *Appendix A.1 – ESG Disclosure Topics & Accounting Metrics*, *Appendix A.2 – GHG Accounting Metrics*, and *Appendix B – Activity Metrics*, certain of the 2021 company-wide quantitative metrics disclosed throughout this Report have either undergone third-party assurance by PwC or were tested by our Internal Audit department. The testing process by our Internal Audit department includes reviewing and re-performing the processes and procedures for compiling and calculating the metric and

performing sample testing of supporting documentation to check accuracy. Tick marks in the Appendices indicate which metrics were assured by PwC or our Internal Audit department.

1.1 Return to Office and Hybrid Work Model

Our goal for our employees going forward is to leverage what we learned during the pandemic to strengthen our culture and the effectiveness and efficiency of our company – for the benefit of our stakeholders and to help us perform in this highly competitive industry. In 2021, a cross-functional team of leaders from across our organization discussed ideas and opinions and proposed a flexible hybrid work model for certain functions. We then implemented this hybrid model for the majority of our office-based employees. The schedule consists of three core in-office workdays and each department had the option to submit for approval a plan for employees to work remotely up to two non-core days a week. We are evaluating this model quarterly, and any necessary adjustments and refinements to a final program will be considered in the fourth quarter of 2022.

2.0 Overview of Business

(GRI 2-1, GRI 2-6, GRI 203-1/11.14.4)

We are committed to doing business the right way, every day. To meet this commitment, our employees and representatives are expected to act in accordance with our core values of:

- integrity,
- accountability,
- safety, and
- excellence.

We are one of the largest energy infrastructure companies in North America. Our four business segments are:

- Natural Gas Pipelines,
- Products Pipelines,
- Terminals, and
- CO₂.

As of December 31, 2021, we owned an interest in or operate approximately 83,000 miles of pipelines, 143 terminals, and 700 Bcf of working natural gas storage capacity.

Our pipelines transport:

- natural gas,
- refined petroleum products,
- crude oil,
- condensate,
- CO₂,
- renewable fuels, and
- other products.

Pipelines are the safest, most efficient, and least costly method of transporting natural gas and petroleum products compared to other modes of transportation such as rail, barge, and truck.^{1,2,3,4} The industry's safety performance in recent years continues to improve and the total number of incidents and incidents impacting people or the environment continues to decline.⁵

Our terminals store and handle various commodities including:

- gasoline,
- diesel fuel,
- chemicals,
- metals,
- petroleum coke, and
- renewable fuels and feedstocks.

We are also the largest transporter of CO₂ in North America for use by us and others in EOR projects, primarily in the Permian Basin.

Our common stock is listed on the New York Stock Exchange under the ticker symbol "KMI." For more information about us, please see our 2021 Form 10-K, which can be found at <https://sec.report/Document/0001506307-22-000018/kmi-20211231.htm>.

2.1 Code of Business Conduct and Ethics

Our Code of Business Conduct and Ethics establishes the standards of ethical conduct that our employees and representatives are expected to meet and outlines how everyday behavior should align with our core values.

Our Board's Audit Committee has responsibility for:

- oversight of the implementation and administration of the Code of Business Conduct and Ethics;
- review and assessment, at least annually, of the effectiveness of the Code of Business Conduct and Ethics; and
- recommendations to the Board of suggested changes to the Code of Business Conduct and Ethics.

We maintain programs to prevent and detect potential violations. Annually, each of our employees, including management, is required to demonstrate an understanding of or undergo additional training on our Code of Business Conduct and Ethics, including sections on anti-corruption, human rights, and information governance. The training explicitly promotes an open feedback culture. Our Internal Audit department distributes an annual Code of Business Conduct and Ethics questionnaire to both employees and contractors, providing an opportunity to report violations, in addition to the reporting channels

¹ DOT-PHMSA. "General Pipeline FAQs." DOT-PHMSA, 6 Nov 2018. 2022.

<<https://www.phmsa.dot.gov/about-phmsa/phmsa-faqs>>.

² Furchtgott-Roth, Diana. "Pipelines are Safest for Transportation of Oil and Gas." Manhattan Institute for Policy Research, Jun 2013. 2021. <https://www.manhattan-institute.org/pdf/ib_23.pdf>.

³ Hughes, Charles. "The Energy Bottleneck: Why America Needs More Pipelines." Manhattan Institute for Policy Research, Jul 2017: 9-12. 2021. <<https://www.manhattan-institute.org/download/10472/article.pdf>>.

⁴ INGAA. "Pipeline Safety & Reliability: Safety and Reliability Metrics." INGAA, Apr 2022. <<https://www.ingaa.org/File.aspx?id=28478&v=6dac677e>>.

⁵ API-AOPL. "2020 Pipeline Safety Excellence Performance Report & 2020-2022 Strategic Plan." API-AOPL, 17 Jun 2021: 12-13. 2021. <<https://www.api.org/-/media/APIWebsite/oil-and-natural-gas/primers/2020-API-AOPL-Pipeline-Safety-Excellence-Performance-Report-and-20202022-Strategic-Plan.pdf?la=en&hash=3F9DB3F7D2FFA2FAD78E14E6146FC89BA3C1CDDD>>.

discussed below. Our Internal Audit department evaluates the questionnaire responses and oversees follow-up as necessary.

We encourage employees to speak up, seek guidance, and report issues or concerns through appropriate channels and grievance mechanisms. Employees can report incidents involving any ethics, compliance, or human rights violation through several channels including the Kinder Morgan Ethics Hotline, a third-party platform. Our ethics hotline allows reports to be made confidentially and anonymously. Reported concerns and grievances are evaluated and investigated, as appropriate, by our Internal Audit, HR, EHS, or Legal Departments. For more information, see our Code of Business Conduct and Ethics at https://www.kindermorgan.com/WWWKM/media/Documents/Governance/KM_Code_of_Business_Conduct_and_Ethics.pdf.

2.2 Management System

Management System Overview

We value the safety of our workforce and integrate a culture of safety, emergency preparedness, and environmental responsibility through our OMS. Our OMS conforms to *API RP 1173 for Pipeline Safety Management Systems* and establishes a framework that helps us:

- provide employees and contractors with a safe work environment;
- comply with laws, rules, regulations, policies, and procedures; and
- identify opportunities to improve.

Specifically, our OMS provides a detailed road map to build and sustain a culture focused on safety and environmental compliance. Employees receive annual training on our OMS, and we routinely evaluate and drive improvements in each business segment's implementation of our OMS. The main components of our OMS include:

- setting forth goals and policies for our physical operations;
- describing our approach to sound operations;
- setting forth the roles and responsibilities for conducting sound operations;
- establishing a set of processes to be followed in our operations;
- incorporating our EHS requirements; and
- providing for audits, assessments, and periodic changes to improve and maintain compliance with our OMS.

We strive to be a good neighbor and contribute to responsible development through our systematic approach to EHS management. This approach supports our ability to:

- comply with laws and regulations; and
- strive to improve our environmental, health, and safety performance.

As part of our OMS, our employees are expected to help us meet our goals and expectations, identify and address risks to people and the environment, and identify opportunities for improvement. Our employees are required to complete training, participate in periodic safety culture surveys, and are encouraged to share information on incidents. Our employees and contractors have the power to stop work if an activity is not well understood or could lead to potential harm, and we regularly communicate that they have that authority.

Management of Change

We review, approve, and implement policy and procedural changes through our management of change process or similar established processes. Through this process our ESG Disclosure Committee or select senior management reviews or approves ESG-related policies, including but not limited to our:

- Code of Business Conduct and Ethics,
- Human Rights Statement,
- EHS Policy Statement,
- Biodiversity Policy,
- Supplier Code of Conduct,
- Indigenous Peoples Policy, and
- Community Relations Policy.

Audit Program

We maintain an operations audit program that monitors, among other things, our environmental and safety practices. Our operating facilities with site-specific requirements, permits, or plans are audited every three to five years, depending upon the nature of the facility. OMS audits are conducted at least once every three years for each business segment. Audits are performed by qualified third parties or internal personnel not involved in the operations being audited. The audit results are used to develop and implement corrective measures where warranted.

Incident Management

Our policies and procedures require the internal reporting of incidents and investigation of significant incidents, including work-related injuries and illnesses. Our employees and contractors are required to report and document workplace incidents, including illnesses and injuries. Our incident management system provides us with the capability to:

- gather incident data and impacts;
- identify and analyze immediate or root causes, or both;
- determine corrective actions and deadlines;
- verify corrective actions have been completed; and
- identify trends and share preventive actions.

Our senior management plays a vital role in fostering a strong safety culture and values the insights gained from our safety performance metrics relative to our targets and incident investigations. Weekly senior management meetings, chaired by our CEO, include reports and discussions of notable workplace incidents and near misses that may have occurred during the previous week. Our senior management has established detailed safety performance metrics at the business segment level and with our corporate and business segment COOs to focus performance on factors related to both safety and operational reliability. These metrics are reviewed during each business segment's quarterly business review.

Incidents, including injuries, are regularly reviewed by our business segments to identify potential trends. These trends are communicated to appropriate persons within the company, who meet regularly to share information about incidents and related improvements. Trends are included in discussions at weekly safety meetings, monthly operations meetings, and other regular operations meetings. In addition, management has periodic discussions with worker representatives about health and safety.

Lessons Learned

Sharing lessons learned is an integral part of our OMS and reinforces our commitment to performance improvement. Our emphasis on timely incident assessment, information sharing, and tracking corrective actions reinforces our employees' understanding that risk management is a top priority. Sharing lessons

learned not only helps our employees understand the importance of continuous learning and improvement, it also helps protect against complacency. Equally important is that everyone understands that sharing and voicing concerns is not only encouraged but is considered a responsibility. Our lessons learned processes contribute to an environment in which employees and contractors are comfortable identifying and speaking up about risks and help emphasize the urgency of communicating risk information up, down, and across the organization.

Asset Integrity Management

For most of our pipelines, where appropriate, we have established an IMP that incorporates integrity assessment measures to:

- identify, analyze, and prioritize potential threats to our pipelines, including incorporating actual and potential precursor events that can result in pipeline incidents;
- use a comprehensive and integrated means for examining, prioritizing, and comparing the spectrum of risks and risk reduction activities available;
- implement structured and easily communicated means for selecting and implementing risk reduction activities, including integrity assessments, remediation, and preventive measures;
- track system performance with the goal of improving performance; and
- communicate emerging needs and new technology application opportunities to top management to provide timely resource allocation.

We conduct pipeline inspections using various methods including:

- ILIs,
- non-destructive testing,
- above-ground surveys,
- hydrostatic integrity tests, and
- direct assessments.

These inspection methods help us determine the physical condition of most of our pipelines and gather information to assist us in keeping our pipelines operational and safe. For our inspections, where possible, we prefer to utilize ILI technology referred to as smart pigs, which provides more detailed data about corrosion and other material defects.

In our ongoing pursuit of operational excellence, we developed KMAP™, a patented, innovative pipeline integrity solution designed to search for flaws in longitudinal welds. KMAP™ is a unique analytical process that we employ to provide additional analysis beyond traditional ILI analytical methods. We developed KMAP™ as a proactive solution for conducting more thorough inspections of our pipelines. We have been successfully using this technology since 2011.

Environmental, Health, Safety and Emergency Response Training

We use an LMS to provide and track training for our employees who take required and voluntary online courses covering technical development, leadership, safety, environmental, and corporate policies, including our OMS and Code of Business Conduct and Ethics. Our operations employees receive initial environmental, health, safety, and emergency response training and subsequent recurring training, appropriate for their positions. Training can be individually tailored by an employee's supervisor or the employee, who can self-register for any course in our LMS.

Employees receive position-relevant training on environmental topics including:

- environmental awareness;
- waste management procedures;
- spill control procedures;
- environmental sampling procedures; and
- stormwater runoff handling procedures, such as water treatment.

For employees who are likely to respond to emergencies, we provide emergency management training consistent with USCG, EPA, DOT, CER, and ASEA requirements. We also have an extensive pipeline safety operator qualification program.

In 2021, we achieved our target to have 100% of training courses assigned to employees in our LMS completed by the end of the year. We have processes in place to help employees meet this target; including email reminders and training administrators who monitor completion of training. We also report overdue training to management on a monthly basis.

For more information, see our *Section 7.2 Employee and Contractor Safety Statistics and Average Hours of Health, Safety, and Emergency Response Training* of the *Sustainability Report* and our OMS webpage at <https://www.kindermorgan.com/About-Us/OMS>.

2.2.1 Third-Party Certifications

ACC Responsible Care[®] Program

Our Terminals business segment has been involved in the ACC Responsible Care[®] Program since 2010. The Responsible Care[®] Program is an EHS and security performance initiative that includes a management system framework and allows members to demonstrate their commitment to health and safety of their employees, the communities in which they operate, and the environment. As part of the Responsible Care[®] program, we undergo third-party audits of our Terminals business segment headquarters in Houston, Texas and each of the participating facilities once every three years to certify our performance.

Fifteen of our terminals, including our largest, participate in the program. In 2021, eight terminals were awarded an “Excellence in Safety,” designation, which recognizes facilities with zero deaths, zero days away from work cases, and zero job transfer or restriction cases among both employees and contractors during the prior year.

3.0 Greenhouse Gas Emissions

3.1 Gross Global Scope 1 and 2 Emissions, Percentage Methane, Percentage Covered under Emissions-Limiting Regulations

(SASB Midstream EM-MD-110a.1, SASB Exploration & Production EM-EP-110a.1, GRI 305-1/GRI 11.1.5, CDP C6.1, CDP C6.3, CDP C7.3, CDP C7.6, CDP C7.9, CDP C8.1-8.2f)

Our GHG emissions, including methane, are calculated using the methodologies outlined in the *Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard*.⁶

⁶ World Resources Institute and World Business Council for Sustainable Development. “The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard.” World Resources Institute and World Business Council for Sustainable Development, Mar 2004. 2021. <<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>>.

The Scope 1 emissions reported below include:

- GHG emission sources applicable to the EPA’s GHGRP;
- facilities that are exempt from the EPA’s GHGRP because they emit less than 25,000 metric tons CO₂e/yr; and
- sources that are exempt from the EPA’s GHGRP, such as mobile equipment and refrigerants.

Scope 1 emissions include direct emissions from sources owned or controlled by the reporting company.

Examples of our Scope 1 emission sources by emission type include:

- flared hydrocarbons – flaring from processing, gathering, and other operations;
- other combustion – engines and turbines that drive compressors, boilers and heaters, vapor combustion devices, and stationary and fleet vehicle engines;
- process emissions – dehydration and gas sweetening processes;
- other vented emissions – blowdowns and compressor starts; and
- fugitive emissions – equipment component leaks, refrigerants, and vapor handling systems.

“Other combustion” is our largest emission type and the largest source of emissions within this type are our natural gas fired compressor drivers comprising approximately 74% of our total Scope 1 emissions. “Other vented emissions” is our second largest emission type and includes emissions from blowdowns for maintenance, integrity testing, and emergency activities at our pipelines, compressors, and compressor stations. Our strategies to manage our methane and GHG emissions are described in *Section 3.2 Strategy to Manage Gross Global Scope 1 and 2 Emissions* of the *Sustainability Report*.

Our Scope 2 emissions consist of indirect emissions from purchased electricity.

Our gross global operational control Scope 1 and Scope 2 emissions and GHG emission intensity from our continuing operations are provided below and include the emissions from assets we operate, including those assets where we own less than 100% interest. This table also includes GHG emission credits purchased.

Our gross global equity share Scope 1 and Scope 2 emissions, which include our share of emissions from assets in which we own an interest, from our continuing operations were 16.5 million metric tons CO₂e in 2021 and are included in *Appendix A.2 – GHG Accounting Metrics*.

	Year Ended December 31,		
	2019	2020	2021
	(In million metric tons of CO ₂ e, except percentages and emission intensity)		
Scope 1 emissions			
Gross global Scope 1 emissions(a)(b)(c)(d)	16.0	15.3	15.3
Percentage of gross global Scope 1 emissions by emission type(a)(b)			
Flared hydrocarbons	2 %	2 %	1 %
Other combustion(d)	70 %	67 %	74 %
Process emissions (d)	4 %	4 %	3 %
Other vented emissions	15 %	18 %	13 %
Fugitive emissions from operations	8 %	9 %	9 %
Percentage covered under emissions-limiting regulations	0 %	0 %	0 %
Percentage methane(d)	24 %	27 %	22 %

	Year Ended December 31,		
	2019	2020	2021
(In million metric tons of CO₂e, except percentages and emission intensity)			
Scope 2 emissions			
Gross global market-based Scope 2 emissions(a)(c)(e)	3.4	3.1	3.1
Total gross global Scope 1 & 2 emissions(d)	19.4	18.4	18.4
GHG emission credits purchased(f)			
Purchased credits (thousand metric tons CO ₂ e)(g)	96	113	86
GHG emission intensity			
Company-wide BOE throughput (BBbl/yr)(h)	5.6	5.1	5.4
Scope 1 and 2 emission intensity (metric tons CO ₂ e per BOE throughput)(a)(d)(h)	0.003	0.004	0.003

- (a) GHG emissions were quantified per the SASB Midstream Standard and the ISO 14064-1:2006, *Greenhouse gases – Part 1: Specification with guidance at the organization level for the quantification and reporting of greenhouse gas emissions and removals*. Emissions are reported for CO₂, CH₄, N₂O, and HFCs from direct and indirect sources. The IPCC AR5 GWPs were used to convert CH₄ (28) and N₂O (265) emissions to CO₂e. The following GWPs were used for HFCs: R-410A: 1725, HFC-134A: 1300, HCFC-22: 1760, R-404A: 3260, R-407C: 1526, R-1234YF: 4, R-600A: 5, R-407C: 1526, HFC-32: 677, HFC-23: 12,400, CFC-12: 10,200, R-422D: 2,625, R-600: 5, R-600A: 5. Gross emissions are GHGs emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions. Scope 1 and 2 emissions for our continuing operations in Canada and Mexico are less than 500 thousand metric tons. Emission values displayed as 0.0 are less than 50,000 metric tons.
- (b) Excludes emissions from construction activities, wastewater treatment, fire suppression activities, enclosed circuit breakers operated by the Natural Gas Pipelines business segment, refrigerants from mobile equipment not tracked in our fleet database, fugitive emissions from natural gas supply lines for the Terminals and Products Pipelines business segments, and insignificant emissions from small combustion activities.
- (c) Discontinued operations include emissions from divestitures that are greater than 5% of the Scope 1 and Scope 2 total emissions for the applicable business segments. Emissions from divestitures that are less than or equal to 5% are included in continuing operations. In 2019, discontinued operations include emissions from KML and the U.S. portion of the Cochin Pipeline up to the sale date of December 16, 2019. In 2019, Scope 1 emissions from discontinued operations were less than 50,000 metric tons CO₂e and Scope 2 emissions from discontinued operations were 0.1 million metric tons CO₂e. There were no discontinued operations that met the greater than 5% threshold in 2020 or 2021.
- (d) We identified immaterial calculation errors for certain combustion, flaring, and process emission sources that affect data reported for 2019 and 2020. We have revised the 2019 and 2020 gross global Scope 1 emissions, total gross global Scope 1 and Scope 2 emissions, and percentages of gross global Scope 1 emissions for other combustion and process emissions so that this information is comparable to 2021. We have also revised the 2019 Scope 1 and 2 emission intensity and percentage methane to correct these calculation errors.
- (e) Scope 2 emissions include indirect emissions from purchased electricity that were calculated using the market-based method. Location-based emissions are included in *Appendix A.2 – GHG Accounting Metrics*.
- (f) Represents the credits purchased during the calendar year. Actual emissions that were offset, or will be offset by future credit purchases, for 2019, 2020, and 2021 are 89 thousand, 146 thousand, and 46 thousand metric tons of CO₂e, respectively.
- (g) The price paid per metric ton of CO₂e was \$1.75, \$3.75, and \$6.75 in the years 2019, 2020, and 2021, respectively.
- (h) ONE Future's definitions are used for annual throughput. If no ONE Future definition applies, throughput is generally defined as product receipt. Throughput was converted to MMBtu using product-specific heat content, obtained from the EIA, EPA, or business segment data. This is then converted to BOE by dividing by 5.8 MMBtu per bbl of crude oil. The CO₂ that we transport does not have a heating value, and therefore, has a BOE equal to zero.

On April 29, 2022, EPA signed proposed amendments to the GHGRP. The proposed amendments include multiple changes to existing emission estimation methodologies, including increasing the emission factor for uncombusted fuel, i.e., methane slip, from reciprocating compressor engines. The proposed emission factors would increase between 45% and 600% depending on the type of engine. EPA aims to issue a final rule by the end of 2022 and to require GHG emissions reports filed in 2024 for 2023 emissions to follow the new rule. If the rule is finalized as proposed, we would expect our Scope 1 GHG emissions reported in our 2023 Report to increase when we incorporate these updated emission factors.

PwC provided limited assurance of our 2021 GHG emissions inventory, including the emissions reported to the EPA's GHGRP. The assurance statement for 2021 is included in *Appendix D – Third-Party Assurance Statement*. In addition, Scope 1 emissions submitted to EPA's GHGRP undergo additional electronic validation and verification checks. The EPA notifies us if any potential errors are identified and we resolve the issue either by providing an acceptable response describing why the flagged issue is not an error or by correcting the flagged issue and resubmitting the annual GHG report.

3.2 Strategy to Manage Gross Global Scope 1 and 2 Emissions

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, GRI 2-12, GRI 305-2/GRI 11.1.6, GRI 305-5/11.2.3, CDP C1.1b, CDP C3.1)

3.2.1 GHG Emission Reduction Efforts

We support domestic and international efforts to mitigate climate change. Some of our efforts to reduce methane and other GHG emissions are described in the sections below.

3.2.1.1 Methane Emission Reduction Commitment

(GRI 2-28)

We recognize that methane emissions associated with the production, transportation, storage, and distribution of natural gas should be minimized so that those emissions do not diminish the climate advantage of natural gas over other fuels. We have an economic incentive to minimize methane emissions because pipeline quality natural gas has a methane content of approximately 95%. Minimizing our methane emissions maximizes the amount of natural gas kept in our pipelines and delivered to our customers. We support performance-based federal regulations and have worked to minimize methane emissions in our operations for more than 25 years.

We continue to apply methane emission reduction strategies and report voluntary methane emission reductions as part of EPA's Natural Gas STAR and Methane Challenge programs and through the ONE Future Coalition.

In this Report, **GHG or methane emission reductions** are defined as emissions mitigated or avoided that would otherwise have been emitted.

These initiatives have resulted in approximately 133 Bcf of methane emission reductions since 1993, which is equivalent to approximately 71 million metric tons of CO₂e. These results reflect both the environmental benefit of minimizing and preventing methane emissions, and the economic incentive to keep natural gas in our pipelines and storage facilities.

EPA's Natural Gas STAR and Methane Challenge Programs

For over 25 years, we have voluntarily participated in the EPA's Natural Gas STAR Program, implementing initiatives to reduce our methane emissions. In 2016, we became a partner in the EPA Natural Gas STAR Methane Challenge Program that provides us a flexible way to make specific and transparent commitments to implement methane emission reductions from our operations. We also participate in the Methane Challenge Program under the ONE Future Emission Intensity Commitment Option for our natural gas transmission and storage assets.

ONE Future – Founding Member

ONE Future is a coalition of members across the natural gas value chain focused on identifying policy and technical solutions for reducing methane emissions associated with the delivery of natural gas. ONE

Future's members include some of the largest natural gas production, gathering and boosting, processing, transmission and storage, and distribution companies in the U.S. In 2021, these ONE Future companies accounted for approximately 23% of total natural gas production, 56% of natural gas transmission pipeline miles, and 40% of the total U.S. natural gas delivered by local distribution companies.⁷

ONE Future members aspire to enhance the energy delivery efficiency of natural gas by:

- limiting energy waste, and
- achieving a cumulative methane emission intensity target, the “leakage” rate, for member companies of 1% or less of total natural gas production across the natural gas value chain by 2025.

To put the current ONE Future target of 1% methane emission intensity into context, the natural gas value chain's methane emission intensity, based on the EPA's 2012 National Greenhouse Gas Inventory, was 1.44% of total natural gas production. In order to meet the ONE Future 1% target, the natural gas industry required an additional 30% improvement in methane emission intensity across the natural gas value chain. The ONE Future 2021 Methane Emission Intensities Report shows a methane emission intensity rate of approximately 0.42% for member companies, outperforming the 2025 target by 58%. ONE Future members collaborated with DOE's NETL on a methane emission life cycle analysis. The NETL study, which was last updated in 2020, indicated that in 2017 the average life cycle methane emission rate for ONE Future members was 0.76%; below the 1.06% rate for the U.S.⁸

Our targets and performance are described in greater detail in *Section 3.4.3 GHG Targets* of the *Sustainability Report*.

INGAA Climate Change Statement

We helped develop and support INGAA's 2021 Vision Forward, a climate statement that addresses climate change and building a cleaner energy future for natural gas transmission and storage operations.⁹ Our own *Statement on Climate Change* can be found at https://www.kindermorgan.com/WWWKM/media/Documents/Climate_Change_KM_Statement.pdf.

Methane Emission Reduction Strategies

We have implemented the following methane emission reduction strategies at one or more of our facilities:

- perform maintenance and repairs on component leaks, including those identified through annual methane leak surveys;
- communicate policies and procedures detailing program requirements to improve methane management;
- minimize methane emissions from transmission pipeline blowdowns by:
 - using sleeves and composite wraps when repairing pipelines and performing hot taps to make new connections, eliminating the need for pipeline blowdowns; and
 - reducing the amount of gas within the pipeline, i.e., pumping down, so that less gas needs to be evacuated during certain repairs or testing;
- conduct performance-based monitoring and replacement for reciprocating compressor rod packing;
- use dry seals for new centrifugal compressor installations;

⁷ ONE Future Coalition. “ONE Future 2021 Methane Emission Intensities Report.” ONE Future Coalition, 10 Nov 2021. 2022. <<https://onefuture.us/wp-content/uploads/2021/11/ONE-Future-2021-Annual-Report-110521.pdf>

⁸ NETL. “Industry Partnerships and Their Role in Reducing Natural Gas Supply Chain Greenhouse Gas Emissions – Phase 2.” DOE NETL, 12 Feb 2021: 1-2. 2021. <<https://netl.doe.gov/projects/files/NETL-Industry-Partnerships-and-their-Role-in-Reducing-Natural-Gas-Supply-Chain-Greenhouse-Gas-Emissions-Phase-2-12FEB2021.pdf>>

⁹ INGAA. “INGAA Climate Report.” INGAA, Nov 2021. 2021. <<https://www.ingaa.org/File.aspx?id=39061>>.

- convert our reciprocating engine and turbine gas starters to electric or air operated starters;
- cathodically protect our pipelines which helps prevent pipeline degradation and leaks;
- install electrically operated glycol pumps to replace natural gas-operated pumps;
- test advanced methane emission reduction technologies and work practices such as aerial methane detection as well as laser absorption monitoring;
- install low- or zero-bleed natural gas pneumatic devices on new facilities; and
- collaborate with customers, peers, and regulators on best practices and new technologies.

For more examples of how we implement our methane emission reduction strategies, see *Our Commitment to Reducing Methane Emissions* case study video and fact sheet at https://www.kindermorgan.com/Safety-Environment/ESG#tabs-case_studies.

Methane Emission Detection Technologies

We engage with peer companies and customers to share experiences and strategies concerning methane detection technologies and best practices, both of which are evolving rapidly. We are using innovative technologies and are evaluating emerging technologies or approaches in many ways, including:

- testing different configurations of infrared and laser absorption sensors;
- contracting multiple service providers who use sensors mounted on helicopters and fixed-wing aircraft to conduct aerial methane detection surveys. In 2021, we conducted such surveys on approximately 2,000 miles of our natural gas pipelines;
- evaluating continuous methane detection; and
- using OGI cameras or other EPA-approved technologies to verify suspected leaks.

Certain facilities in each of our business segments are subject to GHG reporting programs with the EPA or ASEA, as applicable, and to federal and state LDAR regulations. We monitor and quantify GHG emissions to satisfy the requirements of these rules using our emissions monitoring equipment. We use monitoring tools to conduct leak surveys for both regulatory and voluntary programs.

Since the inception of the EPA's GHGRP, our annual methane leak surveys have included natural gas processing plants and transmission and storage compressor stations subject to the EPA's GHGRP. At these facilities, we conduct methane leak surveys using OGI cameras or other EPA-approved technologies. We use EPA-approved methods, such as direct flow measurement, to estimate methane leak rates from compressors and other components. For compressor leaks, we use direct flow measurements to develop entity-specific emission factors. For these facilities we conduct direct measurements at least annually for the following sources, when applicable:

- compressor unit rod packing vents,
- compressor unit blowdown and isolation valve vents,
- compressor wet seal oil degassing vents,
- atmospheric storage tanks, and
- equipment/pipeline components.

Monitoring frequency and methods vary depending on facility type, and surveys may be conducted monthly, quarterly, or annually. We conduct LDAR inspections and identify leaks using OGI, flame ionization detectors, and other technologies. When a leak is detected, our operations personnel are informed and the leak is added to a tracking schedule. Identified leaks are tracked and repaired as required under applicable regulations, or, for leaks identified under our voluntary detection program, reminders are sent quarterly until the leak is repaired.

We anticipate evaluating and potentially implementing other methane emission reduction technologies or

methane emission reduction work practices at our natural gas operations on a case-by-case basis. We report our use of specific technologies and work practices annually to the EPA.

3.2.1.2 Other GHG Emissions Reduction Efforts

In addition to methane emission reductions, we have implemented one or more of the following Scope 1 emission reduction strategies:

- developed procedures to shut down our equipment to reduce idle time;
- optimized temperature controls and preventative maintenance to reduce fuel consumption;
- shut in oil production wells during routine maintenance;
- used vapor recovery units in lieu of vapor combustion units; and
- reduced flaring emissions by:
 - improving compressor reliability,
 - re-injecting unprocessed gas when processing equipment is down for maintenance activities,
 - automating gas control,
 - improving flaring metering,
 - reducing flare assist gas, and
 - optimizing downtime.

Efficient equipment uses less energy to maintain equivalent output. We continue to evaluate new ways to reduce our emissions by increasing the efficiency of our equipment. For example, we have projects in place to evaluate the operational possibilities of:

- dispatching the most efficient compressors first,
- replacing lower efficiency valves, and
- performing life-cycle cost analysis on equipment.

At our Snyder Gas Plant, we capture the CO₂ removed by amine units at the facility and use the captured CO₂ in our enhanced oil recovery operations.

To reduce the GHG emissions related to individual personal vehicles, we offer employees in our corporate Houston office a 100% transportation subsidy to encourage the use of local public transportation. Our current flexible work schedules and the hybrid work schedule we are evaluating are also expected to reduce GHG emissions from employees' commutes.

3.2.2 Research and Development

Emission Reduction Industry Initiatives and Studies

We participate in several industry initiatives to implement emission reduction strategies. Below are a few examples of how we actively engage with various trade associations and regulatory entities to share data, our experience with methane monitoring and management, and best practices for achieving emission reductions.

- *IAB for DOE's ARPA-E Project*
As a participant in the IAB for DOE's ARPA-E Project, we advised ARPA-E and Colorado State University on the development of a methane emission test site. This test site simulated actual natural gas leaks that might occur at production and gathering facilities and underground pipelines. This test site project is part of the ARPA-E Methane Observation Networks with Innovative Technology to Obtain Reduction program. The goal is to develop cost-effective methane leak

detection technologies to more precisely and efficiently locate and measure methane emissions associated with natural gas operations in order to further reduce methane emissions. We participated in multiple aspects of the project, including:

- development of the test site;
- evaluation of the various leak detection technologies being developed; and
- providing guidance to the test site developers on industry expectations and steps for regulatory approval of these technologies.

The project identified several technologies capable of detecting leaks within two meters of the leak's location. Further development and testing of the technologies in the field are needed to enhance their successful deployment. The testing site is still used for research involving methane emission detection, safety, and other field measurement projects as well as for hands-on OGI methane detection training.

- *New York State's Emission Measurement Project*

We are participating in a research study, conducted by Harrisburg University and funded by the New York State Energy Research and Development Authority. The aim of the study is to better understand methane emissions from midstream assets and to refine methane emission factors. Phase one of the project, which included aerial methane measurement of several of our assets, was completed in 2021. Phase two of the project, which includes evaluating new methane detection technologies, is expected to be conducted in 2022.

- *Stanford Natural Gas Initiative*

We are an affiliate member of this collaboration of more than 40 research groups at Stanford University drawn from engineering, science, policy, geopolitical, and business disciplines. This initiative works with a consortium of industry partners and other external stakeholders to generate the knowledge needed to use natural gas to its greatest social, economic, and environmental benefit. As an affiliate member, we have access to informed research and the ability to interact with Stanford faculty and industrial colleagues on issues related to natural gas.

- *Cheniere Midstream QMRV GHG Project*

In 2022, we joined a collaboration with Cheniere Energy, Inc., several other midstream operators, methane detection technology providers, and leading academic institutions on a project to quantify, monitor, report, and verify GHG emissions associated with the operation of natural gas gathering, processing, transmission, and storage systems.

Cheniere and global emissions researchers from Colorado State University and the University of Texas will design a measurement protocol to be field-tested at participating midstream operator's facilities. We have designated select pipeline segments and compressor stations on our TGP, Kinder Morgan Louisiana Pipeline, and Natural Gas Pipeline of America systems to participate in this project. The project is intended to improve the overall understanding of GHG emissions and further the deployment of advanced monitoring technologies and protocols.

The dollar amount we have invested in research and development projects related to GHG emissions and climate change are provided below. For 2021, the amount includes contributions for GHG-related projects through PRCI, ONE Future, and the Stanford Natural Gas Initiative. 2021 also includes contributions made for a pipeline hydrogen feasibility study.

	Year Ended December 31,		
	2019	2020	2021
	(In thousands)		
Research and development investments in GHG emissions and other climate change-related projects(a)	\$ 226	\$ 251	\$ 375

(a) The amount invested includes the work hours our employees spent on DOE GHG-related projects.

CCUS

We participate with other organizations to advance CCUS policy and technology.

In 2021, we participated in the Colorado Energy Office CCUS Task Force along with representatives from industry, government, academia, and nonprofits. The task force evaluated Colorado’s opportunities for carbon capture, transport, utilization, and storage resources to:

- reduce Colorado’s GHG emissions to help achieve emission reduction targets;
- complement other emission reduction technologies like zero-carbon electricity production;
- improve environmental and air quality in disproportionately impacted communities; and
- create economic opportunities, such as retrofit job creation, and other regional economic impacts.

The task force released a report in 2022 that included recommendations for CO₂ pipelines and sequestration projects that included considerations for environmental justice, coordination and permitting with federal agencies and regional partners, the state agency permitting process, state incentives, and the siting of the pipelines and sequestration projects.

We also collaborate with the Energy Advance Center, an energy group focused on CCUS advancement.

3.2.3 Industry and Agency Participation

Our employees have undertaken leadership roles in the INGAA GHG Task Force, serving as co-chairs from late 2008 to 2011, and from 2013 through 2020. In 2021, one of our employees served as Chair of the Environmental Committee, under which the GHG Task Force resides.

We have collaborated with the EPA and DOE on methane emission reductions and management strategies to identify the most effective means of implementing methane emission reductions at natural gas transmission and storage operations.

We also collaborate with various NGOs to improve their understanding of natural gas storage facilities, operations, emissions, and safety technologies. Our work is ongoing in numerous federal, state, and industry venues.

We participate in the New York City Mayor’s Office of Resiliency CCATF which was established to:

- identify critical infrastructure in New York City that could be at risk from the effects of climate change;
- facilitate knowledge sharing and develop coordinated adaption strategies to secure these assets; and
- develop findings and recommendations.

We also support Arizona’s Climate Change Action Plan through our participation in an afforestation program called Trees for Tucson in Tucson, Arizona. Since 2017, we have contributed to planting

approximately 2,258 trees in the Tucson metropolitan area. These trees sequester CO₂, helping to offset CO₂ in the atmosphere.

3.2.4 Energy Management

(GRI 2-1, GRI 302-1/GRI 11.1.2, GRI 302-4, CDP C8.2, CDP C8.2a)

One of the most impactful ways we reduce our overall emissions is by managing our energy consumption. Per our OMS, which is described in greater detail in *Section 2.2 Management System* of the *Sustainability Report*, we strive for continuous improvement in our energy efficiency and have implemented several energy management initiatives.

We employ energy management personnel who oversee multiple programs and strategies to both minimize energy costs and monetize our reductions in energy usage.

Demand Response

We participate in curtailment and demand response programs. By analyzing our operations and energy consumption at a detailed level, we are able to reduce the amount of energy we pull from local electric grids when requested by local electric grid operators. We also participate in demand response, load management, and utility reliability programs including the Base Interruptible Program in California and the Electric Reliability Council of Texas Emergency Response Service program. We also participate in the 4 Coincident Peak program in Texas, which relies on incentives to reduce load when available capacity is low.

Engineering Design

We have reduced energy consumption by optimizing our pipeline and facility design to utilize devices that use less energy while maximizing output. For example, we use variable frequency drives on many of our pumps to improve pipeline flow control and increase energy efficiency. Variable frequency drives also allow us to monitor the efficiency of our pumps, control pump speed, and reduce surges to nearby power suppliers.

DRA

We use DRA to reduce energy consumption in our liquids pipelines. DRA reduces friction inside pipelines, which allows us to move more product through our pipelines using less energy. Our use of DRA reduced our electricity needs and allowed us to reduce the use of pumps, completely shut down unneeded pump stations, or avoid construction of new pump station infrastructure.

In 2021, our deployment of DRA, in our Products Pipelines business segment avoided approximately 390 GWh of electricity consumption, which equates to the use of 35 main line pumps.¹⁰ This energy savings is roughly equivalent to 276,000 metric tons of CO₂e emissions avoided, which is comparable to the energy used by approximately 54,000 homes for one year or the carbon sequestered by 327,000 acres of U.S. forests in one year.¹¹

¹⁰ To calculate the avoided energy consumption in each pipeline, actual hourly operational performance data is compared to estimated energy usage with untreated friction loss. Typical main line pumping unit refers to a 2,000 horsepower pump with 85% utilization for the year.

¹¹ The equivalent number of homes and tree acreage is calculated using EPA's Greenhouse Gas Equivalencies Calculator. EPA. "Greenhouse Gas Equivalencies Calculator." EPA, Mar 2022. 2022. <<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>>.

Offices and Buildings

We continue to seek ways to improve our energy efficiency in the office buildings we own. Our Houston headquarters building is LEED Gold certified. The lighting in our Houston headquarters building, and in several of our leased office spaces, is on automated timers that turn off lights when not in use. Two of our office facilities use LED lighting and we have ongoing initiatives to replace compact fluorescent bulbs with LED lighting at many of our other facilities to further reduce energy consumption.

Electricity Consumption

We continue to evaluate opportunities to purchase green power. In 2021, we entered into a two-year retail power agreement in Texas to purchase 4.3 GWh/yr of wind power beginning in 2022.

Our electricity consumption for our continuing operations is provided below.

	Year End December 31,		
	2019	2020	2021
	(In GWh)		
Total electricity consumption from continuing operations(a)(b)	7,470	6,984	7,335

(a) Total electricity consumption is from purchased power for the assets we operate.

(b) Discontinued operations include emissions from KML and the U.S. portion of the Cochin Pipeline up to the sale date of December 16, 2019. In 2019, total electricity consumed from discontinued operations was 222 GWh. There were no significant discontinued operations in 2020 or 2021.

Renewable Energy

We have programs to make energy efficiency improvements in our operations and explore new low carbon technologies where and when economically feasible. For example, some of the equipment at our facilities is powered through solar panels installed on-site. As these locations are often very remote and far from an existing electric grid, these installations have been successful from both an energy-efficiency perspective and cost-saving perspective. In 2021, we consumed approximately 1,058 MWh of renewable energy from the solar panels we operate, equivalent to approximately 749 metric tons of CO₂ avoided.¹²

The amount of renewable energy consumed from the solar panels we operate is provided below.

	2019	2020	2021
		(In MWh)	
Renewable energy consumed from the solar panels we operate(a)	1,018	1,053	1,058

(a) The renewable energy we consumed from the solar panels we operate is estimated using the National Renewable Energy Laboratory's PVWatts® Calculator.

Vehicle Fleet

We aim to operate our company vehicles in an environmentally sound manner and have policies in place that establish guidelines for safely and efficiently operating our vehicles. When practical, we replace the vehicles in our fleet with those that are more fuel efficient.

¹² Estimated renewable energy consumed is equal to the amount generated. Solar panel energy generation is calculated using the National Renewable Energy Laboratory's PVWatts® Calculator. Dobos, Aron P. "PVWatts® Calculator." PVWatts® Calculator. National Renewable Energy Laboratory, 21 Sep 2021. 2022. <<https://pvwatts.nrel.gov/index.php>>.

