Hess Corporation - Climate Change 2019

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Hess Corporation (HES) is a leading global independent energy company engaged in the exploration and production of crude oil and natural gas. Since 2014, Hess has been a pure play exploration and production (E&P) company.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2018	December 31 2018	No	<Not Applicable>

C0.3

(C0.3) Select the countries/regions for which you will be supplying data.

Denmark
Malaysia
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

C-OG0.7

Note: The third-party assurance statement is attached to this PDF and begins on PDF p. 68.

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain
Upstream

Other divisions
Please select

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?
Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	Hess Corporation has established an Environment, Health and Safety (EHS) Board Subcommittee, which is responsible for overseeing and advising on EHS matters, including climate change. This Board Subcommittee is comprised of six outside Directors. In addition, the Chief Executive Officer (also a Board member), participates in these meetings. Our CEO has oversight of climate-related issues including reviewing and guiding both strategy and implementation. This oversight ensures that we stay aligned and focused on our overarching objectives for Hess on climate. The EHS Board subcommittee also reviews climate-related issues because EHS matters, including climate change, are deemed high priority issues within the company and by external stakeholders. Formal oversight at the Board level ensures that these important issues are reviewed with the Board Subcommittee and that senior management receives their feedback and input in determining the strategy for addressing climate change.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Hess updated the climate change strategy in 2015 and this strategy closely aligns with the Task Force on Climate-Related Disclosures (TCFD) recommendations: Governance; Strategy; Risk Management; and Metrics & Targets. Climate related issues are fully integrated into Hess's EHS & SR strategy and our Enterprise Risk Management Process. These teams are responsible for updating our EHS Board Subcommittee on a regular basis, as the EHS Board Subcommittee has oversight of climate-related issues including reviewing and guiding both the strategy and implementation. This oversight ensures that we stay aligned and focused on our overarching objectives for Hess on climate. By monitoring and overseeing progress against goals and targets for addressing climate-related issues, the EHS Board Subcommittee can ensure that our climate-related actions are consistent with our climate change strategy. In addition, in 2019, Hess established a new team led by the Senior VP of Production to further identify, assess and make recommendations with respect to climate change mitigation strategies and emissions reduction technologies and opportunities. This team is focused on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization and methane monitoring. The team will evaluate additional emissions reduction activities and make recommendations to the EHS Board Subcommittee for consideration and implementation.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

i. Where in the organizational structure this position lies: Our Enterprise Risk Management (ERM) process reviews and assesses a broad category of risks. Various departments, such as operations, government relations and Environmental, Health and Safety (EHS) work together to bring forward risks in their relevant disciplines. On an asset-level, the EHS team brings forward any relevant climate change-related risks. Our CEO, who reports to the Chairman of the Board, oversees and reviews Hess' ERM process. In addition, senior management provides EHS reports to the CEO and EHS Board Subcommittee at least quarterly, more frequently if important EHS matters arise. The EHS Board Subcommittee is responsible for overseeing and advising on EHS matters, including climate change.

ii. Rationale of why climate change responsibilities have been assigned: The CEO, has oversight of climate-related issues because EHS matters, including climate change, are deemed high priority issues within the company and by external stakeholders. Formal oversight by the CEO serves as a critical link between the Board and senior management, which ensures that these important issues are reviewed with the EHS Board Subcommittee and that senior management receives their feedback and input in determining strategy for handling these matters.

iii. Specific responsibilities of every position with regard to climate change: Our CEO reviews and provides input and feedback on all climate-related issues (i.e., strategy, emissions inventories, target setting and identification of mitigation opportunities) brought to his attention by the EHS and Enterprise Risk Management groups. In addition, he provided guidance on the internal cost of carbon that Hess uses to evaluate all significant new investment opportunities. He also ensures that appropriate climate-related issues are brought to the attention and reviewed with the EHS Board of Directors Subcommittee and the full board and arranges for external experts to brief the Board at least annually on climate related issues, risks, and opportunities. This ensures that the Board gets additional perspective on these important issues. Additionally, our CEO receives updates and monitors progress on climate related issues when they are presented by the EHS department on a quarterly basis at EHS Board Subcommittee meetings, which our CEO attends. As an example, our CEO participated in the development, review, and final approval of Hess's two climate-related emissions reductions targets; a 25% reduction in GHG emissions intensity and a 50% reduction in flaring emissions intensity by 2020 vs. our 2014 baseline. Our CEO reviews progress against these targets each year. Through 2018, we have achieved a 17% reduction in GHG emissions intensity and a 41% reduction in flaring intensity towards these respective GHG and flaring targets.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Who is entitled to benefit from these incentives?
Chief Executive Officer (CEO)

Types of incentives
Monetary reward

Activity incentivized
Emissions reduction target

Comment
There are several targets that make up a portion of all employee's cash bonuses along with an individual performance component. One such target is related to our severe environmental incident rate. We define uncontrolled natural gas releases as severe incidents and so this target is focused on reducing natural gas releases and by extension methane emissions. Achieving or exceeding this target contributes to a portion of each employee's year-end cash bonus. In 2018, the base target was 0.020 and we outperformed this target, achieving an actual rate of 0.013, or a rate 35% below the target.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	1	We consider a short term horizon to be in the current planning year.
Medium-term	1	5	We consider a medium-term horizon to be part of our annual 5 year planning cycle.
Long-term	5		Typically, we consider a longer-term horizon to be beyond our annual 5 year planning cycle or for the life of a new project or field development.

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.
Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	For new assets, risks are assessed across the life of the project which typically falls into a long-term horizon and extends beyond 6 years. A subset of existing assets are reviewed on a quarterly rotational basis throughout the life of the asset. In early 2019, we conducted a scenario planning exercise. Using a range of energy supply and demand projections, oil, natural gas and carbon prices and emissions estimates, this exercise identified the company's material climate related risks and tested the financial robustness of our portfolio. Going forward, this process will be integrated into our business planning cycle, where we model the current asset portfolio and intended future investments stretching out post 2040.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

At Hess, we have an Enterprise Risk Management process (ERM) that is led by the Chief Risk Officer, who reports to the Chief Financial Officer. Across Hess, we have a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations.

At the center of our ERM process is our Risk Management Standard which aligns and integrates risk management across our operations and functional areas. The standard applies to all assets and major capital projects and prospects throughout their respective lifecycles (i.e., acquisition, exploration, appraisal, development, production and abandonment). The Risk Management Standard establishes a risk framework, accountabilities and expectations across the organization- including individual functions such as ERM and EHS – to provide a consistent and integrated risk management process.

The ERM starts with some key tools: a common language, our "risk dictionary"- which defines technical and non-technical risk terms- and a risk ranking matrix. This risk dictionary sets Hess's threshold for substantive financial impacts and is used to identify material transition and physical climate risks. An impact is typically considered substantive when the anticipated impact is greater than $100 million and the risk is deemed "high likelihood". In addition, when we evaluate new capital projects with a substantive financial impact (greater than $50 million), we apply a carbon price of $40/tonne to the greenhouse gas emissions projected to be generated to evaluate the potential impact of carbon costs on project economics and to compare alternative project configurations.

To determine risks across the business, we begin a risk assessment by bringing together business and asset level subject matter experts to develop a holistic risk profile for each asset and major project, utilizing performance data, incident investigations, lessons learned and recent internal audits. In these risk assessments, we identify each risk and assess its likelihood and potential impact to people, the environment, our reputation and our business, as well as other risks as appropriate. We use the results of asset-level audits and risk assessments to generate a company-wide portfolio view of risks and potential financial impacts.

In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. This exercise established a range of energy supply and demand projections, oil, natural gas and carbon prices, and emissions estimates that are projected to prevail under different publicly available long-range scenarios for environmental policy and market conditions. We tested the robustness of the Hess asset portfolio and intended forward investments under multiple scenarios, including the IEA's Sustainable Development scenario, a scenario designed to meet the aims of the Paris Agreement. The Hess portfolio and our pipeline of forward investments remains resilient and provides strong financial returns even under the SDS scenario. Hess plans to incorporate scenario planning into our regular business planning cycle.