3.3 Scope 3 Emissions

(GRI 305-3/GRI 11.1.7, CDP C6.5)

Scope 3 emissions are other indirect GHG emissions from sources upstream and downstream of our value chain that are not owned or controlled by us and are not included in our Scope 1 and Scope 2 emissions. Calculating and reporting Scope 3 emissions is complex as these emissions come from a wide range of sources, some of which are difficult to measure or estimate. Emissions reported as our Scope 3 emissions may be reported by other companies as Scope 1 or 2 emissions. For example, our Scope 3 emissions from employee business air travel may be reported by an airline as their Scope 1 emissions. We are currently evaluating the feasibility of reporting our Scope 3 emissions in the future.

3.4 GHG Offsetting, Reductions, and Targets

3.4.1 GHG Offsetting

(CDP C4.3, CDP C11.2, CDP C11.3)

Our Natural Gas Pipelines business segment owns a 50% interest in and operates Ruby Pipeline, L.L.C., Ruby, a pipeline that delivers natural gas to the U.S. West Coast. Ruby has been net zero since 2011, by using emission reduction credits or renewable energy credits to offset Scope 1 and 2 emissions from construction and ongoing operations. In 2021, Ruby purchased approximately 86 thousand credits. See Section 3.1 Gross Global Scope 1 and 2 Emissions, Percentage Methane, Percentage Covered under Emissions-Limiting Regulations for historical information.

The credits we purchase are Climate Action Reserve CRT, which are verified through a third party. In most cases, the purchase takes place within one year from the date emissions are considered final. Credit purchases can span multiple years and are not necessarily created during the same year the emission offset is applied. Emissions are typically offset using credits that were purchased during a different calendar year. Over-purchases of credits, if any, are held and applied to offset future emissions.

3.4.2 GHG Reductions

(GRI 305-5/11.2.3, CDP C4.3)

Our voluntary GHG emission reductions, volume of voluntary methane emission reductions, and estimated value of natural gas saved are provided below.

	Year Ended December 31,		
	2019	2020	2021
Voluntary GHG emission reductions (million metric tons CO₂e)(a)	2.3	3.2	3.6
Volume of voluntary methane emission reductions (Bcf)(b)(c)	4.3	5.9	6.6
Estimated value of natural gas saved (millions)(d)	\$ 13	\$ 21	\$ 38

- (a) GHG emission reductions are methane emission reductions converted to CO₂e. The reported CO₂e is based on a GWP of 28 if the methane were directly emitted to the atmosphere (GHGRP Subpart W, IPCC 2007). Calculation is from 40 CFR Part 98.233, Equation W-36: methane (scf) multiplied by 0.0192 kg/ft³ (methane density) multiplied by 0.001 metric tons/kg (kg to metric tons conversion) multiplied by 28 metric tons CO₂e per metric ton methane (GWP). Emission reduction values using a GWP of 25 for 2019, 2020, and 2021 are 2.0, 2.8, and 3.2 million metric tons CO₂e, respectively.
- (b) Methane content of pipeline quality natural gas is estimated at 95% per Methane Challenge Program guidance. GHG reduction calculations use methodologies specified by the U.S. EPA Natural Gas STAR and U.S. EPA Natural Gas Methane Challenge programs.
- (c) Methane emission reductions include reductions from compressor station leak repairs, pipeline pumpdowns, gas turbine installations, electric motor installations, and alternative pipeline maintenance technologies that reduce the need for pipeline blowdowns.
- (d) The estimated value of natural gas saved from methane emission reductions is based on EIA's U.S. natural gas annual average Citygate price. For 2021, this price was \$5.73 per thousand ft³.¹³

¹³ U.S. Energy Information Administration. "U.S. Natural Gas Citygate Price (Dollars per Thousand Cubic Feet)" Mar 2022. U.S. Energy Information Administration. 2022. <<https://www.eia.gov/dnav/ng/hist/n3050us3m.htm>>.

3.4.3 GHG Targets (CDP C4.1)

Methane Emission Intensity Target

Through ONE Future, we have committed to achieving a methane emission intensity target of 0.31% for our natural gas transmission and storage operations by 2025 compared to a baseline year of 2012. Methane emission intensity is a measure of methane emissions as a percentage of total volumes of throughput. The transmission and storage industry allocation of the ONE Future target of 0.31% represents an approximate 31% reduction from the 2012 transmission and storage industry segment intensity of 0.45%.¹⁴ To meet this target, we have committed to reducing methane emissions, while maintaining pipeline integrity and safety and minimizing customer impacts.

Our methane emission intensity target and progress toward achieving this target are provided below.

	Year Ended December 31,		
	2019	2020	2021
Methane emission intensity rate target(a)	0.31 %	0.31 %	0.31 %
Methane emission intensity rate(a)	0.03 %	0.04 %	0.03 %

(a) The emission intensity rate is calculated by dividing our natural gas transmission and storage total methane emissions by our natural gas transmission and storage throughput. Methane emissions are calculated using the procedures in 40 CFR 98 Subpart W.

In 2019, 2020, and 2021 we performed better than our transmission and storage methane emission intensity target of 0.31%. In 2021, our methane emission intensity rate represented an approximate 90% reduction from our target and a 93% reduction from the 2012 transmission and storage industry segment rate.

Compressor Station Leak Survey Target

In 2017, we set a target that by the end of 2021, we would conduct annual leak surveys at 100% of our then-owned natural gas transmission and storage compressor stations. We successfully met this target. In 2021, we acquired Stagecoach and the transmission and storage compressor stations included with this acquisition will be part of our annual leak survey program starting in 2022.

In 2021, we also completed leak surveys at over 67% of our natural gas gathering and boosting stations. Our target is to conduct annual leak surveys at 100% of our approximately 150 active natural gas gathering and boosting compressor stations by the end of 2025.

¹⁴ ONE Future Coalition. “Methane Emission Estimation Protocol v.4.” ONE Future Coalition, Dec 2021. 2022. <<https://onefuture.us/wp-content/uploads/2021/12/ONE-Future-Protocol-2021.pdf>>.

We exceeded our leak survey target in each of the past three years. The numbers of targeted and actual leak surveys conducted at our natural gas transmission and storage compressor stations are provided below.

	Year Ended December 31,		
	2019	2020	2021
Targeted number of natural gas transmission and storage compressor stations to survey(a)	252	287	322
Actual number of natural gas transmission and storage compressor stations surveyed	306	319	340

(a) Annual targets were established by adding an incremental 20% of the transmission and storage facilities that were not required to perform a leak survey under the EPA's GHGRP to the baseline 147 facilities required to conduct a leak survey in 2016.

Short-Term GHG Reduction Targets

Since 2019, we have exceeded our annual GHG reduction targets every year. In 2021, we again exceeded our GHG reduction target of 2.35 Bcf of methane emission reductions, equivalent to 1.3 million metric tons of CO₂e, and have set a short-term GHG reduction target of 2.5 Bcf of methane emission reductions, equivalent to 1.3 million metric tons of CO₂e, for 2022.

Our target and actual GHG reductions are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In million metric tons of CO₂e)		
Target GHG reductions(a)	1.1	1.2	1.3
Actual GHG reductions(a)(b)	2.3	3.2	3.6

(a) Reductions are emissions mitigated or avoided that would otherwise have been emitted.

(b) The CO₂e is based on a GWP of 28 if the methane were directly emitted to the atmosphere (IPCC AR5). Calculation is from 40 CFR Part 98.233, Equation W-36: methane (scf) multiplied by 0.0192 kg/ft³ (methane density) multiplied by 0.001 metric tons/kg (kg to metric tons conversion) multiplied by 28 metric tons CO₂e per metric ton methane (GWP).

Additional Medium- and Long-Term GHG Targets

Before exploring additional targets, including medium-term or long-term GHG reduction targets, we believe it is necessary to have a deeper understanding of our emissions, emission sources, and the means by and extent to which we may be able to reduce those emissions. Our efforts to create an assurance-ready GHG emissions inventory, included in this Report, have provided us with a baseline from which to evaluate future GHG reduction targets. We have begun assessing our future GHG emissions and potential reduction opportunities. As a part of that process, we have started to include estimated Scope 1 and 2 emissions in our capital project estimates. We expect this will help us understand reduction opportunities that could provide value to our shareholders, while reducing our emission footprint.

4.0 Air Quality

4.1 Air Emissions

We are committed to minimizing our emissions by operating our facilities in a manner consistent with air quality control standards. To manage our air permitting and compliance program in each of our business segments, we conduct the following activities:

- monitor, record, report, and pay emission and permit fees;
- identify, record, and maintain a list of stationary air emission sources;

- quantify facility annual emissions per federal, state, provincial, or local requirements and document the basis of our quantification and estimation;
- quantify emissions when changes or modifications occur at a facility to determine if the facility permitting status is affected;
- deconstruct and manage permit requirements in our compliance tracking system along with required actions, deadlines, and designated responsible persons; and
- provide regular training to increase our operations, engineering and maintenance employees' understanding of permit requirements.

We also have initiatives in place to reduce our NO_x, SO_x, VOCs, PM₁₀, and other relevant air emissions by enhancing processes that improve efficiency, reduce leaks, and reduce fuel usage. We implement the following practices on a case-by-case basis:

- implementing procedures to shut down our equipment and reduce idle time;
- minimizing tank roof landings;
- optimizing temperature controls to reduce fuel consumption;
- replacing existing engines with newer, more efficient equipment; and
- reducing flaring by:
 - improving compressor reliability,
 - automating gas control,
 - improving flaring metering, and
 - optimizing downtime.

4.2 Air Emissions for the Following Pollutants: NO_x (excluding N₂O), SO_x, VOCs, and PM₁₀
(SASB Midstream EM-MD-120a.1, SASB Exploration & Production EM-EP-120a.1, GRI 305-7/11.3.2)

Our criteria air pollutant emissions that are reportable to regulatory agencies are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In thousand metric tons)		
Air emissions(a)(b)(c)			
NO _x (excluding N ₂ O)	57.9	52.2	50.6
SO _x	0.4	0.3	0.2
VOCs	14.4	12.7	12.0
PM ₁₀	1.4	1.4	1.3

- (a) Includes emissions that are reportable to a U.S. state, U.S. federal, or Mexican federal agency. For the year ended 2021, emissions were calculated or reported as of June 28, 2022. Due to timing of regulatory agency submittals, these emissions may differ from what is reported to a regulatory agency.
- (b) For locations that report emissions less frequently than annually, emissions are included from emission fee estimates or from the most recent agency submittal.
- (c) There were no significant discontinued operations in 2020 or 2021. In 2019, SO_x, NO_x, and PM₁₀ emissions from discontinued operations were less than 50 metric tons. In 2019, VOC emissions from discontinued operations were 0.1 thousand metric tons.

5.0 Water Management

(GRI 303-1/11.6.2, GRI 303-2/11.6.3, CDP W1.1, CDP W1.2, CDP W6.1)

Water resources are important to the ecosystems and communities in which we operate. Our commitment to efficient operations includes responsibly managing our water consumption, our wastewater effluent, and disposal of the water we use. We have policies and procedures to meet or exceed water and wastewater effluent monitoring, measurement, recordkeeping, and reporting requirements. While certain sectors of

the energy industry can be relatively water intensive, our primary business is in the energy infrastructure sector where water usage is less intensive. Because of this, we can readily build and operate pipelines and terminals without creating an undue burden on the water supply, even in water-stressed areas. Although our operations' water-related risks are low, we are nevertheless committed to responsibly managing the consumption and disposal of the water we do use.

Our water uses are primarily for:

- cooling for our CO₂ business segment power plant,
- hydrostatic integrity testing of new and existing pipelines and related equipment prior to operation,
- processing in natural gas processing facilities,
- dust control, and
- cleaning our equipment.

Our water management practices also apply to produced water, a by-product of our CO₂ business segment's EOR projects. Produced water is either re-injected into an oil-producing formation or disposed of by injecting it into a non-oil-producing formation.

One of the ways we reduce our water usage and wastewater effluent is when performing hydrostatic integrity testing on large segments of pipe, we often test in smaller sections and reuse the same water from one section to the next. This minimizes the amount of water used and the amount requiring disposal. We also collect condensation from the air conditioning units at our Houston headquarters to irrigate the building's flowerbeds.

We monitor our stormwater and wastewater discharges and, if necessary, treat it prior to release in order to meet water quality standards that protect human and aquatic life. In addition, our operations follow procedures to minimize the risk of accidental discharges. In the event of a non-permitted wastewater discharge, we have response and incident management procedures and reporting processes. Significant discharge incidents are investigated, and corrective actions are implemented, if necessary, to address incident causes.

5.1 Water Usage

(SASB Exploration & Production EM-EP-140a.1, GRI 303-3/11.6.4, GRI 303-5/11.6.6, CDP W1.1, CDP W1.2, CDP W6)

Hydrostatic Integrity Testing

As part of our asset IMP, described in *Section 12.1 Asset Integrity Management* of the *Sustainability Report*, we conduct regular testing of new and existing pipelines and tanks. For some of these tests, we use hydrostatic integrity testing, a process where water is injected into a pipeline or tank and is pressurized to a certain level to test the integrity of the pipeline or tank. Often a portion of the hydrostatic integrity test water used is returned to the source and is available to be used again. In some hydrostatic integrity tests, we use water from non-fresh water sources.

The volume of water we used for hydrostatic integrity testing in 2019, 2020, and 2021 of our in-service PHMSA-regulated pipelines is provided below. For 2020 and 2021, this volume also includes water used for hydrostatic integrity testing of our tanks. We have developed processes to track the water we use for hydrostatic integrity testing of pipelines not regulated by PHMSA and newly constructed pipelines as they are placed in service and we expect to include these volumes in a future report.

	Year Ended December 31,		
	2019	2020	2021
	(In thousand cubic meters)		
Water use for hydrostatic integrity testing(a)(b)(c)	24	57	159

- (a) For pipelines, water volumes are calculated using the dimensions of the pipeline tested. Volumes may not account for water reuse or water loss.
- (b) For tanks, water volumes are calculated using tank strapping tables in accordance with API Manual of Petroleum Measurement Standards, 14.10, 2nd Edition, 2.2D. Tanks using non-fresh water for testing are excluded.
- (c) Volumes for tank hydrostatic testing are excluded for 2019. 2020 and 2021 includes water usage volumes from tank hydrostatic integrity testing.

Water usage can vary year-over-year depending on the pipeline and tank integrity assessment methods and reassessment intervals. Where possible and allowed by the regulations, we use ILI technology to assess the integrity of pipelines in lieu of hydrostatic testing. ILI technology provides a more detailed assessment of the integrity of the pipeline and does not use water. In 2020, PHMSA implemented the “Maximum Allowable Operating Pressure Reconfirmation Rule.” We use hydrostatic testing as the predominant method to comply with this regulation; as a result, our Natural Gas Pipelines business segment’s water usage from 2019 to 2021 increased and is expected to continue to do so until we have completed the requirements of the rule. In 2021, 60% of the water usage for hydrostatic integrity testing in our Natural Gas Pipelines business segment is attributable to the implementation of this rule.

Water Usage from our CO₂ Business Segment

Our CO₂ business segment operates multiple gas processing plants and a power plant that powers equipment in the SACROC oil field. The power plant and gas processing plants consume fresh water for cooling and steam. Our fresh water supplies come from local water utilities and groundwater sources. Less frequently, fresh water is trucked to our operations located in remote areas. The amount of fresh water used during the EOR process is relatively insignificant compared to the amount used at the gas processing plants and power plant. We assume fresh water withdrawn is equal to fresh water consumed since the majority of fresh water used in our CO₂ business segment operations evaporates.

The amount of fresh water withdrawn, fresh water consumed, and fresh water withdrawn intensity for our CO₂ business segment are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In thousand cubic meters, except water withdrawn intensity)		
Fresh water withdrawn(a)	1,489	1,208	1,361
Fresh water consumed(a)	1,489	1,208	1,361
Fresh water withdrawn intensity (thousand cubic meters of fresh water consumed per BOE throughput)(b)	0.04	0.04	0.04

- (a) Water usage volumes from certain facilities or processes may be excluded if the volumes are insignificant to the overall volumes presented above.
- (b) Calculated using the total fresh water withdrawn divided by our CO₂ business segment’s BOE throughput.

6.0 Ecological Impacts

6.1 Environmental Management Policies and Practices for Active Operations

(SASB Midstream EM-MD-160a.1, SASB Exploration & Production EM-EP-160a.1, GRI 2-29, GRI 304-2/11.4.3, GRI 304-3/11.4.4)

Our Biodiversity Policy outlines the approaches we use to address our impacts on biodiversity in areas where we operate. We assess the environmental risk and impact from many of our new or existing project sites and where warranted, make adjustments to the location, scope, or timing of a new project in an effort to minimize or avoid impacts to critical habitats with high biodiversity value, including vulnerable species or sensitive ecosystems.

Project Development

Prior to beginning new construction or an expansion project, we develop plans and procedures that consider a number of important factors that help:

- maintain operational efficiency,
- minimize our impact on biodiversity, and
- take into consideration our stakeholders' concerns.

Our project development plans look at the overall impact of the project and may include:

- surveying,
- environmental and cultural impact avoidance,
- monitoring,
- mitigation,
- construction,
- revegetation, and
- operation.

Pre-construction and Construction

To evaluate a proposed route for a new pipeline project, we conduct the following surveys:

- civil surveys that provide information on soil, topography, and land use;
- cultural surveys that provide cultural significance and archaeological information; and
- environmental surveys that provide information about water, vegetation, wildlife, and other important biodiversity considerations.

In addition to the information collected in these surveys, our teams also consult with local stakeholders during development and pre-construction about project-specific considerations, including environmental issues. We consider and use this information to help us select facility sites and develop pipeline routes that avoid or minimize impacts on people, critical habitats, and land.

We work to minimize impacts on biodiversity in the areas where we work and operate. Land and habitat reclamation is a key component of our construction efforts, both when designing a new route for a pipeline project and when performing maintenance on facilities that have been in service for many years. We may employ the following construction and mitigative procedures to take into account biodiversity issues:

- erosion and sediment control plans to stabilize soil and prevent sediment flow into sensitive areas;
- revegetation plans to ensure successful revegetation of soils disturbed by project-related activities;
- construction techniques that allow for the movement and protection of wildlife and livestock during construction;

- horizontal directional drilling technology to install pipelines while minimizing and or eliminating impact to sensitive areas;
- project-specific spill prevention and response procedures; and
- traffic plans to keep affected roadway crossings safe and accessible.

Mitigation in High Conservation Value Areas

We employ a variety of strategies to minimize our operating assets' impact on high conservation value or biodiversity areas, such as sensitive habitats and conservation areas with threatened or endangered species, wetlands, and waterbodies.¹⁵ Our integrity management teams assess whether our pipelines and facilities could affect commercially navigable waterways, populated areas, or environmentally sensitive areas.¹⁶ We work to meet or exceed the regulatory standards that protect these important areas.

Our assets determined to be located within environmentally sensitive areas are subjected to more stringent and frequent integrity management measures to improve the assets' resilience and help protect the surrounding environment. Read more about our IMP described in *Section 12.1 Asset Integrity Management* of the *Sustainability Report*.

Based on the nature of the project and project area, our project framework requirements may include some or all of the following:

- designating an environmental inspector with wetlands or waterbody knowledge to verify that environmental conditions are met during construction;
- establishing baseline characteristics for high conservation value areas to help develop mitigation measures during a project;
- routing to avoid construction through or minimize disturbances to wetlands and waterbody crossings;
- establishing spill prevention and response procedures that provide for prompt and effective cleanup in the event of a spill;
- delineating wetlands and waterbodies; and
- developing detailed mitigation and avoidance plans for project areas identified as habitat for threatened or endangered species and fisheries.

Restoration

When impacts to the environment cannot be completely avoided or minimized, we can employ measures to restore an ecosystem's composition, structure, and function. Post-construction actions for new projects include restoring the right-of-way, including landowner agreed-upon specifications, and restoring the land within our facility fence lines where appropriate. In some instances, we are able to improve habitats with our restoration work. For example, for some pipeline replacement projects we plant native vegetation, such as shrubs and seed mixes, to promote a healthy ecosystem that is expected to quickly adapt to local conditions, and then monitor its progress. In tandem with these efforts, we may also use weed control to minimize encroachment of invasive species. In other projects, we have constructed new habitats; preserved, restored, enhanced, or created wetlands; and improved existing conservation or preservation areas.

Our restoration, revegetation, and reclamation efforts include:

- grading construction right-of-way to restore pre-construction contours and leave the soil in the proper condition for planting;

¹⁵ Threatened or endangered species defined by federal, state, provincial, and local regulatory agencies.

¹⁶ Environmentally sensitive areas in the U.S. are defined by the 49 CFR 195.6 designation of unusually sensitive areas. Canada's CER rules define environmentally sensitive areas in the GeoGratis database published by Natural Resources Canada.

- stabilizing streambeds and banks, natural drainage ways, and steep grades to meet permit requirements;
- establishing successful revegetation of soils disturbed by project-related activities;
- working with affected landowners to restore structures, fences, hedges, buildings, and/or other property displaced or damaged during construction;
- implementing spray programs for noxious weeds and ongoing environmental monitoring to identify and repair post-construction areas of concern; and
- striving to meet the post-construction biodiversity targets and deadlines established in our project plans.

Biodiversity Enhancement Initiatives

We are involved in a number of projects designed to enhance biodiversity within our operating areas. We have made long-term commitments to managing biodiversity and participate in conservation education and community outreach initiatives as described below.

- *Trees for Tucson*
We are a designated Tree Champion by the Tucson Clean and Beautiful organization for our ongoing commitment to the Trees for Tucson program that plants trees in communities to increase shading, mitigate extreme heat, absorb CO₂, and improve the environment in support of the City of Tucson's Climate Change Mitigation and Adaptation Plan. In 2021, we contributed to planting 1,309 new shade trees in the Tucson metro area.
- *Mojave Desert Tortoise Conservation*
In 2021, we purchased 0.25 acres of credits from the Mojave Desert Tortoise Conservation Bank as compensation for the loss of 0.1 acres of similar habitat from the implementation of the Calnev ML-1 Pipeline Sleeve Dig project. The Mojave Desert Tortoise Conservation Bank is approved by the California Department of Fish and Wildlife and the USFWS for the mitigation of potential impacts to special status species and their habitats as well as to California waters of the state.
- *Terminal Four Wharf Removal Project*
In 2021, as part of the Carquinez Strait Pipeline Cover Restoration Project, we contributed approximately \$216,000 to the Terminal Four Wharf Removal Project, which is planned for implementation in 2022 by the City of Richmond, California. This project will result in removal of artificial fill and debris including sources of creosote and other harmful contaminants. The fill removal is expected to improve water quality, increase the San Francisco Bay surface area, and allow for protection and restoration of subtidal and soft bottom habitats. This will help support multiple fish and wildlife species such as Pacific herring, Red rock crabs, Olympia oysters, and Eelgrass.
- *Bergen County Tree Planting & Wooded Acreage Conservation*
In 2021, as part of the TGP Bergen County Class Change project, we contributed \$500,000 to Bergen County, New Jersey for the temporary use of 0.64 acres of workspace. Bergen County will use a portion of the compensation payment to purchase a 1.5 acre wooded parcel. In addition, to compensate for the removal of mature trees, we planted the 0.64 acres with trees and shrubs to actively restore the disturbed area and promote rapid restoration of wildlife habitat with native species.

- *Headgates Dam Removal Project*

In May 2021, we reached an agreement with the New Jersey Department of Environment Protection to offset the damages allegedly caused by facility discharges in Somerset County, New Jersey. We committed resources to remove the Headgates Dam, replace and relocate a sanitary sewer line, and replace the Raritan Water Power Canal. This project is expected to improve migratory fish passage, water quality and the Raritan River aquatic habitat.

For more information, see our EHS Policy Statement, our Biodiversity Policy, and for examples of how we operationalize our Biodiversity Policy, see our case studies, on our ESG/Sustainability webpage at <https://www.kindermorgan.com/Safety-Environment/ESG>.

6.2 Percentage of Land Owned, Leased, and/or Operated within Areas of Protected Conservation Status or Endangered Species Habitat

(SASB Midstream EM-MD-160a.2, GRI 304-1/11.4.2, GRI 304-3/11.4.4)

Areas of Protected Conservation Status or Endangered Species Habitats

The percentage of land we operate within or near areas of protected conservation status or endangered species habitat is provided below.

	2019	2020	2021
Percentage of land operated within or near areas of protected conservation status or endangered species habitat(a)			
Near designated areas(b)	27 %	27 %	28 %
Within designated areas(c)	3 %	3 %	3 %
Within or near designated areas	30 %	30 %	30 %

(a) The acreage of land used in this analysis is based on acreage where we have active operations. We may own or lease, but do not operate, additional land that is not included in this analysis. This calculation assumes that the acreage operated for pipelines includes land within the 50-foot corridor of a pipeline’s centerline and excludes production facilities and non-PHMSA jurisdictional gathering lines in the CO₂ business segment. Acreage operated for a facility includes land within the facility’s security fence line for the Natural Gas Pipelines, Terminals, and CO₂ business segments and acreage we own, within and outside the security fence line, for the Products Pipelines business segment. We use WDPA determinations for the areas characterized as protected conservation areas. For our Mexico operations, the areas characterized as endangered species habitats are determined by the International Union for Conservation of Nature endangered or critically endangered designations. For our U.S. operations, we used the USFWS designated areas for endangered species instead of the International Union for Conservation of Nature designations, recommended by SASB, because we believe the USFWS dataset better reflects the biodiversity risk for our operations. For the 2021 reporting year, we downloaded the USFWS dataset in the fourth quarter of 2021, the WDPA dataset in the second quarter of 2021, and used our GIS datasets as of the fourth quarter of 2021 to complete our analysis.

(b) Defined as operated land within five kilometers of the boundary of a protected conservation area or endangered species habitat.

(c) Defined as operated land within the boundary of protected conservation area or endangered species habitat.

Acreage Disturbed and Restored

In 2020, a large portion of the acreage disturbed by our operations was due to the PHP project. During the project, PHP used approximately 7,600 acres for permanent right-of-way, temporary construction right-of-way, facility sites, and road access. The temporary construction right-of-way acreage and permanent right-of-way totaled approximately 7,000 acres, which was restored in 2021. A relatively small amount of land, specifically the long-term use surface sites, facility sites, and access roads, was not restored. In order to minimize our impact during our projects, we use existing access roads whenever possible rather than building new ones. Our restoration includes replacing topsoil that was conserved during construction and seeding the appropriate plant species for the area.

6.3 Hydrocarbon Spills

(SASB Midstream EM-MD-160a.4, SASB Exploration & Production EM-EP-160a.2, GRI 306-3/11.8.2)

According to data from PHMSA and FERC, 99.999% of crude oil, petroleum products, and natural gas transported by pipelines reach their destinations safely and uneventfully.¹⁷

We work to prevent hydrocarbon releases from our operations, but sometimes such releases do occur. They usually are:

- minimal,
- below reportable quantities,
- contained in secondary containment facilities, and
- promptly remediated.

Our emergency response procedures are designed to promptly limit the impact to the environment if a release occurs or migrates outside of containment. Although measures are in place to prevent environmental contact, there are infrequent cases where some volume of hydrocarbon migrates outside containment. Hydrocarbon spills reported in Unusually Sensitive Areas, as defined in the footnote of the table below, may not necessarily impact an Unusually Sensitive Area if the spill occurred within our facility fence line and did not reach the Unusually Sensitive Areas.

The number, volume, volume in Unusually Sensitive Areas, and recovered volume of hydrocarbon spills are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In barrels, except percentages and number of spills)		
Number of hydrocarbon spills(a)(b)	43	41	41
Aggregate volume of hydrocarbon spills(a)	975	2,380	3,035
Aggregate volume of hydrocarbon spills in Unusually Sensitive Areas(a)(c)	52	1,398	869
Volume recovered(d)	861	1,769	1,827
Percentage recovered	88 %	74 %	60 %

- (a) A spill is defined as greater than one barrel released to surface water, soil, or groundwater, and ice covered surfaces excluding spills contained within impermeable or sufficiently impervious secondary containment.
- (b) We do not operate in the Arctic and therefore have nothing to report for SASB EM-MD160a.4.
- (c) Includes spills, as defined in note (a), in Unusually Sensitive Areas in the U.S. as identified in the National Pipeline Mapping System by PHMSA. Unusually Sensitive Areas in Canada are identified by the Canadian Council on Ecological Areas Conservation Areas Reporting and Tracking System; the National Hydro Network – 2016, Government of Canada; Natural Resources Canada; Earth Sciences Sector; and Canada Centre for Mapping and Earth Observation. If the National Pipeline Mapping System data was unavailable for a spill location, we used the protected conservation areas by the WDPA and the areas characterized as endangered species habitats by the USFWS, as the basis for whether the spill occurred in an Unusually Sensitive Area.
- (d) The volume of spills recovered is the amount of spilled hydrocarbons (in bbls) removed from the environment through short-term spill response activities, excluding amounts that were recovered during longer-term remediation at spill sites and amounts that evaporated, burned, or were dispersed. The volume recovered is reported for the year the associated spill occurred.

The increase in the volume of hydrocarbon spills in 2021 was driven by an estimated 913 bbl release of crude oil from our CO₂ business segment, most of which has been recovered. An additional driver was an estimated 609 bbl release of gasoline from our Products Pipelines business segment, where investigation and product recovery activities are ongoing.

¹⁷ API-AOPL. “2020 Pipeline Safety Excellence Performance Report & 2020-2022 Strategic Plan.” API-AOPL, 17 Jun 2021: 45. 2021. <<https://www.api.org/-/media/APIWebsite/oil-and-natural-gas/primers/2020-API-AOPL-Pipeline-Safety-Excellence-Performance-Report-and-20202022-Strategic-Plan.pdf>>la=en&hash=3F9DB3F7D2FFA2FAD78E14E6146FC89BA3C1CDDD>.

6.4 Marine Transportation Spills and Releases to the Environment

(SASB Marine Transportation TR-MT-160a.3)

We own a fleet of 16 medium-range Jones Act-qualified product tankers, each with 330,000 barrels of cargo capacity. The fleet is the largest and most modern in the industry and transports crude oil, condensate, and refined products under long-term contracts.¹⁸ Our vessels are operated by Intrepid Ship Management, a subsidiary of Crowley Maritime Corporation, a leading operator and technical manager in the U.S. maritime industry. Consistent with our own philosophy, one of Intrepid's goals is to continually operate with no harm to people, property, or the environment.

Intrepid's management system is designed to fulfill the requirements of:

- International Safety Management Code for the Safe Operation of Ships and for Pollution Prevention,
- ISO 9001:2008 Quality management system, and
- ISO 14001:2004 Environmental management systems.

The number and aggregate volume of marine spills and releases from our Jones Act-qualified product tankers are provided below.

	Year Ended December 31,		
	2019	2020	2021
Number of marine spills and releases to the environment	0	1	0
Aggregate volume of marine spills and releases to the environment (cubic meters)(a)	0	0	0

(a) The 2020 aggregate volume of marine spills and releases to the environment are less than half of a cubic meter. There were no marine spills or releases to the environment in 2019 and 2021.

6.5 Environmental Fines and Penalties

(GRI 307-1)

In line with our OMS, we strive to comply with applicable environmental regulations. Notwithstanding our efforts, we occasionally receive environmental fines and penalties for alleged releases, permit violations and similar events. Payments for environmental fines and penalties may not occur in the same year of the incident and may occur several years after an incident.

Our environmental fines and penalties paid are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In thousands)		
Environmental fines and penalties paid(a)(b)	\$ 215	\$ 119	\$ 475

- (a) Environmental fines and penalties paid include monetary fines, penalties, and settlements greater than \$5,000 paid to environmental regulatory agencies and excludes the costs of supplementary environmental projects, any work we were mandated to complete as part of the enforcement action, and the amounts paid to non-environmental regulatory agencies. Environmental fines and penalties are reported based on the year the payment was made. The year when the payment was made may differ from the year the incident took place.
- (b) The 2020 environmental fines and penalties paid has been revised to include additional fines.

¹⁸ Based on average ship age and number of latest generation vessels operated. Fleet age assessment based on Appendix A of the Wilson Gillette December 2021 report of operational Jones Act product tankers and large oceangoing barges.

The increase in environmental fines paid in 2021, as compared to 2020, is predominantly due to fines associated with three facilities in California related to allegations of improper management of waste, underground storage tank and hazardous waste generator requirements, and liquid storage tank air quality violations.

7.0 Employee and Contractor Health and Safety

7.1 Discussion of Safety Management Systems to Integrate Culture of Safety and Emergency Preparedness

(SASB Midstream EM-MD-540a.4, SASB Exploration & Production EM-EP-320a.2, GRI 403-1/11.9.2, GRI 403-4/11.9.5, GRI 403-6/11.9.7, GRI 403-8/11.9.9, GRI 403-9/11.9.10)

Our employee and contractor safety management systems are integrated into our OMS. An overview of our OMS, including our health and safety training, are described in *Section 2.2 Management System* of the *Sustainability Report*. Additional details about our contractor safety policies are also provided in *Section 8.0 Supply Chain Management* of the *Sustainability Report*.

Safety Initiatives

Our safety initiatives are managed at the business segment level and safety programs are tailored to specific operations.

- *Safety In Motion*[®]
In 2021, our Natural Gas Pipelines business segment expanded the implementation of the SIM[®] program, which offers a multifaceted approach to eliminating sprain and strain injuries. The SIM[®] process uses an action and education process that has a track record of preventing, reducing or managing strain, pain, and musculoskeletal injuries. The process includes a training program that, through physical demonstrations during training, allows employees to experience how small changes in physical techniques significantly reduce the risk factors that lead to unnecessary stress and strain. The SIM[®] system encompasses:
 - ergonomics;
 - body mechanics;
 - fitness; and
 - auditing, observation, coaching, and medical management.
- *Hazard Recognition Training*
The ability to recognize and mitigate hazards in the workplace prior to and during work reduces the likelihood of an employee injury. Our business segments have developed training programs designed to provide employees with real world scenarios to help improve their hazard identification skills.
- *Incident Investigation Training*
This training module is designed to help employees, who conduct incident investigations, understand the importance of evaluating the processes and systems linked to the work or task being conducted at the time of the incident. By identifying where there may be opportunities for improvement within our processes and systems, we are better able to provide our employees with the training and knowledge that they need to perform their jobs safely and successfully.

- *Safety Culture Surveys*
Periodically, our full-time business segment employees participate in confidential safety culture surveys. These surveys are designed to engage with our employees and collect information about our safety culture. The results of these surveys are communicated to employees and used to develop safety action plans.
- *Safety Meeting Packets*
Our business segments distribute safety meeting packets periodically with the goal of fostering a culture of continuous improvement and providing consistent safety messaging. The packets include lessons learned from internal and external incidents.

Additional contractor safety initiatives are described in *Section 8.0 Supply Chain Management of the Sustainability Report*.

7.2 Employee and Contractor Safety Statistics and Average Hours of Health, Safety, and Emergency Response Training

(SASB Exploration & Production EM-EP-320a.1, SASB Marine Transportation TR-MT-320.a.1, GRI 403-2/11.9.3, GRI 403-5/11.9.6, GRI 403-7/11.9.8, GRI 403-9/11.9.10)

We strive for continuous improvement in our safety performance. Although our ultimate target is zero incidents, we also have non-zero employee safety performance targets that we establish at the beginning of each year. The first is to outperform the annual industry average TRIR and the second is to outperform our own three-year TRIR average. Our 2022 company-wide TRIR target is 0.8, which is the average of the baseline years 2019, 2020, and 2021.

In 2020, we established a longer-term, company-wide employee TRIR target to improve our TRIR to 0.7 by 2024 compared to the baseline of 1.0 in 2019. This target was established to drive improvement in our safety performance and represents a TRIR reduction of 30% over a five-year period.

Our performance against our previous targets is specified in the table below.

Employee Safety Metrics

Employee incident rates, employee incident rate targets, and the number of employee work-related fatalities are provided below. The table below excludes self-reported COVID-19 cases classified as recordable incidents per OSHA guidance. Incident rates including work-related, self-reported COVID-19 cases can be found in *Appendix A.1 – ESG Disclosure Topics & Accounting Metrics*.

	Year Ended December 31,		
	2019	2020	2021
	(In number of recordable incidents per 100 full-time workers, except fatalities)		
Employee total recordable incident rate(a)(b)(c)	1.0	0.7	0.7
Target – employee TRIR industry three-year average(d)	2.0	2.0	1.8
Target – employee TRIR three-year average(e)	1.1	1.0	0.9
Short-service employee total recordable incident rate(a)(c)(f)	1.2	0.9	0.8
Number of employee fatalities(c)	0	0	0

- (a) TRIR calculation: total number of incidents multiplied by 200,000 divided by the number of employee hours actually worked. The 200,000 represents the hours 100 employees worked per year. 100 employees working 40 hours per week, 50 weeks per year is a standard base for calculating incident rates.
- (b) Employee TRIR includes regular full-time, regular part-time, and temporary employees. It also includes Natural Gas Pipelines and Terminals business segment contractors we supervise on a day-to-day basis.
- (c) 2019, 2020, and 2021 employee rates and fatalities are calculated using incident classifications as of January 15, 2020, January 15, 2021, and February 9, 2022 respectively. 2019, 2020, and 2021 short-service employee rates are calculated using incident classifications as of April 9, 2020, May 11, 2021, and March 29, 2022. Injuries or illnesses may later be reclassified.
- (d) The BLS typically publishes incident rate data for a given year in the fourth quarter of the following calendar year. We use the most recent BLS data available at the beginning of each year. We calculate the industry average using the weighted average of BLS industry rates based on codes from the North American Industry Classification System. For 2020, these include 4862-pipeline transportation of natural gas, 49319-other warehousing and storage, 4883-support activities for water transportation, and others. The 2019 and 2020 target industry rates are annual rates and the 2021 target industry rate is an average of the most recent three-year period. For example, to calculate our 2020 target industry TRIR, we weighted the 2018 BLS industry rates using our 2019 employee hours. To calculate our 2021 target industry TRIR, we averaged the annual industry TRIR values that were calculated for 2019, 2020, and 2021.
- (e) The three-year target is based on the average TRIR for previous three-year period. The 2019 Kinder Morgan three-year average excludes the Kinder Morgan Canada business segment.
- (f) Short-service employees include full-time, part-time, and temporary employees that have been in their position for six months or less from their hire or rehire date. 2019 rates exclude Canadian employees.

Health, Safety, and Emergency Response Training Hours

Our health, safety, and emergency response training programs are described in *Section 2.2 Management System of the Sustainability Report*.

In 2021, our employees completed over 128,000 hours of health, safety, and emergency response training through our LMS, with each employee taking an average of 12 hours of training. This is equivalent to a roughly \$7.1 million annual investment in training for health, safety, and emergency response.¹⁹

The average number of employee hours spent on health, safety, emergency response, and other safety training topics not required under OSHA 1910, are provided below.

	Year Ended December 31,		
	2019	2020	2021
Average hours per employee of health, safety, and emergency response training(a)(b)(c)	17	13	12

- (a) Training time is assigned to the business segment the employee was active under at the end of the calendar year.
- (b) Includes the U.S. portion of the Cochin Pipeline and KML data up to the sale date on December 16, 2019.
- (c) Our health, safety, and emergency response training covers topics required under the U.S. 29 CFR Part 1910 OSHA standards; Canada Labour Code; and Mexican, state, and provincial equivalent programs, including training on: confined spaces, crane safety, electrical safety, emergency response, fall protection, fire protection, hazard communication, lockout/tagout, personal protective equipment, process safety management, and respiratory protection. This metric also includes position-relevant training on other safety topics that are not explicitly required under OSHA 1910, such as: safe driving, which addresses hazards such as distractions while driving and adverse weather conditions; back safety, which explores the factors that lead to back injuries such as physical activity, posture, and load positioning; and ergonomics, which explains how various postures and movements affect the body and how to mitigate ergonomic hazards.

Contractor Safety Metrics

Our contractor incident rates and the number of contractor fatalities are provided below. These incident rates and contractor work-related fatalities exclude self-reported COVID-19 cases classified as recordable incidents per OSHA guidance. Incident rates including work-related, self-reported COVID-19 cases can be found in *Appendix A.1 – ESG Disclosure Topics & Accounting Metrics*.

¹⁹ This is calculated by multiplying our total training hours by our employees' hourly median salary, calculated from the annual employee median salary disclosed in our 2022 Proxy Statement.