C2.2c

(C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Example: Current regulatory risk includes things like cap and trade programs. This is a risk to Hess because a price on carbon could materially impact our business. We know that the rigor and costs of these types of programs is only increasing as countries seek to align with the pledges that they made to the Paris Agreement. For example, Hess's Denmark operations are subject under the EU ETS to a carbon price. Under Phase III of the EU ETS, Hess makes annual purchases of allowances to cover the gap between free allowances and verified GHG emissions. In 2018, Hess and its partner purchased 144,825 allowances in addition to the 32,325 free allowances. Explanation: Our EHS & Government Affairs groups systematically reviews current energy and climate related regulations, including cap and trade, and as key participants in the ERM process ensure that significant current regulatory risks are included in the ERM risk register for each Hess asset, if applicable.
Emerging regulation	Relevant, always included	Example: An emerging regulatory risk for Hess is the impact of potential methane regulations, which could materially impact our operations and contribute to our compliance costs. We know that the rigor and costs of these types of programs is only going to increase as countries seek to align with the pledges that they made to the Paris Agreement and seek to regulate GHG emissions. In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. This exercise establishes a range of energy supply, demand, oil, natural gas and carbon prices and emissions estimates that are projected to prevail under different publicly available long-term scenarios for environmental policy and market conditions. We tested the robustness of Hess' asset portfolio and intended forward investments under multiple scenarios, including the IEA's Sustainable Development scenario. Explanation: Our EHS & Government Affairs group systematically reviews energy and climate related emerging regulatory risks, and as key participants in the ERM process ensure that significant emerging regulatory risks are included in the ERM risk register for each Hess asset, if applicable.
Technology	Relevant, always included	Example: A technology risk for Hess is related to methane emissions reduction, which could result in significant compliance costs and liabilities. We know that the rigor and costs of these types of programs is only going to increase as countries seek to align with the pledges that they made to the Paris Agreement and seek to regulate GHG emissions. Hess has implemented a leak detection and repair (LDAR) program at all of our production facilities in North Dakota, as well as at our gas plant in North Dakota, which encompass 100% of our on-shore assets which we have operation control over for (excluding joint ventures) U.S. methane emissions. This program comprises monthly audible, visual and olfactory inspection of our equipment with the potential to leak and semi-annual optical gas imaging to detect fugitive emissions. In 2018, the cost of conducting this program was approximately $3 million per year, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of approximately $33.70 per Mcf. Explanation: Our EHS, Technology and Operations teams systematically review technology related risks, and as key participants in the ERM process ensure that significant technology risks are included in the ERM risk register for each Hess asset, if applicable. Technology risks are assessed in relation to process emissions reductions. Where possible, we are integrating technology driven mitigation opportunities into our capital projects budgets and operating plans.
Legal	Relevant, always included	Example: A legal risk for Hess is changing regulatory interpretation or enforcement posture from Hess' regulators based on a change in administration or other factors. Hess mitigates this risk by proactively engaging with its regulators and conservatively interpreting applicable regulations to ensure compliance. Explanation: Our Legal team systematically reviews energy and climate related legal issues and as key participants in the ERM process ensure that significant legal risks are included in the ERM risk register for each Hess asset, if applicable.
Market	Relevant, always included	Example: A market risk for Hess is a rapid transition toward natural gas as a bridge fuel to a lower carbon economy. Climate change initiatives may reduce demand for crude oil and other hydrocarbons and have an adverse effect on our sales volumes, revenues and margins. In response to this risk, Hess has invested approximately $3 billion in infrastructure in the Bakken in North Dakota to reduce flaring for operational purposes, as well as, monetizing more gas to generate additional revenue and lower emissions. Explanation: Our EHS and Economics groups systematically review energy and climate related market related risks, and as key participants in the ERM process ensure that significant market risks are included in the ERM risk register for each Hess asset, if applicable.
Reputation	Relevant, always included	Example: A reputation risk for Hess is related to potential negative public perception of Hess's management of climate-related issues that could theoretically lead to our exclusion from ESG indices, which could increase our cost of capital. Because we cannot predict shareholders' future actions, we are unable to assign a specific monetary value to the potential for future higher cost of capital if we are excluded from ESG indices. However, most of Hess's top ten institutional investors used sustainability data to evaluate ESG performance. As of the end of 2018, at least $7 billion of Hess shares were owned by investors who were signatories to the United Nations Principles for Responsible Investment which shows that investors are concerned with ESG performance. Explanation: Our Government Affairs group systematically reviews energy and climate related reputational risks, and as key participants in the ERM process ensure that significant emerging regulatory risks are included in the ERM risk register for each Hess asset, if applicable. To help mitigate these risks, part of Hess's strategy is to be a leader in ESG reporting and performance among its peers. We specifically have set targets: 25% GHGs and 50% flare reduction, and 1% methane leak/loss rate target across the U.S. natural gas value chain through our voluntary participation in ONE Future. From our initiative, we have been consistently recognized as a leader in the oil and gas industry for our disclosure and transparency by CDP and DJSI. When we benchmark our performance vs. our peers we are consistently in the top quartile.
Acute physical	Relevant, always included	Example: Acute physical risk for Hess is related to increased storm activity, which could materially affect our operations in the Gulf of Mexico. In 2018, Hurricane Michael hit the Gulf of Mexico requiring Hess to shut-in its Tubular Bells and Stampede Production Platforms. Total gross deferred production was approximately 200 thousand barrels of oil equivalent which equated to a market value of approximately $10 million, along with additional operating expenses of approximately $400,000. Despite the disruption to our business from the shut-down, there were no injuries or process safety events, no environmental impact, and no property damage to these production platforms from Hurricane Michael. Explanation: Our Operations team systematically reviews energy and climate related acute physical risks, and as key participants in the ERM process ensure that significant acute physical risks are included in the ERM risk register for each Hess asset, if applicable.
Chronic physical	Relevant, always included	Example: Chronic physical risks for Hess is related to potential extreme weather events, change in precipitation patterns, and sea level rise, which could particularly affect our offshore operations. Explanation: Our Operations and project groups systematically review energy and climate related chronic physical risks and as key participants in the ERM process ensure that significant chronic physical risks are included in the ERM risk register for each Hess asset, if applicable.

	Relevance & inclusion	Please explain
Upstream	Relevant, always included	Example: An upstream risk for Hess is related to potential future carbon constraints, which could impact the viability of significant new projects. This is a risk to Hess because our products are carbon intensive and so having a price on carbon could materially impact our operations. We know that the rigor and costs of these types of programs is only increasing as countries seek to align with the pledges that they made to the Paris Agreement. Explanation: Our Operations, EHS, and Government Affairs groups systematically review energy and climate related upstream risks and as key participants in the ERM process ensure that significant upstream risks are included in the ERM risk register for each Hess asset, if applicable. In addition, we use scenario planning to test a variety of alternative views of the market as a means to identify areas of potential risk and opportunity worthy of further analysis/monitoring.
Downstream	Relevant, sometimes included	Example: An example of a downstream risk for Hess is related to flare reduction, which if not mitigated, could contribute to potential compliance costs. Hess has invested approximately $3 billion between 2012 and 2018 in midstream infrastructure in North Dakota to capture and monetize natural gas produced from our operations and minimize flaring. We also look for opportunities to generate revenue and reduce flaring emissions with downstream partners. One such example, is a 50/50 joint venture between Hess Midstream Partners LP and Targa Resources Corp. to construct a new 200 million standard cubic feet per day gas processing plant called Little Missouri Four, located south of the Missouri River in McKenzie County, North Dakota. This plant, which is scheduled to become operational in mid 2019 will help Hess and its downstream partners process and monetize additional amounts of natural gas and reduce flaring. These prior investments as well as continued investment in additional infrastructure investments by Hess Midstream Partners LLC will leave us well positioned to achieve our 2020 flaring target. Explanation: We review energy and climate related downstream risks together with our joint venture partners, and as key participants in the ERM process ensure that significant downstream risks are included in the ERM risk register for each Hess asset prior to engaging in these types of joint ventures, if applicable.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Our strategy includes minimizing our carbon footprint as we grow and expand, and we use our risk register and the associated prioritization process to identify opportunities that help grow our business while mitigating risk.

In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. It established a range of energy supply and demand projections, oil, natural gas and carbon prices and emissions that are projected to prevail under different publicly available long-range scenarios for environmental policy and market conditions. We tested the robustness of the our asset portfolio and intended forward investments under multiple scenarios, including the IEA's SD scenario - designed to meet the aims of the Paris Agreement. The Hess portfolio and pipeline of forward investments remains resilient and provides strong financial returns even under the SD scenario. Hess plans to incorporate scenario planning into our regular business planning cycle.

As part of our Risk Management Process in 2017 we finalized our Risk Management Standard to further improve the alignment and integration of risk management across our operations and functional areas. For all risks, including climate-related risks, the Risk Management standard establishes a risk framework, accountability and expectations, including individual functions such as ERM and EHS, to provide a consistent and integrated risk management process. Key elements include: Minimum risk management expectations for each asset and major capital projects (risk plan, ERM assessment, functional risk assessment, stakeholder engagement plan, integrated risk register and risk monitoring) to ensure consistent adoption and alignment in risk tools; A hierarchy of risk assessments, integrated across technical and functional areas, that outlines the level of management review applied to different risk tiers; A formalized process for aligning risk assessment with stakeholder engagement, including the facilitation of stakeholder mapping; A risk monitoring process with accountability and an operating rhythm to help ensure appropriate monitoring, alignment and escalation of risk from the asset, project or function to and from senior management.

As part of Hess climate change strategy, we identify and manage climate-related opportunities. We take cost-effective, appropriate steps to monitor, measure, and reduce emissions through applying innovation and efficiency to reduce energy use, waste and emissions across our operations. For example, we have invested $3 billion in infrastructure to reduce flaring, which allows us to increase revenue by capturing and selling gas that was previously flared and use it to run our operations, thereby reducing operating costs and fuel needs. In 2019, Hess established a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team will focus on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization and methane monitoring. This team will evaluate additional emissions reduction opportunities and make recommendations to the EHS Board Subcommittee for consideration and implementation in 2020.

In terms of managing physical type risks, each Hess asset maintains an emergency response plan that details procedures for potential emergency scenarios, including severe weather events, because increased storm severity could materially affect our operations. When a hurricane has formed which could affect facility operations, Hess monitors the position, conditions, movement, and intensity. A facility is advised as soon as possible to initiate evacuation of personnel and when possible, to take steps to protect equipment and environment. In 2018, Hurricane Michael hit the Gulf of Mexico, requiring Hess to shut-in its Tubular Bells and Stampede Production Platforms while executing emergency response plans as outlined above. Total gross deferred production was approximately 200 thousand barrels of oil equivalent which equated to a market value of approximately $10 million, along with additional operating expenses of approximately $400,000. Despite the disruption to our business from the shut-down, there were no injuries or process safety events, no environmental impact, and no property damage to these production platforms from Hurricane Michael. In addition to our own experts, Hess has established strategic relationships with third party specialists who are experienced in emergency response and crisis management. Hess also has regional and worldwide mutual aid agreements and relationships with emergency response organizations that have strategically positioned equipment and personnel to supplement and support our response effort.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact

<Not Applicable>

Company- specific description

In 2018, we began evaluating the risk of carbon emissions trading policies to our entire business as part of our climate change scenario planning. We discovered these do not pose a material risk of increased operating costs, except to our operations in Denmark, which are subject to the European Union Emissions Trading Scheme (EU ETS). Under Phase III of the EU ETS, Hess makes annual purchases of allowances to cover the gap between free allowances and verified GHG emissions. In 2018, Hess purchased 91,545 allowances in addition to the 32,325 free allowances. Our joint venture partner, INEOS we also purchased 53,280 allowances. We expect the gap between the annual number of free allowances and actual GHG emissions to widen. We expect we will need to purchase more allowances, which will add to routine operating costs. In addition, we expect the cost of carbon credits to increase. In 2018 alone, the cost of carbon credits varied greatly, from approximately €8 to €25/carbon credit. So far prices in 2019, have not dipped below approximately €18/carbon credit.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2400000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The cost to purchase additional allowances in 2018 was approximately $2.4 million. This was estimated based on an EU ETS Allowance Unit (EUA) costs ranging from $6-$22 per EUA depending on when the allowances were purchased. In 2018, Hess's cost to purchase additional allowances was approximately $1.1 million and our partner, INEOS's cost was estimated at $1.3 million. While it is difficult to estimate future implications, using the past several years of costs is provided as a proxy.

Management method

In compliance with regulation, our management strategy is to purchase allowances in addition to our free allocation to meet regulatory requirements. Hess' Demark operations banked free allowances under EU ETS Phase II. In 2018, to meet our full

obligations, we and our partners purchased 144,825 allowances on the spot market and applied an additional 32,325 free allowances. There is minimal to no additional cost for managing the purchase of allowances to meet our EU ETS obligations. The cost of using a third party to purchase allowances on our behalf is already included in the price we pay for allowances. Annual third party verification of GHG emissions is part of the EU ETS and costs are nominal. Costs are expected to remain nominal for the duration of the EU ETS program.

Cost of management
25000

Comment

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Transition risk

Primary climate-related risk driver
Policy and legal: Mandates on and regulation of existing products and services

Type of financial impact
<Not Applicable>

Company- specific description
The issue of fugitive emissions of methane during natural gas production has received attention as shale energy production in the United States has increased, as a result in an increased supply of abundant, low cost natural gas. Since methane is emitted by natural sources as well as by human activities, questions related to attribution and measurement have led to uncertainties in estimates of current and projected methane emissions. In 2016, the U.S. Environmental Protection Agency (EPA) and the Bureau of Land Management finalized regulations aimed at controlling fugitive methane emissions. These regulations are currently subject to administrative reconsideration as well as litigation challenges. A principal focus in 2018 was the continuation of an extensive leak detection and repair (LDAR) program across all of our production facilities in North Dakota. If voluntary programs like Hess' LDAR program were not implemented and the state decided to further regulate flaring and/or methane emissions, this could result in selective well's being shut-in, which might materially increase Hess' operating costs and reduce revenues due to less gas being supplied to our Tioga Gas Plant for processing and sale.

Time horizon
Medium-term

Likelihood
Unlikely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
3000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Currently, conducting Hess' LDAR program in North Dakota increases operating costs by approximately $3 million per year; however, this cost might materially increase if Hess is required to modify its operating systems or shut-in production due to future regulation.

Management method
Key to Hess EHS & SR strategy is voluntary reduction in methane emissions. Hess is a founding member of the ONE Future Coalition focused on voluntary reduction of methane emissions to less than 1% of methane production across the value chain by 2025. Hess also participates in two programs under the Environmental Partnership by API. Under the “Leak Program for Natural Gas and Oil Production Sources”, Hess conducted surveys at 407 sites in 2018. Under the program “Replace, Remove or Retrofit

High-Bleed Pneumatic Controllers", Hess identified 246 controllers remaining in North Dakota Operations which we plan to replace by 2022. To meet our ONE Future and Environmental Partnership commitments, Hess continued implementing our LDAR program across our existing and new production facilities and gas plant in North Dakota, which encompass 100% of our total operated on-shore U.S. methane emissions. In 2018, LDAR resulted in 89,000 Mcf of recovered gas at a cost of $33.70 per Mcf. If Hess was not taking voluntary actions, it might be required to shut-in Hess Bakken production facilities with the potential methane leakage above hypothetical regulatory requirements. Cost of management cannot be reasonably determined until we understand what regulations might be imposed. However, this number, $800,000, is reflective of the LDAR program's fixed cost of labor as a potential example of cost of administration. This is part of the $3 million figure that we have provided in financial impact.

Cost of management
800000

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type
Physical risk

Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact
Reduced revenue from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions)

Company- specific description
To the extent that climate change may result in more extreme weather related events, Hess could experience increased costs related to preparedness and recovery of affected operations, such as the impact of Hurricane Michael in 2018 on Hess' Tubular Bells and Stampede Production Platforms in the Gulf of Mexico, in addition to costs and deferred revenues due to business disruption. In addition, the potential for more robust metocean structural standards for offshore platforms to withstand storms of increased severity could increase capital costs for offshore facilities. Although we maintain insurance coverage against property and casualty losses, there can be no assurance that such insurance will adequately protect the Corporation against liability from all potential consequences and damages. Moreover, some forms of insurance may be unavailable in the future or be available only on terms that are deemed economically unacceptable.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
10000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Increased storm activity could materially affect our operations in the Gulf of Mexico. The financial impact of recent storms may serve as an indicator of potential future implications. As an example, in 2018 Hurricane Michael hit the Gulf of Mexico requiring Hess to shut-in its Tubular Bells and Stampede Production Platforms. Total gross deferred production was approximately 200 thousand barrels of oil equivalent which had a market value of about $10 million, along with additional operating expenses of $400k. Without these extensive processes in place the impact could have been more significant.

Management method
Each Hess asset, including Tubular Bells and Stampede, has an emergency response plan with procedures for emergency

scenarios and severe weather events, as increased storm severity could materially affect our operations. When a hurricane might affect facility operations, Hess monitors the position, conditions, forecast of movements and intensity. A facility is advised as soon as possible to evacuate personnel and when possible, to protect equipment and environment. As an example, in 2018, Hurricane Michael hit the Gulf of Mexico, requiring Hess to shut-in its Tubular Bells and Stampede Production Platforms. Total gross deferred production was about 200,000 BOE with a market value of $10 million and operating expenses of $400,000. Following the emergency response risk management during this hurricane resulted in no damage to the facilities and minimized the financial impact of the shutdown. There were no injuries or process safety events, no environmental impact, and no property damage to these platforms. Hess also maintains strategic relationships and mutual aid agreements with third party emergency response and crisis management specialists, to supplement and support our response effort. The cost of management set forth below represents the typical cost for annual subscription/maintenance for weather forecasting, emergency response preparedness and cost for evacuating up to 2 platforms. The number of evacuated platforms depends on weather and the path of extreme storms.