	Year Ended December 31,		
	2019	2020	2021
	(In number of recordable incidents per 100 full-time workers, except fatalities)		
Contractor total recordable incident rate(a)(b)	0.6	0.4	0.2
Number of contractor fatalities(b)	0	0	0

- (a) Contractor rates are based on incidents contractors incurred while doing work for us on a defined major project. Major projects are capital expansion projects that meet a minimum total estimated project cost. If hours for a major project were not available, hours were estimated based on major project spend. Incidents for the contractor’s employees operating our marine tankers are not included but are included in the marine LTIR in *Section 7.3 Marine Transportation Lost Time Incident Rate* of the *Sustainability Report*.
- (b) 2019, 2020, and 2021 rates and fatalities are calculated using incident classifications as of January 21, 2020, January 20, 2021, and January 26, 2022 respectively. Injuries or illnesses may later be reclassified.

7.3 Marine Transportation Lost Time Incident Rate (SASB Marine Transportation TR-MT-320a.1, GRI 403-9/11.9.10)

As described in *Section 6.4 Marine Transportation Spills and Releases to the Environment* of the *Sustainability Report*, Intrepid Ship Management operates our Jones Act marine transportation vessels. Intrepid maintains processes and procedures for reporting, investigating, and recordkeeping and determines the classification for each case of injury or illness related to our Jones Act marine vessels. In the event of a marine injury or illness, Intrepid engages contracted medical services, including:

- physician advice at sea,
- maritime telemedicine,
- physician and nurse case management, and
- arrangement and management of shore side medical services.

Intrepid has initiatives and programs for fleet safety officers and quality training focused on the following topics:

- safety leadership,
- sharing best practices, and
- increasing crew training on
 - job safety,
 - work permits, and
 - housekeeping.

Intrepid has also initiated job safety training programs to improve hazard recognition and incident prevention, and to prevent common musculoskeletal injuries.

We do not include Intrepid’s incidents or hours worked in our contractor TRIR in *Section 7.2 Employee and Contractor Safety Statistics and Average Hours of Health, Safety, and Emergency Response Training* of the *Sustainability Report*.

Intrepid’s LTIR on our marine transportation vessels are provided below.

	Year Ended December 31		
	2019	2020	2021
	(In number of lost time incidents per 1,000,000 hours worked)		
Marine lost time incident rate(a)	0.3	0.6	0.7

- (a) Marine LTIR calculation: total number of lost time injuries multiplied by 1,000,000 divided by number of employee hours on-board per Oil Companies International Marine Forum Marine Injury Reporting Guidelines.

8.0 Supply Chain Management

(GRI 407-1/11.13.2)

We developed a Supplier Code of Conduct that outlines our expectations for our consultants, contractors, suppliers, vendors, and business partners. Our Supplier Code of Conduct specifies that the third parties we work with are expected to adhere to these requirements and our core values. We detail our expectations for the following topics:

- environmental, health, and safety,
- freedom of association and collective bargaining,
- forced labor,
- living wages and remuneration,
- working conditions,
- transacting business, and
- anti-corruption.

In addition to adhering to our Supplier Code of Conduct, we encourage our suppliers to communicate these expectations, or those set forth by a similar standard or policy, throughout their own business operations and supply chains.

Please see our Supplier Code of Conduct for more details on the expectations we have for our consultants, contractors, suppliers, vendors, and business partners located at <https://www.kindermorgan.com/Safety-Environment/ESG#tabs-social>.

Supplier Due Diligence

We conduct due diligence on potential new suppliers and regularly check our existing suppliers to monitor their compliance with our Code of Business Conduct and Ethics, including steps to prevent corruption, and other social standards. Potential and existing suppliers are checked to verify whether they are excluded from receiving federal contracts, certain subcontracts, and certain types of federal financial and non-financial assistance and benefits.

We do not issue new contracts with suppliers that have an active company-wide exclusion in the U.S. Government's System for Award Management. Suppliers can be excluded for the following reasons:

- fraud,
- bribery,
- corruption,
- failure to pay minimum wage,
- violating federal criminal laws, and
- unfair trade practices.

If we identify an active exclusion for an existing supplier, we contact the supplier to inquire about the nature of the exclusion and to initiate reductions in our business with them. In response to our inquiries, a supplier can often resolve its active exclusion with the U.S. Government and may then continue to serve as our supplier.

We also screen service suppliers during our selection process using ISNetworld, a nationally recognized contractor management firm. We require service suppliers to provide documentation including:

- safety performance,
- environmental performance,

- operator qualifications,
- insurance,
- drug and alcohol tests results, and
- a management system questionnaire.

We require certain subcontractors to provide documentation including:

- safety performance,
- environmental performance, and
- operator qualifications.

We manage service supplier and subcontractor compliance with our requirements using a risk-ranking scorecard to grade each supplier as recommended, acceptable, or at-risk. Suppliers considered at-risk must go through a variance process and improve their grade, or the suppliers are not approved for work.

Supplier Demographics

We aim to build relationships with diverse suppliers including minority-owned, women-owned, veteran-owned, Indigenous Peoples, and small businesses. We review the diversity status of our suppliers and encourage diverse suppliers to bid on our projects. We are working to further diversify our supplier and contractor network. In 2021 we joined the HMSDC, whose mission is to bring together major corporations and certified Minority Business Enterprises.

As a member of HMSDC, we participate in the Supplier Diversity Advisory Committee and the Pathways to Excellence program. Within the Supplier Diversity Advisory Committee's Procurement Process subcommittee, we work with peer companies to define and document procurement program frameworks, assisting HMSDC members in developing and strengthening their strategic sourcing, contracting, and supplier qualification and management programs.

Through the Pathways to Excellence program, we are introduced to Minority Business Enterprises who have earned a designation from HMSDC verifying their ability to meet corporate standards and business requirements within their category or field. If a potential fit is identified, we invite qualified Minority Business Enterprises on-site to meet with, learn from, and build relationships with our procurement category experts to explore capabilities, fit, and growth opportunities within our company's project needs. We believe these relationships are instrumental in developing and growing a robust diverse supplier base.

The percentage and equivalent dollars of our small business, minority-owned, women-owned, and veteran-owned supplier procurement spend is provided below.

	Year End December 31,		
	2019	2020	2021
Percentage of small business, diverse, and veteran-owned supplier procurement spend vs. total supplier procurement spend(a)(b)	31 %	41 %	48 %
Small business spend	— %	— %	37 %
Minority-owned supplier spend	— %	— %	3 %
Women-owned supplier spend	— %	— %	6 %
Veteran-owned supplier spend	— %	— %	1 %
Multiple-category supplier spend(c)	— %	— %	1 %
Small business, diverse, and veteran-owned supplier spend (millions)(a)	\$ 1,593	\$ 1,675	\$ 1,249

(a) For 2019 and 2020, small business, minority-owned, women-owned, and veteran-owned suppliers are based on supplier diversity status as designated by Dun & Bradstreet as of Q4 2020. For 2021, we determined supplier diversity status quarterly through Dun & Bradstreet; if a supplier was diverse in any quarter, it is reflected as diverse in our overall statistics for 2021.

- (b) Procurement spend is expenditures related to the purchase of goods and services under the purview of our Procurement department. This excludes legal costs, benefit costs, payments to JV partners and intercompany payments, payments to customers, and other expenditures outside the scope of our Procurement department, e.g., royalties, tax assessments, and permit fees.
- (c) Multiple-category supplier spend is defined as having at least two of the following categories: minority-owned, women-owned, and veteran-owned.

Service Supplier Safety

We use a multi-faceted approach to foster a culture of safety among our service suppliers, i.e., contractors. Our approach begins with our due diligence processes, described above. Additional actions we undertake to integrate a culture of safety with our service suppliers include:

- facility safety orientations,
- field, project, and desktop audits,
- job evaluations,
- training,
- benchmarking and safety statistical analysis, and
- safety inspector placement and training.

Our contractor safety statistics are shown in *Section 7.2 Employee and Contractor Safety Statistics and Average Hours of Health, Safety, and Emergency Response Training* of the *Sustainability Report*.

For more information, see our Contractor Environmental/Safety Manual at <https://www.kindermorgan.com/WWWKM/media/Documents/Contractor%20Safety%20Manual/KMContractorSafetyManual.pdf>.

Supplier Audits

We monitor our service suppliers’ environmental and safety performance through multiple audit programs. We conduct both random and prioritized audits based on a supplier’s past performance and the amount of risk the project presents. Our field audits follow our Field Audit Network process, which describes the steps for preparing for the audit, conducting the audit, and uploading the findings and recommendations to our internal tracking systems. Audits are completed by our internal auditors or by third-party auditors.

In addition to our regular service supplier audits, we maintain other risk-specific supplier audits such as audits for asbestos remediation contractors and waste treatment, storage, disposal, and recycling facilities.

Our supplier monitoring statistics are provided below.

	Year Ended December 31,		
	2019	2020	2021
Service supplier monitoring(a)			
Percentage of service suppliers subject to performance audits	100 %	100 %	100 %
Number of service suppliers audited(b)(c)	242	548	503
Percentage of service suppliers audited(b)(c)	7 %	16 %	15 %

(a) Includes field and desktop audits.

(b) Includes active, medium- and high-risk service suppliers. Audits are generally not performed for inactive, low-risk, or minimal-risk service suppliers.

(c) The number and percentage of service suppliers audited for 2019 and 2020 have been revised due to new methodology.

The increase in service supplier audits from 2019 to 2020 is due to an increased number of desktop audits as a result of COVID-19 protocols limiting the number of in-person field audits. Going forward, we expect the more efficient desktop audits to continue to make up the greatest percentage of our audits.

9.0 Waste Management

(SASB Refining & Marketing EM-RM-150a.1, GRI 306-2/11.5.3, GRI 306-3/11.5.4, GRI 306-4/11.5.5)

We are committed to managing our hazardous and non-hazardous waste through multiple strategies for both environmental and economic benefits. Our routine business operations generate various types of waste including:

- municipal waste,
- construction and demolition debris,
- exempt oil and gas exploration and production waste, and
- hazardous liquid and solid waste.

Our employees receive position-relevant training about:

- products we handle and use;
- safe practices for working with hazardous waste;
- site-specific emergency plans;
- spill prevention, control, and countermeasure plans; and
- documentation methods.

We seek to reduce the amount of waste generated throughout our operations by:

- reducing sources of waste,
- substituting less-hazardous or non-hazardous products, and
- reusing materials.

Hazardous Materials Management

Hazardous waste that cannot be reduced or reused is shipped to permitted facilities for recycling, energy recovery, treatment to remove the hazardous constituents, or disposal. We profile, manage, and track our hazardous waste. By tracking hazardous waste from generation to disposal, we reduce the likelihood of environmental impacts and potential long-term liabilities. We use software to track and internally report the amount of hazardous waste generated and recycled as well as third-party transportation, treatment, and disposal details.

The amount of hazardous waste generated and the percentage recycled are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In metric tons, except percentages)		
Amount of hazardous waste generated(a)(b)	9,539	6,255	4,836
Percentage recycled(c)	55 %	54 %	64 %

- (a) Values as of May 2022 for 2021 data, July 2021 for 2020 data and as of September 2020 for 2019 data. They exclude universal hazardous waste and hazardous waste generated within Canada and Mexico. Hazardous waste weights are reported in the year the waste was shipped.
- (b) States must follow EPA hazardous waste classifications although they may create regulations for additional state specific hazardous waste. To provide greater consistency our hazardous waste methodology was updated in this Report to only include waste classified by EPA as hazardous. Consequently, waste with only state hazardous waste codes, but no EPA hazardous waste codes are excluded. 2019 and 2020 waste values were revised to reflect this methodology.
- (c) Hazardous waste recycled from U.S. operations includes shipments with the reclamation and recovery handling type and the handling codes H010, H020, H039, H050, and H061.

Due to the uneven nature of hazardous waste generation in our operations, there can be large changes in the amount of hazardous waste generated and recycled year-over-year. The primary factors that can affect waste generation during a given year include the number and size of construction, remediation, and maintenance activities.

Non-Hazardous Waste Management – Business Waste Recycling

Our efforts to reduce non-hazardous waste include business waste recycling programs in our Houston headquarters building and educating our employees about recycling opportunities. The recycling program at our Houston headquarters is a single-stream program that includes office paper, cardboard, glass, plastic, and aluminum. We send our retired or unused IT equipment, company-wide, to third-party companies who break down the equipment into materials that can be recycled. When we close or reduce square footage in existing offices, we inventory furniture and send items to nearby offices or donate it to local non-profit organizations.

The amount of recycled business waste from our Houston headquarters is provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In tons)		
Recycled aluminum, cardboard, glass, paper, and plastic	119	46	72

The decrease in recycled business waste from our Houston headquarters from 2019 to 2020 resulted from COVID-19-related work-from-home protocols that led to less waste being produced and recycled. The increase from 2020 to 2021 can be attributed to the return of employees to the office and is less than 2019 because most office employees participate in a hybrid work schedule.

Chemical Management

As part of Emergency Planning and Community Right-to-Know Act Tier II reporting, we maintain an inventory of hazardous chemicals stored at many of our facilities. Our facilities that exceed reporting thresholds submit annual reports documenting the quantity and type of hazardous material on site. These reports help agencies such as local fire departments, local emergency planning committees, and state emergency response commissions prepare for chemical emergencies. More information about how we work with first responders to prepare for emergencies is detailed in *Section 12.3 Business Continuity Planning and Emergency Preparedness* of the *Sustainability Report*.

10.0 Competitive Behavior

(SASB Midstream EM-MD-520a.1)

Our policies prohibit improper conduct that is intended to impede competition, eliminate a competitor, or control prices or services in a market. We strive to compete fairly and honestly in each phase of our business and to conduct our operations in compliance with applicable federal, state, provincial, and foreign antitrust laws.

Some of our U.S. natural gas, refined petroleum products, and crude oil transmission pipelines are subject to regulation by the FERC under the NGA or ICA, or by various state regulators including the Railroad Commission of Texas. These regulations set forth the rules and regulations governing the services we provide, and in many instances require that we maintain posted tariffs that set forth the rates we charge for providing transportation and storage services on our regulated pipelines.

Our Mexico assets are regulated by various Mexican regulatory agencies and operate under a permit that establishes certain conditions and specifications, including for maintenance, safety, and economics.

For more information, see our Code of Business Conduct and Ethics at https://www.kindermorgan.com/WWWKM/media/Documents/Governance/KM_Code_of_Business_Conduct_and_Ethics.pdf.

Our monetary losses as a result of legal proceedings associated with federal pipeline and storage, rate, access, and pricing regulations are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In millions)		
Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage, rate, access, and pricing regulations(a)	\$ 19.5	\$ 1.3	\$ 0.0

(a) Excludes legal fees and FERC rate settlements. Includes the amount of fines or settlements associated with the enforcement of federal pipeline and storage regulations, including those related to rates, pipeline access, price gouging, or price fixing, enacted by the FERC, U.S. Commodity Futures Trading Commission, U.S. Federal Trade Commission, CER, Mexico Energy Regulatory Commission, or civil actions (e.g., civil judgment, settlements, or regulatory penalties), or criminal actions (e.g., criminal judgment, penalties, or restitutions) asserted by an entity, whether a regulatory agency, business, or individual.

The settlements paid in 2019 and 2020 were for matters that were alleged to have occurred more than a decade prior to our ownership and control of El Paso Corporation and El Paso Marketing L.P. Beginning in 2003, several lawsuits were filed by purchasers of natural gas against El Paso Corporation, El Paso Marketing L.P., and numerous other energy companies. The purchasers claimed the energy companies conspired to manipulate the price of natural gas by providing false price information to industry trade publications that published gas indices. These cases have been settled or dismissed. The payment made in 2020 was for a contractual true-up claim arising from the previous El Paso Corporation and El Paso Marketing L.P. settlement.

11.0 Prevention of Corruption and Bribery throughout the Value Chain

(SASB Exploration & Production EM-EP-510a.2, GRI 205-2/11.20.3, GRI 206-1/11.19.2)

Our policies prohibit us and our employees from engaging in corrupt practices and provide guidelines on acceptable behavior. Our employees, directors, agents, contractors, business partners, and third-party representatives are prohibited from giving or accepting bribes, kickbacks, or other improper payments in conjunction with our business. While the U.S. Foreign Corrupt Practices Act contains a narrow exception that allows for small-dollar facilitation payments to be made to a foreign official in order to expedite routine governmental actions that are non-discretionary in nature, our policies do not allow facilitation payments of any kind.

As part of our management system for preventing corruption and bribery, our internal controls require that transactions be:

- accurately described with an explanation of the purpose of the transaction;
- sufficiently supported by documentation; and
- appropriately approved by the required level of management, based on the dollar value of the transaction, prior to entering into a commitment and again before processing for payment.

Additionally, we have internal controls for adding payees to our accounting system and for approving payments to vendors. Our controls require review and approval by one or more individual(s) a level higher in our accounting system reporting chain than the person requesting the new payee or payment.

The amount of legal or regulatory fines, settlements, or penalties associated with bribery and corruption is provided below.

	Year Ended December 31,		
	2019	2020	2021
Legal or regulatory fines, settlements, or penalties associated with bribery and corruption	\$ 0	\$ 0	\$ 0

For more information, see our Code of Business Conduct and Ethics at https://www.kindermorgan.com/WWWKM/media/Documents/Governance/KM_Code_of_Business_Conduct_and_Ethics.pdf.

12.0 Operational Safety

12.1 Asset Integrity Management

We work to provide safe, reliable, and efficient system operations. Our employees use our OMS to assess operational risks related to our assets. We develop programs, policies, and procedures to address those risks. Our primary tools for maintaining safe operations include our asset IMPs.

Pipelines and Liquids Terminals

We conduct activities to monitor the integrity of our transmission pipelines and facilities and liquids terminals, including:

- monitoring transmission pipelines and liquids terminals 24 hours a day, seven days a week by trained personnel using SCADA computer systems;
- visually inspecting pipeline rights-of-way by air and/or ground on a regular basis;
- performing internal transmission pipeline inspections periodically using smart pigs;
- using cathodic protection to protect our pipelines, storage tanks, and storage wells from external corrosion;
- evaluating new technologies for maintenance and integrity testing;
- using our public awareness program, described in *Section 16.1.1.1 Public Awareness Program of the Sustainability Report*, to communicate with stakeholders in an effort to prevent third-party damage to our pipelines;
- participating in the Pipeline Safety Management Systems Group to share best practices for safe operations;
- working to develop and improve our business processes, operations procedures, and risk and opportunity assessments;
- maintaining and improving our integrity management procedures in compliance with applicable regulations;
- maintaining roles and responsibilities as defined in our OMS and integrity management procedures;
- providing employee training; and
- executing quality assurance programs such as third-party audits and application of performance metrics.

Our OMS addresses the oversight of and fosters a culture of excellence and continuous improvement of our asset IMP. It includes annual, quarterly, and monthly reviews.

- The annual review is attended by our COO, each business segment President, and senior pipeline integrity management team members. The review may include any known threats for each business segment and covers assessment methodologies, effectiveness, repair criteria and reassessment needs, and the adequacy of the IMP. This review may include new technology that could enhance pipeline safety, if applicable.
- The quarterly and monthly reviews include progress and plans for reducing risks associated with high consequence assets and operations.

More information on how we use smart pigs as part of our IMP can be found on our *Maintaining our pipelines' integrity through in-line inspections* case study video and fact sheet at https://www.kindermorgan.com/Safety-Environment/ESG#tabs-case_studies.

Underground Natural Gas Storage Facilities

We maintain risk management programs and monitoring systems for well and reservoir integrity and deliverability at each of our underground natural gas storage facilities. Our operations and maintenance procedures are subject to periodic inspections and audits by regulators and our own internal auditors that are independent of the business segments. We have procedures in place to meet or exceed regulations to maintain the safety and reliability of our underground natural gas storage facilities over the long term.

We collaborate with industry regulators and other stakeholders to improve standards around underground natural gas storage and to begin creating standards for the underground storage of hydrogen by:

- Co-leading the updates of API RP 1170 Design and Operation of Solutionmined Salt Caverns Used for Natural Gas Storage and API RP 1171 Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs;
- Participating on PHMSA's Integrity of Underground Natural Gas and Hydrogen Storage team that recommends funding of research projects to enhance the reliability and safety of underground natural gas storage in aquifers, depleted reservoirs, and salt caverns; and
- Chairing the Pipeline Research Council's underground storage committee that will publish a paper outlining the knowns and unknowns of storing hydrogen in underground natural gas storage facilities.

12.2 Damage Prevention

Because one of our greatest operational risks is line strikes by third parties, we support organizations whose mission is to promote safe digging, including:

- *CGA* – we are a platinum-level sponsor and regularly promote CGA's message to “call 811 before you dig” on our website and social media channels;
- *Pipeline Ag Safety Alliance* – a member-driven organization whose mission is to prevent damage to buried pipelines through education and improved communication with agricultural communities;
- *Gold Shovel Standard* – a nonprofit organization committed to improving workplace safety, public safety, and buried infrastructure integrity through greater transparency among buried-asset operators, locators, and excavators to drive continuous improvement in damage prevention;
- *Drain Tile Safety Coalition* – a nonprofit coalition sponsored by pipeline and utility operators and One Call Centers committed to improving drain tile safety and preventing accidents involving underground infrastructure; and
- Area Damage Prevention Councils, State One Call Centers, and One Call Boards in the states where we operate.

12.3 Business Continuity Planning and Emergency Preparedness

Our ability to respond quickly in an emergency is part of our commitment to the safety of the communities in which we operate and our commercial obligations to customers. Our business continuity plans cover the preparation for and the recovery of functions to address potential business or supply chain disruptions. To manage the associated risk, we work to continuously improve and incorporate lessons learned from emergency events.

We maintain site-specific emergency response plans for notifying and communicating with external stakeholders, including regulatory agencies, and actions to respond quickly and efficiently in an emergency. We have backup control centers in different parts of the country so we can relocate our critical control room personnel and maintain operations during emergencies. Our corporate Crisis Support Team augments our business segments' existing emergency response procedures and capabilities with additional resources as needed. We monitor events that present risks to our assets by utilizing GIS platforms and other tools to identify potential operational disruptions. We provide certain employees and contractors with emergency response training. Our emergency response personnel are trained to use the National Incident Management System Incident Command System and to respond to emergencies by:

- securing the safety of the public, our employees, and the environment;
- promptly notifying governmental response organizations and agencies;
- engaging with the local utility provider;
- managing the emergency;
- coordinating response activities; and
- restoring service.

Pandemic Preparedness

Since 2006, we have had a Pandemic Preparedness Plan and Pandemic Preparedness Committee to plan, reduce risk, and mitigate impacts to employees and critical business functions. Our Pandemic Preparedness Committee, which consists of leaders across our business segments and corporate functions, is charged with determining the appropriate planning and response measures should a pandemic occur. The Pandemic Preparedness Committee has regularly scheduled meetings to evaluate potential events presenting risk to our operations.

During the COVID-19 pandemic, we leveraged our business continuity plans, Pandemic Preparedness Plan, and Pandemic Preparedness Committee to reduce and mitigate risk while also minimizing impacts to workers and critical business functions.

Our Pandemic Preparedness Plan generally follows guidance set forth by the following organizations:

- World Health Organization,
- Centers for Disease Control and Prevention,
- U.S. Food and Drug Administration,
- OSHA,
- API,
- state and local health agencies, and
- other governmental regulatory agencies.

Based on the size and scope of an event, our crisis support team works with our business segments and corporate functions to implement a standardized pandemic tracking process. Functional areas report back

to the Crisis Support Team, giving us the ability to detect abnormal clusters of pandemic-like illnesses to better identify potential risk areas and take corrective actions.

To help prevent the spread of disease during a pandemic, we may implement certain non-medical interventions, such as:

- educating our employees and raising employee awareness with the latest CDC guidance;
- having our office-based employees work remotely;
- providing return to the office safety guidelines to remote employees prior to their return;
- enhancing our workplace cleaning procedures, including improving office air circulation and filtration systems;
- establishing a secure supply chain to provide the necessary personal protective equipment to our workforce;
- establishing testing programs for early detection, contact tracing, and mitigation;
- hosting on-site vaccine distribution clinics;
- promoting social distancing and workforce modifications; and
- isolating employees that perform critical work tasks and job functions.

First Responder Joint Exercises

To better prepare personnel and practice our emergency response, we regularly conduct joint mock emergency exercises with first responders. By conducting these exercises, employees and emergency responders are not only able to test their equipment, personnel, and procedures, but also to meet and work together face-to-face prior to an actual emergency.

Example drill scenarios include, among others, the following:

- pipeline ruptures, releases, and line strikes;
- severe weather events, e.g., hurricanes, floods, tornadoes, and blizzards;
- wildfires; and
- security incidents, including physical or cyber-attacks.

Natural Disaster Preparedness and Response

We plan for and have established procedures for responding to a wide variety of natural disasters. We maintain hazard identification and risk assessments for our transmission pipelines to identify potential risks and natural disaster scenarios and develop response plans. This planning involves local response officials, other operators and their facilities, and land and right-of-way personnel.

We use a variety of tools to forecast and monitor weather-related events, including:

- weather event and tide level monitoring through news feeds and third-party services;
- GIS mapping of real-time situational data to monitor forecasted paths and impacted areas, including supply chain resources;
- internal communication to provide updates to affected personnel and management; and
- annual testing of backup work locations that support critical business functions.

Our preparation for Hurricane Ida in 2021 helped mitigate the storm impacts on our assets and employees. As part of our preparation, response, and recovery support we:

- secured backup power options for our affected operations to prevent delivery disruptions;
- provided food to our employees, their family members, and local response personnel;
- secured multiple nitrogen supply chains and transportation solutions during a “force majeure” mandate to keep Elba Island LNG Terminal operational; and
- provided onsite COVID-19 testing options to field locations when locally unavailable.

Emergency Response Notification System

We maintain an emergency response notification system to inform internal support personnel and enable efficient communication and decision-making in response to emergency events, including reporting to regulatory agencies. Our process facilitates real-time communication of emergency events to our personnel with incident response or reporting responsibilities. Once an incident has ended, we determine and document lessons learned and track corrective actions, if any, to completion.

Emergency Response Supply Chain Support

We endeavor to maintain a reliable supply chain to operate under various conditions. For planning prior to an emergency, we maintain:

- lists of emergency response contractors, supply vendors, and transportation and fuel sources;
- a database of our emergency response equipment; and
- procedures to change spending authority to assist affected employees and increase security resources.

12.4 Reportable Pipeline Incidents

(SASB Midstream EM-MD-540a.1)

One of our primary goals is to prevent pipeline incidents. Should an incident occur, we investigate the causes and contributing factors in an effort to prevent similar incidents going forward. Despite our prevention efforts, incidents occurred in the reporting period.

The number of reportable pipeline incidents, number of significant reportable pipeline incidents, and percentage of reportable pipeline incidents that are significant are provided below.

	Year Ended December 31,		
	2019	2020	2021
Number of reportable pipeline incidents(a)(b)(c)	60	55	37
Percentage of reportable pipeline incidents that are significant(d)	40 %	45 %	46 %

- (a) Reportable hazardous liquid pipeline incidents include explosions or fires not intentionally set by the operator, releases of five gallons or more (excluding releases of less than five bbls associated with pipeline maintenance activities), a fatality, an injury necessitating hospitalization, or estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000.
- (b) Reportable gas gathering, transmission, storage, and distribution incidents include: (1) an event that involves a release of gas from a pipeline, gas from an underground natural gas storage facility, liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences: (i) a death, or personal injury necessitating in-patient hospitalization; (ii) estimated property damage of \$50,000 or more in 2019 and 2020, and per January 2021 PHMSA rule change, \$122,000 as of March 2021, including loss to the operator and others, or both, but excluding cost of gas lost; (iii) or unintentional estimated gas loss of three MMcf or more; (2) an event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident; and (3) an event that is significant in the judgment of the operator, even though it did not meet the criteria of item (1) or (2) of this definition.
- (c) The number of pipeline incidents and significant incidents reported for 2019, 2020 and 2021 uses data as of February 2020, March 2021, and March 2022, respectively.
- (d) Significant reportable pipeline incidents are defined as an incident that includes any of the following conditions: (1) a fatality or injury requiring in-patient hospitalization (2) \$50,000 or more in total costs, measured in 1984 dollars. For 2019, 2020, and 2021, the thresholds in 1984 dollars are \$106,762, \$108,926, and \$111,098, respectively. (3) Highly volatile liquid releases of 5 barrels or more or other liquid releases of 50 barrels or more; and (4) Liquid releases resulting in an unintentional fire or explosion. Gas distribution incidents caused by a nearby fire or explosion that impacted the pipeline system are excluded from this definition. For highly volatile liquid and CO₂ releases, PHMSA combines the unintentional and intentional release volumes to determine if the incident meets the significant liquid release threshold.

In each year presented above company-wide, the most frequent reason that reported incidents were categorized as significant was due to total incident costs exceeding the monetary threshold of \$50,000 in 1984 dollars, or \$111,098 for 2021.

Reporting-Regulated-Only Gathering Pipeline Incidents

PHMSA’s RROG rule, extending the annual, accident, and safety related condition reporting requirements to all hazardous liquid gathering lines, went into effect January 1, 2021. The hazardous liquid gathering lines covered by this rule are defined as reporting-regulated only gathering. We are reporting these incidents separately because the other requirements of PHMSA 49 CFR 195 – Pipeline Safety: Transportation of Hazardous Liquids by Pipeline regulation do not apply to these gathering lines.

The number of reportable RROG pipeline incidents and percentage of reportable RROG pipeline incidents that are significant are provided below.

	Year Ended December 31, 2021
Number of reportable RROG pipeline incidents(a)(b)(c)	8
Percentage of reportable RROG pipeline incidents that are significant(d)	13 %

- (a) Reportable RROG hazardous liquid pipeline incidents include explosions or fires not intentionally set by the operator, releases of five gallons or more (excluding releases of less than five bbls associated with pipeline maintenance activities), a fatality, an injury necessitating hospitalization, or estimated property damage, including cost of clean-up and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding \$50,000.
- (b) The number of reportable RROG pipeline incidents and significant incidents reported for 2021 uses data as of March 2022.
- (c) The Terminals business segment does not have any pipelines to which the PHMSA RROG rules apply.
- (d) Significant reportable RROG hazardous liquid pipeline incidents are defined by SASB as an incident that includes one of the following conditions: a liquid release volume greater than or equal to 50 bbls, a highly volatile liquid release greater than five bbls, a fatality, an injury necessitating hospitalization, liquid releases resulting in a fire or explosion, or total cost that exceeds \$50,000 in 1984 dollars. For 2021, the threshold in 1984 dollars is \$111,098, respectively. For highly volatile liquid and CO₂ releases, the unintentional and intentional release volumes were combined to determine if the incident meets the significant liquid release threshold. These incidents are not classified as significant by PHMSA.

12.5 Natural Gas and Hazardous Liquid Pipelines Inspection
(SASB Midstream EM-MD-540a.2)

We aim for safe operations and zero pipeline incidents. As described in *Sections 2.2 Management System and 12.1 Asset Integrity Management* of the *Sustainability Report*, we use risk management programs and state-of-the-art technology for maintenance and integrity testing at our transmission pipelines and facilities and liquids terminals facilities. We work to meet or exceed the regulatory requirements for testing and inspecting our pipelines, find opportunities to improve, and apply sound integrity management principles and technologies.

The number of inspections we make varies from year to year depending on our annual integrity program requirements.

The percentage of natural gas pipelines and hazardous liquid pipelines inspected through ILIs, pressure tests, direct assessments, or other technologies are provided below.

	Year Ended December 31,		
	2019	2020	2021
Percentage of natural gas pipelines inspected(a)(b)	19 %	20 %	15 %
Percentage of hazardous liquid pipelines inspected(a)(b)(c)	27 %	28 %	25 %

- (a) For segments of pipe that are inspected more than once for the same types of anomalies during the same calendar year, the mileage inspected used in this calculation is counted once. In some limited instances where multiple inspections for different types of anomalies are conducted on the same segment in the same year, the mileage for each inspection is counted separately.
- (b) The GIS pipeline mileage used to calculate the percentage of natural gas and hazardous liquid pipelines inspected is as of the third quarter of 2021. It excludes production and flow lines in the CO₂ business segment.
- (c) Includes pipeline inspection data from the U.S portion of the Cochin Pipeline and KML up to the sale date of December 16, 2019.

From 2019 through 2021, over 33,200 miles of our natural gas pipelines and 9,600 miles of hazardous liquid pipelines were assessed using ILIs, pressure testing, or direct assessments.

13.0 Management of Changes to the Legal and Regulatory Environment

(SASB Exploration & Production EM-EP-530a.1)

Our businesses are regulated by multiple government agencies, including the EPA, PHMSA, CER, ASEA, OSHA, USCG, and other federal, state, provincial, and local agencies. To identify, assess, and manage new ESG regulatory risks and opportunities, we maintain a process for identifying, communicating, and verifying compliance with changes in applicable regulatory requirements. Dedicated internal regulatory personnel work with internal and third-party subject matter specialists, industry trade groups, and agency personnel to identify changes in the following topics that may affect our operations:

- environmental, personal safety, process safety, and pipeline safety, hazardous material transport, climate change, cyber and physical security regulatory requirements, interpretations, and guidance;
- industry codes and standards; and
- external incident reports, including:
 - U.S. National Transportation Safety Board and Chemical Safety Board incident investigations,
 - CER and PHMSA advisory bulletins and failure reports, and
 - ASEA reports.

We distribute a monthly regulatory update of proposed and final published rules to internal personnel with compliance roles and responsibilities. Our compliance and business segment personnel evaluate which proposed requirements warrant providing our feedback, assess the potential impact of proposed rules, and coordinate potential compliance approaches.

In the U.S., we engage with policy makers from both major political parties at the federal, state, and local levels. We generally advocate for fair and transparent policies that are practical, economical, and have a positive benefit to our stakeholders and customers. The focus of our engagement is on policy that impacts our business including, but not limited to, pipeline safety policies, environmental and safety regulations, methane regulation, cybersecurity policies, and corporate taxation. We also engage in and support incentives that could help advance the use of CCUS, RNG, renewable diesel, and hydrogen.

We comment on the formulation of legislative and regulatory policies at the federal, state, provincial, and local levels at times as an individual company but, more often, through trade associations. These trade

associations primarily include INGAA, Energy Infrastructure Council, GPA Midstream, AGA, AOPL, and the International Liquid Terminals Association. We prefer that the trade associations and other business organizations with which we work take positions, such as those related to climate change, that are consistent with our own. We recognize that this may not always be possible due to the variety of companies and other stakeholders that work with these organizations. However, we continue to work with these groups to develop solutions and find common ground on issues that are relevant to our industry.

In 2021, our trade associations with dues in excess of \$50,000 included:

- American Gas Association,
- Association of Oil Pipe Lines,
- Common Ground Alliance,
- GPA Midstream,
- Independent Fuel Terminals Operators Association,
- Interstate Natural Gas Association of America,
- Pipeline Research Council International,
- Texas Oil and Gas Association, and
- Texas Pipeline Association.

In 2021, our employees served on the board of directors for the following trade associations:

- Association of Oil Pipe Lines,
- Common Ground Alliance,
- Drain Tile Safety Coalition,
- Energy Infrastructure Council,
- GPA Midstream,
- International Liquid Terminals Association,
- Interstate Natural Gas Association of America,
- Southern Gas Association,
- Texas Oil and Gas Association, and
- Texas Pipeline Association.

Our Board oversees our participation in national trade associations through periodic reports by our COO to our Board's EHS Committee.

We generally find that it is more effective to take a collaborative approach in identifying and addressing proposed regulatory changes related to our assets and operations. We often share data with industry groups and regulatory agencies and engage in discussions with both about potential regulatory changes and compliance strategies.

We track applicable final regulations, interpretations, and guidance in our internal database. Using the database, business segment and corporate compliance professionals verify that they have reviewed the updated regulations, interpretations, and guidance that may impact their business and completed the necessary compliance activities. The COO and business segment COOs review progress quarterly. The COO briefs our Board's EHS Committee on the most significant proposed and final regulatory changes, any comments we have provided on proposed regulations, and any resulting compliance activities.

13.1 Political Contributions and Lobbying Expenses

(GRI 415-1/11.22.2)

As outlined in our Code of Business Conduct and Ethics, it is our policy to not sponsor employee-funded political action committees nor make contributions to political parties or candidates for public office. This policy extends to 527 groups, 501(c)(4) groups, and independent political spending.

Contributions we make toward ballot measures, lobbying or lobbying groups, and trade associations are intended to promote the interests of our company and its stockholders and are made without regard to the private political preferences of our executives. Any lobbying expenditures, including by trade associations, are limited to expenses related to advocating on matters of public policy and are not made to political campaigns, candidates, or political parties. Our CEO, President or General Counsel signs-off on and oversees any contributions made toward ballot measures, lobbying, or lobbying groups.

We encourage employees, contractors, and others affiliated with us to vote and keep informed on political matters and to support, with their own funds and on their own time, the candidates, or parties of their choice. Employees may not use the company's funds to contribute to political parties or candidates for public office. We also encourage and support employees who take a role in community affairs in accordance with our Code of Business Conduct and Ethics.

While we made no contributions to political campaigns, candidates, or parties, the payments we made to lobbyists or lobbying organizations, our trade associations dues, the portion of our trade association dues attributed to lobbying, and payments made in relation to ballot measures are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In thousands)		
Contributions to political campaigns, candidates, and parties	\$ 0	\$ 0	\$ 0
Payments to lobbying organizations(a)	265	197	514
Trade association dues(b)	2,523	2,680	2,241
Non-deductible portion of trade association dues attributed to lobbying and political expenditures	225	212	195
Payments made in relation to ballot measures	0	0	0

(a) These are not payments for political expenditures, i.e., political campaigns, candidates, and parties.

(b) Includes trade associations where our dues were greater than or equal to \$25,000 for the calendar year. Excludes Canadian trade associations related to our divested assets.

13.2 Tax Transparency

(GRI 201-1/11.14/2/11.21.2, GRI 201-4/11.21.3, GRI 207-1/11.21.4)

We are committed to complying with tax laws, as well as following the spirit of those laws, in the countries in which we operate. In line with our core values of integrity and accountability and our Code of Business Conduct and Ethics, we manage our tax affairs by applying responsible tax practices and acting transparently. Driven by large depreciation expenses, partially created by bonus depreciation for capital expenditures, we have generated taxable losses for the past several years. Given the large investments we made in prior years, we now have a large federal net operating loss balance, which can be used to offset taxable income. Additionally, we monetized certain minimum tax credits on our 2016 and 2017 tax returns, related to a previous overpayment of federal income taxes that resulted in refunds received in 2020. A significant portion of our tax contribution is in the form of property taxes that support the local communities in areas where we operate.

Income taxes paid by country, property taxes paid, and royalties and duties paid are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In millions)		
Income taxes paid(a)(b)(c)			
U.S. Federal	\$ 47	\$ 32	\$ 48
U.S. State	17	16	19
Canada	360	236	(2)
Mexico	7	5	5
Brazil	1	0	0
Total income taxes paid, net	\$ 432	\$ 289	\$ 70
Property taxes paid(d)(e)	\$ 509	\$ 576	\$ 605
Royalties and duties paid(f)	\$ 70	47	\$ 60

- (a) We do not have current operations in Brazil, the Cayman Islands, Scotland, or the Netherlands. There were no taxes paid in the Cayman Islands, Scotland, or the Netherlands in 2019, 2020, and 2021. The entities in Brazil and the Cayman Islands are from legacy acquisitions and we are working to close these entities.
- (b) Negative amounts indicate a refund was received.
- (c) Includes cash taxes from the following unconsolidated C-corp joint ventures: Citrus LLC, Natural Gas Pipeline Company of America LLC, and Products (SE) Pipe Line Corporation. 2019 and 2020 income taxes paid have been adjusted to include income taxes paid for these joint ventures.
- (d) Property taxes paid include the net tax paid for a reporting year for each business segment where we operate, inclusive of non-operated joint ventures and corporate owned assets. Property taxes are budgeted for in October of the year prior to the reporting year, based on projected property valuations and tax rates, and taxes are accrued based on the estimated budget. In the reporting year, tax bills are received, verified and payments submitted. Property tax returns and related findings are filed in the first and second quarter of the reporting year and any adjustments are accounted for in the final property tax payments.
- (e) Non-operated joint ventures are included in the net property taxes using either actual paid amounts or property tax expensed, adjusted for KM percentage ownership of each joint venture.
- (f) Royalties and duties paid for the CO₂ business segment include royalty payments, severance taxes, state-specific tax levies, conservation taxes, and school taxes. For the Natural Gas Pipelines business segment royalties and duties paid include royalty payments, severance taxes and state-specific tax levies. The Terminals and Products Pipelines business segments do not pay royalties and duties.

The Canada tax payments in 2019 and 2020 represent the income tax impact of gains recognized on the sales of our Canadian pipelines and terminals. Post-sale, we have minimal active operations in Canada and expect to have no material tax liability in future years.

We do not have a presence in countries that are considered as partially compliant or non-compliant with the exchange of information request standard according to the Organisation for Economic Co-operation and Development tax transparency report. Additionally, the countries to which we pay taxes are members of the Global Forum on Transparency and Exchange of Information for Tax Purposes.