Cost of management
2400000

Comment

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Customer

Risk type
Transition risk

Primary climate-related risk driver
Reputation: Increased stakeholder concern or negative stakeholder feedback

Type of financial impact
<Not Applicable>

Company- specific description
In 2015, we completed an EHS & SR Strategy Refresh project to fully align with our transition to an Exploration & Production (E&P) company and our commitment to operating as a trusted energy partner. This identified a range of material issues for benchmarking and evaluated Hess's strategic position relative to its peers to inform strategy development. Through benchmarking and a materiality assessment, six EHS & SR issues material for strategy enhancement were identified based on the level of risk to the company and stakeholder expectations (Climate Change/Greenhouse Gas Emissions, Community and Stakeholder Engagement, Human Rights and Security, Process Safety and Spills, Regulatory Assurance, and Water Management). Based on Hess's materiality assessment, climate change has a high level of external interest and is a high priority to the company. The issues reviewed in the materiality determination are based on a survey of internal and external stakeholder evaluation of risk and impact, level of stakeholder interest, and applicability of international reporting frameworks and oil and gas sector guidelines and best practices. We plan to update this Materiality Assessment in 2019-2020. The company specific risk that we are trying to mitigate through being a leader in ESG transparency, disclosure and performance is a potential fall in our ESG rankings (for example, Hess consistently achieves leadership status on CDP each year), which could result in reputational harm which could potentially impact our cost and access to future capital. Negative perceptions of Hess's management of climate related issues could theoretically lead to our exclusion from ESG indices, which could increase our cost of capital. Because we cannot predict shareholders future actions, we are unable to assign a specific monetary value to the potential for future higher cost of capital if we are excluded from ESG indices. However, most of Hess's top ten institutional investors used sustainability data to evaluate ESG performance. As of the end of 2018, at least $7 billion which represents 49% of Hess shares were owned by investors who were signatories to the United Nations Principles for Responsible Investment which shows that investors are concerned with ESG performance. As an example, Hess views a financial risk of $100 million or greater with a high potential to occur as significant.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Negative perceptions of Hess' management of climate changes and related disclosures could theoretically lead to our exclusion from ESG indices, which could increase our cost of capital. Because we cannot predict shareholders' future actions, we are unable to assign a specific monetary value to the potential for future higher cost of capital if we are excluded from ESG indices. However, most of Hess' top ten institutional investors used sustainability data to evaluate ESG performance. As of the end of 2018, at least $7 billion of Hess shares were owned by investors who were signatories to the United Nations Principles for Responsible Investment, which shows that investors are concerned with ESG performance. While, it is not possible to determine the potential financial impact of reputational damage related to an unknown event, as an example, risks are considered substantive (ERM process) when they have a high likelihood of occurring and have an impact of $100 million or greater.

Management method
Hess is managing reputation risks through our climate change strategy, closely aligned with the TCFD recommendations around Governance, Strategy, Risk Management and Metrics and Targets. Our strategy includes public disclosure of our strategy, programs and performance; reducing operational flaring, energy efficiency and more renewable energy in our energy spend. In 2018, we purchased 70,000 MWh of RECs for wind power (12% of purchased electricity from E&P assets) and accounted for energy efficiency and carbon costs in all major new investments. We are dedicated to transparency through reporting, e.g. in our annual Sustainability Report with a GRI Index and external assurance. In 2018, Hess earned CDP climate leadership for the 10th consecutive year and was included in DJSI North America for the 9th consecutive year. We work with others in our industry on energy efficiency, GHG reduction, energy management, flaring reduction, and upstream energy performance methodology. We are proactively reducing GHGs in countries of our operation, including where GHG emissions are not currently regulated. Costs of our climate change strategy implementation, including staff time, are part of the costs of salaries. Hess also spends $500,000 annually on costs for CDP reporting services, GHG assurance and external consultants. Cost of management for ESG reporting helps us achieve our goal of being in the top quartile performance in our sector for ESG transparency, disclosure, and performance.

Cost of management
500000

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Ability to diversify business activities

Type of financial impact
Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description

As part of Hess's climate change strategy, we will continue to take cost-effective, appropriate steps to monitor, measure and reduce emissions through applying innovation and efficiency to reduce energy use, waste and emissions across our operations. Our flare reduction strategy is a key component of this program because it provides us with an opportunity to generate additional revenue, increase our supply of natural gas to the marketplace where natural gas can serve as a bridging fuel in a transition to a lower carbon environment and it enables us to reduce greenhouse gas emissions. This strategy is a win-win for the company. To help implement this strategy, we have set a target to reduce the flaring intensity of our operated assets by 50% in 2020 versus our 2014 baseline. Approximately $3 billion has been invested in midstream infrastructure in North Dakota between 2012-2018 to capture and monetize natural gas produced from our operations and minimize flaring. On an intensity basis, we continue to make progress towards our 50% reduction target by reducing our cumulative flaring intensity by 41% through 2018, compared to our 2014 baseline. Note this baseline was restated in 2019 for the impact of divestitures, per our GHG protocol; however, our 50% flare intensity reduction target remains in place for 2020. In addition, in 2019, Hess established a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team will focus on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitalization and methane monitoring. The team will evaluate additional emissions reduction opportunities and make recommendations to the EHS Board Subcommittee for consideration and implementation in 2020.

Time horizon
Medium-term

Likelihood
Virtually certain

Magnitude of impact
High

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
25000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We estimate Hess' infrastructure investments will allow us to reduce our flaring rate from 27% (51 MMscfd) in 2014 to 10% (21 MMscfd) post 2020. Achieving this target will also result in an absolute reduction in our total volume of gas flared. Based on the average 2018 onshore natural gas price of $2.29 per thousand cubic foot (MCF) found in Hess' 2019 SEC 10-K, the estimated market value of the amount of wellhead gas and natural gas liquids that would be captured instead of flared will be approximately $25 million per year post 2020.

Strategy to realize opportunity
Part of Hess's climate change strategy is to take cost-effective, appropriate steps to monitor, measure and reduce emissions, energy use, and waste across our operations, through applying innovation and efficiency. For example, Hess expanded its Tioga Gas Plant from 115 mln cubic feet of natural gas per day (MMSCFD) to 250 MMSCFD and expanded its natural gas liquids processing capacity from 8,000 barrels per day (MBD) to 60 MBD to provide the Bakken region with much needed capacity to process and monetize the liquids-rich associated natural gas and reduce operational flaring at the wellhead. Hess also has ongoing short-term wellhead gas capture projects. Hess is a member of the North Dakota Petroleum Council's Flaring Task Force, has regulatory and government affairs staff and a local landowner notification system. Hess has replaced an internal voluntary target to reduce our wellhead flaring rate in North Dakota with a newly established regulatory target for Bakken operators to achieve a 10% or lower wellhead flaring rate by 2020. We routinely track the flaring rate, flared volumes, and progress toward our flaring target; results are regularly reported internally. Hess has invested about $3 billion to construct capture, transport, process and fractionation infrastructure at Bakken. This represents a one-time capital cost. Costs for staff resources to obtain the necessary licenses and permits and to operate new and expanded infrastructure are considered routine.

Cost to realize opportunity
3000000000

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Ability to diversify business activities

Type of financial impact
Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company-specific description
Hess has committed to various industry-wide voluntary agreements. For example, Hess is a founding member of the ONE Future Coalition which is comprised of companies from across the natural gas industry and focuses on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions associated with the production, processing, transportation and distribution of natural gas. Under this voluntary agreement, Hess set the target to reduce methane emissions to less than 1% of gross methane production across the value chain by 2025., In addition, Hess became one of the principal participants in the American Petroleum Institute's Environmental Partnership, which is focused on voluntary reductions in methane emissions. To help achieve these voluntary methane emissions reductions, Hess has implemented a leak detection and repair (LDAR) program covering 100% of our total on-shore U.S. methane emissions across our production and gathering facilities in the Bakken region of North Dakota and our gas plant in Tioga, ND. The Natural Gas STAR Program, a voluntary U.S. EPA partnership which Hess has belonged to since 1997, encourages oil and gas companies to adopt cost-effective technologies, including low/no bleed pneumatics and practices that improve operational efficiency and reduce methane emissions. Hess has an on-going voluntary opportunity to reduce methane emissions and operational costs at our North Dakota asset by replacing high-bleed pneumatic devices installed before August 2011, when new EPA regulatory requirements came into effect.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
250000

Potential financial impact figure – maximum (currency)
750000

Explanation of financial impact figure
Hess utilized the EPA's Natural Gas STAR estimates of economic and environmental benefits of voluntarily replacing non-regulated high-bleed units with low bleed units before end-of-life. Based on this information, we assumed a natural gas price of $2.29 per thousand cubic foot (per Hess 2019 SEC 10-K) and 260 Mcf natural gas savings for each of the 246 units. The total monetized value realized by this program from reducing emissions is approximately $150,000 per year. Potential additional maintenance cost savings range from $100,000 to $600,000 per year.

Strategy to realize opportunity
Part of Hess's emissions reduction strategy is to apply innovation and efficiency to reduce energy use, waste and emissions reductions. In 2017, Hess joined the Environmental Partnership initiative launched by the American Petroleum Institutes focused on voluntary reductions in methane emissions. Hess participates in two programs established by the Partnership: 1) Leak Program for Natural Gas and Oil Production Sources and 2) Program to Replace, Remove or Retrofit High-Bleed Pneumatic Controllers within five years. Under the Leak Program, Hess conducted semi-annual surveys at 407 sites in 2018, implementing repair of fugitive emissions at selected sites using detection methods and technology, such as U.S. EPA Method 21 or optical gas imaging cameras. Under the Replace, Remove or Retrofit program Hess identified 246 high-bleed pneumatic controllers remaining in our North Dakota Operations which we plan to replace by 2022. To meet our commitments, Hess is implementing a LDAR program at our production facilities and a gas plant in North Dakota, which encompass 100% of our total U.S. on-shore operated methane emissions. In 2018, the implementation cost was $3 million per year, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of $33.70 per Mcf. Using EPA's Natural Gas STAR estimated implementation cost per unit $1,850 for the 246 controllers, total implementation costs would be approximately $455,000. This is a one-time capital cost.

Cost to realize opportunity
455000

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of more efficient modes of transport

Type of financial impact
Reduced operating costs (e.g., through efficiency gains and cost reductions)

Company-specific description
Opportunities for improved efficiency: In support of our GHG emissions and flaring reduction targets, we track and monitor air emissions at each of our assets and undertake a variety of emissions reductions initiatives. In North Dakota we use significant volumes of freshwater in our production activities. Previously this water was trucked to our well sites via diesel trucks. Now virtually all of our water is transported by flexible hose which significantly reduces truck transport emissions and reduces the truck traffic on roads. Also in North Dakota we have converted diesel engines to bi-fuel natural gas/diesel engines on several drilling rigs operated by Hess' drilling contractor. At least five rigs drilling wells for Hess in the Bakken are now operating with converted bi-fuel natural gas/diesel engines. Hess also utilizes GTUIT units at remote sites. GTUIT units convert natural gas to natural gas liquids rather than flaring. In addition, in 2019 Hess established a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team will focus on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization, and methane monitoring. This team will evaluate additional emissions reduction opportunities and make recommendations to the EHS Board Subcommittee for consideration and implementation in 2020.

Time horizon
Current

Likelihood
Virtually certain

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
34000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
Each project has its own financial implications, but as an example: Hess transported about 18 million barrels of water in 2018. Transporting water by use of flexible pipe rather than trucks saved an estimated $34 million in 2018 based on the cost differential between truck transport and use of flexible pipe. Cost of truck transport is $3.50 per barrel. Cost of transport with flexible pipe is $1.60 per barrel. Savings by using flexible pipe instead of truck transport is $1.90 per barrel.

Strategy to realize opportunity
To manage the opportunities presented by energy efficiency, we are implementing a number of projects, including use of flexible pipe to transport freshwater to drill sites. In North Dakota, we use significant volumes of freshwater in our production activities. Previously this water was trucked to our well sites via diesel trucks. Now virtually all of our water is transported by flexible hose which significantly reduces truck transport emissions and reduces the truck traffic on roads. Once the opportunity to use flexible pipe was identified, a test project was undertaken to determine what type flexible hose would withstand ambient temperature

extremes as well as durability with heavy vehicle operations. Successful testing allowed us to increase flexible hose use each year until it is now exclusively used for water transport. In 2018, we doubled the use of flexible hose and thereby eliminated an additional 600,000 gallons of diesel use in trucks which resulted in an additional 6,099 tonnes GHG decrease. Each project has its own costs, but as an example: the cost to eliminate water truck transport by using flexible hose are approximately $29,000,000. There are no costs for project and contract management beyond the normal course of business.

Cost to realize opportunity
29000000

Comment

Identifier
Opp4

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Type of financial impact
Increased revenue through demand for lower emissions products and services

Company-specific description
In 2015, we completed an EHS & SR Strategy Refresh project to fully align with our transition to an exploration and production company and our commitment to operating as a trusted energy partner. This identified a wide range of material issues for benchmarking and evaluated Hess' strategic position relative to its peers to inform strategy development. Through benchmarking and a materiality assessment, six material EHS & SR issues (Climate Change and Greenhouse Gas Emissions, Community and Stakeholder Engagement, Human Rights and Security, Process Safety and Spills, Regulatory Assurance, and Water Management) for strategy enhancement were identified based on the level of opportunity to the company and stakeholder expectations. Based on Hess' materiality assessment, climate change has a high level of external interest and is a high priority to the company. The issues reviewed in the materiality determination are based on a survey of both internal and external stakeholder's evaluation of opportunity and impact, level of internal and external stakeholder interest, and applicability of international reporting frameworks and oil and gas sector guidelines and best practices. As part of an EHS & SR strategy refresh, we plan to update our materiality assessment in 2019-2020. Reputational enhancement: The company specific opportunity that we are trying to realize through being a leader in ESG transparency, disclosure and performance is maintenance and improvement in our ESG rankings (For example. Hess consistently achieves leadership status on CDP each year) which could result in improved reputation which could potentially impact our cost and access to future capital. In addition, in 2019 Hess established a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team will focus on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization, and methane monitoring. This team will evaluate additional emissions reduction opportunities and make recommendations to the EHS Board Subcommittee for consideration and implementation in 2020.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
100000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure

Positive perceptions of Hess' management of climate change and related disclosures have led to our inclusion in ESG indices, which could theoretically decrease our cost of capital. Because we cannot predict shareholders' future actions or the makeup of our top shareholders going forward, at this time we are unable to assign a specific monetary value to the potential for future lower cost of capital resulting from our inclusion on ESG indices. However, most of Hess' top ten institutional investors and top ten mutual fund investors used sustainability data to evaluate ESG performance and inform shareholding strategy. At year-end 2018, at least $7 billion of Hess shares were owned by investors who were signatories to the United Nations Principles for Responsible Investment which shows that investors are concerned with ESG performance. As an example, Hess would view a financial opportunity of $100,000,000 or more related to enhanced reputational ESG performance as significant.

Strategy to realize opportunity

Hess is managing these opportunities through implementation of our climate change strategy, which includes public disclosures of our strategy, programs and performance; reducing operational flaring; energy efficiency and more renewable energy in our energy spend; accounting for energy efficiency and carbon costs in all major new investments. Hess continues to meet our goal of top quartile performance in our sector for the quality of our climate change disclosures. In 2018, Hess earned CDP climate leadership for the 10th consecutive year, and included in the DJSI North America for the 9th consecutive year. Based on our disclosure to DJSI, we received the distinction of being included in the Sustainability Yearbook 2018, i.e. Hess was in the top 15% of reporters in our industry. We also work with others in our industry on energy efficiency and GHG emissions reduction, energy management systems, operational flaring reduction, and upstream energy performance methodology. We are proactively reducing GHG emissions intensity in several countries where we operate, including those where GHG emissions are not currently regulated. Costs of implementing our climate change strategy, such as CSR report preparation and responding to CDP, including staff time are not separated from the costs of salaries. In addition to staff time, Hess spends approximately $500,000 annually on costs that include CDP reporter services, GHG report assurance, and external consultants.