We also provide extensive tax information in our 2021 Form 10-K, which can be found at <https://sec.report/Document/0001506307-22-000018/kmi-20211231.htm>.

14.0 Data Security

(SASB Services SV-PS-230a.1)

We employ a comprehensive strategy for identifying and addressing data security risks that is aligned with the U.S. Commerce Department's National Institute of Standards and Technology *Framework for Improving Critical Infrastructure Cybersecurity*. This framework outlines standards and practices to promote the protection of critical infrastructure. The framework is overseen by third-party experts who provide guidelines on how to manage supply chain cybersecurity. Our strategy includes both short- and long-term initiatives to increase the security surrounding our assets and is supplemented using third-party threat monitoring, rigorous security protocols, and government partnerships.

Governance Structures

We are committed to protecting sensitive information and have a dedicated cybersecurity group within our IT department. This group:

- reports quarterly to senior management including the CEO, President, CFO, COO, CAO, Chief Information Officer, General Counsel, business segment Presidents, and Corporate Security;
- prepares management briefings that include company-wide cybersecurity status and initiatives; and
- provides a forum for discussing data security risk solutions and formulating action plans.

Our Board's Audit Committee is briefed quarterly on cybersecurity risk and our cybersecurity management program and initiatives.

Measures to Monitor and Respond to Data Breaches and Cyberattacks

We have made investments to address data security risks through:

- continuous third-party security monitoring of our network perimeters,
- advanced persistent threat group monitoring to keep informed of emerging serious threats,
- standardization of network security architecture which separates business and SCADA networks, and
- Security Information and Event Management software systems.

Our risk-based approach focuses on critical systems where failure or exploitation could potentially impact pipeline safety or reliability. As such, our critical business systems are fully redundant and are backed-up at separate locations. Separate business and SCADA networks allow for isolation of potential threats and enhances the security of these systems. Our security information and event management software systems correlate security events and aggregate security-related incident data, such as malware activity and other possible malicious activities. This program sends alerts if the data analysis shows that an activity could be a potential security issue.

Security functionality is continuously monitored by our network operations center, which:

- monitors critical SCADA systems and telecommunications circuits,
- communicates directly with control centers,
- assigns support staff and management to address identified issues, and
- monitors data centers' physical operating conditions.

In addition to the monitoring performed by the network operations center, our network traffic is analyzed for signs of malicious activity through the Cybersecurity and Infrastructure Security Agency's CyberSentry program and third-party Security Operations Center, which operates continuously. If malicious activity is detected, our cybersecurity staff are notified.

We maintain a dedicated SCADA group within our IT department to evaluate and respond to significant events and incidents that may impact our operations. Anti-virus solutions are deployed on the SCADA systems and workstations in our data centers and control centers.

Our processes and cybersecurity plans are part of our overall emergency response plans, and we conduct multi-agency worst case drills for continual process improvement.

In the event that data and network defenses are bypassed, processes detailed in our Cyber Incident Response Plan would help identify, contain and eradicate threats, and bring our systems back online if needed. Additionally, the plan requires that the appropriate level of our management be made aware of incidents and be updated as the situation warrants.

Vulnerability Assessments and Penetration Testing

On an annual basis, we hire an independent third-party cybersecurity firm to perform penetration testing. The third-party checks for vulnerabilities on our external and internal network perimeters, such as our website and our internal network and sites. In 2022, we initiated regular internal vulnerability assessments and penetration testing of our systems. If vulnerabilities are found, corrective actions are implemented to prioritize and remediate any issues.

Government and Industry Group Engagement

We engage with a wide variety of government agencies and industry groups to enable cross-sharing and to identify opportunities to improve our security, including:

- active participation in IT Sector Coordinating Councils; and
- attendance at classified briefings and security architecture reviews hosted by the:
 - DOE,
 - Federal Bureau of Investigation, and
 - Department of Homeland Security.

Partnership with these security agencies provides us with intelligence on a wide range of critical infrastructure protection and cybersecurity activities and issues as well as an opportunity to exchange best practices.

Employee Training

Employees are required to take annual cyber and physical security training. This training is designed to help employees guard our cyber and physical data. The key objectives of the training are to teach employees how to:

- spot the common types of phishing emails,
- understand the key concepts for safely browsing the internet,
- identify physical risks to the security of our data, and
- report suspicious emails to the proper channels.

Employees are tested on their ability to identify phishing emails. Quarterly, our business segments compete and an employee from the business segment with the fewest clicks on phishing campaign email links is selected to win a prize. Cybersecurity performance is also considered in annual employee performance reviews.

15.0 Employee Relations

15.1 Employees

(SASB Investment Banking & Brokerage FN-IB-330a.1, Professional & Commercial Services SV-PS-330a.2, GRI 401-1/11.10.2, GRI 405-1/11.11.5)

We use a strategic approach to building a diverse, inclusive, and respectful workplace. Our HR department provides expertise and tools to attract, develop, and retain diverse talent and support our employees' career and development goals. We value our employees' opinions and encourage them to engage with management and ask questions on topics such as our goals, challenges, and employee concerns. Employees are encouraged to submit questions to our CEO and our President during our semi-annual employee meetings, either before or during the meeting. Although the semi-annual employee meetings were suspended during the pandemic, our CEO and our President maintained communication with our employees through regular emails and audio messages; a practice they have continued post pandemic. They also hold periodic video meetings with randomly selected manager- and director-level employees.

Employee Compensation

We link total compensation to our financial performance and to the attainment of our short-term and long-term strategic, operational, and financial objectives. We believe that an effective compensation program should reward employees for:

- advancing our business strategies;
- advancing the interests of our investors and other stakeholders;
- upholding and complying with our policies, including contributing to a discrimination-free workplace;
- incentivizing compliance with our ESG policies, including our Code of Business Conduct and Ethics and our EHS policies; and
- meeting our environmental, safety, and compliance targets.

We are committed to paying a fair wage to our employees and our pay policies help establish a living wage. Pay is based on a thorough analysis of the market, salaries of employees in similar jobs, and applicable laws. We establish competitive pay rates with the external market and facilitate equitable pay internally for similar jobs. Employee compensation includes competitive base salaries in the markets in which we operate and competitive benefits, including retirement plans, opportunities for annual bonuses, and, for eligible employees, long-term incentives, and an employee stock purchase plan. In 2021, over 96% of our employees were eligible for the employee stock purchase plan.

Annual Incentive Plan

Our Annual Incentive Plan is designed to foster our executive officers' and employees' personal stake in our continued success through the possible payment of annual cash bonuses that are dependent on a combination of individual and company performance. Under the Annual Incentive Plan, a pool of bonus dollars is budgeted at the beginning of each year for annual cash bonuses that may be paid to our executive officers and other employees, depending on the extent to which we meet certain financial performance objectives set at the beginning of the year by our Board's Compensation Committee. The Compensation Committee then establishes the final bonus pool based primarily on the extent to which the financial performance objectives are met. The Compensation Committee may also adjust the budgeted

pool of bonus dollars upward or downward based on our overall performance in other areas, including targets for safety and environmental incident rates, regulatory compliance, and other financial measures.

Employee Benefits

We offer a variety of benefits to eligible employees, their children, spouses, domestic partners, and the children of domestic partners. These programs are described in more detail below:

- PTO: Our PTO program offers employees flexibility to schedule time away from work to handle personal and family commitments. PTO hours may be used for various reasons, including but not limited to: short-term illnesses, vacations, bonding with a newborn or newly adopted or fostered child, or attending school functions.
- Maternity leave: Short-term disability coverage is available to new mothers for the birth of a child. Eligible employees receive up to 100% pay based on years of service for six or eight weeks.
- Parental leave: Starting in 2022, employees welcoming a new child, either through birth or adoption, are eligible for 80 hours of paid parental bonding time, which can be used at any time within six months from the birth or adoption of the child.
- Mother's Rooms: Private rooms with refrigerators are designated for nursing mothers in our Houston headquarters and most of our other regional offices.
- Flexible work schedules: Flexible starting and ending work times, and reduced schedules are options to help manage work/life balance.
- Variable work schedules: The 9/80 work schedule gives employees the opportunity to have every other Friday off by adding an additional hour to eight of the nine workdays in the pay period. Half-day off workweeks provide the option to work nine hours each day Monday through Thursday and four hours on Friday of each week.
- Hybrid work schedule: On a trial basis, eligible employees have the ability to participate in a remote work pilot for up to two days a week on non-core in-office work days.
- Bereavement leave: Three days of PTO for the death of an immediate family member.
- Military leave: Actively serving employees are paid the difference between their KMI pay and their active military pay for up to two years.
- Disability leave: Sick or injured employees who are unable to work for more than seven consecutive days may be eligible for short-term disability leave. Employees on an approved leave can receive up to 100% of pay for up to 26 weeks based on years of service.
- Tuition reimbursement: Up to \$5,250 per calendar year.
- Financial support: Employees may apply for disaster relief grants if they suffer an emergency hardship as a result of certain natural disasters and live in a state or county with a major disaster declaration.

Wellness Initiatives

Our Wellness 360° program provides a holistic approach to wellness for our employees and their eligible dependents, focusing not only on physical well-being, but emotional and financial health as well. Participants are able to access helpful resources designed to support a healthy lifestyle such as a behavioral science-based weight loss program, a flexible fitness program membership, and monthly webinars related to physical, mental, and financial health among many others. Our employees also have access to ergonomic training through our LMS system, which explains how various postures and movement affect the body and how to mitigate ergonomic hazards both on the job and on personal time.

Employee and Board of Directors Composition

The number of full-time, part-time, and temporary employees; voluntary and involuntary turnover rates; and composition of our workforce by age, gender, disability status, and minority representation are provided below. The gender and minority representation of our Board of Directors is also provided below.

	2019	2020	2021
Full-time employees(a)	11,086	10,525	10,529
Part-time employees(a)	6	7	9
Temporary employees(a)	5	2	2
Employee age representation(b)			
Average age	45	45	45
Percentage under 18 years old	0 %	0 %	0 %
Percentage from 18 through 29 years old	11 %	10 %	10 %
Percentage from 30 through 50 years old	52 %	53 %	54 %
Percentage over 50 years old	38 %	37 %	37 %
Female employee representation(b)(c)			
Percentage of workforce(d)	16 %	16 %	16 %
Percentage of management	19 %	20 %	20 %
Percentage of executive officers(e)	27 %	25 %	25 %
Percentage of Board of Directors(f)	13 %	13 %	13 %
Minority employee representation(b)(g)			
Percentage of workforce(d)	29 %	30 %	30 %
Percentage of management	19 %	20 %	21 %
Percentage of executive officers(e)	18 %	17 %	17 %
Percentage of Board of Directors(f)	6 %	7 %	7 %
Percentage of workforce with disabilities(d)(h)	4 %	4 %	6 %
Employee turnover			
Involuntary employee turnover(i)(j)	4 %	6 %	3 %
Voluntary employee turnover(j)(k)	6 %	4 %	8 %
Total employee turnover	10 %	10 %	11 %

- (a) 2019, 2020, and 2021 employee counts are as of December 2019, 2020 and 2021, respectively. The total number of full-time employees in Mexico for 2019, 2020, and 2021 were 4, 1, and 14, respectively.
- (b) 2019 U.S. data was queried in November 2019. 2019 Mexico data was queried in December 2019. 2019 employee data for KML was not included. 2020 U.S. and Mexico data were queried in November 2020. 2021 U.S. and Mexico data were queried in December 2021. The total number of employees used to calculate these percentages, from our EEO-1 reports, for 2019, 2020, and 2021 were 11,115, 10,592, and 10,529 respectively. Both full-time and part-time employees are included.
- (c) In 2019, 2020 and 2021, 0.7%, 0.9%, and 0.6% of employees, respectively, selected “I prefer not to answer” for gender.
- (d) Workforce includes positions in management, professional positions, and remaining positions.
- (e) Executive officers are as defined by Rule 3b-7 under the Securities Exchange Act of 1934 and listed in the 2022 Proxy Statement.
- (f) For 2021, minority representation for the Board of Directors is confirmed by board members and gender representation is consistent with the pronouns used in the 2022 Proxy Statement, reported as of April 2022.
- (g) U.S. and Canada diversity data are categorized per the Equal Employment Opportunity Commission’s Employer Information Report EEO-1 and the Employment Equity Workforce Survey, respectively. Mexico is excluded, as there is no requirement to collect diversity data. Minority includes the number of U.S. employees who classify themselves as Asian, Black, or African American, Hispanic, or Latino, Native American, or Alaska Native, Native Hawaiian, or Pacific Islander, and “Two or more races” and the Canada employees who identified themselves as a visible minority, other than Aboriginal peoples, who are non-white in color or non-Caucasian in race, regardless of their place of birth or citizenship.
- (h) Data is captured by using an Office of Federal Contract Compliance voluntary self-identification survey.
- (i) Includes count of involuntary terminations from full-time and part-time positions. Excludes divestitures. Approximately one-third of the 6% involuntary turnover percentage for 2020 includes employees who voluntarily requested and were given severance packages as part of the organizational effectiveness and efficiency program.
- (j) Percentage based on count of terminations divided by average number of full- and part-time employees. Excludes employees in Mexico.

(k) Includes count of employee-initiated voluntary terminations from full- and part-time employment. Excludes retirees.

15.2 Diversity and Inclusion

We consider employee diversity an asset and support equal opportunity employment. We take affirmative action to employ and advance in employment all persons without regard to their race/ethnicity; sex; sexual orientation; gender, including gender identity and expression; veteran status; disability; or other protected categories, and base employment decisions solely on valid job requirements.

We prohibit discrimination or harassment against any employee or applicant on the basis of race, gender, or other protected categories listed in our Code of Business Conduct and Ethics. We are committed to a harassment free workplace, supported with workplace harassment and discrimination prevention training for our employees. Employees and supervisors review our Harassment and Discrimination Prevention policy every two years as part of our HR Policy Renewal training.

Diversity Initiatives

We seek to engage with a broad range of candidates for open positions and undertake initiatives such as active participation in veteran and other job fairs aimed at increasing diversity representation in our workplace. Additionally, we partner with organizations whose focus is providing employment opportunities, including apprenticeships and internships, for minority candidates.

- *Board Oversight*

As part of our annual succession planning process, we identify minority and female candidates to include in the plan for senior positions. We review our succession plan, including a discussion on development opportunities for potential successors, with the Nominating and Governance Committee of our Board.

- *Board Diversity*

The Nominating and Governance Committee is responsible for advising our Board on matters of diversity. Over time, our Board's intention is to decrease the size and enhance the gender and racial diversity of our Board.

- *Executive Leadership*

In 2020, our CEO added a leadership expectation for our President, COO, business segment presidents, General Counsel, CFO, VP of Government Relations and Communications, CAO, and VP of Corporate Development to establish a plan for enhancing diversity and equality of opportunity in hiring, development, and promotion decisions. These expectations are discussed and reinforced during the annual performance review process. Currently, 42% of our executive officers are female or a minority.

A diversity lead from HR has been assigned to each business segment to support their efforts to enhance diversity and equality of opportunity in hiring, development, and promotion decisions.

- *Seeking Diverse Applicants*

We use the services of a major job posting board with over 1,000 diversity partners including companies and organizations that specifically target and attract women, minorities, veterans, and individuals with disabilities.

We also partner with a job-delivery company as part of our commitment to post job openings with local employment offices and community-based organizations that focus on women, minorities, veterans, and individuals with disabilities. Some of the websites for these organizations include:

- Hire a Hero,
- Job Opportunities for Disabled American Veterans,
- RecruitABILITY, and
- U.S. Diversity.

To increase our opportunities to recruit minority and female job candidates, we have identified contingency search firms and job-posting sites for broadening and diversifying our job applicant pool, such as:

- Women in Technology,
- Society of Women Engineers,
- National Society of Black Engineers, and
- Society of Hispanic Professional Engineers.

Military veterans have tools and skills that translate into what we do every day. We value the leadership, drive, discipline, and strong work ethic that is developed in the military. We are committed to providing opportunities to veterans and do so by building partnerships with military-focused recruiting companies and attending job fairs that focus on placing veterans.

- *Hiring Process*

In order to promote a more diverse workforce, we have enacted certain practices that we believe make our hiring process more inclusive and helps promote the hiring of talent regardless of an applicant's gender, ethnicity, or other status. We seek to have a diverse candidate pool for consideration for our job openings. To help eliminate bias during interviews, we aim to select interview panels that have diverse representation.

- *Employing Locally*

We recognize the importance of hiring locally and benefiting the economies of those communities in which we operate. We post our job openings to a variety of organizations' job boards including local employment offices, veteran's offices, colleges and universities, and vocational rehabilitation centers. In addition to job postings, we also attend local job fairs to hire talent from the communities in which we operate.

We are often one of the major employers in many smaller communities and we offer local talent rewarding, well-paying jobs that allow employees to build a career within the energy industry.

We have, along with other industry professionals, formed part of an advisory committee that provided input into the newly developed Associate of Applied Science degree in corrosion technology offered by Lone Star College-University Park located near the Houston metropolitan area. The two-year program gives students a career path in integrity management and corrosion control to prevent deterioration of metal piping. As part of the advisory committee, we helped Lone Star College-University Park develop a corrosion lab that gives students the opportunity to experience atmospheric controls, cathodic controls and various other tools universal to the industry.

- *Internship and Work Study Programs*

We are a partner with the Genesys Works program in Houston, Texas. Genesys Works is a non-profit organization that provides meaningful corporate internships to local high school students from underserved communities, primarily serving minority students. In 2021, we had 7 motivated, high-potential students from the Genesys Works program engaged in an internship with us. During their internships, students are able to develop business skills, gain professional work experience, and create a plan for a successful future.

We are a partner with the Cristo Rey Jesuit Work-Study Program. Cristo Rey Jesuit is a private high school offering a rigorous college preparatory education to young people of limited economic resources who live in Houston. Approximately 95% of Cristo Rey students are racial minorities. The program places students in Houston businesses where they earn up to 50% of the cost of their education and develop and hone social and technical skills in the workplace. In 2021, we had 8 students participating in this work-study program.

Building Opportunities and Learning Together is a paid internship program for college students. This 11- to 12-week program provides our interns with an opportunity to use their newly gained skills on a challenging project. Each student is assigned a mentor and supervisor who guides them throughout their internship. Supervisors are responsible for determining project scope and conducting periodic evaluations of their intern's progress. At the end of the program, interns make presentations on their projects, with recommendations, to their business segment management, peers, and HR.

For our 2021 summer internship program, we partnered with INROADS to increase minority and female representation in the program. We also partnered with San Jacinto College on an apprenticeship program that focuses on IT-related roles and the Energy Education Center to educate diverse high school students about our industry. We expect to draw from such Energy Education Center students for future internship opportunities at our company once they have completed their freshman year of college.

- *Leadership Training*

We have updated our internal leadership training programs, described in *Section 15.3 Human Capital Development Programs* of our *Sustainability Report*, to incorporate more diversity and inclusion content.

15.3 Human Capital Development Programs

(GRI 401-2/11.10.3, GRI 404-1/11.10.6/11.11.4, GRI 404-2/11.10.7)

Our employees are an integral part of our success, and we value their career development. We encourage and support professional development and learning for our employees by offering workforce training, tuition reimbursement, and other development programs. These programs help improve recruitment, development, and retention.

In an effort to promote an open feedback culture, we engage with our employees through cross business segment teams, focus groups, and a third-party administered confidential survey. In 2021, 68% of our Houston based employees participated in a third-party administered survey that helped gauge workplace satisfaction and engagement.

Results from our employee engagement activities provide us insight into employee satisfaction and help us develop strategies to engage with our team members more effectively. The results led us to develop updated vision and mission statements to reaffirm our direction as a company, what we want to accomplish, and why what we do matters.

We support our employees' ongoing career goals and development through several programs. These programs help maximize our employees' potential and give them the skills they need to further enhance their careers.

New Employee On-boarding Orientation Program

We understand that developing our employees' skills starts from day one. New employees participate in an orientation program designed to help them:

- learn more about our company,
- understand processes and goals for their new positions, and
- locate the internal resources available to help them succeed.

Performance Review Program

Employee performance reviews are conducted to maximize employee productivity and provide development feedback. Our performance review program allows employees to receive a timely and objective review of their job performance at least once a year.

New Supervisor Training – Core Leadership

Our Core Leadership Training program is for newly promoted or hired managers to successfully make the transition from an individual contributor to a first-time manager. 95 employees successfully completed the program in 2021. This leadership development course takes a blended approach to learning, including:

- online learning activities,
- monthly virtual conference call roundtables to reinforce desired behaviors, and
- follow-up by participants' supervisors.

The program focuses on the knowledge and skills we believe are core to being an effective leader and takes approximately six months to complete, with a time commitment of two to four hours per month.

Leadership Development Training – Emerging Leaders Institute

Our Emerging Leaders Institute is an internal two-year leadership-development training program designed to develop leadership bench strength. Employees who are nominated to participate in this program develop leadership skills, business acumen, and advanced presentation skills.

New Vice President Training – The Next Level Training Program

Our Next Level program is based on the concept of leaders developing leaders and is provided to employees transitioning from director-level roles to vice presidents. This program focuses on the skills needed to transition between these roles and its content includes:

- discussions with senior leadership,
- self-assessments, and
- development planning.

The percentage of female and minority participants in our leadership training programs, Core Leadership, Emerging Leaders Institute, and Next Level Training Program, are provided below.

	Year Ended December 31,		
	2019	2020	2021
Participation in leadership training programs(a)			
Percentage female	20 %	16 %	13 %
Percentage minority	20 %	28 %	28 %

(a) There were no Emerging Leaders Institute and Next Level Training Program participants in 2020 and 2021 because the programs were paused due to COVID-19.

Total Employee Training Hours

In addition to health, safety, emergency response, and other safety topics, we provide employee development training on topics including:

- corporate policies,
- environmental protection,
- leadership and management,
- on the job skills, and
- software and IT systems.

The total hours spent on employee development training are provided below.

	Year Ended December 31,		
	2019	2020	2021
(In thousands)			
Total hours of employee development training(a)(b)(c)	228	350	419

(a) Training time is assigned to the business segment the employee was active under at the end of the calendar year.

(b) Includes the U.S. portion of the Cochin Pipeline and KML data up to the sale date on December 16, 2019.

(c) Excludes operator qualification for 2019.

In addition to our investments in health, safety, and emergency response training, we invested roughly \$23 million in other employee development training in 2021, or about \$2,200 per full-time employee. Together with health, safety, and emergency response training we have invested approximately \$30 million, or about \$2,900 per employee.²⁰

We explore innovative opportunities for other employee development training. For example, in 2021, we engaged Mustang Sampling's Mobile Training Lab to provide real world on-the-job field installation training experience to our employees. The lab uses analytical equipment, sample conditioning systems and guided instruction to allow students to learn firsthand how equipment operates.

Tuition Reimbursement

We offer our full-time employees a tuition reimbursement program that gives employees the opportunity to complete college level courses that encourage and support career growth.

Relocation Assistance

We provide relocation assistance to eligible employees for career development opportunities that may become available at our other locations.

²⁰ This is calculated by multiplying our total training hours by our employees' hourly median salary, calculated from the annual employee median salary disclosed in our 2022 Proxy Statement.

16.0 Community Relations

16.1 Processes to Manage Risks and Opportunities Associated with Community Rights and Interests (SASB Exploration & Production EM-EP-210b.1, GRI 413-1/11.15.2)

Our neighbors, governments, and communities play an important role in how we conduct our business. We live, work, and play in these communities. Our policies are designed to facilitate our building trust and fostering collaboration within the communities in which we operate, including our commitment to:

- community engagement,
- respect,
- transparency and responsiveness,
- good faith negotiations,
- employee and contractor training,
- fairness, and
- responsible construction.

We engage our leadership and deploy resources to help us fulfill these requirements. Our internal Corporate Communications and Public Affairs department helps develop and implement our community relations strategies to reach a variety of stakeholders identified through stakeholder mapping. Our internal community consultation guidelines recognize that it is important to identify project stakeholders, determine and monitor their needs and expectations, and then work with them to meet those needs and expectations as appropriate. In addition, project-specific team members help fulfill our commitment to communicate and work with communities in an effort to build trust and foster collaboration. Our Public Affairs team provides insights, guidance, and resources to operations and project-specific employees.

As described in *Section 6.1 Environmental Management Policies and Practices for Active Operations of the Sustainability Report*, we take our local stakeholders' concerns and feedback into consideration during the development of our growth projects and follow our construction and mitigative procedures that take into account plans to minimize impacts to nearby residents. This process helps address potential issues prior to the start of construction. During construction we also consult with stakeholders directly affected by our operations. This dialogue is intended to help us resolve issues as they arise or, better still, prevent issues from arising in the first place. Information about the additional ways we engage with stakeholders is described in *Section 16.1.1 Stakeholder Engagement and Consultation Mechanisms of the Sustainability Report*.

We participate in industry trade associations to further communicate the benefits of our customers' products and our services. We serve on communications committees where we assist in the development of communication materials that address topics such as:

- safety,
- construction,
- restoration activities,
- environmental considerations, and
- the social and economic benefits of the industry.

In 2020, we joined an industry group called "Natural Allies for a Clean Energy Future," whose goals include educating the general public on the benefits of clean and affordable natural gas.

For more information, see our Community Relations Policy at https://www.kindermorgan.com/WWKMMedia/Documents/Community_Relations_Policy.pdf.

16.1.1 Stakeholder Engagement and Consultation Mechanisms (GRI 2-12, GRI 2-29)

We strive to build and maintain healthy relationships throughout the areas where we operate. Many of our Community Relations Policy commitments are accomplished through ongoing stakeholder engagement and consultation.

We are committed to making stakeholder engagement a priority on our projects. For certain new projects, our Corporate Communications and Public Affairs department develops a project-specific outreach and stakeholder engagement plan and timeline to notify stakeholders early about the project and to open and establish lines of communication. We respond to stakeholder feedback on each project and incorporate that feedback into the project planning process, including community engagement and community development planning.

We offer stakeholders a variety of ways to contact us about major growth projects, such as project specific:

- toll-free phone numbers,
- email addresses,
- websites,
- public meetings, and
- in-person meetings.

Throughout a project's timeline, our personnel may interact with a wide array of stakeholders, including:

- elected officials,
- environmental justice communities,
- Indigenous Peoples,
- landowners,
- local citizens groups,
- media outlets,
- protesters, and
- other members of the public.

We have systems in place for communicating with these different interest groups and training in place for project employees and contractors to prepare them for interactions with varying audiences. Initial project briefings and training sessions educate employees and contractors on communication procedures and resources. This training also provides:

- an overview of our company,
- an overview of the project, and
- the project's purpose and benefits.

The training reiterates the importance of our being a good neighbor in the communities where the project is located. We also provide instructions for accessing relevant project personnel when needed to respond to specific stakeholder questions.

A summary of the ways we regularly engage and consult with stakeholders is provided below, including in the stages before, during, and after the construction of projects.

Landowners	Community Members	Emergency Responders	Government and Regulators
Town halls and open houses	Town halls and open houses	In-person meetings	Regulatory filings
In-person meetings	In-person meetings	On-line emergency responder training	Public policy and legislative issue engagement
Home and site visits	Project websites or printed materials	Facility tours	Industry group involvement
Project websites	Social media	Emergency response tabletops and exercises	Facility tours
Social media	Community investment programs	The Responder E-newsletter	In-person meetings
Public awareness communications	Employee volunteer projects	Emergency Response Plans	
	Partnerships with local and regional organizations	Public awareness communications	

For certain projects, and particularly our larger projects, we create project-specific websites. We provide contact information on our webpage where stakeholders can obtain further information if they have a question or concern about a projects’ development or operation.

Our newly created Community Engagement website details our community and stakeholder engagement efforts at <https://www.kindermorgan.com/Safety-Environment/Community-Engagement>.

16.1.1.1 Public Awareness Program

Keeping our communities safe is of utmost importance and we use our Public Awareness Program to keep local stakeholders informed about pipeline safety.

Our Public Awareness Program is designed to:

- create public awareness about pipelines in the areas where we operate,
- provide important safety information to people living and working near our pipelines,
- increase knowledge of the regulations for working around pipelines,
- prevent damage to our pipelines,
- educate first responders and the public on our emergency preparedness response activities, and
- enhance public safety.

Our program was developed under federal pipeline safety regulation consultation guidelines.²¹ Our program is an example of our ongoing stakeholder consultations in which we engage with, provide information to, and receive feedback from our stakeholders.

As part of our outreach plans, we target communications to the following stakeholder groups:

- residents,
- business owners,
- farmers and ranchers,
- schools,
- contractors, and
- government officials.

²¹ DOT-PHMSA. “Public Awareness Programs: API RP 1162.” DOT-PHMSA, Dec 2003. 2021. <<https://primis.phmsa.dot.gov/comm/PublicAwareness/PARPI1162.htm>>.

Our program advocates pipeline safety and safe digging practices to the public through multiple avenues, including:

- brochures;
- newsletters;
- newspaper, magazine, radio, and television advertisements;
- direct mail;
- social media;
- direct contact; and
- our website at <https://www.kindermorgan.com/Safety-Environment/Public-Awareness/Index>.

We tailor the type, language, and formatting of our communications to the target audience, message to be delivered, and best practices for the selected medium.

To manage our program's engagement strategy, we maintain a Public Awareness Program evaluation plan that includes measures for evaluating effectiveness. For example, we track our stakeholder engagement interactions and our responses to requests for information. Each year we receive on average over 300 requests for information about our assets. We also receive requests for training and safety information from emergency responders.

To assess the effectiveness of our program, we conduct public awareness surveys. We evaluate whether our public awareness actions are achieving the following intended goals and objectives:

- information is reaching the intended stakeholder audiences;
- recipient audiences understand the messages being delivered;
- recipients are motivated to respond appropriately to the information provided; and
- the program is impacting the underlying intended results, such as reduction in the number of incidents caused by third-party damage.

We also conduct audits to assess the program and identify program improvements and changes.

We place a high value on public safety and seek to educate the public to increase their:

- awareness of pipeline locations,
- understanding of potential hazards from an unintentional release, and
- ability to identify and respond to a potential release.

In addition to our Public Awareness Program, our project-specific emergency response plans detail how to communicate with external stakeholders to more effectively resolve potential concerns quickly and safely.

For more information about our Public Awareness Program, see our website at <https://www.kindermorgan.com/Safety-Environment/Public-Awareness/Index>.

For more information about our Responder E-newsletter, see our website at <https://www.kindermorgan.com/Safety-Environment/Public-Awareness/The-Responder>.

16.1.1.2 Energy and Environmental Justice

Energy Justice

Affordable, reliable energy is essential to human development. One aspect of energy justice is the equitable distribution of affordable energy. We believe we contribute to energy justice by fulfilling our vision to deliver energy to improve lives and create a better world. Moving the fuels of today and those of

the future helps create a clean, reliable, affordable energy future for our customers and the communities they serve.

As the owner of one of the most extensive energy infrastructure networks in North America, we recognize our important responsibility in this area. Throughout 2021, we maintained robust reliability plans that helped prevent supply disruptions to our customers. Our pipeline integrity and maintenance efforts help our systems operate with the least disruption possible as described in greater detail in *Section 12.0 Operational Safety*. Geopolitical issues, such as the war in Ukraine, make it more important than ever to keep domestic supplies and exports stable and dependable.

Environmental Justice

We recognize that vulnerable communities can be at greater risk from the impacts of industrial activities. We are committed to the fair treatment and involvement of people affected by our operations regardless of race, color, national origin, or income. This commitment helps us incorporate a more diverse set of views in our public engagement process.

We are committed to:

- engaging with communities, governments, stakeholders in accordance with our core values of integrity, accountability, safety, and excellence;
- treating everyone with respect and striving to understand community concerns while also sharing our perspective;
- showing transparency in our interactions and being responsive to community questions and concerns;
- treating affected parties fairly;
- complying with applicable environmental justice laws and regulations; and
- seeking opportunities to partner with our stakeholders on environmental justice concerns.

Environmental Justice Community Outreach

We are proud of our community engagement efforts to date. We expect our approach to environmental justice will continue to evolve based on our interactions with the communities in which we operate and the requirements of new government policies and regulations.

Our Corporate Communications and Public Affairs department serves as a central point of contact to develop and implement our community relations strategies for both our existing assets and new projects. That department, along with Land & Right-of-Way and local operations personnel, work with communities to foster transparent and collaborative relationships.

We recognize that every environmental justice community has its own unique historical experience, priorities, and needs, and we work to identify effective ways to engage these communities on a case-by-case basis rather than applying a one-size-fits all approach.

Some examples of our outreach efforts include:

- Once we were informed by county officials that area residents had limited internet access, we printed and distributed project materials instead of relying on a project website.
- Hosting open house meetings in environmental justice communities neighboring the project areas to identify and address issues and concerns.
- Door knocking to provide residents with project information and identify necessary special accommodations during construction.
- Hiring local, dedicated community liaisons to be on-site during construction activities to respond to residents' questions and concerns.

FERC Process

Our existing interstate natural gas pipeline expansion projects follow the FERC traditional or voluntary pre-filing process to engage affected stakeholders prior to submitting a formal project certificate application. Both processes may include public meetings and consultations with elected officials, community leaders, and affected landowners. As part of these processes, our employees identify potential environmental justice communities. These communities are commonly identified using EPA's EJScreen, an environmental justice mapping and screening tool that displays environmental and demographic indicators in maps and reports. We may also conduct local outreach to identify these communities. We then identify specific impacts to the communities and work to eliminate or mitigate potential impacts, where feasible.

16.2 Social Investment Programs

(GRI 201-1/11.14.2/11.21.2, GRI 203-1/11.14.4, GRI 203-2/11.14.5)

We are committed to giving back to the communities in which we operate. We look for opportunities for our employees to get involved in community programs and strengthen their relationships with our stakeholders.

Connect.Inspire.Give.

Our Connect.Inspire.Give. program offers volunteer opportunities in our local communities, including collection drives for school supplies, toys, pet food, and other community needs.

Our volunteer program schedule includes various events such as:

- fun runs benefiting non-profits,
- repairing homes for the elderly and disadvantaged,
- working at a food pantry,
- restoring parks and trails,
- feeding the homeless community, and
- working with Special Olympics athletes.

The goal of our program is to enable employees to connect with each other across various departments, learn more about their communities, improve morale, and develop new skills while working toward the common goal of improving peoples' lives. We hope that the organizations we support through these efforts inspire employees to give their time, talent, and donations.

Community Investments

We are committed to investing in the communities in which we operate. We budget funds annually to distribute to community organizations and initiatives across our business segments and operating regions. The community organizations receiving these contributions typically fit into one of the following categories:

- public safety and emergency response,
- children's educational or athletic programs, or
- environmental sustainability and education.

In 2021, we donated land to the city of Perth Amboy, New Jersey for use as part of the Rudyk Park Community Accessibility and Expansion Project. The city intends to incorporate the donation into the expansion of the Rudyk Park, which is adjacent to the donated property.

In addition to the community investments made on behalf of the business segments, we also make community investments in areas where major growth projects are proposed or under construction. Recipient organizations are identified in coordination with local stakeholders in the project area including elected officials and local NGOs.

Below are some of the organizations to which we contributed in 2021:

- City of Norwalk, City of Ontario, City of Reno, Sacramento Tree Foundation, and Phoenix Parks and Conservation Foundation – donated funds as part of each organization’s tree planting program;
- Chicago 10th Ward – donated backpacks as part of the back to school drive; and
- Catholic Charities, Diocese of Houma-Thibodaux – donated funds to the Hurricane Ida Relief fund.

Kinder Morgan Foundation

The Kinder Morgan Foundation’s mission is to provide today’s youth with opportunities to learn and grow in order to become tomorrow’s leaders. The Foundation’s primary goal is to help today’s science, math and music students become the engineers, educators, and musicians who could support our diverse communities for many years to come. The Foundation provides donations through four types of programs, including:

- Kinder Morgan Foundation grants,
- Employee gift matching,
- Disaster relief assistance, and
- United Way employee gift matching.

These programs are described in more detail below.

Kinder Morgan Foundation Grant Program

The Kinder Morgan Foundation grant program focuses exclusively on academic education and the arts. These grants support programs that benefit under-served youth, with a focus on minorities and girls, and a majority of the contributions are directed to STEM programs. The Kinder Morgan Foundation’s target is to donate approximately \$1 million to qualifying 501(c)(3) organizations in the U.S. each year.

In 2019, the grant program was updated to target communities in select locations across the U.S. that are densely populated, include high concentrations of our employees and customers, and were in close proximity to our main offices. In 2021, the Kinder Morgan Foundation issued grants to 38 organizations that provide educational, arts, and cultural programs. These organizations originally estimated that they could collectively serve nearly one million students, although the actual number of students served may have been slightly less due to the pandemic. The contributions provided by the Kinder Morgan Foundation are typically used to provide direct support to a specified number of students or as general funding for the organization to support activities throughout the donation year. In 2021, the grants ranged from \$10,000 to \$50,000 per qualifying organization.

Employee Gift Matching Program

The Kinder Morgan Foundation also funds our Employee Matching Gift Program. This program matches gifts made to university foundations, kindergarten through 12th grade education foundations, non-profits that support arts and culture, and STEM education programs benefiting underserved youth, such as minorities and females, in primary and secondary schools. Our full-time employees are eligible to designate up to three employee matching grants to be donated to

qualifying organizations, totaling a maximum of \$2,000 in matching gifts per individual per calendar year.

Disaster Relief Program

The Kinder Morgan Foundation provides disaster relief assistance to organizations when natural disasters significantly impact our operations or employees. These funds are awarded based on the size and scale of the disaster and the needs assessed by local operations. In 2021, the Foundation donated to the Greater Houston Community Foundation for recovery efforts related to winter storm Uri and Hurricane Ida. Additionally, in 2021, we contributed \$150,000 to the Houston Harris County Winter Storm Relief Fund to assist with the response efforts following winter storm Uri.

United Way Employee Gift Matching Program

The Kinder Morgan Foundation matches 50% of each employee's donation made during the company's annual United Way campaigns.

The Kinder Morgan Foundation donations, employee donations, and corporate and project-related community investments are provided below.

	Year Ended December 31,		
	2019	2020	2021
	(In thousands)		
Kinder Morgan Foundation donations			
Grants	\$ 1,084	\$ 782	\$ 1,205
Employee Matching(a)	103	114	81
Disaster Relief	83	326	1,015
United Way(a)	111	224	82
Subtotal	1,381	1,446	2,383
Community investments			
Donations made to Native American tribes(b)	\$ 262	\$ 266	\$ 534
Other community investments	254	1,696	98
Subtotal	516	1,962	632
Employee donations(c)	326	562	355
Total donations and community investments	\$ 2,223	\$ 3,970	\$ 3,370

- (a) These are donations made by the Kinder Morgan Foundation and do not include employee contributions.
 (b) Scholarships made to Native American tribes are for the calendar year applicable, per the grant agreement.
 (c) Employee donations include donations made through the employee matching program and to the United Way. 2019 and 2020 do not include employee donations that were not matched by the employee matching program or United Way. Employees may make other donations that we do not track.

17.0 Human Rights and Rights of Indigenous Peoples

17.1 Human Rights

(SASB Exploration & Production EM-EP-210a.3, GRI 408-1, GRI 409-1/11.12.2)

We conduct our business consistent with the human rights philosophy expressed in the ILO Declaration on Fundamental Principles. We believe supporting fundamental human rights to be a basic responsibility in conducting our business. We support the United Nations Global Compact Human Rights Principles, derived from the United Nations Universal Declaration of Human Rights, which are:

- Principle 1: businesses should support and respect the protection of internationally proclaimed human rights, and
- Principle 2: businesses should make sure they are not complicit in human rights abuses.

We prohibit the use of child labor or forced labor in our operations in the U.S., Canada, and Mexico. Our employees and contractors, with the exception of some interns, must be at least 18 years of age.

We also recognize and respect our employees' and suppliers' rights to join associations for the purpose of collective bargaining in a manner that is consistent with laws, rules, regulations, and customs.

Our employees, consultants, contractors, suppliers, vendors, and business partners are expected to:

- treat people with dignity,
- respect human rights,
- adhere to standards of conduct consistent with our Code of Business Conduct and Ethics when conducting company-related business activities, and
- adhere to our Human Rights Statement.

Within the areas of our activity and influence, we are committed to:

- being attentive to concerns raised by stakeholders,
- working with stakeholders to support human rights, and
- providing remedies to correct negative human rights impacts.

For more information, see our Human Rights Statement at https://www.kindermorgan.com/WWWKM/media/Documents/Human_Rights_Statement.pdf.