Cost to realize opportunity

500000

Comment

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Not yet impacted	Description: We begin a risk assessment by bringing together business and asset level subject matter experts to establish a holistic risk profile for a particular asset. Findings from recent EHS and operational audits also inform the process. We use the results of asset-level risk assessments to generate company-wide portfolio view of risks and impacts on value in financial terms. Included in our recent 2015 Strategy Refresh was a determination of EHS&SR priority risks and stakeholder expectations. This priority risk register is updated annually to reflect changing business conditions and risk prioritization. Magnitude of impact: High to moderate in long-term horizon. Since our products and services are carbon intensive, we have identified potential future risks of carbon pricing. Managing these costs proactively reduces our cost per barrel of production and makes us more economically and environmentally competitive. We expect this to have a high to moderate impact in the long-term horizon as our strategy includes minimizing our carbon footprint as we grow and expand, and we use this process to identify opportunities that help us grow our business while mitigating risk. For example, we have invested about $3 billion in a substantive business decision to add infrastructure in North Dakota to reduce flaring, which allows us to increase revenue by capturing and selling gas that was previously flared, as well as using it to run our operations thereby reducing the need to buy other fuels. This effort is a win-win situation for Hess because it reduces costs, generates additional revenue and supports efforts to transition to lower carbon emitting products, since natural gas is less carbon intensive than other fossil fuels. Another example is our LDAR program in North America. This program comprises monthly audible, visual and olfactory equipment inspection for the potential of leakage; semi-annual optical gas imaging performed by our certified field assurance personnel to detect fugitive emissions. In 2018, the cost of implementation in ND was approximately $3 million, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of approximately $33.70 per Mcf. These measures; together with the steps we are taking to reduce flaring in ND, aim to help further reduce our fugitive emissions.
Supply chain and/or value chain	Impacted	Description: When Hess goes into new joint venture (JV) projects with partners, we engage directly to evaluate project economics, ensure safety and minimize emissions. For example, at our Stabrock Block (offshore Gayana), in which Hess holds a 30% interest, we worked with our JV partners on initial development of the Lisa field (within the block) to attempt to minimize emissions across the whole value chain as we develop these fields. While these types of JV investments are equity investments for Hess, we view these investments as having the potential for reputation risks and opportunities. Similar to our wholly owned operations, our JV partners identify and manage the potential future risks of carbon pricing. Our climate change strategy includes continuing to take cost-effective, appropriate steps to monitor, measure and reduce emissions through applying innovation and efficiency to reduce energy use, waste and emissions across our operations. We view extending that strategy across non-operated joint ventures. Magnitude of impact: We would view this activity as having a significant impact on our business.
Adaptation and mitigation activities	Impacted	Description: Hess has set three strategic targets to help minimize its carbon footprint; a 25% reduction in greenhouse gas intensity by 2020; a 50% reduction in flaring intensity by 2020 and a One Future methane reduction target to lower methane emissions to less than 1% across the natural gas value chain by 2025. Magnitude of impact: High. Our targets have a substantive impact related to our updated climate change strategy. Through 2018, Hess has reduced its GHG intensity by 17% versus our 25% target and our flaring intensity by 41% versus our 50% target. We are on track to achieve the GHG and Flare reduction targets by 2020. Also in 2018, our methane emissions rate for US Onshore Upstream (production, gathering and boosting and processing) was 0.69% vs. an interim 2020 One Future target of 0.64% and a 2025 target of 0.47%. Our flare reduction initiatives, along with our LDAR program in North Dakota leave us well positioned to achieve these One Future targets. Since 2012, implementation of our flare reduction activities has cost Hess approximately $3 billion USD in North Dakota (ND). In 2018, we also invested $3 million USD to implement a leak detection and repair (LDAR) system in ND, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of $33.70 per Mcf.
Investment in R&D	Not impacted	Hess does not invest in fundamental R&D. A company of our size has limited resources and no R&D budget; hence there is minimal risk associated with climate-related R&D risks or opportunities and this does not have a substantive financial impact on our business. Since it does not have a substantive impact, we do not anticipate R&D having an impact on our business in the short or medium-term. This is primarily a long-term risk and impact to the business.
Operations	Impacted	Description: We begin a risk assessment by bringing together business and asset level subject matter experts to establish a holistic risk profile for a particular asset. Findings from recent EHS and operational audits also inform the process. We use the results of asset-level risk assessments to generate company-wide portfolio view of risks and impacts on value in financial terms. Included in our 2015 Strategy Refresh was a determination that EHS&SR priority risks and stakeholder expectations. This priority risk register is updated annually to reflect changing business conditions and risk prioritization. Magnitude of impact: High to moderate. We have identified potential future risks of climate change (both transitional and physical) to our operations. Managing these costs proactively means that our cost per barrel is coming down and makes us more economically and environmentally competitive. We expect this to have a high to moderate impact as our strategy includes minimizing our carbon footprint as we grow and expand, and we use this process to identify opportunities that help us grow our business while mitigating risk. For example, we have invested about $3 billion in a substantive business decision to develop infrastructure in North Dakota ND to reduce flaring, which allows us to increase revenue by capturing and selling gas that was previously flared, as well as using it to run our operations thereby reducing the need to buy other fuels. This effort is a win-win situation for Hess because it reduces costs, generates additional revenue and supports efforts to transition to lower carbon emitting products, since natural gas is less carbon intensive than other fossil fuels. Another example is our LDAR program. This program comprises monthly audible, visual and olfactory inspection of equipment with the potential to leak; and, semi-annual optical gas imaging which is performed by our field assurance personnel who are certified in the use of infra-red thermal cameras and other monitoring techniques to detect fugitive emissions. In 2018, the cost of implementation in ND was approximately $3 million, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of $33.70 per Mcf. These measures; together with the steps we are taking to reduce flaring in ND, aim to help further reduce our fugitive emissions.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have been factored into your financial planning process.

	Relevance	Description
Revenues	Not impacted	Operating in carbon constrained environment has the potential ability to reduce revenues if regulations emerge which cause fuel switching. To date, no such regulations have been enacted in the United States and we do not view this impact as substantive. Since regulations have not had a substantive impact, we do not anticipate factoring changes to revenue from climate change into our financial planning process in the short or medium-term. This is primarily a long-term risk and impact to the business.
Operating costs	Impacted	Description: If a carbon regulation is in effect in a particular country where we are doing business, the cost of carbon is incorporated as part of operating costs for the asset located in that country. For example, Hess was only impacted by climate change-related emissions trading schemes in Denmark. In 2018, Hess purchased additional allowances under the EU ETS for approximately $1.1 million. Magnitude of impact: Low. At present, this does not have a substantive impact on our business. In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. This exercise established a range of energy supply and demand projections, oil, natural gas and carbon prices and emissions estimates that are projected to prevail under different publicly available long-range scenarios for environmental policy and market conditions. We tested the robustness of the Hess asset portfolio and intended forward investments under multiple scenarios, including IEA's Sustainable Development scenario, a scenario designed to meet the aims of the Paris Agreement. The Hess portfolio and our pipeline of forward investments remain resilient and provides strong financial returns even under the SDS scenario. Hess plans to incorporate scenario planning into our regular business planning cycle. At present, meeting the SDS scenario objectives, does not have a substantial impact on our business and we believe we can monetize our reserves going forward in a profitable manner.
Capital expenditures / capital allocation	Not yet impacted	Description: If the cost of carbon increases it will impact the long-term horizon of Hess since we operate in a carbon intensive sector. To mitigate this risk, a cost of carbon is incorporated in all significant new projects as a sensitivity analysis to financials to ensure that we understand and evaluate the ramifications that potential carbon regulations may have on our business. Starting in 2016, our economic evaluation process for significant new projects was updated to include a carbon price of $40/tonne, which is essentially equivalent to the US EPA's social cost of carbon (Obama Administration) and consistent with international projections for the cost of carbon. To date, incorporating this $40/tonne price of carbon into project planning has not yet had a substantive long-term impact on our capital allocation and the decision to move forward on any new projects, including the decision to sanction the Stampede project in the Gulf of Mexico in 2013 and the North Malay Basin project in Malaysia in 2016. Timescale: In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. This exercise establishes a range of energy supply and demand projections, oil, natural gas and carbon prices and emissions estimates that are projected to prevail under different publicly available long-term scenarios for environmental policy and market conditions. We tested the robustness of Hess' asset portfolio and intended forward investments under multiple scenarios, including the IEA's Sustainable Development scenario. The Hess portfolio remains resilient and our pipeline of forward investments provides strong financial returns even under the SDS, IEA's most challenging scenario in terms of GHG emissions reductions so we anticipate that this is more of an issue over longer time horizons.
Acquisitions and divestments	Not impacted	We have not identified any risks or opportunities related to climate change with a substantive financial impact on our acquisitions and divestments. We do recognize however, that climate-related issues have a potential to impact our assets and portfolio. Hence, in 2019, we completed our first scenario planning analysis to test the resilience of our portfolio against climate change-related market issues and at this moment. Moreover, our 2015 Strategy Refresh determined environment, health and safety and social responsibility (EHS&SR) priority risks and stakeholder expectations. This priority risk register is updated annually to reflect changing business conditions and risk prioritization.
Access to capital	Not impacted	Hess is a leader among its peers in climate related disclosure and so we typically do not receive requests in this area. As a result, we have not identified any risks or opportunities related to climate change with a substantive financial impact on our access to capital. We do recognize however, that lenders are increasingly considering climate change-related issues, hence we continue our efforts in leading the way in climate related disclosure and continue to manage and mitigate climate-related risks. For instance, we completed our first scenario planning analysis in 2019 to test the resilience of our portfolio against climate change-related market issues and at this moment. Moreover, our 2015 Strategy Refresh determined environment, health and safety and social responsibility (EHS&SR) priority risks and stakeholder expectations. This priority risk register is updated annually to reflect changing business conditions and risk prioritization.
Assets	Impacted	Description: Reducing flaring is a significant part of Hess's climate change strategy in order to mitigate the risks associated with additional state regulation on flaring. Hess has a 50% reduction in flaring intensity target for 2020 and a One Future methane reduction target to lower methane emissions to less than 1% across the natural gas value chain by 2025. Magnitude of impact: High. We have invested about $3 billion in a substantive business decision to enhance midstream infrastructure in the Bakken region of North Dakota (ND) between 2012-2018 to capture and monetize natural gas produced from our operations and minimize flaring. In 2018, we also invested $3 million USD to implement a leak detection and repair (LDAR) system in ND, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of $33.70 per Mcf. In 2019, Hess completed its first scenario planning exercise to test the resilience of our portfolio against various alternative views of the market. This exercise establishes a range of energy supply and demand projections, oil, natural gas and carbon prices and emissions estimates that are projected to prevail under different publicly available long-term scenarios for environmental policy and market conditions. We tested the robustness of Hess' asset portfolio and intended forward investments under multiple scenarios, including the IEA's Sustainable Development scenario. The Hess portfolio remains resilient and our pipeline of forward investments provides strong financial returns even under the SDS, IEA's most challenging scenario in terms of GHG emissions reductions.
Liabilities	Not impacted	Our liabilities have not been impacted by climate related issues. We do recognize however, that climate change-related issues such as extreme weather events could have an impact on our assets or distribution of products. For instance, an extreme weather event could impact our operations and result in potential liability if such a failure leads to damage to assets, injury to individuals and significant interruptions in our production. The timing and magnitude of impact would depend on the event and the extent to which our operations were disrupted. This has been reflected by our first scenario planning exercise, completed in 2019 to test the resilience of our portfolio against climate change-related market issues. Moreover, our 2015 Strategy Refresh determined environment, health and safety and social responsibility (EHS&SR) priority risks and stakeholder expectations. This priority risk register is updated annually to reflect changing business conditions and risk prioritization. Through these, we determined no substantive impact due to liabilities.
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?