17.2 Rights of Indigenous Peoples

(SASB Exploration & Production EM-EP-210a.3)

We respect the diversity of culture and unique history of Indigenous Peoples. We strive to build long-term relationships and commercial partnerships with Indigenous Peoples through meaningful engagement based on mutual respect. In the course of our projects and operations, we conduct business with Indigenous Peoples consistent with our Code of Business Conduct and Ethics and our Indigenous Peoples Policy. We recognize the legal and constitutional protected rights of Indigenous Peoples. We engage in good faith with community members while communicating and cooperating with affected Indigenous Peoples. We are committed to:

- participating in good faith engagement;
- continuing to partner with community members in suitable employment opportunities, as well as education, commercial, and community development opportunities;
- identifying opportunities to support youth, education, culture, and the environment; and
- negotiating in good faith with indigenous and government entities.

Listening & Responding

We strive to operate and grow in a socially and environmentally responsible way. We work to establish positive interactive relationships with Indigenous Peoples who have, or claim to have, an ancestral interest in lands affected by our operations or projects. We communicate early and often with affected groups and National tribal experts. We listen to and engage with Indigenous Peoples through one-on-one, group, and public meetings.

Right-of-way Renewals

We have a long history of working with Indigenous groups when renewing right-of-way grants. These renewals occur approximately every 20 years. We understand that the needs of Indigenous members and organizations change over time, so we begin our renegotiations for right-of-way renewals approximately 18 to 24 months in advance of expiration. During negotiations, we engage with:

- current Tribal Leaders,
- Tribal heads of Operations,
- Tribal Engineering,
- Tribal Finance,
- Tribal Legal,
- Bureau of Indian Affairs liaison, and
- other Tribal representatives the Tribe deems appropriate.

Open Houses

One of the primary ways we meet with and listen to communities, including Indigenous Peoples, that may be impacted by one of our projects, is by holding project open houses. Open houses are publicized locally, and we encourage individuals or groups with an interest in our projects to attend these meetings.

Walk the Route

During planning for certain projects, we invite the members of Indigenous groups, with interests in a specific project, to walk the project site or route with us to identify anything of special interest to their Indigenous group. For the interests identified, we have meaningful consultation with the affected Indigenous group to listen to the history and importance of the matters identified and agree on the best path forward. These matters may include:

- sacred sites, including stone formations;
- historical and cultural resources;
- animals, birds, and insects; and
- plants.

Employment and Community Development

For our projects, we work to meet or exceed compliance with the respective Tribal Employment Rights Ordinances and Native American Preference law in offering Indigenous community members employment opportunities as available. We also meet with Tribal Leaders to discuss other possible educational, commercial, and community development opportunities.

Over the past three years, we have donated over \$1,062,000 to Native American tribes with whom we do business. These contributions include scholarships and donations to local fire departments. Our donation amounts to these tribes are included in *Section 16.2 Social Investment Programs* of the *Sustainability Report*.

Maintaining Relationships

We maintain positive, long-term relationships even after a project is in service or right-of-way renewals have been finalized. We achieve this by:

- holding public awareness and first responder meetings in Indigenous communities,
- having Tribal representatives meet with our executives and visit our facilities,
- making presentations to Tribal classrooms on our energy business,
- participating in Tribal Feast Day events, and
- awarding scholarships as provided in right-of-way agreements.

Public Participation in Indigenous Matters

Our employees participate in industry conferences, Bureau of Indian Affairs conferences, and Tribal Organization conferences. We not only attend these events, but also participate as speakers and panel members. We also consult regularly on matters affecting National Tribal law and practices.

For more information on how we build long-term relationships and commercial partnerships with Indigenous Peoples, see our Indigenous Peoples Policy. For an example of how we operationalize our Indigenous Peoples Policy, see our *Respecting Indigenous Peoples and Communities* case study video and fact sheet at <https://www.kindermorgan.com/Safety-Environment/ESG>. This policy and case study demonstrate our commitment to the social, economic, and cultural rights of Indigenous Peoples, reflecting the spirit of the ILO Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples.

Part 2 – TCFD Report

Our disclosure follows the Financial Stability Board’s TCFD recommended climate-related financial disclosures, which are structured around the four thematic areas shown below.

Core Elements of TCFD’s Recommended Climate-Related Financial Disclosures²²



Governance

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

Strategy

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

Risk Management

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

Metrics and Targets

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

In our fifth TCFD Report, we have updated our transition risk scenario assessment of our business strategy under the IEA’s 2021 World Energy Outlook Sustainable Development Scenario, or SDS.²³ The SDS limits the temperature rise to 1.65 °C and is aligned with the Paris Agreement to hold the rise in global average temperature to well below 2 °C and pursuing efforts to limit it to 1.5 °C. In 2020, we completed a physical risk scenario assessment for our assets under the 4 °C scenario of the IPCC RCP 8.5.²⁴

Although we regularly identify, assess, and manage the risks, opportunities, and financial information that the TCFD identifies as “climate-related,” we do not regularly use the term “climate-related” in our internal discussions. Consequently, when this report refers to climate discussions or considerations in connection with our review, reporting, planning, and decision making, we are using the broader TCFD meaning.

1.0 Governance

1.1 Board Oversight

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, SASB Marine Transportation TR-MT-110a.2, GRI 2.9, GRI 2-12, GRI 2-13, GRI 2-14, GRI 2-17, GRI 12-13, CDP C1.1b, CDP CC1.1)

²² Task Force on Climate-related Financial Disclosures. “Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures.” Task Force on Climate-related Financial Disclosures, 15 Jun 2017: 27. 2021. <<https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>>.

²³ International Energy Agency. “World Energy Outlook 2021.” International Energy Agency, Dec 2021. 2022. <<https://iea.blob.core.windows.net/assets/4ed140c1-c3f3-4fd9-acaee-789a4e14a23c/WorldEnergyOutlook2021.pdf>>.

²⁴ Intergovernmental Panel on Climate Change. “Climate Change 2014: Synthesis Report. Contributions of Working Group I, II, and III to the Fifth Assessment Report.” Intergovernmental Panel on Climate Change, 2014. 2021. <https://ar5-syr.ipcc.ch/ipcc/resources/pdf/IPCC_SynthesisReport.pdf>.

Our Board is responsible to our stockholders for the oversight of the company. We recognize that effective governance is critical to achieving our performance goals and maintaining the trust and confidence of our various stakeholders, including our:

- investors,
- lenders,
- customers,
- employees,
- business partners,
- regulatory agencies,
- underwriters, and
- other stakeholders.

As part of its responsibilities, our Board oversees the assessment of our major business risks and opportunities, and the measures we take to address such risks and opportunities. Our Board is briefed regularly by our CEO, President, CFO, COO, and General Counsel, and periodically by each business segment president, on:

- business strategies,
- business risks and opportunities,
- major plans of action,
- annual budgets,
- business plans,
- capital expenditures for major expansions, and
- acquisitions and divestitures.

In reviewing and providing guidance in each of these areas, our Board assesses our assets and long-term business strategy for resilience and adaptability to various risks and opportunities. We believe our Board's collective skill set is well-suited to identifying the key risks and opportunities we may face in the future. Our Board has members with significant experience in risk management, energy transition, and capital planning, all of which are essential to meeting our industry's potential disruptors. In addition, 47% of our directors have significant experience outside of energy or energy transition experience, and 40% have regulatory and EHS experience. Our Board members' backgrounds allow them to engage in healthy debate on climate-related topics, challenge management assumptions, and make thoughtful and informed decisions about these risks and opportunities.

While our Board is ultimately responsible for risk and opportunity oversight, various Board committees assist our Board in fulfilling its responsibilities by considering the risks and opportunities within their respective areas of expertise. Our EHS Committee assists our Board with oversight of EHS risk and opportunity management, which may include climate-related risks and opportunities. The EHS Committee consists of independent directors appointed by the Board. Board members with experience in EHS and regulatory matters assist in confirming that we are operating consistent with prudent industry practices and that environmental and safety matters are properly considered in Board decisions. The EHS Committee meets at least semi-annually and reviews reports from our COO on ESG and EHS issues. Any Board member may elect to attend EHS Committee meetings. Our CEO, President, and other Board members, with few exceptions, attend and participate in the regularly scheduled EHS Committee meetings.

Through our EHS Committee, our Board also provides direction to management about ESG disclosures in conjunction with our ESG Disclosure Committee described in *Section 1.0 Introduction* of the

Sustainability Report. The EHS Committee’s oversight includes the review of the progress and results of the scenario analysis we conduct to test the resilience of our business strategy. Through the EHS Committee, our Board provides direction to our COO on ESG, sustainability, and climate-related issues. Our Board and EHS Committee also establish performance expectations with our CEO, President, and COO for the management of these issues.

1.2 Management’s Role

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, SASB Marine Transportation TR-MT-110a.2, GRI 2-12, GRI 2-13, GRI 2-14, CDP C1.1b, CDP C1.2, CDP C1.2a)

Our business segment presidents, corporate function heads, and subject matter personnel are responsible for assessing and managing actual and potential risks and opportunities, including those related to climate. These individuals use various management systems to assist them with their responsibilities.

Our COO is responsible for overseeing our engagement with investors, regulators, employees, lenders, customers, and other stakeholders on ESG-related matters, including our risks and opportunities. Our COO provides strategic leadership for EHS matters, including matters related to climate. Our COO is also responsible for implementing procedures and controls to track the data necessary for the preparation of our Report, and for sharing our results with other senior management and our Board’s EHS Committee.

Our CEO and our President hold a series of regularly scheduled meetings to engage with our business segment presidents, corporate function heads, and subject matter personnel on issues related to our business. We use those meetings to monitor progress and performance and to discuss risks and opportunities, including, where appropriate, climate-related risks and opportunities and plans to address such risks and opportunities. The frequency of these meetings creates a cycle of ongoing assessment and improvement, as action plans relating to various aspects of our business are initiated and adjusted based on new information and past experience. The regular cadence and varied length of these meetings, from a few hours to most of a business day, permit extended discussion and regular follow-up on a wide range of action items. The meetings are typically scheduled one year in advance and are described in *Section 3.0 Risk and Opportunity Management* of the *TCFD Report*.

A wide range of professionals in our organization typically attend these recurring meetings. Participants include employees with subject matter knowledge applicable to managing risks and opportunities, including:

- business administration;
- business continuity planning;
- energy markets and marketing;
- engineering and earth sciences;
- environmental and energy policy, law, and compliance;
- finance, tax, and accounting;
- insurance;
- legal;
- public relations and corporate communications;
- strategic management; and
- technology development.

These meetings focus senior management’s attention on near-, medium-, and long-term business risks and opportunities with substantial input from subject matter personnel. In addition, our senior management engages in ad hoc meetings on an as-needed basis to:

- review and approve new projects and acquisitions;

- review with industry consultants and other experts long-term trends, e.g., demand and supply, for the products we transport and handle; and
- identify and understand disruptive technologies or emerging policies.

The information our senior management gains from these meetings is presented to our Board regularly. Our Board, in turn, uses the work done at the management level to inform its decisions about the company's future direction.

2.0 Strategy

The fundamental principles of our business strategy are to:

- focus on stable, fee-based energy transportation and storage assets that are central to the energy infrastructure and energy transition of growing markets within North America or served by U.S. exports;
- increase utilization of our existing assets while controlling costs, operating safely, and employing environmentally sound operating practices;
- exercise discipline in capital allocation and in evaluating expansion projects and acquisition opportunities;
- leverage economies of scale from incremental acquisitions and expansions of assets that fit within our strategy; and
- maintain a healthy financial profile and enhance and return value to our stockholders.

Our forward-looking strategies and financial decisions are driven primarily by market opportunities and corporate objectives and responsibilities. We make long-term strategic decisions with the intention of creating sustainable competitive advantages. To sustain and improve our market position, we project and plan for reasonably foreseeable changes, including changes to governmental regulations, that could potentially impact our business and the markets in which we operate. We respond to such changes as they occur. Market and policy responses to climate change have been and can be a factor in our forward-looking strategic and financial decision-making.

We modify our strategy as necessary to reflect changing economic conditions and other circumstances, including, among other factors, those related to identified or reasonably anticipated impacts of climate change. We invest in our assets to operate them safely and to protect our employees, the environment, and the communities in which we operate. We work collaboratively within our industry and with governments, environmental groups, Indigenous Peoples, and communities to build our understanding of the issues around climate change and seek potential solutions.

In the U.S., we engage with policy makers from both major political parties at the federal, state, and local levels. For more information about this topic, see *Section 13.0 Management of Changes to the Legal and Regulatory Environment* of the *Sustainability Report*.

2.1 Potential Climate-Related Risks, Opportunities, and Impacts

(SASB Exploration & Production EM-EP-420a.4, GRI 201-2/11.2.2, GRI 203-1/11.14.4, CDP C2.1, CDP C2.3, CDP C2.3a, CDP C2.4, CDP C2.4a)

We primarily transport and store commodities for our customers, which include major oil and natural gas companies, energy producers and shippers, local distribution companies, and businesses across many industries. The impact of climate-related risks and opportunities on our customers often has an impact on our business.

Our customers have been increasingly setting climate targets and consequently, seeking to transport and store lower life-cycle emission products and products that are facilitating the energy transition, including responsibly sourced natural gas, RNG, renewable diesel, and renewable feedstocks. While our principal business is the transport and storage of fossil fuels, we have been able to handle these renewable or lower emission products for our customers with our existing infrastructure and expect this infrastructure to remain essential in moving liquid and gaseous fuels in a lower carbon future. We also believe we have a competitive advantage in constructing and operating CO₂ pipelines, which could be beneficial in a captured carbon market. While transporting and storing these lower carbon fuels may not reduce our own operational GHG emissions, our assets are critical in facilitating the end-use of these products, which we believe will help reduce global GHG emissions.

Our management system integrates the identification, assessment, and management of risks and opportunities across various time horizons, including climate-related risks and opportunities where appropriate. As discussed in *Section 1.2 Management’s Role* of the *TCFD Report*, we use a series of meetings to monitor the performance of our businesses and to identify and address opportunities and risks over a variety of time horizons. Some examples include:

Timeframe	Management Process	Examples of Climate-related Risks	Examples of Climate-related Opportunities
Short-term – immediately to one year	<ul style="list-style-type: none"> – Weekly, monthly, and quarterly financial and operational reviews – Annual budget reviews 	<ul style="list-style-type: none"> – Legislative and regulatory proposals and changes that are likely to affect our business or that of our customers – Extreme weather events – Emission controls – Compliance costs 	<ul style="list-style-type: none"> – Energy efficiency and alternative sources of energy – Responsibly sourced natural gas – RNG – Renewable fuels and feedstocks – Additional renewable power generation at our locations
Medium-term – one to five years	<ul style="list-style-type: none"> – Quarterly business reviews – Long-range outlook – Project approval meetings 	<ul style="list-style-type: none"> – Changes in demand for our services or in customer preferences – Changes in our ability to obtain permits or other regulatory approval – Public opposition due to climate concerns 	<ul style="list-style-type: none"> – Potential increases in the use of our existing assets – CCUS – Renewable diesel hubs – Hydrogen blending in our existing natural gas infrastructure
Long-term – five to thirty or more years	<ul style="list-style-type: none"> – Quarterly business reviews – Ad hoc meetings with experts 	<ul style="list-style-type: none"> – Changes in long-term demand for the products we transport and store – Changes in public policy that may affect growth opportunities in our traditional lines of business 	<ul style="list-style-type: none"> – Dedicated hydrogen infrastructure – Potential lower emission product options or product replacements

The TCFD divides climate-related risks into two categories: transitional and physical. Transitional risks are those risks related to the transition to a lower carbon economy, such as policy constraints on emissions, carbon taxes, and shifts in market demand and supply. The TCFD groups transitional risks into four categories:

- policy and legal risk,
- technological risk,
- market risk, and
- reputational risk.

Physical risks are associated with physical impacts from climate change that could affect assets and operations. Physical risks include the disruption of operations and/or destruction of property. The TCFD

divides physical risk into acute and chronic risks. Acute risks include physical damage from variations in weather patterns, such as severe storms, wildfires, floods, and drought. Chronic risks include sea-level rise and desertification.

Both transitional and physical climate-related risks may affect our business. A variety of factors outside of our control can cause delays in our construction projects. Public opposition may cause difficulties in obtaining rights-of-way, permits, and other regulatory approvals. Inclement weather and natural disasters can increase costs or cause construction delays. Significant cost overruns or lengthy delays can have a material adverse effect on our return on investment, results of operations, and cash flows. These factors can result in project cancellations or limit our ability to pursue other growth opportunities.

Some of our assets are located in areas susceptible to natural disasters such as:

- hurricanes,
- earthquakes,
- wildfires,
- tornadoes,
- flooding,
- extreme snow and ice, and
- other natural disasters.

Natural disasters can damage or destroy our assets or disrupt the supply of the products we transport or store. Natural disasters can similarly affect our customers' facilities. Circumstances could arise in which our losses could exceed our insurance coverage resulting in a material adverse impact to our assets, financial condition, and operating results.

The two tables below contain a list of potential transitional and physical risks, as well as the following:

- potential financial impacts related to such risks,
- available strategy and mitigation measures for such risks, and
- page numbers where the topics are discussed in our Report.

Potential Transitional Risks			
Potential Climate-Related Risk	Potential Financial Impact	Available Strategy and Mitigation Measures	Page
<i>Policy & Legal</i>			
<ul style="list-style-type: none"> - Increased climate change-related regulation and policies resulting in: <ul style="list-style-type: none"> o higher emission fees and carbon taxes o higher fuel prices o additional emission reporting obligations o mandates on and regulation of customers' products or our services o mandated transition to renewables o delays or rejection of FERC certificates 	<ul style="list-style-type: none"> - Increased compliance and legal costs - Increased fuel costs - Reduced demand for our traditional services - Increased project expansion costs - Increased write offs 	<ul style="list-style-type: none"> - Engaging with regulators, industry organizations, NGOs, and communities - Systematic monitoring of regulatory proposals and implementation of compliance programs, including increasing compliance staff - Offsetting, reducing, and managing emissions - Managing energy use and improving efficiency - Developing new services - Expanding current services and certifications, such as responsibly sourced natural gas - Installing renewable energy or using power purchase agreements 	<ul style="list-style-type: none"> - p 27 - p 58 - p 30 - p 28 - p 94 - p 94 - p 28

Potential Transitional Risks

Potential Climate-Related Risk	Potential Financial Impact	Available Strategy and Mitigation Measures	Page
Technology			
<ul style="list-style-type: none"> - Substitution of customers' existing products with lower emission options - Lower potential demand for existing products due to greater energy efficiencies 	<ul style="list-style-type: none"> - Reduced demand for our traditional services - Increased write-offs and earlier retirement of existing assets - Increased customer credit risk, including bankruptcies 	<ul style="list-style-type: none"> - Negotiating contracts with longer terms, higher per-unit pricing, and for a greater percentage of our available capacity - Changing focus to fossil-fuel markets expected to exist in SDS - Adjusting investment evaluation assumptions to assume lower uncontracted cash flows and terminal values - Maintaining discipline in accounts receivable management and customer credit protections - Developing new services - Developing and expanding lower carbon business activities 	<ul style="list-style-type: none"> - p 92 - p 86 - p 94 - p 94 - p 94 - p 94
Market			
<ul style="list-style-type: none"> - Changing consumer behavior reducing demand for customers' products - Uncertainty in market signals - Increased cost of raw materials - Lower export demand due to geopolitical issues in foreign markets 	<ul style="list-style-type: none"> - Reduced demand for our traditional services - Increased production costs due to higher energy prices - Abrupt and unexpected shifts in energy prices and costs - Repricing of oil field reserves 	<ul style="list-style-type: none"> - Adjusting investment evaluation assumptions - Negotiating contracts with longer terms, higher per-unit pricing and for a greater percentage of our available capacity - Managing energy use and improving efficiency - Financial risk management and hedging programs - Developing and expanding lower carbon business activities 	<ul style="list-style-type: none"> - p 92 - p 92 - p 28 - p 92 - p 94
Reputation			
<ul style="list-style-type: none"> - Stigmatization of sector - Increased stakeholder concern or negative stakeholder feedback 	<ul style="list-style-type: none"> - Increased cost of capital - Decreased access to public capital markets - Increased cost of public relations - Decreased ability to attract and retain employees 	<ul style="list-style-type: none"> - Expanding and developing lower carbon business activities - Working to reduce our carbon footprint - Adjusting ESG disclosure to be responsive to the financial sector by reporting per SASB, TCFD, and other reporting frameworks - Increasing internal funding reduces need to access capital markets - Engaging with regulators, industry organizations, NGOs, and communities 	<ul style="list-style-type: none"> - p 94 - p 30 - p 11 - p 94 - p 92

Potential Physical Risks

Potential Climate-Related Risk	Potential Financial Impact	Available Strategy and Mitigation Measures	Page
Acute			
<ul style="list-style-type: none"> - More frequent and severe weather events, including floods, droughts, extreme heat, extreme cold, extreme snow and ice, hurricanes, and tornadoes, leading to business interruption and damage across operations and supply chain - Larger and more frequent wildfires 	<ul style="list-style-type: none"> - Reduced revenue as a result of business and supply chain interruptions - Increased write-offs and costs for damaged property - Increased insurance costs 	<ul style="list-style-type: none"> - Business continuity planning - Maintaining the necessary insurance - Engineering controls - Environmental assessments and management plans - Operational procedures and plans to identify areas prone to severe weather events and wildfires - Drill severe weather event and wildfire scenarios - Monitoring weather patterns, storms, and wildfire events - Emergency shutdown procedures, followed by damage inspection and restart protocols - Right-of-way maintenance 	<ul style="list-style-type: none"> - p 54 - p 92 - p 36 - p 54 - p 54 - p 54 - p 54 - p 54
Chronic			
<ul style="list-style-type: none"> - Long-term shifts in climate patterns, possibly resulting in new storm patterns, coastal flooding, and chronic heat waves - Rising sea levels and tidal fluctuations 	<ul style="list-style-type: none"> - Reduced revenue as a result of business interruption or facility shutdown - Increased costs for damaged property and facility improvements 	<ul style="list-style-type: none"> - Business continuity planning - Engineering controls - Pre-construction planning incorporating enhanced engineering standards - Improving facilities to accommodate storm surge - Monitoring tide levels 	<ul style="list-style-type: none"> - p 54 - p 102 - p 36 - p 54 - p 54

The TCFD recognizes that an organization’s efforts to mitigate and adapt to climate change may also produce opportunities for the organization. The TCFD groups those opportunities into five categories:

- resource efficiency,
- energy source,
- products and services,
- markets, and
- resilience.

As an energy infrastructure company, we recognize and expect that future energy demand will continue to be met in part by a growing proportion of renewable energy sources. Today, the world still relies on traditional fuels for most of its energy needs. While delivering access to the secure energy the world requires, we pursue opportunities that also benefit the global effort to address climate change.

Specifically, we are:

- expanding our natural gas transmission and storage business to maintain energy reliability while facilitating greater renewable penetration in the power sector and supporting our LNG customers;
- pursuing opportunities internally and within the industry to reduce emissions by increasing efficiency along our and our customers’ value chains; and
- exploring new low carbon technologies and business models.

In February 2021, we established our energy transition ventures group to identify, analyze and pursue commercial opportunities emerging from the transition to lower carbon energy. This group focuses on customer outreach and business development activities in pursuit of those new ventures, including services like carbon capture and sequestration, RNG capture, blue and green hydrogen production, renewable power generation, electric transmission, and renewable diesel production. As always, we will remain disciplined and focused on appropriate returns when evaluating investment opportunities in these new ventures. Our energy transition venture group’s first acquisition was Kinetrex Energy, discussed in *Section 2.3.1 Transition Risk Analysis of the TCFD Report*.

The following table contains a brief listing of:

- potential opportunities,
- potential financial impacts,
- our strategy and enhancement measures, and
- page numbers where the topics are discussed in our Report.

Potential Opportunities

Climate-related Opportunities	Potential Financial Impact	Available Strategy and Enhancement Measures	Page
Resource Efficiency			
<ul style="list-style-type: none"> – Using more efficient equipment – Using more efficient production and distribution processes 	<ul style="list-style-type: none"> – Reduced operating costs through efficiency gains and cost reductions – Increased production capacity, resulting in increased revenues 	<ul style="list-style-type: none"> – Increasing use of our existing assets – Leveraging economies of scale from incremental acquisitions and expansions of assets 	<ul style="list-style-type: none"> – p 94 – p 86
Energy Source			
<ul style="list-style-type: none"> – Using lower-emission sources of energy – Using supportive policy incentives – Using new technologies – Participating in the carbon markets – Shifting toward decentralized energy generation 	<ul style="list-style-type: none"> – Attractive returns on investment in lower carbon natural gas infrastructure – Increased capital availability as more investors favor lower-emission products – Reputational benefits resulting in increased demand for services – Increased value of fixed assets 	<ul style="list-style-type: none"> – Allocating the largest portion of our capital to lower carbon natural gas infrastructure – Developing new services including storage / transportation of lower-emission energy sources – Expanding and developing lower carbon business activities 	<ul style="list-style-type: none"> – p 94 – p 94 – p 94
Products and Services			
<ul style="list-style-type: none"> – Developing and/or expanding lower emission goods and services – Diversifying business activities – Responding to shifting consumer preferences 	<ul style="list-style-type: none"> – Increased revenue through demand for lower emission products and services – Increased revenue from our competitive position and asset flexibility to respond to shifting consumer preferences 	<ul style="list-style-type: none"> – Allocating the largest portion of our capital to lower carbon natural gas infrastructure – Developing new services – Expanding and developing lower carbon business activities 	<ul style="list-style-type: none"> – p 94 – p 94 – p 94
Markets			
<ul style="list-style-type: none"> – Increased demand for natural gas services – Increased demand for natural gas storage and pipeline services to backstop intermittent renewable power supply – Using public-sector incentives for carbon transportation and sequestration – Increased demand for reliable fuel for power generation 	<ul style="list-style-type: none"> – Increased revenue from increased demand for natural gas gathering, processing, transportation, storage, and distribution – Increased revenue through access to new and emerging carbon transportation and sequestration markets 	<ul style="list-style-type: none"> – Allocating the largest portion of our capital to lower carbon natural gas infrastructure – Pursuing carbon sequestration opportunities – Developing new services focused on deliverability and unconventional energy storage 	<ul style="list-style-type: none"> – p 94 – p 94 – p 94

Potential Opportunities

Climate-related Opportunities	Potential Financial Impact	Available Strategy and Enhancement Measures	Page
Resiliency			
<ul style="list-style-type: none"> – Responding quickly to market changes resulting from natural disasters – Participating in renewable energy programs and adopting energy efficiency measures 	<ul style="list-style-type: none"> – Increased market valuation through resilience planning – Increased reliability of supply chain and ability to operate under various conditions 	<ul style="list-style-type: none"> – Business continuity planning – Continuing to innovate and improve our energy management programs – Evaluating new ways to reduce our emissions by increasing equipment efficiency 	<ul style="list-style-type: none"> – p 54 – p 28 – p 25

2.2 Financial Planning Considerations

(CDP C2.1, CDP C2.2d, CDP C2.3a, CDP C3.1, CDP C3.1c, CDP C3.1d, CDP C2.4a, CDP C2.5)

We identify and develop plans for managing a variety of risks and opportunities when allocating capital to our assets, establishing budgets for operating and capital projects, and developing our long-range outlook. Climate-related risks and opportunities typically manifest themselves indirectly through fundamental financial considerations. For example, embedded in the supply and demand projections we use are the expected effects of climate-related factors such as changing consumer behavior, increased energy efficiencies, and competing products and services. Operating and capital project budgets include expected costs for climate-related expenses, such as environmental permitting, emission monitoring, emission reporting, emission fees, emission offsets, business continuity planning, and insurance, as applicable. When we anticipate increased opposition to our capital projects, including climate-related opposition, we adjust our project schedules and budgets for enhanced community relations activities.

We prioritize risks and opportunities based upon likelihood and significance. We typically give highest priority to potential risks and opportunities we consider more probable and most significant. When we assess capital allocation decisions, we may adjust our required levels and thresholds of the following criteria:

- rates of return on capital;
- payback periods;
- market demand projections;
- projected operating costs, including compliance costs;
- terminal value projections;
- customer contract durations;
- customer and equity partner creditworthiness and protections;
- customer and equity partner concentration;
- per-unit pricing;
- percentage of contracted capacity; and/or
- level of equity participation and partnership.

When potential climate-related risks are more likely, such as reduced demand for our customers' products as a result of changing consumer behavior, we may reduce estimated or projected revenue after initial contract expiration and/or adjust terminal value. For example, when evaluating expansion projects on our refined product pipelines, in some instances we have reduced estimated or projected revenue after expiration of the initial contract term and/or used a zero terminal value at the end of the period over which our customers have contracted for the additional services provided by the expansion. We also seek to re-purpose our existing underutilized assets to provide solutions for our customers at attractive returns with reduced risk and less investment.

When we are less certain of a project's risks or opportunities, we adjust our financial model to, for example, increase the hurdle rate for investment in the project and reduce the terminal value expectations. In addition to higher returns, our preference is for higher quality cash flow, meaning stable, more certain cash flows backstopped by long-term contracts from credit-worthy customers. We prioritize our expansion capital investments to projects where we have contracts with credit-worthy customers that allow us to recover our capital within the length of the contracts' terms. This approach reduces our exposure to medium- and long-term market risks, including climate-related risks. We accept that our disciplined focus on these types of opportunities sometimes restrains our pursuit of higher-risk projects.

We have a systematic, disciplined approach to managing counterparty credit risk through a weekly review of certain non-investment grade accounts receivable, customer creditworthiness, and required credit protections. We also review any past due accounts receivable monthly. We have developed and continue to improve our culture of thoughtful cost control.

2.3 Resilience of Our Strategy

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, SASB Marine Transportation TR-MT-110a.2, GRI 203-1/11.14.4, CDP C3.1, CDP C3.1d)

To better assess the resilience of our business strategy and understand the impact that climate change could have on our business, we performed a high-level assessment of the impact of 1.5-2 °C and 4 °C global warming scenarios. The 1.5-2 °C and 4 °C scenarios were developed assuming the average global temperatures will have increased by either 1.5-2 °C or 4 °C by the year 2100.

To update our transition risk analysis, we used the scenarios contemplated in the IEA's 2021 World Energy Outlook, and we considered these scenarios relative to our existing asset base. The IEA's scenarios consider the future projected energy demand and supply mix from a variety of perspectives, including:

- electricity generation sources and availability,
- transportation fuels,
- GHG emissions, and
- required investment.

For our physical risk analysis, we used scenarios consistent with the RCP 8.5 4 °C Scenario presented in the IPCC's 2014 Fifth Assessment Report which assumes that emissions continue to rise throughout the 21st century. In the 4 °C Scenario, the IPCC assumes that climate policy is less ambitious and GHG emissions remain high, which could lead to more severe physical risks, compared to a 1.5-2 °C Scenario.

We considered our potential exposures, mitigation measures, and vulnerabilities to the outcomes for the following variables:

- temperature,
- precipitation,
- drought,
- storm surges,
- wildfires,
- hurricanes,
- floods,
- sea level rise, and
- landslides.

We performed our resiliency assessments by considering the scenarios relative to our existing asset base. If the scenarios were to become reality, we could undertake strategies that result in changes to our asset base; for example, by entering into new lines of business. Shifts in our asset base may occur incrementally, as we adapt to changes in circumstances, or the shifts could occur quickly through acquisitions and divestitures. An acquisition or sale of material businesses or assets may be significant in size relative to our existing assets or operations.

Our operations were tested by extreme weather events like winter storm Uri and, because of our prior planning and preparedness, have proven resilient. When winter storm Uri triggered widespread rolling blackouts across Texas and several other states, we were able to continue delivering energy to the market when many oil and gas producers and natural gas and electric utilities were shut down. We also used our storage reserves to bring natural gas into the market as quickly as possible, regardless of price trend. Uri seriously impacted Texas and our industry, and we are committed to working within the industry to support an emphasis on preparedness to prevent future widespread power outages.

The IEA's and IPCC's scenarios are not a prediction of the future, but rather provide a common framework for comparing possible versions of the potential future global energy mix and impacts of climate change. The assumptions underpinning the IEA's and IPCC's scenarios may change over time as new information becomes available. Some of the primary underlying assumptions and indicators currently in the IEA's and IPCC's scenarios are included in *Appendix E – Summary of Scenarios and their Underlying Assumptions and Indicators*. There can be no assurance that any of the scenario assessments we perform for our businesses and assets are a reliable indicator of any actual impact of climate change on our businesses and assets.

It bears repeating that a variety of factors could cause actual results to differ significantly from those expressed in or implied by our forward-looking statements. Please see *Important Information about Policies, Procedures, Practices, and Forward-Looking Statements* for additional information. It is impossible to predict with certainty the timing, magnitude, and direction of climate-related risks and opportunities. As a result, it is extremely difficult to accurately predict how resilient we will be to climate-related changes.

2.3.1 Transition Risk Analysis

Our scenario analysis focused on the SDS. This scenario proposes a gateway to achieving the outcomes targeted by the Paris Agreement. The SDS assumes all energy-related SDGs are met, all current net zero pledges are achieved in full, and there are increased efforts to realize near-term emissions reductions; advanced economies reach net zero emissions by 2050, China around 2060, and all other countries by 2070 at the latest. This scenario is consistent with limiting the global temperature rise to 1.65 °C, with a 50% probability.

Under the IEA's SDS:

- global energy consumption peaks and then declines by 5% over the period from 2020 to 2050;
- crude oil and natural gas remain a significant portion of the energy mix, meeting 32% of global energy consumption in 2050, but down from 54% in 2020;
- global natural gas consumption initially increases by 2% from 2020 to 2030 and declines by 41% overall from 2020 to 2050; and
- global biofuels consumption more than triples from 2020 to 2050 to comprise 17% of the liquid fuels market by 2050 versus 2% in 2020.

Despite an assumed 25% increase in population growth and 94% increase in average individual wealth, IEA projects that global energy supply and demand declines by 2% over the 2020-2050 period while per person energy demand declines by 22%.^{25,26} These declines in energy demand are primarily due to IEA's assumptions for substantial and rapidly occurring energy efficiencies, which are driven by wide-ranging and rapidly occurring global public policy. Throughout the scenario, IEA acknowledges that the lower demand assumption is critical to managing overall investment required and the projected declines in energy usage depend on the extent to which the energy efficiency and public policy assumptions are achieved.

SDS policy assumptions apply to all geographic regions, meaning that the entire world would enact all of these policies equally, and on the same timeline. This could be challenging to implement in reality, given that some of these policies may be cost-prohibitive for regions with below-average per capita GDP. Additionally, countries with hydrocarbon-intensive economies, like Russia, may be less inclined to participate.

Under the SDS, IEA expects the global energy mix to become increasingly dependent on intermittent resources such as solar, wind, and hydro, increasing from 5% of the global energy supply in 2020 to 36% in 2050. Non-intermittent energy, i.e., natural gas and liquid and gaseous bioenergy, which comprised 95% of the global energy supply in 2020, is forecasted to decline to 64% by 2050.

The SDS energy mix is enabled by various cost assumptions that increase the cost of hydrocarbons, like carbon taxes, and lower the cost of electrification and renewable power generation. For example, in the U.S., the SDS predicts declining capital costs of 60% for solar PV, 59% for offshore wind, and 14% for onshore wind over the 2020-2050 period. Because clean energy technologies require a significant volume of minerals, the feasibility of achieving these cost reduction assumptions hinges on increased mineral availability and reduced cost.

By 2050 under the SDS, carbon taxes are assumed in nearly all countries, including some emerging markets and developing economies, and in advanced economies the carbon taxes range from \$95-200 per metric ton. Because of carbon taxes implemented in advanced economies, IEA expects North America and Europe to lose 15% of the global natural gas production market share to regions with higher expected emission intensity such as the Middle East and Africa.

Optimistic assumptions around energy efficiencies, government policies, cost reductions, grid reliability, and mineral development help to temper projected global average annual investment to \$4 trillion for the 2021-2050 period, which while likely a conservative estimate, is still more than double historical levels. Projected global average annual investment per total energy supply is \$6.9 billion per exajoule in 2050 and \$3.2 billion per exajoule for the 2016-2020 period. In summary, the SDS scenario assumes a larger population and higher per capita income, but decreasing total energy demand in 2050 compared to 2030.

During our scenario analysis we also conducted a review of the IEA's Net Zero by 2050 – A Roadmap for the Global Energy Sector to determine whether there were additional climate-related risks or opportunities that were not already identified in our scenario analysis conducted against the IEA World Energy Outlook SDS.²⁷ We found the Net Zero by 2050 scenario did not reveal additional climate-related risks for us; rather, it impacted the timing of risks or opportunities we had already identified.

²⁵ International Monetary Fund. “World Economic Outlook Database: April 2021,” Apr 2021. 2022.
<<https://www.imf.org/-/media/Files/Publications/WEO/WEO-Database/2021/WEOApr2021alla.ashx>>.

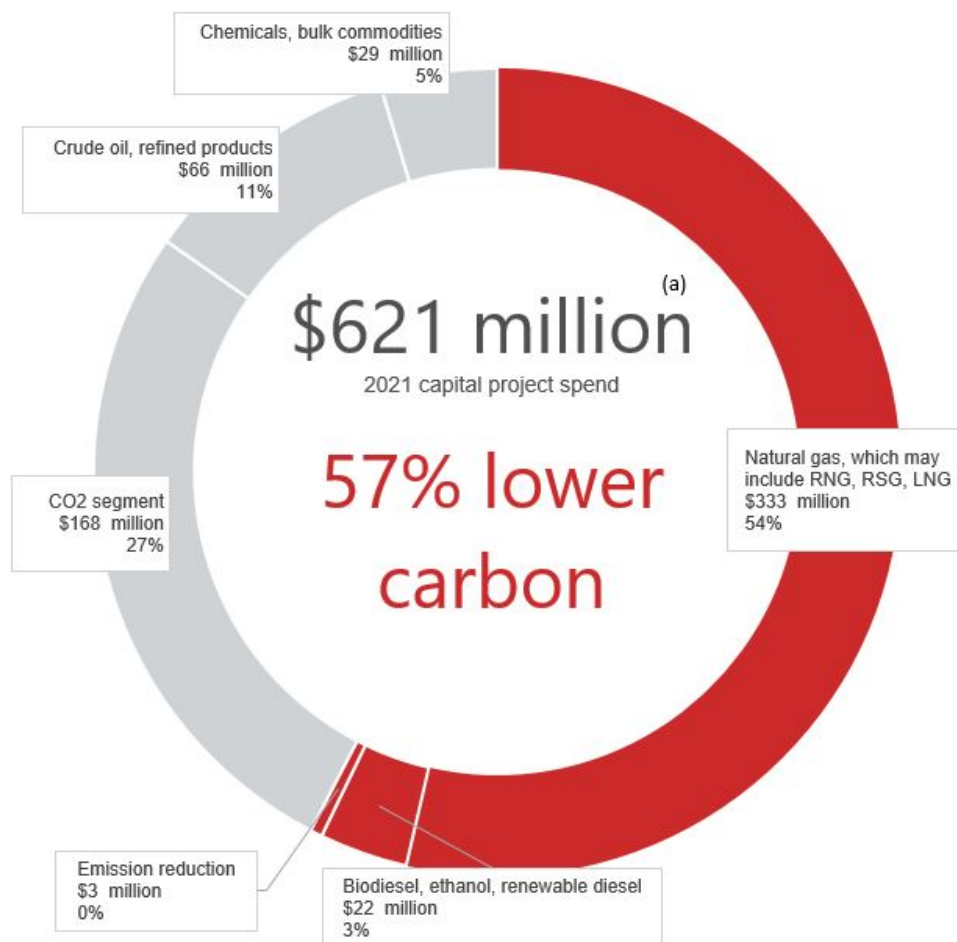
²⁶ International Monetary Fund. “World Economic Outlook Database: April 2021,” Apr 2021. 2022.
<<https://www.imf.org/-/media/Files/Publications/WEO/WEO-Database/2021/WEOApr2021all.ashx>>.

²⁷ International Energy Agency. “Net Zero by 2050 – A Roadmap for the Global Energy Sector.” IEA, Paris, 2021. 2022.
<<https://www.iea.org/reports/net-zero-by-2050>>.