Yes, qualitative and quantitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

i/ii) Our 2015 EHS & SR Strategy Refresh identified material issues for benchmarking and evaluated Hess' strategic position relative to peers to inform strategy development. This allowed us to develop strategy recommendations, tactical actions, and key metrics for six material issues based on stakeholder expectations and risk to the company. We track GHG emissions at the asset level and forecast emissions to monitor progress against our goals. Hess supports the aim of the Paris Agreement and we have set 2020 targets for reducing flaring intensity by 50% and GHG intensity by 25% compared to a 2014 baseline. Our 25% GHG intensity reduction target is consistent with the WEO SDS which requires an ambitious 21% carbon intensity reduction by 2030. Since 2014, we have respectively reduced flaring intensity by 41% and GHG intensity by 17% through 2018.

Two of Hess's key enterprise processes, Enterprise Risk Management (ERM) and Value Assurance (VA) incorporate climate change risk. As part of our risk analysis, in 2018 we conducted a scenario planning study using the 2018 IEA WEO's three main scenarios and compared these to Hess base case. This exercise established a range of energy supply and demand projections, oil, natural gas and carbon prices; and emissions estimates that are projected to prevail under different publicly available long-term scenarios for environmental policy and market conditions. Based on the results of our scenario planning analysis, we believe it is highly unlikely that any of our assets would be stranded or significantly impaired by the CO2 pricing under the most ambitious IEA scenarios, the SDS, which is consistent with the aims of the Paris Agreement. Hess strategic priority remains being among the lowest-cost oil producers, and as a result, we believe that Hess can continue to monetize its reserves and deliver robust financial performance under a wide range of market conditions. We account for the cost of carbon in our VA process for major new projects, and as part of an annual review, look at select existing assets, allowing for a recurring evaluation of carbon risk in ongoing activities. The Hess Leadership Team comprised of senior executive officers holds the highest direct responsibility for climate change strategy. EHS matters, including climate change, are reviewed with the EHS Board of Directors Subcommittee on a quarterly basis. The outputs of the ERM and VA processes are reviewed by the Hess Leadership Team, and by the Board and are then used in strategy development.

iii/iv) Our primary focus remains to decrease our GHG emissions intensity by reducing wellhead flaring of associated gas. This is a substantial business decision for Hess, and the aspects of climate change that influenced it include physical risks, regulatory changes, and reputation risks and opportunities, as well as energy efficiency opportunities. For example, Hess is a founding member of the ONE Future coalition, focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions. ONE Future offers a performance-based flexible approach to managing methane emissions. The goal is to voluntarily lower methane emissions to less than 1% of gross methane production across the value chain by 2025. A resulting substantial business decision is to continue our focus on reducing our fugitive methane emissions. We continue to implement our LDAR program across all of our production facilities (existing and new) and gas plant in North Dakota, which encompass 100% of our total on-shore operated US methane emissions. In 2018, the implementation cost was approximately $3 million, which resulted in approximately 89,000 Mcf. In addition, since 2012, we have invested approximately $3 billion in natural gas capture, processing and fractionation capacity.

v) The most important components of Hess' short term strategy that have been influenced by climate change are:

a) GHG emissions' reductions: Through operational/energy efficiency, revenue opportunities and/or regulatory drivers. For example, Hess played a key role in the formation of the North Dakota Petroleum Council's Flaring Task force and the recommendations that helped shape NDIC order # 24665, which mandates operators to capture 90% of the gas produced by October of 2020. We are engaged in a multi-year effort to capture natural gas from our wells and minimize flaring by investing approximately $3 billion in gas gathering and processing infrastructure in North Dakota.

b) Climate change transparency: We publish information on climate change programs and performance in our annual sustainability report and CDP Climate change response. We participate in industry initiatives that focus on quantifying and disclosing emissions performance and climate change-related risks and opportunities; and

c) Physical risk management: We have a framework in place that includes severe weather management plans and procedures and are in the process of implementing business continuity plans to address severe weather events. Hess maintains insurance coverage that includes coverage for physical damage to its property and other coverage. The amount of insurance covering physical damage is based on the asset's estimated replacement value or the estimated loss.

vi) The most important component of Hess' long term strategy includes GHG emissions minimization and regulatory change, while being among the lowest-cost oil producers so that Hess' portfolio can remain sustainable under a wide range of environmental policy and market conditions. We address emissions minimization and regulatory change through setting targets to reduce emissions intensity and integrating carbon price risk, potential future regulatory constraints and energy efficiency considerations into our value assurance process for major new investments. In 2013, this process was expanded to include an annual review of all significant existing assets. This enables us to address potential regulatory risks and opportunities driven by current and future costs of carbon and to promote more carbon-efficient choices for equipment decisions. We have also integrated carbon asset risk assessment via scenario planning into our regular business cycle to continually test the resilience of our portfolio against various views of the market.

vii) Strategic advantages: In the past, we have been included in the CDP leadership indices for the quality of our disclosures. Our climate change disclosures have resulted in our inclusion in various environmental, social and governance (ESG) stock indices and in our ranking as one of the most sustainable US energy producers. Through our Enterprise Risk Management process and asset-level risk assessment processes, we use various risk ranking models to verify that new and existing assets evaluate and rank all above-ground non-technical risks, including those related to climate change.