Transition Risk Analysis Results

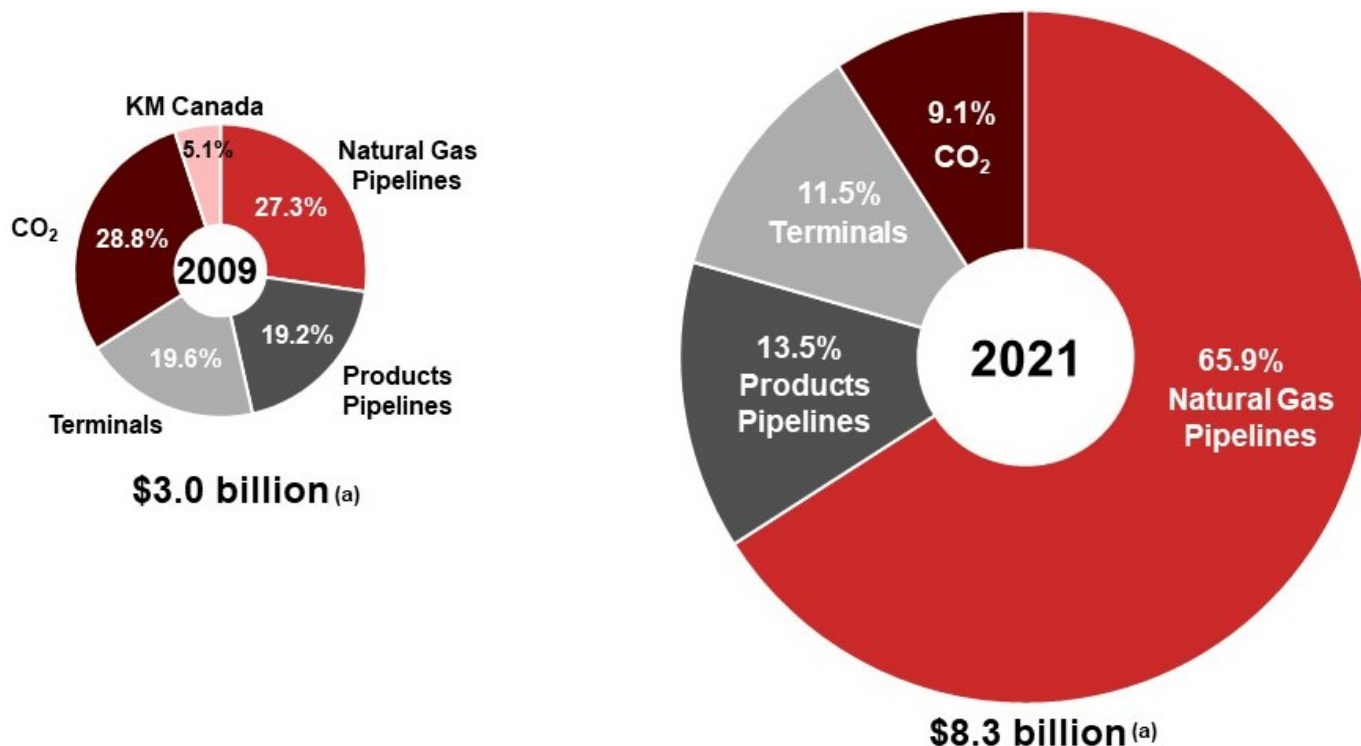
As noted above, our business strategy is to focus on stable, fee-based energy transportation and storage assets and to operate them safely and in an environmentally sound manner. We allocate capital to our assets in a disciplined manner and typically operate under multi-year contracts with our customers. We seek to be proactive in adapting to changing circumstances. Thus far, our business strategy is proving effective in adapting to climate-related risks and opportunities.

The majority of our growth capital expenditures have been and are expected to continue to be allocated to assets that serve lower carbon fuels, such as conventional natural gas, responsibly sourced natural gas, RNG, LNG, renewable diesel, other biofuels, and biofuel feedstocks. As reflected in the following chart, we allocated approximately 57% of our 2021 expansion capital to lower carbon fuels.



(a) Does not include non-expansion joint venture contributions and overhead but does include accrued expansion capital.

As a result of expansion projects, organic growth and acquisitions, our Natural Gas Pipelines business segment has grown significantly since 2009 and now comprises approximately 66% of Adjusted Segment EBDA, up from approximately 27% in 2009. Contributions by each of our business segments to Adjusted Segment EBDA are presented in the following chart.



(a) For additional information about our use of and calculation for Adjusted Segment EBDA, a non-GAAP financial measure, see Part II, Item 7 included in our 2021 Form 10-K annual report, which is available through the SEC’s EDGAR system at <https://www.sec.gov> and on our website at <https://ir.kindermorgan.com/financials/annual-reports/default.aspx>.

We operate or own an interest in approximately 72,000 miles of natural gas pipelines that transport approximately 40% of the natural gas consumed domestically or exported as LNG. Natural gas in North America is plentiful, inexpensive, and clean-burning relative to other fossil fuels. Partly due to the increased number of cleaner burning natural gas-fired power plants, CO₂ emissions from U.S. electric power sector energy consumption in 2021 were at 1980 levels and 36% below 2007 levels, where CO₂ emissions peaked, while the U.S. population increased 46% from 227 million in 1980 to 332 million in 2021.^{28,29,30} Natural gas-fired power plants compared to coal-fired plants also have lower SO_x emissions which significantly reduces acid rain formation.

As the rate of renewables penetration increases, reliable and dispatchable natural gas-fired power plants will continue to provide electricity during demand peaks and will balance power to meet the variable load demand requirements of electric generation.³¹ This need will become even more acute during the early part of the energy transition because baseload electricity generation from coal and natural gas is being removed faster than intermittent renewable generation from wind and solar is being added. This situation could be further exacerbated by inadequate energy storage as capacity additions of renewables accelerate.

Because of the foregoing, and the fact that the majority of our assets and growth projects are dedicated to natural gas, we expect to maintain a sustainable economic position even in a carbon-constrained economy.

²⁸ U.S. Energy Information Administration. “April 2022 Monthly Energy Review. Table 11.6” EIA, Apr 2022: 201.2022. <<https://www.eia.gov/totalenergy/data/monthly/pdf/mer.pdf>>.

²⁹ U.S. Census Bureau. “Historical National Population Estimates: July 1, 1900 to July 1, 1999.” U.S. Census Bureau, Feb 2000. 2021. <<https://www2.census.gov/programs-surveys/popest/tables/1900-1980/national/totals/popclockest.txt>>.

³⁰ U.S. Census Bureau. “Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico: April 1, 2020 to July 1, 2021” U.S. Census Bureau, 2022. <<https://www2.census.gov/programs-surveys/popest/tables/2020-2021/state/totals/>>.

³¹ Black & Veatch Management Consulting, LLC. “The Role of Natural Gas in the Transition to a Lower-Carbon Economy.” INGAA, 7 May 2019: 2-4. 2021. <<https://www.ingaa.org/File.aspx?id=36501>>.

Growth in renewable-firming pipeline services and infrastructure, such as market-area gas storage, is increasingly needed to supplement the variable power supply from renewable generation.³² We therefore expect our expansive natural gas pipeline and storage footprint to provide continuing opportunities to competitively deliver customer-driven solutions in a lower carbon world. Greater natural gas pipeline deliverability, properly contracted and nominated, is proving critical to improving the reliability of electricity generated from renewable energy sources like wind and solar. We are expanding our service offerings to address these market needs by marketing the deliverability and reliability of natural gas from our transportation and storage network as a complement to renewable energy. As part of that strategy, we increased our natural gas storage assets with the acquisition of Stagecoach Gas Services in July 2021. These storage assets will help to backstop the expected growing renewable power generation in the Northeast.

Under the IEA's SDS, global trade in LNG is expected to increase by over 37% above 2020 levels. Over the 2030-2050 period, North American natural gas production is expected to outstrip North American demand by approximately 10 to 12 Bcf/d, resulting in excess supply available for export. Our substantial natural gas transportation and storage infrastructure is connected to most major supply basins and demand markets in the U.S., including multiple LNG export facilities. As such, we believe there should be continued opportunities to use our assets to support this trade. In the fourth quarter of 2021, we delivered 52% of the feedgas to U.S. LNG export facilities.

While natural gas has many advantages, other hydrocarbon fuels are generally affordable, dependable, plentiful, and, as a result of advancements in technology, increasingly more efficient. Hydrocarbon fuels are supported by an enormous, sophisticated, worldwide network of infrastructure. In addition, hydrocarbons are inputs to products society uses every day, not only for fuel, but also as raw materials for the production of synthetic fabrics, fertilizers, solvents, and industrial chemicals. We believe it will take decades and a substantial investment of resources for other technologies to supplant the existing hydrocarbon network, which we anticipate will occur gradually over time. Accordingly, we plan to continue to operate, develop, and/or acquire diversified energy infrastructure assets in each of our business segments, consistent with our commitment to deliver energy to improve lives and create a better world. While demand for the current services of some of our assets may decline as a result of an energy transition, many of our assets are well-positioned to transport, store, or handle lower carbon or transition-driven products, such as renewable fuels, hydrogen, and bulk mineral concentrates.

Our Products Pipelines and Terminals business segments are major transporters or handlers of gasoline, jet fuel, and other distillate products. If, as a result of the increased efficiency of gasoline powered vehicles and continued EV penetration as contemplated in IEA's SDS, there is less domestic demand for gasoline, we would expect our liquids pipelines and many of our liquids terminals to handle lower carbon renewable fuels and a higher percentage of diesel for long-haul vehicles and jet fuel for aircraft.

To the extent the developing world transitions away from traditional transportation fuels at a slower pace than the U.S., we anticipate our blue water terminals on the U.S. Gulf Coast, many of which are pipeline-connected to some of the most complex and cost-competitive refineries in the world, could benefit from increased exports of those products. We would also expect our natural gas pipeline and storage assets to benefit from the incremental electricity production required for EVs.

Estimated timeframes for transitioning our assets from handling one material to another varies from immediately to roughly three years. For example, volumes of renewable diesel or RNG can be

³² Black & Veatch Management Consulting, LLC. "The Role of Natural Gas in the Transition to a Lower-Carbon Economy." INGAA, 7 May 2019: 2-4. 2021. <<https://www.ingaa.org/File.aspx?id=36501>>.

accommodated immediately with existing liquid and natural gas pipeline assets. A tank storing diesel would require minimal modifications to store renewable diesel. The time required to convert a tank to handle renewable fuels feedstocks typically ranges from three to six months depending on the condition of the tank and product handling requirements, i.e., adding heat tracing and insulation. Converting a transmission asset from higher carbon liquids to lower carbon natural gas could take two to three years.

Lower Carbon Fuels and CCUS

Low carbon fuels, such as RNG, responsibly sourced natural gas, renewable diesel, and hydrogen, and CCUS are emerging as a few of the many potential solutions that could accelerate the world's progress along a path to limit the rise in global temperatures to less than 1.5 °C.

- *RNG*

RNG is a pipeline-quality gas that is interchangeable with conventional natural gas and thus can be transported, stored, and used in the same applications as natural gas. RNG is essentially biogas, the gaseous product of the decomposition of organic matter that has been processed to purity standards. In addition to serving as a way to produce a low carbon fuel, the RNG production process captures greenhouse gases that would otherwise be emitted to the atmosphere. While the market for RNG has increased over time, it still represents a fraction of total natural gas consumption. WoodMackenzie estimates that the U.S. produced 212 MMcf/d of RNG in 2021, accounting for 0.2% of 2021 U.S. natural gas production. Between landfills, dairy farms, swine farms, and other RNG sources, WoodMackenzie estimates U.S. RNG production may increase to 3.2 Bcf/d by 2050.³³

Since 2018, we have connected six RNG sites to our pipeline systems that have a takeaway capacity of approximately 27 MMcf/d of RNG, which could have accounted for nearly 13% of the RNG market share in 2021. The methane emissions from one of these sites, which manages over 64 thousand cattle, is equivalent to approximately 1.4 MMcf/d of avoided methane emissions.

We expanded our RNG footprint with our acquisition of Indianapolis-based Kinetrex Energy, Kinetrex, on August 20, 2021. Kinetrex is a supplier of LNG in the Midwest and a producer and supplier of RNG under long-term contracts to transportation service providers. Kinetrex has a 50% interest in the largest RNG facility in Indiana as well as signed commercial agreements supporting three additional landfill-based RNG facilities, the first of which is under construction. When all three of these additional facilities become operational the total annual RNG production from the four sites is estimated to be over 4 Bcf annually.

In April 2021, we became a member of the Coalition for Renewable Natural Gas, or the RNG Coalition, that serves as the public policy advocate and education platform for the RNG industry in North America.

- *Responsibly Sourced Natural Gas*

Responsibly sourced natural gas is conventional natural gas that has been produced by companies whose operations meet certain ESG standards. These standards typically focus on management practices for methane emissions, water usage, and community relations. As of March 2022, there were 28 natural gas producers who are producing responsibly sourced natural gas which includes members of ONE Future or producers obtaining MiQ, Equitable Origins, or Trustwell certifications. ONE Future members have a target methane emission intensity rate of 0.28% of

³³ WoodMackenzie. "North America Gas Market Strategic Planning Outlook." WoodMackenzie, Mar 2022. 2022. <<https://my.woodmac.com/document/150019269>>.

production by 2025. The potential volume of responsibly produced natural gas across the 28 companies averaged approximately 25.3 Bcf/d in the U.S. from September 2020 to August 2021, which represents about 25% of the current U.S. wellhead gas production. Given consumers' growing climate-related concerns, the market for responsibly sourced natural gas is expected to grow as natural gas consumers demand that their natural gas be responsibly produced and transported.

In 2021, we entered into two first-of-their-kind pilot projects to transport responsibly sourced natural gas to Colorado utilities. We signed another agreement to transport responsibly sourced natural gas to a large utility in the Northeast U.S during the second quarter of 2021.

- *Renewable Diesel, Sustainable Aviation Fuel, and Renewable Fuel Feedstocks*

Renewable diesel, also known as hydrotreated vegetable oil, is a high-quality, non-petroleum, renewable fuel made from animal fats, plant oils, and used cooking oil. It is often referred to as an advanced biofuel or second-generation biofuel. Renewable diesel is often confused with traditional biodiesel, also known as Fatty Acid Methyl Ester, or FAME. While both are made from organic biomasses, they are different products with different production processes, cleanliness, and quality. Unlike biodiesel, which is subject to more stringent blending limitations, renewable diesel is chemically the same as petroleum diesel and can be handled by the vast network of existing liquids storage and transportation infrastructure.

The greenhouse gas emissions of renewable diesel and traditional biodiesel are typically 50-80% lower than conventional diesel. This makes both options attractive in a decarbonizing world as we work to meet environmental standards like the Low Carbon Fuel Standard in California and the U.S. Federal Renewable Fuel Standard.

Our Products Pipelines business segment is constructing new renewable diesel hubs in both northern and southern California to serve the California diesel market. Our Terminals business segment handles renewable diesel and sustainable aviation fuel at our facilities along the Houston Ship Channel and the lower Mississippi River. The Terminals business segment also stores and transloads renewable diesel feedstocks, including used cooking oil, animal fats, and vegetable oils, at several locations across our network. Although we are expanding our renewable fuel and feedstock business, our Products Pipelines and Terminals business segments continue to handle mostly fossil fuels.

Our Terminals business segment is expanding our biofuels feedstock operations to create a potential renewable fuel feedstock storage and logistics hub at our Harvey, Louisiana facility on the lower Mississippi River. The project is underpinned by a long-term commercial agreement and will enhance existing infrastructure to support our customer's growing production of renewable diesel, sustainable aviation fuel, and bioplastics.

- *Hydrogen*

Current estimates among many analysts suggests that hydrogen energy opportunities will start to develop around 2030, making modest inroads between now and then. The U.S. currently produces approximately 10 million metric tons/yr of hydrogen, with an energy equivalent of 3.35 Bcf/d of natural gas, which goes primarily into petroleum refining and ammonia production.³⁴ The

³⁴ Office of Energy Efficiency & Renewable Energy. "Hydrogen Production." Office of Energy Efficiency & Renewable Energy, 2021. <<https://www.energy.gov/eere/fuelcells/hydrogen-production>>.

hydrogen market is projected to grow by eight times by 2050 due to demand for low carbon hydrogen fuel.³⁵

Today's hydrogen production in the U.S. is mainly from the conversion of natural gas into what is referred to as gray hydrogen due to the associated CO₂ emissions from the process. As the market for low carbon hydrogen grows, it is thought that CCUS will be used to abate the emissions from hydrogen production from natural gas, thereby making blue hydrogen. In the near term, blue hydrogen could potentially be a cheaper form of low carbon hydrogen than green hydrogen, which is made by the electrolysis of water using renewable power. Blue hydrogen relies on existing and proven at scale technologies, while electrolysis technology needs further development in order for green hydrogen to compete with blue hydrogen on a cost basis.

Hydrogen is well suited for long-distance transportation. In fact, hydrogen energy can be transported 10 to 20 times cheaper through pipelines than the equivalent energy through transmission lines.³⁶ In addition, the U.S. has in place an extensive network of natural gas pipelines that could be upgraded to accept hydrogen blends which could reduce the level of necessary investment in hydrogen infrastructure.³⁷

Transitioning to hydrogen fuel could potentially integrate well with our natural gas business. In general, hydrogen could be shipped on natural gas pipelines in low concentrations, possibly up to 5% to 10%, with potentially little or no modification, depending on pipeline metallurgy, age, and various other operating parameters.

As the demand for hydrogen grows and the hydrogen energy market develops further, we expect to continue to evaluate the ability and opportunity for our pipelines to transport hydrogen, as we believe pipelines will ultimately be the safest and most efficient mode of transportation for this fuel.

In 2021, we initiated a study to determine the effects of transporting hydrogen through our existing pipeline infrastructure. We also joined an industry study with a broader focus.

- *CCUS*

We also believe the increased need for CCUS technologies could be a future opportunity for us. Our CO₂ business segment's extensive CO₂ assets and expertise in processing, transporting, injecting, and managing CO₂ should make us an attractive partner for CCUS initiatives. Rising demand for carbon capture and geologic sequestration may provide both incremental CO₂ transportation revenues and downstream EOR and sequestration opportunities. Our Snyder Gas Plant captures CO₂ from produced gas streams and re-injects it into producing reservoirs for enhanced oil recovery. Processing the produced gas and capturing CO₂ helps to avoid gas flaring and vented emissions.

Anticipating a lower carbon economy, in addition to directing more of our capital investment toward our Natural Gas Pipelines business segment and renewable fuels and feedstocks, we are working to monitor

³⁵ Hydrogen Council. "Hydrogen scaling up: A sustainable pathway for the global energy transition." Hydrogen Council, Nov 2017: 20. 2021. <https://hydrogencouncil.com/wp-content/uploads/2017/11/Hydrogen-Scaling-up_Hydrogen-Council_2017.compressed.pdf>.

³⁶ Becker, Meike. "All hydrogen roads lead to renewables (and through Rome?)" Sanford C. Bernstein & Co., LLC, 3 Sep 2020: 3.

³⁷ Becker, Meike. "All hydrogen roads lead to renewables (and through Rome?)" Sanford C. Bernstein & Co., LLC, 3 Sep 2020: 3.

and improve our processes and our perspectives on policies, activities, and trends related to the transition to a lower carbon economy and on the long-term supply and demand for the products we handle. At the end of 2021, we had a \$1.4 billion project backlog with 70% allocated to lower carbon investments, including natural gas.

Our capital allocation philosophy is to fund our expansion capital needs internally, maintain a healthy balance sheet, and return excess cash to our shareholders through dividend increases and/or share repurchases. We believe this philosophy will help guide our participation in a lower carbon economy.

As a result of our 1.5-2.0 °C scenario analysis and our ESG reporting initiative, where appropriate, we:

- evaluate our longer-term views in light of the IEA’s SDS;
- coordinate energy market analysis across our business segments;
- monitor key climate-related market indicators, such as:
 - climate-related policy proposals and regulatory changes;
 - natural gas and renewable penetration into the power markets;
 - EV adoption rates, vehicle efficiency standards, and average miles driven;
 - biofuel and hydrogen markets; and
 - technological advancements and price signals for CCUS;
- expand our evaluation of the economics of emission reduction technologies over a range of potential carbon tax prices; and
- discuss these topics with our Board and its EHS Committee.

Further, in anticipation of a transition to a lower carbon economy, we also seek opportunities to:

- reduce our emissions,
- enhance our expertise in CCUS,
- store and transport renewable fuels and feedstocks,
- repurpose our assets,
- modify existing assets or develop assets for LNG export opportunities, and
- expand our natural gas deliverability.

We present and discuss these opportunities with our Board.

2.3.2 Physical Risk Analysis Results

Given the diversity and size of our asset footprint and the criticality of the infrastructure we operate, we maintain a forward-looking approach to potential impacts of climate change and incorporate fiscally responsible risk mitigation into our operations. Our most recent physical risk analysis, completed in 2019, consisted of the following:

- expansion of the table of potential physical risks and our mitigation measures in *Section 2.1 Potential Climate-Related Risks, Opportunities, and Impacts* of the *TCFD Report* to reflect the results of our 4 °C Scenario analysis;
- evaluation of our physical risk assessments and our mitigative measures and determined that acute risks such as hurricanes, wildfires, flooding, and heat waves were adequately addressed; and
- identification of opportunities for improvement in our mitigative measures for some chronic risks, projected by the 4 °C Scenario analysis, including rising sea levels and changes in tidal patterns.

As described in *Sections 2.2 Management System and 12.3 Business Continuity Planning and Emergency Preparedness* of the *Sustainability Report*, we work to improve our processes and procedures for mitigating acute physical climate change risks. We routinely drill scenarios that include these acute risks. To further address chronic risks identified through the 4 °C Scenario analysis, we evaluated which of our assets could likely be affected by the rising sea levels projected in a 4 °C Scenario. As a result of this analysis, we reviewed our engineering standards and made adjustments, where warranted, to address potential future risk due to rising sea levels, changes in tidal patterns, wildfires, hurricanes, and other extreme weather events.

3.0 Risk and Opportunity Management

(SASB Midstream EM-MD-110a.2, SASB Exploration & Production EM-EP-110a.3, Marine Transportation SASB TR-MT-110a.2, GRI 2-12, GRI 2-14, GRI 201-2/11.2.2, CDP C2.2, CDP C4.2, CDP C9.1)

Our management system is designed to help us monitor and assess various types of risks and opportunities, including those related to climate. We identify and evaluate risks and opportunities based on both actual and potential likelihood and significance. Depending on the nature of the risk or opportunity being considered, we evaluate consequences based on a variety of attributes such as:

- health and safety,
- financial,
- operational, and
- environmental.

Our management system is intended to promote continuous improvement and adjustment to changing conditions, including actual and potential risks and opportunities in the near-, medium-, and long-term. This integrated and comprehensive approach helps facilitate resiliency in our assets and business strategy.

Our management system establishes intentional, routine risk and opportunity management activities that are designed to achieve the following objectives:

- maintain financial and operational discipline;
- reveal and manage risks and opportunities, increasingly including climate-related risks and opportunities; and
- improve our performance and culture.

Our management system processes and procedures are performed through regular meetings and reports that establish a rhythm for our business as outlined in the following table.

Meeting and Topics Covered

Each topic is covered as warranted and is not covered at every meeting. Other topics, not listed below, are also periodically covered. There are also additional regular meetings not listed below.

Personnel Involved in Process

Weekly

Monday Management Meeting

CEO, President, COO, business segment presidents and corporate function heads meet two hours each week for financial and operational review.

- Actual and forecasted financial performance vs. budget for the week, month, quarter, and year, which includes costs of compliance, fuel, energy, production, and public relations
- Demand for our services
- Near-term business development opportunities and risks
- General business risks and opportunities
- EHS and pipeline encroachment incidents
- Customer credit risk changes and accounts receivable activity for non-investment grade customers
- Impacts on business from weather, natural disasters, and other incidents
- Capital project progress

- CEO, President, COO, Business Segment and Operating Company Presidents, CFO, CAO, General Counsel, Corporate Department Management

Meeting and Topics Covered

Each topic is covered as warranted and is not covered at every meeting. Other topics, not listed below, are also periodically covered. There are also additional regular meetings not listed below.

Personnel Involved in Process

Monthly

Business Segment Operations Meeting

- Progress toward reducing risk of high consequence assets and operations
- Internal and external incidents, near misses, and lessons learned
- Process improvements, efficiency, and productivity improvements
- Progress on expanding systems to more assets and operations, more operations goals, and more regulatory and other requirements
- Leading indicators and their meaning
- Significant results of internal and external audits, evaluations, and assessments, including status of corrective actions
- Stakeholder feedback
- Other key performance indicators

- Business Segment and Operating Company Presidents, Business Segment COOs, Operations and EHS VPs and Directors

Earnings Meetings

Review actual financial results for the month and the quarter.

- CEO, President, COO, Business Segment and Operating Company Presidents, CFO, General Counsel, Corporate and Business Segment Financial Planning

Accounts Receivable Review Meeting

Discuss collection status for past due accounts receivable balances.

- CFO, Controller, Corporate and Business Segment Accounting

Meeting and Topics Covered

Each topic is covered as warranted and is not covered at every meeting. Other topics, not listed below, are also periodically covered. There are also additional regular meetings not listed below.

Personnel Involved in Process

Quarterly

Quarterly Business Review for each business segment

Respective business segment presidents, COOs, and function heads provide the CEO and President with a "state of the business" presentation.

- Financial performance
- Near-, medium-, and long-term
 - strategies
 - market dynamics and trends
 - risks and opportunities
- Commercial discussions
- Progress and plans for reducing risk to potential high consequence assets and operations
- Operational performance
- Expansion project updates
 - risks and opportunities
 - environmental and other permits and related compliance activities
 - financial performance vs. forecast and budget
 - forecasted project capital expenditures
 - forecasted project EBITDA
 - estimated in-service date
 - milestone completion dates and projected in service date
 - safety
 - quality
 - regulation
 - project opposition
 - impacts from weather, natural disasters, and other incidents
 - supply chains
- The status and effectiveness of corrective actions resulting from previous management reviews
- Regulatory and litigation updates
- These reviews may also include a long-range outlook financial projection and a less comprehensive review on other subjects

- CEO, President, COO, Business Segment and Operating Company Presidents, CFO, CAO, General Counsel, Corporate Department Management, Business Segment COOs, Department VPs and Directors

Operations Group Meeting

COO and Business segment COOs share knowledge and best practices across business segments and review progress on actions taken to improve safety and performance.

- Proposed best practices across business segments
- Conflicts in interpretations of regulatory requirements identified by the EHS or legal departments
- Proposed modifications to the OMS
- Updates from operations working groups
- Internal and external incident and near miss trends and lessons learned

- COO, Business Segment COOs, Working Group Leads

Operations Working Group Meetings

- Operational considerations and regulatory risks
 - Incident Review
 - OMS adjustments
 - Security
 - Disaster Preparation, Response and Recovery
 - Regulatory Compliance
 - Compliance Systems
 - Process Safety Management/Risk Management Plans

- Subject Matter Professionals

Periodically

Long-Range Outlook Update

- Five-year projections of:
 - Revenue
 - Capital expenditures
 - Operating expenses
 - Distributable cash flow, EBITDA, and segment EBDA
- Adjust budget for projects, contract changes, etc.
- Translate to an annual plan

- CEO, President, COO, Business Segment and Operating Company Presidents, Business Segment COOs, CFO, General Counsel, Corporate and Business Segment Financial Planning

Meeting and Topics Covered

Each topic is covered as warranted and is not covered at every meeting. Other topics, not listed below, are also periodically covered. There are also additional regular meetings not listed below.

Personnel Involved in Process

Annually

Budget Review

CEO, President, business segment presidents and corporate function heads review annual budgets and establish financial targets and operational metrics against which to evaluate performance in the coming year.

- Staffing, assets, systems, and other resources needed for business segments to operate in a safe, environmentally sound, and efficient manner
 - revenue impacts
 - compliance costs
 - fuel costs
 - insurance costs
 - public relations costs
 - production costs
- Capital expenditures, operating expenditures, and margins
- Commercial developments, such as contract rate and volumetric changes
- Translate to a monthly plan

- Manager level and above

In addition to our management system, to address certain risks we maintain other risk management programs and processes, such as:

- Energy commodity price risk management and mitigation program,
- Process Safety Management/Risk Management Plans,
- IMP,
- Responsible Care®,
- Cyber Threat Response Plan, and
- Critical Facility Security Plans.

4.0 Metrics and Targets

4.1 Climate-Related Metrics

(SASB Midstream EM-MD-110a.1, SASB Exploration & Production EM-EP-110a.1, SASB Marine Transportation TR-MT-110a.1, GRI 2-12, GRI 201-2/11.2.2, CDP C6.1, CDP C6.2, CDP C6.3, CDP C6.5)

See Section 3.0 Greenhouse Gas Emissions of our Sustainability Report for our metric measuring climate-related risk and opportunities.

4.2 Scope 1, Scope 2, and Scope 3 Emissions

(SASB Midstream EM-MD-110a.1, SASB Exploration & Production EM-EP-110a.1, GRI 305-1/GRI 11.1.5, GRI 305-2/GRI 11.1.6, GRI 305-3/GRI 11.1.7, CDP C6.1, CDP C6.3, CDP C6.5, CDP C7.3, CDP C7.6, CDP C7.9)

See Section 3.1 Gross Global Scope 1 and 2 Emissions, Percentage Methane, Percentage Covered under Emissions-Limiting Regulations of our Sustainability Report for our gross global Scope 1 and 2 emissions.

4.3 Climate-Related Targets

(CDP C4.1, CDP C4.1a, CDP C4.1b, CDP C4.2)

See Section 3.4.3 GHG Targets of our Sustainability Report for our climate-related targets.

Appendix A.1 – ESG Disclosure Topics & Accounting Metrics

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Air emissions for the following pollutants				
NO _x (excluding N ₂ O)†	Thousand metric tons	57.9	52.2	50.6
SO _x †	Thousand metric tons	0.4	0.3	0.2
VOCs†	Thousand metric tons	14.4	12.7	12.0
PM ₁₀ †	Thousand metric tons	1.4	1.4	1.3
Water management				
CO ₂ business segment – fresh water withdrawn†	Thousand cubic meters	1,489	1,208	1,361
CO ₂ business segment – fresh water consumed†	Thousand cubic meters	1,489	1,208	1,361
CO ₂ business segment – fresh water withdrawn intensity†	Thousand cubic meters of fresh water consumed / BOE throughput	0.04	0.04	0.04
Water use for hydrostatic integrity testing†	Thousand cubic meters	24	57	159
Ecological impacts				
Percentage of land operated within or near areas of protected conservation status or endangered species habitat(a)†	%	30 %	30 %	30 %
Spills				
Hydrocarbon spills				
Number of hydrocarbon spills†	#	43	41	41
Aggregate volume of hydrocarbon spills†	bbl	975	2,380	3,035
Aggregate volume of hydrocarbon spills in Unusually Sensitive Areas†	bbl	52	1,398	869
Hydrocarbon spill volume recovered†	bbl	861	1,769	1,827
Marine transportation spills and releases to the environment				
Number of marine spills and releases to the environment	#	0	1	0
Aggregate volume of marine spills and releases to the environment	Cubic meters	0	0	0
Environmental fines and penalties paid†	Thousands	\$ 215	\$ 119	\$ 475
Employee and contractor health and safety – excluding self-reported COVID-19 cases				
Total recordable incident rate				
Employees	# Recordable incidents / 100 full-time workers	1.0	0.7	0.7
Target – employee TRIR industry three-year average†	# Recordable incidents / 100 full-time workers	2.0	2.0	1.8

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Target – employee TRIR three-year average†	# Recordable incidents / 100 full-time workers	1.1	1.0	0.9
Contractors	# Recordable incidents / 100 full-time workers	0.6	0.4	0.2
Short-service total recordable incident rate				
Employees	# Recordable incidents / 100 full-time workers	1.2	0.9	0.8
Lost time incident rate				
Employees	# Recordable lost time incidents / 100 full-time workers	0.5	0.4	0.4
Contractors	# Recordable lost time incidents / 100 full-time workers	0.0	0.1	0.2
Fatalities				
Employees	#	0	0	0
Contractors	#	0	0	0
Marine lost time incident rate	# Lost time incidents / 1,000,000 hours worked	0.3	0.6	0.7
OSHA recordable incidents				
Number of recordable employee injuries/illnesses	#	116	81	73
Number of recordable short-service injuries/illnesses	#	9	7	4
Number of recordable contractor injuries/illnesses	#	36	19	1
Number of recordable employee lost time cases	#	54	41	47
Number of recordable contractor lost time cases	#	0	3	1
Number of recordable marine lost time cases	#	1	2	2
Employee and contractor health and safety – including self-reported COVID-19 cases				
Total recordable incident rate				
Employees†	# Recordable incidents / 100 full-time workers	1.0	1.4	1.8
Contractors†	# Recordable incidents / 100 full-time workers	0.6	0.4	0.2

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Short-service total recordable incident rate				
Short-service employees†	# Recordable incidents / 100 full-time workers	1.2	1.9	2.7
Lost time incident rate				
Employees†	# Recordable lost time incidents / 100 full-time workers	0.5	1.0	1.5
Contractors†	# Recordable lost time incidents / 100 full-time workers	—	0.1	0.2
Fatalities				
Employees†	#	0	2	0
Contractors†	#	0	0	0
Marine lost time incident rate	# Recordable lost time incidents / 1,000,000 hours worked	0.3	0.6	0.7
OSHA recordable incidents				
Number of recordable employee injuries/illnesses†	#	116	164	193
Number of recordable short-service injuries/illnesses†	#	9	13	13
Number of recordable contractor injuries/illnesses†	#	36	19	1
Number of recordable employee lost time cases†	#	54	116	163
Number of recordable contractor lost time cases†	#	—	3	1
Number of recordable marine lost time cases	#	1	2	2
Average hours of employee health, safety, and emergency response training†	Hours / employee	17	13	12
Supply chain management				
Supplier demographics				
Percentage of small business, diverse, and veteran-owned supplier procurement spend vs. total supplier procurement spend†	%	31 %	41 %	48 %
Total small business, diverse, and veteran-owned supplier procurement spend†	Millions	\$ 1,593	\$ 1,675	\$ 1,249
Service supplier monitoring				
Percentage of service suppliers subject to performance audits	%	100 %	100 %	100 %
Number of service suppliers audited	#	242	548	503
Percentage of service suppliers audited	%	7 %	16 %	15 %

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Waste management				
Hazardous waste				
Amount generated†	Metric tons	9,539	6,255	4,836
Percentage recycled†	%	55 %	54 %	64 %
Recycled business waste				
Recycled aluminum, cardboard, glass, paper, and plastic	Tons	119	46	72
Competitive behavior and pricing integrity and transparency				
Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage rate, access, and pricing regulations‡	Millions	\$ 19.5	\$ 1.3	\$ 0
Legal or regulatory fines, settlements, or penalties associated with bribery and corruption‡	Dollars	\$ 0	\$ 0	\$ 0
Operational safety				
Reportable pipeline incidents				
Number of reportable pipeline incidents‡	#	60	55	37
Percentage of reportable pipeline incidents that are significant‡	%	40 %	45 %	46 %
Number of reportable RROG pipeline incidents‡	#	—	—	8
Percentage of reportable RROG pipeline incidents that are significant‡	%	—	—	13 %
Natural gas and hazardous liquid pipelines inspection				
Percentage of natural gas pipelines inspected†	%	19 %	20 %	15 %
Percentage of hazardous liquid pipelines inspected†	%	27 %	28 %	25 %
Political contributions				
Contributions to political campaigns, candidates, and parties‡	Thousands	\$ 0	\$ 0	\$ 0
Payments to lobbying organizations‡	Thousands	\$ 265	\$ 197	\$ 514
Trade association dues‡	Thousands	\$ 2,523	\$ 2,680	\$ 2,241
Non-deductible portion of trade association dues attributed to lobbying and political expenditures‡	Thousands	\$ 225	\$ 212	\$ 195
Payments made in relation to ballot measures‡	Thousands	\$ 0	\$ 0	\$ 0
Income taxes paid				
U.S. Federal‡	Millions	\$ 47	\$ 32	\$ 48
U.S. State‡	Millions	\$ 17	\$ 16	\$ 19
Canada‡	Millions	\$ 360	\$ 236	\$ (2)
Mexico‡	Millions	\$ 7	\$ 5	\$ 5
Brazil‡	Millions	\$ 1	\$ 0	\$ 0
Total income taxes paid, net‡	Millions	\$ 432	\$ 289	\$ 70
Property taxes paid‡	Millions	\$ 509	\$ 576	\$ 605
Royalties and duties paid‡	Millions	\$ 70	\$ 47	\$ 60
Employee demographics				
Part-time employees	#	6	7	9
Temporary employees	#	5	2	2
Employee age representation(b)				
Average age	#	45	45	45
Percentage under 18 years old	%	0 %	0 %	0 %
Percentage from 18 through 29 years old	%	11 %	10 %	10 %

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Percentage from 30 through 50 years old	%	52 %	53 %	54 %
Percentage over 50 years old	%	38 %	37 %	37 %
Female employee representation				
Percentage of workforce(b)	%	16 %	16 %	16 %
Percentage of management(b)	%	19 %	20 %	20 %
Percentage of executive officers(c)	%	27 %	25 %	25 %
Percentage of Board of Directors(c)	%	13 %	13 %	13 %
Minority employee representation				
Percentage of workforce(b)	%	29 %	30 %	30 %
Percentage of management(b)	%	19 %	20 %	21 %
Percentage of executive officers(c)	%	18 %	17 %	17 %
Percentage of Board of Directors(c)	%	6 %	7 %	7 %
Percentage of workforce with disabilities	%	4 %	4 %	6 %
Employee turnover				
Involuntary employee turnover	%	4 %	6 %	3 %
Voluntary employee turnover	%	6 %	4 %	8 %
Total employee turnover	%	10 %	10 %	11 %
Participation in leadership training programs				
Percentage female	%	20 %	16 %	13 %
Percentage minority	%	20 %	28 %	28 %
Hours of employee development training [†]	Thousand hours	228	351	419
Total investment in employee training	Millions	\$ 0	\$ 27	\$ 30
Kinder Morgan Foundation donations, employee donations, and corporate and project-related community investments [†]	Thousands	\$ 2,223	\$ 3,970	\$ 3,370

- (a) For the 2021 reporting year, we downloaded the USFWS dataset in the fourth quarter of 2021, the WDPA dataset in the second quarter of 2021, and used our GIS datasets as of the fourth quarter of 2021 to complete our analysis.
- (b) 2021 U.S and Mexico data were queried in December 2021.
- (c) 2021 data is reported as of April 2022.

[†] An external third party performed limited assurance procedures for the 2021 values of these metrics. See their report in *Appendix D – Third-Party Assurance Statement*.

[†] Our Internal Audit group performed assurance procedures for the 2021 values of these metrics.

Appendix A.2 – GHG Accounting Metrics

	Unit	Year Ended December 31,		
		2019	2020	2021
Operational Control – Continuing Operations(a)				
Total gross global Scope 1 emissions(b)†	Million metric tons CO ₂ e	16.0	15.3	15.3
Percentage covered under emissions-limiting regulations†	%	0 %	0 %	0 %
Percentage methane(b)†	%	24 %	27 %	22 %
Total gross global market-based Scope 2 emissions†	Million metric tons CO ₂ e	3.4	3.1	3.1
Total gross global Scope 1 and market-based Scope 2 emissions(b)†	Million metric tons CO ₂ e	19.4	18.4	18.4
GHG emission credits purchased				
Purchased credits (metric tons CO ₂ e)	Thousand metric tons CO ₂ e	96	113	86
Average price per metric ton CO ₂ e	Dollars	\$ 1.75	\$ 3.75	\$ 6.75
Maximum price paid per metric ton of CO ₂ e	Dollars	\$ 1.75	\$ 3.75	\$ 7.00
Minimum price paid per metric ton of CO ₂ e	Dollars	\$ 1.75	\$ 3.75	\$ 6.00
Scope 1 and 2 emission intensity(b)†	Metric tons CO ₂ e per BOE throughput	0.003	0.004	0.003
Total gross global Scope 1 emissions by constituent				
CO ₂ (b)†	Million metric tons	12.2	11.1	11.9
CH ₄ †	Million metric tons	0.1	0.1	0.1
N ₂ O(c)†	Million metric tons	0.0	0.0	0.0
HFCs(c)†	Million metric tons	0.0	0.0	0.0
Total gross global location-based Scope 2 emissions†	Million metric tons CO ₂ e	3.3	2.9	2.8

- (a) See table in *Section 3.1 Gross Global Scope 1 and 2 Emissions, Percentage Methane, Percentage Covered under Emissions-Limiting Regulations* of the *Sustainability Report* for relevant footnotes.
- (b) We identified immaterial calculation errors for certain combustion, flaring, and process emission sources that affect data reported for 2019 and 2020. We have revised the 2019 and 2020 gross global Scope 1 emissions, total gross global Scope 1 and Scope 2 emissions, and percentages of gross global Scope 1 emissions for other combustion and process emissions so that this information is comparable to 2021. We have also revised the 2019 Scope 1 and 2 emission intensity and percentage methane to correct these calculation errors.
- (c) N₂O and HFCs are less than 50,000 metric tons.

	Unit	Year Ended December 31,		
		2019	2020	2021
Scope 1 emissions reported under EPA's GHGRP(a)(b)†	Million metric tons CO ₂ e	12.4	12.0	12.1
Scope 1 emissions reported under EPA's GHGRP by constituent(a)				
CO ₂ (b)†	Million metric tons	10.0	9.0	10.0
CH ₄ †	Million metric tons	0.1	0.1	0.1
N ₂ O(c)†	Million metric tons	0.0	0.0	0.0

- (a) 2021 emissions reported under EPA's GHGRP are as of June 20, 2022.
(b) We identified immaterial calculation errors for certain flaring emission sources that affect data reported for 2020. We have revised the CO₂e and CO₂ emissions reported under EPA's GHGRP for 2020 so that this information is comparable to 2021.
(c) N₂O emissions reported under EPA's GHGRP were less than 50,000 metric tons.

	Unit	Year Ended December 31,		
		2019	2020	2021
Equity Share – Continuing Operations				
Scope 1 emissions				
Total gross global equity share Scope 1 emissions(a)(b)(c)(d)(e)†	Million metric tons CO ₂ e	15.1	14.6	14.1
Scope 2 emissions				
Total gross global equity share market-based Scope 2 emissions(a)(b)(f)†	Million metric tons CO ₂ e	2.4	2.3	2.4
Total gross global equity share Scope 1 and market-based Scope 2 emissions(a)(b)(c)(d)(e)(f)	Million metric tons CO ₂ e	17.5	16.9	16.5
Equity share GHG emission intensity				
Adjusted EBITDA(g)	Millions	\$ 7,618	\$ 6,962	\$ 7,946
Total gross global equity share Scope 1 and 2 emissions per Adjusted EBITDA(e)	Million metric tons CO ₂ e per million dollars Adjusted EBITDA	0.0023	0.0024	0.0021

- (a) GHG emissions were quantified per the SASB Midstream Standard and the ISO 14064-1:2006, *Greenhouse gases – Part 1: Specification with guidance at the organization level for the quantification and reporting of greenhouse gas emissions and removals*. Emissions are reported for CO₂, CH₄, N₂O, and HFCs from direct and indirect sources. The IPCC AR5 GWPs were used to convert CH₄ (28) and N₂O (265) emissions to CO₂e. The following GWPs were used for HFCs: R-410A: 1725, HFC-134A: 1300, HCFC-22: 1760, R-404A: 3260, R-407C: 1526, R-1234YF: 4, R-600A: 5, R-407C: 1526, HFC-32: 677, HFC-23: 12,400, CFC-12: 10,200, R-422D: 2,625, R-600: 5, R-600A: 5. Gross emissions are GHGs emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions.
(b) Equity share emissions include emissions from both operated and non-operated sources in which we have an interest. For operated sources, emissions were calculated by applying our ownership percentage to the entity's operating emissions. For the CO₂ business segment, net revenue interest was used as our ownership percentage for production locations and working interest was used as our ownership percentage for non-production locations. Emissions from leased assets are excluded from the equity share emissions calculations per the World Resources Institute GHG Protocol guidance. For non-operated sources, emissions data was collected from third parties who generally provided emissions reported to EPA's GHGRP. When only GHGRP emissions were provided, we added estimated non-GHGRP emissions to calculate total non-operated Scope 1 emissions. Market- and location-based Scope 2 emissions from non-operated facilities were assumed to be the same. Non-operated Scope 2 emissions were estimated when data was not available. Emissions from non-operated assets may also be reported publicly through other companies' reporting initiatives.
(c) Excludes emissions from construction activities, wastewater treatment, fire suppression activities, enclosed circuit breakers operated by the Natural Gas Pipelines business segment, refrigerants from mobile equipment not tracked in our fleet database, fugitive emissions from natural gas supply lines for the Terminals and Products Pipelines business segments, and insignificant emissions from small combustion activities.
(d) We assumed the owning and operating companies assigned to assets during 2020 was the same for 2019. For entities that are owned and operated by companies in different business segments, emissions are reported under the operating business segment.

- (e) We identified immaterial calculation errors for certain combustion, flaring, and process emission sources that affect data reported for 2019 and 2020. We have revised the 2019 and 2020 total gross global equity share Scope 1 emissions, total gross global equity share Scope 1 and market-based Scope 2 emissions, and total gross global equity share Scope 1 and 2 emissions per Adjusted EBITDA, so that this information is comparable to 2021.
- (f) Scope 2 GHG emissions include indirect emissions from purchased electricity.
- (g) For additional information about our use of and calculation for Adjusted Segment EBITDA, a non-GAAP financial measure, see Part II, Item 7 included in our 2019, 2020, and 2021 Form 10-K annual reports, which are available through the SEC's EDGAR system at <https://www.sec.gov> and on our website at <https://ir.kindermorgan.com/financials/annual-reports/default.aspx>.

	Unit	Year Ended December 31,		
		2019	2020	2021
Research and development investments in GHG emissions and other climate change-related projects [†]	Thousands	\$ 226	\$ 251	\$ 375
Renewable energy consumed from the solar panels we operate	MWh	1,018	1,053	1,058
Electricity consumption				
Total electricity consumption from continuing operations [†]	GWh	7,470	6,984	7,335
Methane emission reductions				
Volume of voluntary methane emission reductions [†]	Bcf	4.3	5.9	6.6
Estimated value of natural gas saved [†]	Millions	\$ 13	\$ 21	\$ 38
Voluntary GHG emission reductions	Million metric tons CO ₂ e - methane GWP of 25	2.0	2.8	3.2
GHG targets				
Methane emission intensity rate target	%	0.31 %	0.31 %	0.31 %
Methane emission intensity rate [†]	%	0.03 %	0.04 %	0.03 %
Target number of natural gas transmission and storage compressor stations to survey	#	252	287	322
Actual number of natural gas transmission and storage compressor stations surveyed	#	306	319	340
Target – GHG reductions	Million metric tons CO ₂ e - methane GWP of 28	1.1	1.2	1.3
Voluntary GHG emission reductions [†]	Million metric tons CO ₂ e - methane GWP of 28	2.3	3.2	3.6

[†] An external third party performed limited assurance procedures for the 2021 values of these metrics. See their report in *Appendix D – Third-Party Assurance Statement*.

[†] Our Internal Audit group performed assurance procedures for the 2021 values of these metrics.

Appendix B – Activity Metrics

	Unit	Year Ended December 31, (unless otherwise noted)		
		2019	2020	2021
Miles of pipeline operated(a)†	Thousands of miles	74	74	74
Operational control throughput				
Company-wide BOE(b)(c)†	BBbl/yr	5.6	5.1	5.4

- (a) The miles of pipeline operated includes pipelines in the U.S, Canada, and Mexico under our operational control as of the third quarter of 2021. It excludes production and flow lines in the CO₂ business segment.
- (b) ONE Future's definitions are used for annual throughput. If no ONE Future definition applies, throughput is generally defined as product receipt. Throughput was converted to MMBtu using product-specific heat content, obtained from the EIA, EPA, or business segment data. This is then converted to BOE by dividing by 5.8 MMBtu per bbl of crude oil. The CO₂ that we transport does not have a heating value, and therefore, has a BOE equal to zero.
- (c) Discontinued operations include emissions from KML and the U.S. portion of the Cochin Pipeline up to the sale date of December 16, 2019. Discontinued operations BOE in 2018 was 0.1 bbls/yr.

	Unit	Year Ended December 31,		
		2019	2020	2021
SASB Activity Metrics				
Number of full-time employees	#	11,086	10,525	10,529
Oil & Gas Exploration & Production				
Number of offshore sites (EM-EP-000.B)	#	0	0	0
Number of oil terrestrial sites (EM-EP-000.C)(a)	#	1,234	1,227	1,190
Number of CO ₂ production terrestrial sites(a)	#	90	84	88
Marine Transportation				
Number of shipboard employees (TR-MT-000.A)	#	1,033	921	877
Total distance traveled by vessels (TR-MT-000.B)	Nautical miles	686,259	707,389	711,798
Operating days (TR-MT-000.C)	Days	5,720	5,755	5,687
Barrels transferred(b)	MMBbl	—	—	101
Number of vessels in total shipping fleet (TR-MT-000.E)	#	16	16	16
Number of vessel port calls (TR-MT-000.F)	#	892	801	777
Twenty-foot equivalent unit capacity (TR-MT-000.G)(c)	TEU	0	0	0

- (a) Represents number of active and producing wells.
- (b) Represents cargo barrels discharged.
- (c) Twenty-foot equivalent unit capacity is a unit of cargo used to measure a ship's container carrying capacity. We do not operate marine vessels capable of carrying cargo containers.

† An external third party performed assurance procedures for the 2021 values of these metrics. See their report in *Appendix D – Third-Party Assurance Statement*.

Appendix C – ESG Content Index

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
General Disclosures	Organizational details	--	2-1	--	--	2021 ESG Report A Message from Our CEO 2022 Form 10-K Cover Page 2021 ESG Report Pg. 14 2022 Form 10-K Part I, Items 1. and 2
	Reporting period, frequency and contact point	--	2-3	--	--	2022 Proxy Statement Pgs. 30-47
	External assurance	--	2-5	--	1	2021 ESG Report Pg. 11
	Activities, value chain and other business relationships	--	2-6	--	--	2021 ESG Report A Message from Our CEO 2021 ESG Report Pg. 14 2021 Form 10-K Part I, Items 1. and 2
	Governance structure and composition	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-9	C1.1b	5 16	2021 ESG Report Pg. 11 2021 ESG Report Pg. 15 2021 ESG Report Pg. 83
	Nomination and selection of the highest governance body	--	2-10	--	5 16	2022 Proxy Statement Pgs. 8-22
	Chair of the highest governance body	--	2-11	--	16	2021 ESG Report Pg. 83
	Role of the highest governance body in overseeing the management of impacts	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-12	C1.1b C1.2 C1.2a C4.2 C4.2a C4.2b C9.1	7 12 16	2021 ESG Report Pg. 83 2021 ESG Report Pg. 85 2022 Proxy Statement Pg. 14 2022 Proxy Statement Pgs. 18-21
	Delegation of responsibility for managing impacts	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-13	C1.1b	16	2021 ESG Report Pg. 11 2021 ESG Report Pg. 15 2021 ESG Report Pg. 83 2022 Proxy Statement Pgs. 13-21
	Role of the highest governance body in sustainability reporting	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-14	C1.1b C1.2 C1.2a	--	2021 ESG Report Pg. 83
	Conflicts of interest	--	2-15	--	5	2022 Proxy Statement Pgs. 8. 13
	Collective knowledge of the highest governance body	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-17	C1.1b	16	KMI Code of Business Conduct and Ethics Pgs. 19-24 2022 Proxy Statement Pgs. 22-24
	Evaluation of the performance of the highest governance body	--	2-18	--	16	2021 ESG Report Pg. 22 2021 ESG Report Pg. 83
	Remuneration policies	--	2-19	--	--	2021 ESG Report Pg. 103
Process for determine remuneration	--	2-20	--	--	2021 ESG Report Pg. 83 2022 Proxy Statement Pg. 17-18	

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
	Statement on sustainable development strategy	--	2-22	--	--	2021 ESG Report Pg. 22 2021 ESG Report Pg. 58
	Policy commitments	--	2-23	--	16	2021 ESG Report A Message from Our CEO
	Mechanisms for seeking advice and raising concerns	--	2-26	--	16	2021 ESG Report Pg. 15
	Membership associations	--	2-28	--	--	2021 ESG Report Pg. 22 2021 ESG Report Pg. 36 2021 ESG Report Pg. 69 2021 ESG Report Pg. 77
	Approach to stakeholder engagement	--	2-29	--	1 6 10 12 17	2021 ESG Report Pg. 11 2021 ESG Report Pg. 73 2021 ESG Report Pg. 83
	Process to determine material topics	--	3-1	--	--	2022 Proxy Statement Pgs. 30-47
	Stakeholder engagement and management of concerns related to tax		207-3/ 11.21.6			2021 ESG Report Pg. 60
	Country-by-country reporting		207-4/ 11.21.7			2021 ESG Report Pg. Appendix A.1
	Incidents of discrimination and corrective actions taken		406-1/ 11.11.7			2021 ESG Report Pg. 15
Economic Performance	Financial implications and other risks and opportunities due to climate change	--	201-2/ 11.2.2	C2.3	--	2021 ESG Report Pg. 86
Indirect Economic Impacts	Infrastructure investments and services supported	--	203-1/ 11.14.4	--	6 9 11 14 15	2021 ESG Report A Message From Our CEO 2021 ESG Report Pg. 14 2021 ESG Report Pg. 77 2021 ESG Report Pg. 86 2021 ESG Report Pg. 93
	Significant indirect economic impacts	--	203-2/ 11.14.5	--	1 3 8	2021 ESG Report Pg. 77

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
Greenhouse Gas Emissions	Electricity consumption	--	302-1/ 11.1.2	C8.2 C8.2a	--	2021 ESG Report Pg. 28
	Energy intensity		302-3/ 11.1.4			2021 ESG Report Pg. 28
	Reduction of energy consumption	--	302-4	--	--	2021 ESG Report Pg. 28
	Gross global Scope 1 emissions, Gross direct Scope 1 emissions (equity approach), percentage methane, percentage covered under emissions-limiting regulations	EM-MD-110a.1 EM-EP-110a.1 TR-MT-110a.1	305-1/ 11.1.5	C6.1 C6.3 C6.4 C7.3 C7.6 C7.9 C8.1-8.2f	--	2021 ESG Report Pg. 19 2021 ESG Report Appendix A.2
	Gross global Scope 2 emissions, Gross global market-based Scope 2 emissions (equity approach), energy indirect (Scope 2) GHG emissions	--	305-2/ 11.1.6	C6.1 C6.3 C7.3 C7.6 C7.9 C8.1-8.2f	--	2021 ESG Report Pg. 19
	Discussion of long-term and short-term strategy or plan to manage gross global Scope 1 and 2 emissions, emissions reduction targets, and an analysis of performance against those targets, and GHG reductions	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	305-5/ 11.2.3	C3.1 C4.3	--	2021 ESG Report Pg. 22 2021 ESG Report Pg. 28
	Other indirect (Scope 3) GHG emissions	--	305-3/ 11.1.7	C6.5	--	2021 ESG Report Pg. 30
	GHG emissions intensity ratio per BOE throughput	EM-MD-110a.1 EM-EP-110a.1 TR-MT-110a.1	305-4/ 11.1.8	C4.1 C4.1b C4.2a C6.10 C-OG6.12 C9.1	--	2021 ESG Report Pg. 22 2021 ESG Report Pg. 86
	Organization strategy and/or financial planning influenced by climate-related risks and opportunities	--	--	C3.1	--	2021 ESG Report Pg. 30 2021 ESG Report Pg. 92
	Energy management	--	--	C8.2	--	2021 ESG Report Pg. 28
	GHG offsets	--	--	C4.3 C11.2	--	2021 ESG Report Pg. 30
	GHG targets	--	--	C4.1	--	2021 ESG Report Pg. 31
Air Quality	Air emissions for the following pollutants: NO _x (excluding N ₂ O), SO _x , volatile organic compounds (VOCs) and particulate matter (PM ₁₀)	EM-MD-120a.1 EM-EP-120a.1	305-7/ 11.3.2	--	3 11 12	2021 ESG Report Pg. 33
Water Usage	Water management & usage	EM-EP-140a.1	303-1/ 11.6.2 303-2/ 11.6.3	W1.1 W1.2 W6.1	6	2021 ESG Report Pg. 33
	Water withdrawal	EM-EP-140a.1	303-3/ 11.6.4	W1.1 W1.2b W-OG1.2c W1.2d W1.2h	6	2021 ESG Report Pg. 34
	Water discharge		303-4/ 11.6.5			2021 ESG Report Pg. 34
	Water consumption	EM-EP-140a.1	303-5/ 11.6.6	W1.1 W1.2b	6	2021 ESG Report Pg. 34
	Water withdrawn intensity	--	--	W-OG1.3 W-OG1.3a	6	2021 ESG Report Pg. 34

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
Ecological Impacts	Percentage of land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat, Operational sites owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas	EM-MD-160a.2	304-1/11.4.2	--	6 14 15	2021 ESG Report Pg. 39
	Significant impacts of activities, products, and services on biodiversity	--	304-2/11.4.3	--	6 14 15	2021 ESG Report Pg. 36
	Habitats protected or restored	--	304-3/11.4.4	--	6 14 15	2021 ESG Report Pg. 36
	Description of environmental management policies and practices for active operations	EM-MD-160a.1 EM-EP-160a.1	--	--	15	2021 ESG Report Pg. 36
	Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume in Unusually Sensitive Areas (USAs), and volume recovered	EM-MD-160a.4 EM-EP-160a.2	--	--	6 15	2021 ESG Report Pg. 40
	(1) Number and (2) aggregate volume of marine spills and releases to the environment	TR-MT-160a.3	--	--	6	2021 ESG Report Pg. 41
Environmental Compliance	Environmental fines and penalties	--	2-27 307-1	--	12	2021 ESG Report Pg. 41
Occupational Health and Safety, Emergency Preparedness & Response	Discussion of management systems used to integrate a culture of safety and emergency preparedness throughout the value chain and throughout project lifecycles	EM-MD-540a.4 EM-EP-320a.2	403-1/ 11.9.2 403-4/ 11.9.5 403-8/ 11.9.9	--	8	2021 ESG Report Pg. 42
	Workers representation on formal joint management-worker health and safety committees	--	403-1/ 11.9.2	--	8	2021 ESG Report Pg. 42
	Types of injury and rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities	--	403-2/ 11.9.3	--	8	2021 ESG Report Pg. 43
	Occupational health services		403-3/ 11.9.4			2021 ESG Report Pg. 42 2021 ESG Report Pg. 64
	Worker participation, consultation, and communication on occupational health and safety	EM-MD-540a.4 EM-EP-320a.2	403-4/ 11.9.5 403-9/ 11.9.10	--	8 16	2021 ESG Report Pg. 42
	Worker training on occupational health and safety	--	403-5/ 11.9.6	--	8	2021 ESG Report Pg. 43
	Promotion of worker health	--	403-6/ 11.9.7	--	3	2021 ESG Report Pg. 42
	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	--	403-7/ 11.9.8	--	8	2021 ESG Report Pg. 43
	(1) Total Recordable Incident Rate (TRIR); (2) Lost Time Incident Rate (LTIR); (3) Fatality Count; (4) Average hours of Health, Safety, and Emergency Response Training for: (a) Employees, (b) Contractors, and (c) short-service employees	EM-MD-540a.1 EM-EP-320a.1 TR-MT-320a.1	403-9/ 11.9.10	--	3 8	2021 ESG Report Pg. 43
	Work-related ill health		403-10/ 11.9.11			2021 ESG Report Pg. 64
Marine Accidents & Safety Management	Lost time incident rate (LTIR)	TR-MT-320a.1	403-9/ 11.9.10	--	8	2021 ESG Report Pg. 45

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
Hazardous Materials Management	Waste generation and significant waste-related impacts		306-1/ 11.5.2			2021 ESG Report Pg. 49
	Amount of hazardous waste generated, percentage recycled, and waste diverted from disposal		306-2/ 11.5.3 306-3/ 11.5.4 306-4/ 11.8.2/1 1.5.5	--	3	2021 ESG Report Pg. 49
Competitive Behavior	Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage regulations	EM-MD-520a.1	--	--	16	2021 ESG Report Pg. 50
Business Ethics & Anti-Corruption	Operations assessed for risks related to corruption		205-1/ 11.20.2			2021 ESG Report Pg. 51
	Description of the management system for prevention of corruption and bribery throughout the value chain	EM-EP-510a.2	205-2/ 11.20.3	--	16	2021 ESG Report Pg. 51
	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	--	206-1/ 11.19.2	--	16	2021 ESG Report Pg. 50 KMI Code of Business Conduct and Ethics Pg. 38
Operational Safety	Number of reportable pipeline incidents, percentage significant	EM-MD-540a.1	--	--	6	2021 ESG Report Pg. 56
	Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected	EM-MD-540a.2	--	--	12	2021 ESG Report Pg. 57
Management of the Legal & Regulatory Environment	Tax transparency	--	201-1/ 11.14.2/ 11.21.2 201-4/ 11.21.3 207-1/ 11.21.4	--	1 8 10 17	2021 ESG Report Pg. 60
	Tax governance, control, and risk management		207-2/ 11.21.5			2021 ESG Report Pg. 60
	Political contributions and payments made in relation to ballot measures	--	415-1/ 11.22.2	--	16	2021 ESG Report Pg. 60
	Discussion of the corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	EM-EP-530a.1	--	--	16 17	2021 ESG Report Pg. 58
Data Security	Description of approach to identifying and addressing data security risks	SV-PS-230a.1	--	--	--	2021 ESG Report Pg. 62
Workforce Diversity & Engagement	Number of employees by: (1) full-time and part-time, (2) temporary, and (3) contract	SV-PS-000.A	2-7	--	--	2021 ESG Report Pg. 64
	(1) Voluntary and (2) involuntary turnover rate for employees	SV-PS-330a.2	401-1/ 11.10.2	--	5 8	2021 ESG Report Pg. 64
	Benefits provided to full-time employees that are not provided to temporary or part-time employees		401-2/ 11.10.3		8	2021 ESG Report Pg. 64 KMI Employee Stock Purchase Plan (filed as Exhibit 10.5 on Form 10-Q for the quarter ended March 31, 2011)
	Parental leave		401-3/ 11.10.4/ 11.11.2			2021 ESG Report Pg. 64
	Percentage of gender and racial/ethnic group representation for (1) executive management, (2) non-executive management, (3) professionals, and (4) all other employees	FN-IB-330a.1	405-1/ 11.11.5	--	5 10	2021 ESG Report Pg. 64
	Ratio of basic salary and remuneration		405-2/ 11.11.6			2022 Proxy Statement Pg. 42

Topic	Sustainability Policies and Accounting Metrics	SASB(a)	GRI (b)	CDP (c)(d)	SDGs	ESG Report Section Page or Reference to Kinder Morgan Published Document
Supply Chain Management	Proportion of spending on local suppliers		204-1/ 11.14.6			2021 ESG Report Pg. 46
	Supplier diversity	--	414-1/ 11.10.8/ 11.12.3	--	8 9	2021 ESG Report Pg. 46
Freedom of Association and Collective Bargaining	Operations and suppliers in which the right to Freedom of Association and Collective Bargaining may be at risk	--	407-1/ 11.13.2	--	8	2021 ESG Report Pg. 46
Employee Training & Development	Discussion of (1) average and total hours of training per year per employee (2) programs for upgrading employee skills and transition assistance programs (3) percentage of employees receiving regular performance and career development reviews	--	404-1/ 11.10.6/ 11.11.4 404-2/ 11.7.3/ 11.10.7	--	4	2021 ESG Report Pg. 69
	Employee training costs	--	--	--	8 9	2021 ESG Report Pg. 69
Community Relations	Community investments	--	201-1/ 11.14.2/ 11.21.2	--	5 10	2021 ESG Report Pg. 77
	Discussion of process to manage risks and opportunities associated with community rights and interests; impact assessments and development programs and operations with local community engagement	EM-EP-210b.1	413-1/ 11.15.2	--	1 8 9 11	2021 ESG Report Pg. 72
Security, Human Rights & Rights of Indigenous Peoples	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict and operations and suppliers at significant risk for incidents of child labor, and forced or compulsory labor	EM-EP-210a.3	408-1 409-1/ 11.12.2	--	8 16	2021 ESG Report Pg. 79
Reserves Valuation & Capital Expenditures	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	--	C2.3	--	2021 ESG Report Pg. 86

- (a) Version 2018-10: SASB Extractives & Minerals Processing Sector Oil & Gas Midstream Standard EM-MD, SASB Extractives & Minerals Processing Sector Exploration & Production Standard EM-EP, SASB Transportation Sector Marine Transportation Standard TR-MT, SASB Financials Sector – Investment Banking & Brokerage standard FN-IB, and SASB Services Sector – Professional & Commercial Services standard SV-PS.
- (b) GRI 1: Foundation 2021, GRI 2: General Disclosures 2021. GRI 3: Material Topics 2021, GRI 201 Economic Performance 2016, GRI 203 Indirect Economic Impacts 2016, GRI 205 Anti-Corruption 2016, GRI 206 Anti-competitive Behavior 2016, GRI 207 Tax 2019, GRI 302 Energy 2016, GRI 303 Water and Effluents 2018, GRI 304 Biodiversity 2016, GRI 305 Emissions 2016, GRI 306 Effluents and Waste 2016, GRI 306 Waste 2020, GRI 401 Employment 2016, GRI 403 Occupational Health and Safety 2018, GRI 404 Training and Education 2016, GRI 405 Diversity and Equal Opportunity 2016, GRI 407 Freedom of Association and Collective Bargaining 2016, GRI 408 Child Labor 2016, GRI 409 Forced or Compulsory Labor 2016, GRI 413 Local Communities 2016, and GRI 415 Public Policy 2016. GRI 306-3 Significant Spills refers to GRI 306: Effluents and Waste 2016. GRI 306-3 Waste Generated refers to GRI 306: Waste 2020.
- (c) CDP Climate Change 2022 Questionnaire: CDP C1 Governance, CDP C2 Risks and Opportunities, CDP C3 Business Strategy, CDP C4 Targets and Performance, CDP C6 Emissions Data, CDP C7 Emissions Breakdown, CDP C8 Energy, CDP C9 Additional Metrics, CDP C11 Carbon Pricing.
- (d) CDP Water Security 2022 Questionnaire: CDP W1 Current State, and CDP W6 Governance.

TCFD Core Elements	TCFD Core Element Description	Recommended Disclosure	SASB(a)	GRI (b)	CDP(c)	SDGs	Section Page
Governance	Disclose the organization's governance around climate-related risks and opportunities	Describe the board's oversight of climate-related risk and opportunities	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-9 2-12 2-13 2-14 2-17	C1.1b	--	2021 ESG Report Pg. 83
		Describe management's role in assessing and managing climate related risks and opportunities	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	2-12 2-14	C1.2 C1.2a	--	2021 ESG Report Pg. 85
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	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	--		C2.1 C2.3 C2.3a C2.4 C2.4a	--	2021 ESG Report Pg. 86
		Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	--		C2.1 C2.2d C2.3a C3.1 C3.1c C3.1d C2.4a C2.5	--	2021 ESG Report Pg. 92
		Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 °C or lower scenario	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2		C3.1 C3.1d	--	2021 ESG Report Pg. 93
Risk Management	Disclose how the organization identifies, assesses, and manages climate-related risks	Describe the organization's processes for identifying and assessing climate-related risks	--	201-2/ 11.2.1	--	--	2021 ESG Report Pg. 103
		Describe the organization's processes for managing climate-related risks	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	--	--	--	2021 ESG Report Pg. 103
		Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	EM-MD-110a.2 EM-EP-110a.3 TR-MT-110a.2	--	C2.2	--	2021 ESG Report Pg. 103
Metrics and Targets	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	--	2-12	C9.1	--	2021 ESG Report Pg. 106
		Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	EM-MD-110a.1 EM-EP-110a.1 TR-MT-110a.1	2-12 201-2/ 11.2.2	C6.1 C6.2 C6.3 C6.5	--	2021 ESG Report Pg. 106
		Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	--	--	C4.1 C4.1a C4.1b C4.2	--	2021 ESG Report Pg. 106

- (a) Version 2018-10: SASB Extractives & Minerals Processing Sector Oil & Gas Midstream Standard EM-MD, SASB Extractives & Minerals Processing Sector Exploration & Production Standard EM-EP, and SASB Transportation Sector Marine Transportation Standard TR-MT.
- (b) GRI 2: General Disclosures 2021, GRI 201 Economic Performance 2016.
- (c) CDP Climate Change 2022 Questionnaire: CDP C1 Governance, CDP C2 Risks and Opportunities, CDP C3 Business Strategy, CDP C4 Targets and Performance, CDP C6 Emissions Data, CDP C9 Additional Metrics.



Report of Independent Accountants

To the Board of Directors of Kinder Morgan, Inc.

We have reviewed the accompanying Kinder Morgan, Inc. ("Kinder Morgan") management assertion that the sustainability metrics, as of or for the year ended December 31, 2021 (unless otherwise noted in the assessment criteria) in management's assertion, are presented in accordance with the assessment criteria set forth in management's assertion. Kinder Morgan's management is responsible for its assertion and for the selection of the criteria, which management believes provide an objective basis for measuring and reporting on the sustainability metrics. Our responsibility is to express a conclusion on management's assertion based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants (AICPA) in AT-C section 105, *Concepts Common to All Attestation Engagements*, and AT-C section 210, *Review Engagements*, and standards established by the International Auditing and Assurance Standards Board (IAASB) in International Standard on Assurance Engagements (ISAE) 3000, *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*. Those standards require that we plan and perform the review to obtain limited assurance about whether any material modifications should be made to management's assertion in order for it to be fairly stated. The procedures performed in a review vary in nature and timing from, and are substantially less in extent than, an examination, the objective of which is to obtain reasonable assurance about whether management's assertion is fairly stated, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed. We believe that the review evidence obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

We are required to be independent and to meet our other ethical responsibilities in accordance with the Code of Professional Conduct issued by the AICPA.

Our firm applies the Statements on Quality Control Standards established by the AICPA and, accordingly, maintains a comprehensive system of quality control.

The procedures we performed were based on our professional judgment. In performing our review, we performed inquiries; performed tests of mathematical accuracy of computations on a sample basis; read relevant policies to understand terms related to relevant information about the specified sustainability metrics; reviewed supporting documentation in regard to the completeness and accuracy of the data in the specified sustainability metrics on a sample basis; and performed analytical procedures.

Greenhouse gas (GHG) emissions quantification is subject to inherent measurement uncertainty because of such things as GHG emissions factors that are used in mathematical models to calculate GHG emissions, and the inability of these models, due to incomplete scientific knowledge and other factors, to accurately measure under all circumstances the relationship between various inputs and the resultant GHG emissions. Environmental and energy use data used in GHG emissions calculations are subject to inherent limitations, given

PricewaterhouseCoopers LLP, 1000 Louisiana Street, Suite 58000, Houston, TX 77002
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the nature and the methods used for measuring such data. The selection by management of different but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.

The preparation of the non-GHG emissions metrics requires management to establish the criteria, make determinations as to the relevancy of information to be included, and make assumptions that affect reported information. The selection by management of different but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.

As discussed in management's assertion, Kinder Morgan has estimated GHG emissions for certain emissions sources for which no primary usage data is available.

As discussed in management's assertion, in 2021, Kinder Morgan changed the measurement method related to the Hazardous Materials Management sustainability metrics.

Based on our review, we are not aware of any material modifications that should be made to Kinder Morgan's management assertion in order for it to be fairly stated.

PricewaterhouseCoopers LLP

July 21, 2022

**Kinder Morgan, Inc.’s Management Assertion
As of or for the Year Ended December 31, 2021**

With respect to the sustainability metrics for the reporting year 2021 (the metrics are as of or for the year ended December 31, 2021, unless otherwise noted in the assessment criteria) presented in the table below, management of Kinder Morgan, Inc. (“Kinder Morgan” or “KMI”) asserts that the sustainability metrics are presented in conformity with the assessment criteria set forth below. Management is responsible for the completeness, accuracy, and validity of the sustainability metrics and for the selection of the criteria, which management believes provide an objective basis for measuring and reporting on the sustainability metrics. Management has primarily used the Sustainability Accounting Standards Board (SASB) Sustainability Accounting Standards as an input to its consideration of what metrics and other sustainability disclosures to report, however, neither the Kinder Morgan, Inc. 2021 Environmental, Social, and Governance Report nor this management assertion related to certain sustainability metrics asserts that Kinder Morgan has complied with the SASB Sustainability Accounting Standards.

The sustainability metrics, which are reported in the Kinder Morgan, Inc. 2021 Environmental, Social, and Governance Report Appendix A.1, A.2, and B, identified by the “+” tick mark, includes Kinder Morgan and its operated subsidiaries and its operated investees unless otherwise defined in the assessment criteria.

Topic, Standard, and Accounting Metric	Kinder Morgan, Inc. Metric	Definition of Kinder Morgan, Inc. Metric and Assessment Criteria	Kinder Morgan, Inc. Metric Quantity for the reporting year 2021
<p>Greenhouse Gas Emissions</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p> <p>Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Exploration and Production</i></p>	<p>Operational Control:</p> <p>Total gross global Scope 1 emissions</p> <p>Total gross global Scope 1 emissions by constituent (CO₂, CH₄, N₂O, and HFCs)</p> <p>Percentage of gross global Scope 1 emissions by emission type</p> <p>Total gross global market-based Scope 2 emissions</p>	<p>GHG emissions were quantified considering the SASB Midstream Standard and the ISO 14064-1:2006, <i>Greenhouse gases - Part 1: Specification with guidance at the organization level for the quantification and reporting of greenhouse gas emissions and removals</i>. Emissions are reported for carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and hydrofluorocarbons (HFCs) from direct and indirect sources. The Intergovernmental Panel on Climate Change (IPCC) Assessment Report (AR5) Global Warming Potentials (GWP) were used to convert CH₄ (28) and N₂O (265) emissions to CO₂e. The following GWPs were used for HFCs: R-410A: 1725, HFC-134A: 1300, HCFC-22: 1760, R-404A: 3260, R-407C: 1526, R-1234YF: 4, R-600A: 5, R-407C: 1526, HFC-32: 677, HFC-23: 12,400, CFC-12: 10,200, R-422D: 2,625, R-600: 5, R-600A: 5. Gross emissions are GHGs emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions.</p>	<p>Total gross global Scope 1 emissions: 15.3 million metric tons CO₂e</p> <p>Total gross global Scope 1 emissions by constituent (million metric tons):</p> <p>CO₂: 11.9 CH₄: 0.1 N₂O: 0.0 HFC: 0.0</p> <p>Percentage of gross global Scope 1 emissions by emission type:</p> <p>Flared hydrocarbons: 1% Other combustion: 74% Process emissions: 3% Other vented emissions: 13% Fugitive emissions from operations: 9%</p> <p>Total gross global market-based Scope 2 emissions: 3.1 million metric tons CO₂e</p>

<p>Amount of gross global Scope 1 emissions from: (1) flared hydrocarbons, (2) other combustion, (3) process emissions, (4) other vented emissions, and (5) fugitive emissions from operations</p> <p><i>World Resource Institute Greenhouse Gas Protocol</i></p> <p>Gross global market- and location-based Scope 2 emissions</p>	<p>Total gross global location-based Scope 2 emissions</p> <p>Total gross global Scope 1 and market-based Scope 2 emissions</p> <p>Total gross global Scope 1 emissions - percentage covered under emissions-limiting regulations</p> <p>Total gross global Scope 1 emissions - percentage methane</p>	<p>Total gross global Scope 1 emissions by constituent of CO₂, CH₄, N₂O, and HFCs in million metric tons. For the year ended 2021, emissions of N₂O and HFCs are less than 50,000 metric tons.</p> <p>Scope 1 (direct) emissions by emission type are defined as follows:</p> <ul style="list-style-type: none"> • Flared hydrocarbons - Emissions from flaring from processing, gathering activities, and other operations. • Other combustion - Emissions from combustion operations, including, but not limited to, engines and turbines, boilers and heaters, vapor combustion devices, and stationary and fleet vehicle engines. • Process emissions - Emissions from equipment used to process gas, including, but not limited to, dehydration units and gas sweetening units. • Other vented emissions - Emissions from the release of gas from equipment, including, but not limited to blowdowns, compressor starts, pneumatic devices, and meter sampling. • Fugitive emissions from operations - Emissions from leaking equipment, including, but not limited to, equipment component leaks, refrigerants, and vapor handling systems. <p>The Scope 1 by emission type was reported as a percentage of total Scope 1 emissions. This deviated from the SASB Accounting Standard, which specifies disclosing the amount of Scope 1 emissions per emission type.</p> <p>Scope 2 (indirect) emissions are based on activities listed in the table within the GHG Emissions - Estimations section below.</p> <p>Scope 1 percentage of emissions covered under emissions-limiting regulations is calculated as the CO₂e emissions covered under emissions-limiting regulations divided by the total gross global Scope 1 emissions in metric tons of CO₂e.</p> <p>Scope 1 percentage of methane emissions is calculated as the methane emissions in metric tons of CO₂e divided by the total gross global Scope 1 emissions in metric tons of CO₂e.</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	<p>Total gross global location-based Scope 2 emissions: 2.8 million metric tons CO₂e</p> <p>Total gross global Scope 1 and market-based Scope 2 emissions: 18.4 million metric tons CO₂e</p> <p>Total gross global Scope 1 emissions - percentage covered under emissions-limiting regulations: 0%</p> <p>Total gross global Scope 1 emissions - percentage methane: 22%</p>
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<p>Greenhouse Gas Emissions</p> <p><i>United States (U.S.) Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program (GHGRP)</i></p>	<p>Scope 1 emissions reported under EPA's GHGRP</p> <p>Scope 1 emissions reported under EPA's GHGRP by constituent (CO₂, CH₄, N₂O)</p>	<p>The quantity in million metric tons of CO₂e reported to the U.S. EPA's GHGRP. GHG emissions are reported to the U.S. EPA's GHGRP using GWP's from the IPCC AR4 to convert CH₄ (25) and N₂O (298) to CO₂e.</p> <p>The Scope 1 emissions reported to the U.S. EPA under the U.S. EPA GHGRP for KMI by constituent of CO₂, CH₄, and N₂O in million metric tons.</p> <p>For the year ended 2021, emissions reported under U.S. EPA's GHGRP are based on information as of June 20, 2022. For the year ended 2021, emissions of N₂O emissions reported to the U.S. EPA's GHGRP were less than 50,000 metric tons.</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	<p>Scope 1 emissions reported under EPA's GHGRP: 12.1 million metric tons CO₂e</p> <p>Scope 1 emissions reported under EPA's GHGRP by constituent (million metric tons):</p> <p>CO₂: 10.0 CH₄: 0.1 N₂O: 0.0</p>
<p>Greenhouse Gas Emissions</p> <p><i>World Resource Institute Greenhouse Gas Protocol</i></p>	<p>Equity Share:</p> <p>Total gross global equity share Scope 1 emissions</p> <p>Total gross global equity share market-based Scope 2 emissions</p>	<p>GHG emissions were quantified considering the SASB Midstream Standard and the ISO 14064-1:2006, <i>Greenhouse gases - Part 1: Specification with guidance at the organization level for the quantification and reporting of greenhouse gas emissions and removals</i>. Emissions are reported for CO₂, CH₄, N₂O, and HFCs from direct and indirect sources. The IPCC AR5 GWPs were used to convert CH₄ (28) and N₂O (265) emissions to CO₂e. The following GWPs were used for HFCs: R-410A: 1725, HFC-134A: 1300, HCFC-22: 1760, R-404A: 3260, R-407C: 1526, R-1234YF: 4, R-600A: 5, R-407C: 1526, HFC-32: 677, HFC-23: 12,400, CFC-12: 10,200, R-422D: 2,625, R-600: 5, R-600A: 5. Gross emissions are GHGs emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions.</p> <p>Equity share emissions include emissions from both operated and non-operated sources in which we have an interest. For operated sources, emissions were calculated by applying our ownership percentage to the entity's operating emissions. For the CO₂ business segment, net revenue interest was used as our ownership percentage for production locations and working interest was used as our ownership percentage for non-production locations. Emissions from leased assets are excluded from the equity share emissions calculations per the World Resources Institute GHG Protocol guidance. For non-operated sources, emissions data was collected from the operating partner of the joint venture (JV) who generally provided emissions reported to the U.S. EPA's GHGRP. When only GHGRP emissions were provided, estimated non-GHGRP emissions were added to calculate total non-operated Scope 1 emissions.</p>	<p>Total gross global equity share Scope 1 emissions: 14.1 million metric tons CO₂e</p> <p>Total gross global equity share market-based Scope 2 emissions: 2.4 million metric tons CO₂e</p>

		<p>Market- based Scope 2 emissions from non-operated facilities were assumed to be equal to the location-based Scope 2 emissions. Non-operated market-based Scope 2 emissions were estimated when data was not available. Emissions from non-operated assets may also be reported publicly through other companies' reporting initiatives.</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	
<p>Greenhouse Gas Emissions</p> <p><i>Our Nation's Energy Future (ONE Future), Natural Gas Sustainability initiative, and GHG Protocol</i></p> <p><i>Company specific definitions</i></p>	<p>Operational Control: Scope 1 and 2 emission intensity</p> <p>Operational control: company-wide BOE throughput</p>	<p>The quantity in million metric tons of CO₂e of Scope 1 and Scope 2 emissions for KMI was converted using the IPCC AR5 GWPs, divided by the company-wide barrel of oil equivalent (BOE), which is derived from throughput information.</p> <p>ONE Future's definitions are used for annual throughput. If no ONE Future definition applies, throughput is generally defined as product receipt. Throughput was converted to MMBtu using product-specific heat content, obtained from the U.S. Energy Information Agency (EIA), U.S. EPA, or business segment data. This is then converted to BOE by dividing by 5.8 MMBtu per bbl of crude oil. The CO₂ that we transport does not have a heating value, and therefore, has a BOE equal to zero.</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	<p>Scope 1 and 2 emission intensity (metric tons CO₂e / BOE throughput (BBbl/yr)): 0.003</p> <p>Company-wide BOE throughput: 5.4 BBbl/yr</p>
<p>Greenhouse Gas Emissions</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p> <p>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</p>	<p>Methane emission reductions:</p> <p>Voluntary GHG emission reductions</p> <p>Volume of voluntary methane emission reductions</p> <p>Estimated value of natural gas saved</p>	<p>The quantity of voluntary GHG emission reductions in million metric tons CO₂e and volume in billions of cubic feet (Bcf) of voluntary methane emission reductions. Methane emission reductions are defined as emissions mitigated or avoided that would otherwise have been emitted.</p> <p>Methane emission reductions include reductions from compressor station leak repairs, pipeline pumpdowns, gas turbine installations, electric motor installations, and alternative pipeline maintenance technologies that reduce the need for pipeline blowdowns.</p> <p>The reported CO₂e is based on a GWP of 28 if the methane were directly emitted to the atmosphere. Calculation is from 40 CFR Part 98.233, Equation W-36: methane (scf) multiplied by 0.0192 kg/ft³ (methane density) multiplied by 0.001 metric tons/kg (kg to metric tons conversion) multiplied by 28 metric tons CO₂e/metric ton methane (GWP).</p> <p>Methane content of pipeline quality natural gas is estimated at 95% per Methane Challenge Program guidance. KMI reports GHG reduction metrics as specified by the U.S. EPA Natural</p>	<p>Voluntary GHG emission reductions: 3.6 million metric tons CO₂e</p> <p>Volume of voluntary methane emission reductions: 6.6 Bcf</p> <p>Estimated value of natural gas saved: \$38 million</p>

		<p>Gas STAR and U.S. EPA Natural Gas Methane Challenge programs.</p> <p>The estimated value of natural gas saved from methane emission reductions is based on EIA's U.S. natural gas annual average Citygate price. For 2021, this price was \$5.73 per thousand cubic feet.</p> <p>Refer to the GHG Emissions section below this table, specifically the Organizational boundary section, for additional information.</p>	
<p>Greenhouse Gas Emissions</p> <p><i>Our Nation's Energy Future (ONE Future)</i></p>	<p>Natural Gas Pipelines business segment's transmission and storage assets methane emission intensity rate</p>	<p>Methane emissions are calculated for the Natural Gas Pipelines business segment's transmission and storage compressor stations, transmission pipelines, and underground natural gas storage facilities using the emission sources documented in ONE Future's Methane Emissions Estimation Protocol.</p> <p>The emission intensity rate is calculated by dividing our natural gas transmission and storage total methane emissions by our natural gas transmission and storage throughput. Methane emissions are calculated using the procedures in 40 CFR 98 Subpart W.</p> <p>Throughput refers to the total volume of natural gas transported by the Natural Gas Pipelines business segment's transmission and storage pipelines. The throughputs submitted through the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Form F 7100.2-1 is used to determine throughput at the transmission pipeline entity level. The GWP values from the IPCC Fourth Assessment Report are applied (for CH₄, the 100-year GWP value is 25).</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	<p>Natural Gas Pipeline business segment's transmission and storage assets methane emission intensity rate: 0.03%</p>
<p>Energy Management</p> <p><i>Company specific</i></p>	<p>Total electricity consumption</p>	<p>The quantity in gigawatt hours (GWh) of electricity consumption from purchased electricity for assets operated by KMI.</p> <p>Refer to the GHG Emissions section below this table, including Exclusions, Organizational boundary, Calculations, Estimations, and Uncertainty, for additional information.</p>	<p>Total electricity consumption: 7,335 GWh</p>
<p>Air Quality</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p>	<p>Air emissions by pollutant</p>	<p>Includes emissions that are reportable to a U.S. state, U.S. federal, or Mexican federal agency. For the year ended 2021, emissions were calculated or reported based on information as of June 28, 2022. Due to timing of regulatory agency submittals, these emissions may differ from what is reported to a regulatory agency. The following pollutants are disclosed: (1) nitrogen oxide (NO_x) (excluding N₂O), (2) sulfur dioxide (SO₂),</p>	<p>Air emissions by pollutant (thousand metric tons):</p> <p>(1) NO_x (excluding N₂O): 50.6</p> <p>(2) SO₂: 0.2</p> <p>(3) VOCs: 12.0</p> <p>(4) PM₁₀: 1.3</p>

<p>Air emissions of the following pollutants: (1) NO_x (excluding N₂O), (2) SO₂, (3) volatile organic compounds (VOCs), and (4) particulate matter (PM₁₀)</p>		<p>(3) volatile organic compounds (VOCs), and (4) particulate matter (PM₁₀).</p>	
<p>Operational Safety, Emergency Preparedness, & Response</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p> <p>Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected</p>	<p>Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected</p> <p>Miles of pipeline operated</p>	<p>The percentage of natural gas pipelines and hazardous liquid pipelines inspected through in-line inspections, pressure tests, direct assessments, or other technologies.</p> <p>For segments of pipe that are inspected more than once for the same types of anomalies during the same calendar year, the mileage inspected used in this calculation is counted once. In the limited instances where multiple inspections for different types of anomalies are conducted on the same segment in the same year, the mileage for each inspection is counted separately.</p> <p>The miles of pipeline operated includes pipelines in the U.S, Canada, and Mexico under KMI operational control as of September 29, 2021. It excludes production and flow lines in the CO₂ business segment.</p>	<p>Percentage of natural gas pipelines inspected: 15%</p> <p>Percentage of hazardous liquid pipelines inspected: 25%</p> <p>Miles of pipeline operated: 74 thousand miles</p>
<p>Workforce Health & Safety</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas – Exploration & Production</i></p> <p>(1) Total recordable incident rate (TRIR), (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for</p> <p>(a) full-time employees, (b) contract employees, and (c) short-service employees</p>	<p>Total Recordable Incident Rate (TRIR) for employees, contractors, and short-service employees</p> <p>Number of fatalities for employees and contractors</p> <p>Number of recordable injuries/illnesses for employees, contractors, and short-service employees</p> <p><i>[Recordable incidents and fatalities include self-reported work-</i></p>	<p>TRIR was calculated following the Occupational Safety and Health Administration (OSHA) methodology as follows: total number of recordable incidents multiplied by 200,000 divided by the number of employee hours actually worked. The 200,000 represents the hours 100 employees worked per year. 100 employees working 40 hours per week, 50 weeks per year is a standard base for calculating incident rates.</p> <p>For 2021, employee rates and fatalities are calculated using incident classifications as of February 9, 2022. Short-service employee rates are calculated using incident classifications as of March 29, 2022. Injuries or illnesses may later be reclassified based on diagnosis.</p> <p>Employee TRIR includes regular full-time, regular part-time, and temporary employees. It also includes Natural Gas Pipelines and Terminals business segment contractors KMI supervises on a day-to-day basis.</p> <p>Short-service employees include full-time, part-time, and temporary employees that have been in their position for six months or less from the hire or rehire date. This metric includes short-service employees that are no longer working for KMI but were active during the reporting period.</p> <p>KMI reports the number of fatalities for employees and contractors, but does not report fatality rate or NMFR.</p>	<p>Employee total recordable incident rate*: 1.8</p> <p>Number of recordable injuries/illnesses for employees: 193</p> <p>Short-service employee total recordable incident rate*: 2.7</p> <p>Number of recordable injuries/illnesses for short-service employees: 13</p> <p>Number of employee fatalities: 0</p> <p>Contractor total recordable incident rate*: 0.2</p> <p>Number of recordable injuries/illnesses for contractors: 1</p> <p>Number of contractor fatalities: 0</p> <p>*Represented in number of recordable incidents per 100 full-time workers</p>

	<i>related COVID cases]</i>	<p>For 2021, contractor rates and fatalities are calculated using incident classifications as of January 26, 2022. Injuries or illnesses may later be reclassified based on diagnosis.</p> <p>Contractor TRIR is based on incidents contractors incurred while doing work for KMI on a defined major project. Major projects are capital expansion projects that meet a minimum total estimated project cost. If hours for a major project were not available, hours were estimated based on major project spend. Incidents for the contractor's employees operating our marine tankers are not included in the contractor rates, but are included in the marine LTIR.</p> <p>COVID-19 cases, classified as recordable incidents per OSHA guidance, are self-reported by employees, contractors, and short-service employees. TRIR, the number of recordable injuries/illnesses, and number of fatalities for employees, contractors, and short-service employees include recordable COVID-19 cases.</p>	
Workforce Health & Safety <i>Company specific</i>	<p>Employee TRIR targets: Employee TRIR three-year average and industry average</p> <p><i>[Internal 3-year average excludes self-reported work-related COVID cases]</i></p>	<p>The internal three-year average target is based on the average TRIR for the previous three-year period.</p> <p>The industry average is calculated using TRIR provided by the U.S. Bureau of Labor Statistics (BLS). The BLS typically publishes incident rate data for a given year in the fourth quarter of the following calendar year. KMI uses the most recent BLS data available at the beginning of each year. The industry average is calculated using the weighted average of BLS industry rates based on codes from the North American Industry Classification System. For the TRIR industry average, these include 4862-pipeline transportation of natural gas, 49319-other warehousing and storage, 4883-support activities for water transportation, and others. To calculate our 2021 target industry TRIR, we averaged the annual industry TRIR values that were calculated for 2019, 2020, and 2021.</p>	<p>Target - employee TRIR three-year average*: 0.9</p> <p>Target - employee TRIR industry average*: 1.8</p> <p>*Represented in number of recordable incidents per 100 full-time workers</p>
Workforce Health & Safety <i>Company specific</i>	<p>Lost time incident rate (LTIR) for employees and contractors</p> <p>Number of recordable lost time cases for employees and contractors</p> <p><i>[Recordable lost time cases include self-reported work-</i></p>	<p>Employee LTIR includes recordable lost time incidents or illnesses which resulted in an absence from work for regular full-time, regular part-time, and temporary employees. It also includes Natural Gas Pipelines and Terminals business segment contractors KMI supervises on a day-to-day basis.</p> <p>Contractor LTIR includes recordable lost time contractor incidents or illnesses which resulted in an absence from work while the contractor was performing work for Kinder Morgan on a defined major project. Major projects are capital expansion projects that meet a minimum total estimated project cost. If hours for a major project were not available, hours were estimated based on major project spend.</p>	<p>Employee lost time incident rate (LTIR)*: 1.5</p> <p>Number of recordable employee lost time cases: 163</p> <p>Contractor lost time incident rate (LTIR)*: 0.2</p> <p>Number of recordable contractor lost time cases: 1</p> <p>*Represented in number of recordable lost time incidents per 100 full-time workers</p>

	<i>related COVID cases]</i>	COVID-19 cases, classified as recordable incidents per OSHA guidance, are self-reported by contractors and employees. LTIR and the number of recordable lost time cases for contractors and employees include recordable COVID-19 cases.	
<p>Ecological Impacts</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p> <p>Percentage of land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat</p>	Percentage of land operated within or near areas of protected conservation status or endangered species habitat	<p>The percentage of land operated within or near designated areas of protected conservation status or endangered species habitat within or near designated areas.</p> <p>For the purposes of this assertion, "near designated areas" is defined as operated land within five kilometers of the boundary of a protected conservation area or endangered species habitat, and "within designated areas" is defined as operated land within the boundary of a protected conservation area or endangered species habitat.</p> <p>The total acreage of land used in this metric is approximately 425 thousand acres which represents the total acreage of KMI assets, including pipeline corridors and facilities. The acreage operated for pipelines includes land within the 50-foot corridor of a pipeline's centerline and excludes production facilities and non-PHMSA jurisdictional gathering lines in the CO₂ business segment. Acreage operated for a facility includes land within the facility's security fence line for the Natural Gas Pipelines, CO₂, and Terminals business segments and acreage owned or operated by KMI for the Products Pipelines business segment, which can include land both inside and outside the security fence line. There is additional land that is owned and leased, but not operated by KMI, which is not included in this analysis.</p> <p>The Natural Gas Pipelines and Product Pipelines business segment data includes inactive and active pipelines and excludes abandoned lines. Inactive pipelines are those that can be activated at any time. The CO₂ business segment includes regulated lines and excludes unregulated gathering lines and abandoned lines.</p> <p>The areas characterized as protected conservation areas are determined by the World Database on Protected Areas (WDPA). For KMI's Mexico operations, the areas characterized as endangered species habitats are determined by the International Union for Conservation of Nature (IUCN) designations of "critically endangered" and "endangered" species; because most of the Mexico assets are included in the IUCN designated areas, it was assumed that 100% of the Mexico assets were in "critically endangered" and "endangered" areas.</p>	Percentage of land operated within or near areas of protected conservation status or endangered species habitat: 30%

		<p>This analysis deviated from the SASB Accounting Standard for U.S. operations, where the U.S. Fish and Wildlife Service (USFWS) designated areas for “endangered species” was used, as this dataset better reflects the biodiversity risk for KMI’s operations.</p> <p>The analysis was completed using KMI’s asset Geographic Information system (GIS) datasets as of the fourth quarter of 2021. The WDPA dataset was downloaded during the second quarter of 2021 and the USFWS dataset was downloaded during the fourth quarter of 2021.</p>	
<p>Ecological Impacts</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Midstream</i></p> <p>Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume in Unusually Sensitive Areas (USAs), and volume recovered</p>	<p>Number of hydrocarbon spills</p> <p>Aggregate volume of hydrocarbon spills</p> <p>Hydrocarbon spill volume recovered</p> <p>Aggregate volume of hydrocarbon spills in Unusually Sensitive Areas</p>	<p>A spill is defined as greater than one barrel released to surface water, soil, or groundwater, and ice covered surfaces excluding spills contained within impermeable or sufficiently impervious secondary containment.</p> <p>The volume of spills recovered is the amount of spilled hydrocarbons (in bbl) removed from the environment through short-term spill response activities, excluding amounts that were recovered during longer-term remediation at spill sites and amounts that evaporated, burned, or were dispersed. The volume recovered is reported for the year the associated spill occurred.</p> <p>KMI does not report the volume in the Arctic as KMI does not operate in the Arctic.</p> <p>Unusually Sensitive Areas in the U.S. are as identified in the National Pipeline Mapping System (NPMS) by PHMSA. If the NPMS data was unavailable for a spill location, the protected conservation areas identified by the WDPA and the areas characterized as endangered species habitats by the USFWS were used as the basis for whether the spill occurred in an Unusually Sensitive Area.</p>	<p>Number of hydrocarbon spills: 41</p> <p>Aggregate volume of hydrocarbon spills: 3,035 bbl</p> <p>Hydrocarbon spill volume recovered: 1,827 bbl</p> <p>Aggregate volume of hydrocarbon spills in Unusually Sensitive Areas: 869 bbl</p>
<p>Ecological Impacts</p> <p><i>SASB: Extractives & Minerals Processing Sector: Oil & Gas – Exploration & Production</i></p> <p>1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or</p>	<p>Water management - CO₂ business segment - fresh water withdrawn, fresh water consumed, and fresh water withdrawn intensity</p>	<p>Fresh water usage metrics are for the CO₂ business segment only.</p> <p>Fresh water withdrawn is defined as water obtained from underground wells and water utilities, and water that is purchased and delivered by trucks.</p> <p>Fresh water consumed is defined as water that evaporated during withdrawal, usage, or discharge or is indirectly incorporated into the product or service. It is assumed that 100% of the fresh water withdrawn in the CO₂ business segment is consumed since the majority of fresh water used in the CO₂ business segment evaporates.</p>	<p>Water management - CO₂ business segment - fresh water withdrawn: 1,361 thousand cubic meters</p> <p>Water management - CO₂ business segment - fresh water consumed: 1,361 thousand cubic meters</p> <p>Water management - CO₂ business segment - fresh water withdrawn intensity (Thousand cubic meters of fresh water consumed / BOE throughput (bbl/yr)): 0.04</p>

Extremely High Baseline Water Stress		Fresh water withdrawn intensity is calculated by dividing CO ₂ business segment fresh water withdrawn (thousand cubic meters) by CO ₂ business segment BOE throughput in bbl/yr.	
Water Management <i>Company specific</i>	Water use for hydrostatic integrity testing of pipelines and tanks	Hydrostatic integrity testing is a process where water is injected into a pipeline or tank that is pressurized to a certain level to test the integrity of the pipeline or tank. The volume of water used for hydrostatic integrity testing includes our tanks and in-service PHMSA regulated pipelines. For pipelines, water volumes are calculated using the dimensions of the pipeline section tested. Volumes may not account for water reuse or water loss. For tanks, water volumes are calculated using tank strapping tables in accordance with American Petroleum Institute Manual of Petroleum Measurement Standards, 14.10, 2nd Edition 2.2D. Tanks using non-fresh water for testing are excluded.	Water use for hydrostatic integrity testing of pipelines and tanks: 159 thousand cubic meters
Hazardous Materials Management <i>SASB: Extractives & Minerals Processing Sector: Oil & Gas - Refining & Marketing</i> Amount of hazardous waste generated; percentage recycled	Amount of hazardous waste generated Percent hazardous waste recycled	<p>Hazardous waste generated and percent recycled for assets operated by KMI. For the year ended 2021, waste values are based on information as of May 18, 2022. Hazardous waste weights are reported in the year the waste was shipped. KMI only reports hazardous waste generated for U.S. operated assets during the time they are under KMI operational control. Universal hazardous waste is excluded. Hazardous waste generated from Mexico assets and U.S. non-operated assets are excluded.</p> <p>States must follow U.S. EPA hazardous waste classifications although they may create regulations for additional state specific hazardous waste. To provide greater consistency, the hazardous waste methodology was updated in 2021 to only include waste classified by the U.S. EPA as hazardous. Consequently, waste with only state hazardous waste codes, but no U.S. EPA hazardous waste codes are excluded. 2019 and 2020 waste values were revised to reflect this methodology.</p> <p>Hazardous waste recycled from U.S. operations includes shipments with the reclamation and recovery handling type and the handling codes H010, H020, H039, H050, and H061, as defined by the U.S. EPA's Hazardous Waste Report Instructions and Forms (EPA Form 8700-13 A/B).</p>	Amount of hazardous waste generated: 4,836 metric tons Percent hazardous waste recycled: 64%

GHG Emissions

Exclusions

For the year ended December 31, 2021, the following are excluded from emissions: construction activities, wastewater treatment, fire suppression activities, enclosed circuit breakers operated by the Natural Gas Pipelines business segment, refrigerants from mobile equipment not tracked in

our fleet database, fugitive emissions from natural gas supply lines for Terminals and Products Pipelines business segments, and insignificant emissions from small combustion activities.

Organizational boundary

In conformance with the *SASB Oil & Gas – Midstream Standard (2018-10)* and the World Resources Institute (WRI) and the World Business Council for Sustainable Development's (WBCSD) *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition* (the "GHG Protocol"), other than the equity share Scope 1 and 2 emissions, Scope 1 (direct) and Scope 2 (indirect) GHG emissions and emission intensity use the operational control approach and include emissions from assets KMI operates, even for those assets KMI does not own 100%.

The reported metric, total gross global equity share Scope 1 and Scope 2 emissions, includes the equity share of Scope 1 and Scope 2 emissions from operated and non-operated sources in which Kinder Morgan has an interest.

Calculations

Scope 1 and Scope 2 emissions for carbon dioxide equivalents, including methane, are primarily calculated using the principles and guidance outlined in the GHG Protocol. Carbon dioxide emissions and equivalents have been determined on the basis of measured or estimated fuel and electricity usage, multiplied by relevant, published carbon emission factors (as summarized in the table in the "Estimations" section) which are updated annually, where applicable. Base data utilized in the calculation of Scope 1 (direct) and Scope 2 (indirect) GHG emissions is obtained from direct measurements, third-party invoices, or estimates. Carbon dioxide equivalent emissions utilize Global Warming Potentials (GWPs) sourced from the Intergovernmental Panel on Climate Change Fifth Assessment Report (Assessment Report 5 – 100 year), unless otherwise noted. Refer to the table below for emission factors and calculation assumptions used.

Estimations

Estimated and actual data are used to calculate operational control and equity share Scope 1 and Scope 2 emissions and the methane emissions used in the Natural Gas Pipelines business segment's transmission and storage methane emission intensity rate. Data considered "actuals" use direct measurements, leak surveys, actual component counts, actual operating data, published emission factors, and other similar data elements. Data considered "estimated" uses assumptions to determine emissions where actual operating data, emission factors, component counts, or measurement data is not readily available as detailed in the table below. For the year ended 2021, estimates accounted for:

- approximately 7% of the operational control Scope 1 emissions,
- less than 1% of market- and location-based operational control Scope 2 emissions,

- approximately 8% of equity share Scope 1 emissions,
- approximately 5% of equity share Scope 2 market-based emissions, and
- approximately 8% of the methane emissions that are used to calculate the Natural Gas Pipelines business segment's transmission and storage methane emissions intensity rate.

The estimates that were significant to these metrics are provided in the table below by source type.

Activity and Kinder Morgan, Inc. Metric	Source Type	Emission Factor Source	Calculation Estimations and Assumptions
Other combustion (stationary) and flared hydrocarbon - operational control and equity share Scope 1 emissions and methane emission intensity rate	Emissions from general stationary combustion of fuel for the production of useful energy, emissions from the combustion of waste gas, and emissions from the combustion of natural gas and propane to support the heating value of the waste gas combustion. Emission sources include flares, boilers, oxidizers, re-boilers, emergency generators, heaters, generators, compressors, vapor combustion units, welding, well drilling, and other miscellaneous sources.	U.S. EPA Code of Federal Regulations (CFR) - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98 (December 2016)	<ol style="list-style-type: none"> 1. If fuel usage or operating hours were not obtained from invoices, meters, or business segment surveys, then consumption rates were either estimated based on the business segment surveys for facilities of similar size and operation, or maximum operating parameters (e.g., 8,760 hours of operation) were used to estimate GHG emissions. 2. For the Natural Gas Pipelines business segment, it was assumed that all catalytic heaters have a rating of 0.02 MMBtu/hr and operate for 5,000 hrs/yr. 3. For transmission pipeline assets, counts of telecom generators were estimated by state and pipeline entity using pipeline miles and average telecom generator counts per mile of pipeline. It was assumed that each unit operated for 20 hours/yr, had an average horsepower rating of 40.96 and average fuel consumption of 8,000 btu/hp-hr.
Other combustion (mobile) - operational control and equity share Scope 1 emissions and methane emission intensity rate	Emissions from onsite mobile equipment required for operations, and on-road mobile equipment used by personnel.	U.S. EPA Code of Federal Regulations (CFR) - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98 (December 2016) GHG Protocol Mobile Emission Factors (March 2017)	<ol style="list-style-type: none"> 1. When actual mobile equipment data was not available, a survey was completed for a sample of facilities within each business segment, and the average mobile equipment count from these surveys were used to calculate emissions.

Activity and Kinder Morgan, Inc. Metric	Source Type	Emission Factor Source	Calculation Estimations and Assumptions
Fugitive emissions from operations - operational control and equity share Scope 1 emissions and methane emission intensity rate	<p>Release of a mixture of gases (including refrigerants) containing GHGs.</p> <p>Emission sources relate to equipment component leaks, compressor leaks, pipeline leaks, storage tank leaks, process equipment leaks, refrigerants, storage wellheads, and vapor handling systems.</p>	<p>U.S. EPA Code of Federal Regulations (CFR) - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98 (December 2016)</p> <p>API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry (August 2009)</p> <p>GHG Protocol Hydrofluorocarbon Emission Factors (January 2005)</p> <p>Kinder Morgan site-specific count and emission factors</p>	<ol style="list-style-type: none"> For the Natural Gas Pipelines business segment, for facilities without actual component leak counts available, emissions calculations from component leaks were based on an average component count per wellhead or facility. For the Natural Gas Pipelines business segment, for facilities without a leak survey completed, emission calculations are based on an average leak count per facility. If site-specific refrigerant counts were not available, emissions were calculated using comparable facilities based on surveys conducted within each business segment. Fleet truck refrigerant charges were not provided. Therefore, 1.1 kg charge of R134a was assumed to be in fleet trucks older than 2017 and 1.1kg of R1234a charge in trucks newer than 2017. Fleet trucks were assumed to have a charge leak rate of 20% per year (API Compendium 2009).
Other vented and process emissions - operational control and equity share Scope 1 emissions and methane emission intensity rate	<p>Release of a mixture of gases containing GHGs.</p> <p>Typically, vented and process emissions are known sources and are part of operations.</p> <p>Emission sources include compressor, compressor station, and pipeline blowdowns, compressor starts, dehydration processes, emergency releases, gas sampling and analysis, gas sweetening processes, metering and pressurizing regulating station upsets, pig traps and drips, pneumatic devices, storage station venting, storage tanks and drain vessels, and well completions.</p>	<p>Kinder Morgan site-specific emission factors applied</p> <p>U.S. EPA Code of Federal Regulations (CFR) - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98 (December 2016)</p> <p>INGAA Greenhouse Gas Emission Estimations Guidelines for Natural Gas Transmission and Storage. Volume 1 – GHG Emission Estimation Methodologies and Procedures</p>	<ol style="list-style-type: none"> Assumes reciprocating compressors are air start and 80% of centrifugal compressor are natural gas start. For dehydrators where activity data was unavailable, emission calculations were estimated using emissions calculations from similar dehydrator units. When the number of gas sampling and analysis sources were unavailable for a pipeline, an average analyzer count/pipeline mile was used for emission calculations. When meter station counts were unavailable for a pipeline, an average meter count per mile, derived from pipelines with actual meter counts, were applied per U.S. state. When pneumatic device counts were unavailable for a facility, they were estimated using the average device counts at surveyed facilities which are similar in size and operation. If the type of pneumatic device was unknown, it was assumed to be air driven.

Activity and Kinder Morgan, Inc. Metric	Source Type	Emission Factor Source	Calculation Estimations and Assumptions
Indirect Emissions - Operational control and equity share Scope 2 emissions	Emissions from consumption of purchased electricity.	<p>U.S. EPA Emissions & Generation Resource Integrated Database ("eGRID") 2020 (market- and location-based)</p> <p>Energy supplier-specific emission factors (market-based)</p> <p>2021 Green-e® Residual Mix Emissions Rates (market-based)</p>	<ol style="list-style-type: none"> 1. If office electricity consumption was unavailable, Scope 2 GHG emissions were estimated based on a business unit specific electricity usage factor per facility.
Direct emissions - total gross global equity share Scope 1 emissions	Direct emissions include, but are not limited to, the combustion of fuel, voluntary releases (venting) and the involuntary releases (fugitive).	<p>U.S. EPA Code of Federal Regulations (CFR) - Mandatory Greenhouse Gas Reporting, 40 CFR Part 98 (December 2016)</p> <p>API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry (August 2009)</p> <p>Kinder Morgan and JV site-specific emission factors</p>	<ol style="list-style-type: none"> 1. To estimate total Scope 1 emissions from non-operated facilities, where only U.S. EPA GHGRP data was available or provided, a scaling factor was applied to U.S. EPA GHGRP reported emissions based on historical reported data for the Natural Gas Pipelines business segment. 2. For non-operated locations that provided emissions data of less than 10,000 metric tons CO₂e, one-half of the GHGRP reporting threshold of 25,000 metric tons CO₂e was used (i.e., 12,500 metric tons CO₂e) as the entity's Scope 1 emissions, if available. 3. For non-operated locations that did not provide data, an estimate based on prior year values was utilized, when available.
Indirect emissions - Total gross global equity share Scope 2 emissions	Emissions from consumption of purchased electricity for the equity share of KMI.	<p>U.S. EPA Emissions & Generation Resource Integrated Database ("eGRID") 2020 (market- and location-based)</p> <p>Energy supplier-specific emission factors (market-based)</p> <p>2021 Green-e® Residual Mix Emissions Rates (market-based)</p>	<ol style="list-style-type: none"> 1. For non-operated locations that did not provide Scope 2 emissions, an estimation was applied using the reported Scope 2 emissions from another facility which is similar in size and operations or, if available, the prior year's numbers were utilized, and scaled by the business unit's year over year change.

Uncertainty

GHG emissions quantification is subject to inherent measurement uncertainty because of such things as GHG emissions factors that are used in mathematical models to calculate GHG emissions, and the inability of these models, due to incomplete scientific knowledge and other factors, to accurately measure under all circumstances the relationship between various inputs and the resultant GHG emissions. Environmental and energy usage data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for measuring such data.

The selection by management of different but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.

Other Estimations

The preparation of the non-GHG emissions metrics requires management to establish the criteria, make determinations as to the relevancy of information to be included, and make assumptions that affect reported information. The selection by management of different but acceptable measurement techniques could have resulted in materially different amounts or metrics being reported.

Air Quality

When site-specific information was not available, the use of methodologies/approaches or emissions factors from publicly available guidance documents (i.e., EPA AP-42: Compilation of Air Pollutant Emissions Factors (January 1995)) were used. For locations that report emissions less frequently than annually, emissions are included from emission fee estimates or from the most recent agency submittal. These estimates account for less than 1% for each pollutant.

Appendix E – Summary of Scenarios and their Underlying Assumptions and Indicators

IEA's 2021 World Energy Outlook Key Economic Assumptions

Metric	Base Year			Projections		Percent vs. 2020	
	2020	2030	2050	2030	2050	2030	2050
Global population (in billions)(a)	7.75	8.5	9.69	10 %	20 %		
China	1.41	1.44	1.38	2 %	(3)%		
India	1.38	1.5	1.64	9 %	19 %		
Africa	1.34	1.69	2.49	26 %	86 %		
U.S.	0.33	0.35	0.38	6 %	15 %		
Global GDP (in billions)(b)(c)	\$ 131,656	\$ 187,517	\$ 319,484	42 %	143 %		
China	\$ 24,143	\$ 40,082	\$ 70,999	66 %	194 %		
India	\$ 8,907	\$ 17,686	\$ 41,845	99 %	370 %		
Africa	\$ 4,110	\$ 6,202	\$ 14,121	51 %	244 %		
U.S.	\$ 20,933	\$ 26,277	\$ 38,288	26 %	83 %		
Global GDP per capita(a)(b)(c)	\$ 16,990	\$ 22,058	\$ 32,981	30 %	94 %		
China	\$ 17,110	\$ 27,912	\$ 51,636	63 %	202 %		
India	\$ 6,454	\$ 11,759	\$ 25,531	82 %	296 %		
Africa	\$ 3,067	\$ 3,674	\$ 5,673	20 %	85 %		
U.S.	\$ 63,433	\$ 75,293	\$ 101,025	19 %	59 %		

(a) Global population per IEA World Energy Model Documentation, October 2021.

(b) Calculated based on GDP expressed in year 2020 dollars in PPP terms, international dollars.

(c) Forecasted GDP was calculated using the forecasted GDP growth assumptions provided in the IEA World Energy Outlook and the 2020 PPP GDP per the April 2021 International Monetary Fund database.

Objectives by Scenario

Maximum temperature rise in the scenario	2030		2050		2100	
Confidence Level	50%	33% - 67%	50%	33% - 67%	50%	33% - 67%
	(In °C)					
Sustainable Development Scenario	1.5	1.4 - 1.6	1.7	1.5 - 1.8	1.6	1.4 - 1.7
Net Zero Emissions by 2050	1.5	1.4 - 1.5	1.5	1.4 - 1.7	1.4	1.3 - 1.5

CO₂ Emissions by Scenario

Metric	Base Year	Sustainable Development Scenario			Net Zero Emissions by 2050		
	2020	2030	2040	2050	2030	2040	2050
	(In billions tons, except percentages)						
Global CO ₂ emissions (billion tons)(a)	34	28	16	8	21	3	0
Percent change from 2020		(17)%	(52)%	(76)%	(38)%	(82)%	(100)%

(a) Includes CO₂ emissions from combustion of fossil fuels and non-renewable wastes, from industrial and fuel transformation processes (process emissions) as well as CO₂ removal. Three types of CO₂ removals are presented: Captured and stored emissions from the combustion of bioenergy and renewable wastes. Captured and stored process emissions from biofuels production. Captured and stored CO₂ from the atmosphere, which is reported as direct air capture. The first two entries are often reported as bioenergy with carbon capture and storage. Note that some of the CO₂ captured from biofuels production and direct air capture is used to produce synthetic fuels, which is not included as CO₂ removal. Total CO₂ captured includes the carbon dioxide captured from CCUS facilities (such as electricity generation or industry) and atmospheric CO₂ captured through direct air capture, but excludes that captured and used for urea production.

Key Energy Supply Indicators by Scenario

Metric	Base Year	Sustainable Development Scenario			Net Zero Emissions by 2050		
	2020	2030	2040	2050	2030	2040	2050
Global total energy supply (exajoules)	589	599	581	578	547	534	543
Percent change from 2020		2 %	(1)%	(2)%	(7)%	(9)%	(8)%
Percent from solar, wind, hydro (a)	4 %	11 %	21 %	31 %	15 %	32 %	42 %
Percent from oil & natural gas	53 %	51 %	40 %	30 %	49 %	29 %	19 %
Percent from natural gas	24 %	23 %	19 %	15 %	24 %	14 %	11 %
Global energy intensity of GDP (exajoules per billions of dollars, PPP)(b)	0.0045	0.0032	N/A	0.0018	0.0030	0.0022	0.0017
Percent change from 2020		(29)%	N/A	(60)%	(33)%	(51)%	(62)%
Global energy intensity (exajoules per billion people)(c)	76	70	N/A	60	64	N/A	56
Percent change from 2020		(7)%	N/A	(22)%	(15)%	N/A	(26)%
U.S. total energy supply (exajoules)	88	83	71	64			
Percent change from 2020		(6)%	(20)%	(27)%			
U.S. energy intensity (exajoules per billion people)	268	250		195			
Percent change from 2020		(6)%		(27)%			
Global oil supply (MMBbl/d)	77	75	56	40	62	35	19
Percent change from 2020		(3)%	(27)%	(48)%	(19)%	(55)%	(75)%
U.S. oil supply (MMBbl/d)	13	12	7	4			
Percent change from 2020		(8)%	(46)%	(69)%			
Global biofuels supply (MMBbl/d)(d)	2	6	7	8	6	6	7
Global natural gas supply (Bcf/d)(e)	374	374	290	229	348	201	163
Percent change from 2020		0 %	(22)%	(39)%	(7)%	(46)%	(56)%

- (a) Includes bioenergy, geothermal, hydropower, solar PV, concentrating solar power, wind and marine (tide and wave) energy for electricity and heat generation.
- (b) Total Energy Supply (exajoules) / GDP (billions of dollars).
- (c) Total Energy Supply (exajoules) / Population (billions of people).
- (d) Liquid fuels derived from biomass or waste feedstock, including ethanol and biodiesel. Expressed in energy-equivalent volumes of gasoline and diesel.
- (e) IEA forecast converted into Bcf/d using 35.3147 cubic meters per ft³ and 365 days/yr.

Key Energy Demand Indicators by Scenario

Metric	Base Year	Sustainable Development Scenario			Net Zero Emissions by 2050		
	2020	2030	2040	2050	2030	2040	2050
Global total energy consumption (exajoules)	413	434	411	392	393	363	344
Percent change from 2020		5 %	0 %	(5)%	(5)%	(12)%	(17)%
Percent from crude oil and natural gas	54 %	52 %	42 %	32 %	48 %	32 %	18 %
Percent from natural gas	17 %	16 %	14 %	10 %	15 %	11 %	6 %
Percent from liquids fuels	38 %	39 %	33 %	27 %	36 %	27 %	19 %
Global total liquids fuels market (exajoules)	158	169	135	107	143	96	66
Percent from biofuels	2 %	7 %	12 %	17 %	9 %	15 %	22 %
Percent from crude oil	98 %	93 %	86 %	78 %	90 %	80 %	64 %
U.S. natural gas demand (Bcf/d)	82	66	31	22			
Percent change from 2020		(20)%	(62)%	(73)%			
Global gaseous bioenergy (Bcf/d)	6	13	24	36	15	27	37
Percent change from 2020		117 %	300 %	500 %	150 %	350 %	517 %

Key Electricity Indicators by Scenario

Metric (a)	Base Year	Sustainable Development Scenario			Net Zero Emissions by 2050		
	2020	2030	2040	2050	2030	2040	2050
Global electricity generation (terawatt-hours)	26,762	37,316	56,553	71,164	37,316	56,553	71,164
Percent change from 2020		29 %	117 %		39 %	111 %	166 %
Percent from wind and solar	22 %	33 %	42 %	44 %	37 %	46 %	47 %
Percent from natural gas	23 %	19 %	9 %	5 %	17 %	2 %	1 %
Total Capacity (gigawatt)	7,782	12,728	19,883	25,996	14,933	26,384	33,415
Renewables	2,989	8,017	14,725	20,304	10,293	20,732	26,568
Solar PV	739	3,582	7,421	10,865	4,956	10,980	14,458
Wind	737	2,378	4,471	5,881	3,101	6,525	8,265
Hydro	1,327	1,679	2,032	2,360	1,804	2,282	2,599
Bioenergy	163	281	456	599	297	534	640
Nuclear	415	475	607	669	515	730	812
Fossil Fuel with CCUS	0	53	288	384	81	312	394
Unabated Fossil Fuels	4361	3843	2782	1988	3320	1151	677
Percent change from 2020		64 %	156 %	234 %	92 %	239 %	329 %
Percent from wind and solar	19 %	47 %	60 %	64 %	54 %	66 %	68 %
Percent from natural gas	56 %	30 %	14 %	8 %	22 %	4 %	2 %

(a) This table directly compares the projections of electricity capacity according to Sustainable Development Scenario and Net Zero Emissions Scenario from 2020 to 2050.

Natural Gas Production by Region

Metric	Base Year	Sustainable Development Scenario			2050 Marketshare
	2020	2030	2040	2050	(%)
	(In Bcf)				
World	141,753	142,601	110,076	86,592	100 %
North America	41,106	35,527	20,659	15,291	18 %
Europe	8,511	6,074	3,426	1,448	2 %
Africa	8,617	9,817	9,715	8,899	10 %
Middle East	22,778	26,204	23,484	20,377	24 %

Global Average Annual Investment

Metric	Reference	Sustainable Development Scenario						
	2016-2020	2021-2030	2031-2040	2041-2050	2021-2050	2021-2030	2031-2040	2041-2050
	Average Annual Investment			Cumulative				
Global investments (billion dollars)(a)	\$ 793	\$ 1,294	\$ 1,694	\$ 1,735	\$ 3,959	\$ 12,943	\$ 16,936	\$ 17,352
Percent change from 2016-2020		69 %	122 %	132 %	108 %			
From electricity networks	\$ 289	\$ 447	\$ 682	\$ 785	\$ 638			
From renewable power generation	\$ 331	\$ 677	\$ 814	\$ 768	\$ 753			
From nuclear and fossil power generation	\$ 169	\$ 146	\$ 141	\$ 106	\$ 131			

Metric	Reference	Sustainable Development Scenario						
	2016-2020	2021-2030	2031-2040	2041-2050	2021-2050	2021-2030	2031-2040	2041-2050
		Average Annual Investment			Cumulative			
Global average annual investment per total energy supply (billion dollar / exajoules)	3	5	7	8	7			
Percent change from 2016-2020		66 %	125 %	137 %	112 %			

- (a) Expressed in year 2020 dollars in PPP.
(b) Includes unabated coal and unabated gas.
(c) Includes fossil fuels with CCUS.

Capital Cost

	Sustainable Development Scenario			Net Zero Emissions by 2050			
	2030	2040	2050	2030	2040	2050	
	(In USD/kilowatt)						
United States of America							
Solar PV		1,100	640	440	1,140	620	420
Wind onshore		1,390	1,280	1,200	1,540	1,420	1,320
Wind offshore		4,040	2,420	1,660	4,040	2,080	1,480

CO₂ Prices for Electricity, Industry, and Energy Production

	Sustainable Development Scenario			Net Zero Emissions by 2050		
	2030	2040	2050	2030	2040	2050
	(In USD (2020) per ton of CO ₂)					
Advanced economies with net zero pledges (a)	120	170	200	130	205	250
Other advanced economies	100	140	160			
Emerging market and developing economies with net zero pledges (b)	40	110	160			
Other selected emerging market and development economies		35	95			
Major emerging economies (c)				90	160	200
Other emerging market and developing economies				15	35	55

- (a) The CO₂ price for Canada reaches USD 135 per ton of CO₂ in 2030 as stated in its Healthy Environment and Healthy Economy Plan.
(b) Includes China.
(c) Includes China, Russia, Brazil, and South Africa.

IPCC 2014 Fifth Assessment Report (AR5) RCP 8.5 4 °C Scenario

	2046-2065	2081-2100
	Mean (Likely Range)	(i.e., end of the 21st Century) Mean (Likely Range)
Global Mean Surface Temperature Increase (°C)	2.0 (1.4 to 2.6)	3.7 (2.6 to 4.8)
Global Mean Sea-level Rise (meters) relative to 1985-2005	0.30 (0.22 to 0.38)	0.63 (0.45 to 0.82)