C3.1d

(C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios	Details
IEA Sustainable development scenario	In 2018, Hess senior management approved a scenario planning study to test the resilience of our portfolio against a range of views of the market. This exercise established a range of energy supply and demand projections; oil, natural gas and carbon prices; emissions estimates under different publicly available long-term scenarios for environmental policy and market conditions. We approached scenario planning by taking a first step to assess transition risks under divergent oil, natural gas and carbon price trajectories. We plan to consider expanding the analysis by evaluating physical and reputational risks and incorporating carbon asset risk assessment via scenario planning into our regular business planning cycle. To evaluate potential exposure to our portfolio in a modeled carbon-constrained future, we considered the long-range outlook for energy supply and demand. We used the IEA's 2018 WEO to examine various supply and demand scenarios through 2040, which are recognized worldwide as an industry benchmark. We prepared internal guidance and methodology, which details our approach to scenario planning and serves as a roadmap for our external verifier to verify our approach. Hess established a base case (i.e., $65 per barrel Brent oil; $3 per million MMBtu Henry Hub natural gas, in 2019 real terms) and then ran our asset portfolio and intended forward investments through this model to assess financial robustness. We also applied a sustained $40 per tonne cost of carbon to our assets and intended forward investments. Hess base case was then compared against various oil, natural gas and carbon prices in the IEA's three main scenarios: Current Policies, New Policies and Sustainable Development. For Hess, oil and natural gas prices (and the underlying demand that drives them) are likely to be the most immediate concern, while the impact of carbon pricing is also relevant. Our next step was to quantify the financial impact (delta) between the Hess base case and the IEA scenarios. We have tested the robustness of Hess asset portfolio and intended forward investments under multiple scenarios, including the IEA's SD scenario. We note that the latter is fully aligned with the Paris Agreement's aims. At the oil, natural gas and carbon prices established in our base case, the Hess portfolio remains resilient and our pipeline of forward intended investments provides strong financial returns even under the SD scenario, the IEA's most challenging scenario in terms of GHG emissions reductions. We believe our scenario analysis validates Hess' strategic priorities to focus investment on high-return, low-cost oil and gas opportunities and to build a focused and balanced portfolio, robust at low prices-thereby providing competitive levels of return to our shareholders. Our two most significant assets, the Bakken in North Dakota and our joint-venture in Guyana are still extremely resilient due to their favorable cost structure and emissions attributes even when modeled against the IEA's Sustainable Development Scenario. In addition, according to an independent study, our new offshore developments in Guyana are considered to be among the lowest cost offshore developments in the world. Our scenario analysis led to the establishment a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team is focused on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization and methane monitoring. Since the teams formation they used the results of scenario analysis to directly inform our business objectives and strategy so we have made new commitments to renewable energy. Starting in 2020, we will purchase 100% RECs to offset the Company's entire purchased electricity requirements.

C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

One key aspect of Hess' current climate change strategy as outlined in our Climate Change Position statement is to develop oil and gas resources in an environmentally responsible and sustainable manner. Our business strategy includes actions to continue reducing our carbon footprint. We will continue to take steps to monitor, measure and reduce our GHG emissions through the following actions:

-Setting and disclosing our targets to reduce the carbon intensity of our operations

-Applying technological innovation and efficiency to decrease energy use and GHG emissions across our operations

-Accounting for the cost of carbon in significant new investments

-Incorporating carbon risk scenario analysis into our business planning cycle

-Working with government and industry partners to advance the development of a range of low-GHG emissions pathways, including technological advancements.

We have set three targets to reduce the carbon intensity of our operations: a GHG target to reduce the emissions intensity our Operated assets by 25% by 2020 relative to our 2014 baseline; a flaring target to reduce the emissions intensity of our Operated assets by 50% by 2020 relative to our 2014 baseline and a ONE Future methane target to voluntarily lower methane emissions to 0.47% of gross methane production across the sectors that we operate in within the U.S. natural gas value chain by 2025. Through

2018, we have reduced our GHG intensity by 17% relative to our 2020 target of 25%; we have reduced our flaring intensity by 41% relative to our 2020 target of 50%, and have reached a 2018 methane intensity rate of 0.69% vs. an interim 2020 One Future target of 0.64% and a 2025 target of 0.47% for the sectors within which we operate. With the actions and programs that we currently have in place, we believe we are well positioned to make or exceed all three of these targets. The WEO's Sustainable Development scenario requires an ambitious 21% carbon intensity reduction by 2030 in order to be consistent with a less than 2 degree C aim. This 21% carbon intensity reduction figure is derived from the SDS's CO2 emissions divided by primary world energy demand in 2030 vs. 2017. Hess's 25% GHG intensity reduction target, which was set in 2015 and is based on our operated Scope 1 and 2 GHG emissions divided by production, is aligned with IEA's SDS 2030 goal and is consistent with the Paris Agreement's 2 degree C ambition.

In 2018, Hess senior management approved a scenario planning study to test the resilience of our portfolio against various views of the market. This exercise established a range of energy supply and demand projections; oil, natural gas and carbon prices; and emissions estimates that are projected to prevail under different publicly available long-term scenarios for environmental policy and market conditions. Going forward, we plan to incorporate carbon asses risk assessment via scenario planning into our regular business planning cycle. We have tested the robustness of Hess' asset portfolio and intended forward investments under multiple scenarios, including the IEA's Sustainable Development Scenario. We note that the latter is fully aligned with the Paris Agreement's aim of holding the increase in global average temperature to well below 2 degree C. At the oil, natural gas and carbon prices established in our base case, the Hess portfolio remains resilient and our pipeline of forward intended investments provides strong financial returns even under the Sustainable Development scenario, the IEA's most challenging scenario in terms of GHG emissions reductions. We believe our scenario analysis validates Hess' strategic priorities to focus on investment in high-return, low-cost oil and gas opportunities and to build a focused and balanced portfolio, robust at low prices-thereby providing competitive levels of returns to our shareholders. We further believe this strategy is consistent with IEA's SDS, which envisions a meaningful role for oil and gas through 2040, when oil and gas are still projected to account for almost 50% of global primary energy demand.

Finally, in 2019, Hess established a new team, led by the Senior VP Production to further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities. The team will focus on: flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization and methane monitoring. In addition, the team plans to update Hess' EHS & SR strategy beginning with a new materiality assessment in 2019-2020 and plans to set new GHG emissions reduction targets post 2020 which remain consistent with the aim of the Paris Agreement.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Scope
Scope 1+2 (location-based)

% emissions in Scope
100

Targeted % reduction from base year
25

Metric
Metric tons CO2e per unit of production

Base year
2014

Start year
2015

Normalized base year emissions covered by target (metric tons CO2e)
41

Target year
2020

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

% of target achieved
69

Target status
Underway

Please explain
We have set a 2020 target to reduce GHG emissions intensity (Tonnes/MBOE) for the current portfolio of assets we operate by 25% compared to a 2014 baseline. This target is exclusive of Renewable Energy Certificates (RECs). We consider this to be equivalent to a science based target because the WEO's Sustainable Development scenario requires an ambitious 21% carbon intensity reduction by 2030 in order to be consistent with a less than 2 degree aim. This 21% carbon intensity figure is derived from the SDS's CO2 emissions divided by primary world energy demand in 2030 vs. 2017. Hess' 25% GHG intensity reduction target which was set in 2015 and is based on our operated Scope 1 and 2 GHG emissions divided by production, is aligned with the IEA's Sustainable Development scenario 2030 goal and is consistent with the Paris Agreement's 2 degree ambition.

% change anticipated in absolute Scope 1+2 emissions
44

% change anticipated in absolute Scope 3 emissions
0

Target reference number
Int 2

Scope
Scope 1

% emissions in Scope
100

Targeted % reduction from base year
50

Metric
Metric tons CO2e per unit of production

Base year
2014

Start year
2015

Normalized base year emissions covered by target (metric tons CO2e)
276

Target year
2020

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

% of target achieved
82

Target status
Underway

Please explain
We have set a 2020 target to reduce flaring intensity (scf/BOE) by 50% for the current portfolio of assets we operate compared to a 2014 baseline. We anticipate flaring reduction will result from a major initiative from our Bakken asset in North Dakota assuming we receive approval from key stakeholders for these initiatives.

% change anticipated in absolute Scope 1+2 emissions
7

% change anticipated in absolute Scope 3 emissions
0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

Target
Renewable electricity consumption

KPI – Metric numerator
Renewable electricity purchased

KPI – Metric denominator (intensity targets only)
Net purchased electricity

Base year
2018

Start year
2018

Target year
2018

KPI in baseline year
10

KPI in target year
10

% achieved in reporting year
100

Target Status
Achieved

Please explain
Part of Hess's strategy is to purchase at least 10% of our annual electricity consumption from renewable energy sources based on net electricity each year. Because this is an annual target to purchase at least 10% renewable based on actual electricity consumption for year, we are effectively setting a new target each year. As a result, the base year, the start year, and the target year

are all the same (2018). In accordance with our target to purchase 10% renewable energy (based on our 2018 electricity use of 605,525 MWh) our goal is to purchase 60,000 RECs (KPI in baseline year). Because we actually bought 70,000 RECs or 12% of our electricity use, as well as purchased 27% of our grid energy from renewable sources (163,000 MWh), in total we used 233,000 MWh generated from renewable sources and therefore exceeded our 10% target.

Part of emissions target

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Target
Methane reduction target

KPI – Metric numerator
Methane emitted (tonnes)

KPI – Metric denominator (intensity targets only)
Methane produced (tonnes)

Base year
2012

Start year
2015

Target year
2025

KPI in baseline year
1.57

KPI in target year
0.47

% achieved in reporting year
80

Target Status
Underway

Please explain
Hess is part of the ONE Future coalition which was established to voluntarily lower methane to less than 1% across the natural gas value chain. To achieve this goal, ONE Future has established methane emissions rate targets for each sector of the natural gas value chain; production (0.28%); gathering and boosting (0.08%); processing (0.11%); transmission and storage (0.30%) and distribution (0.22%), which cumulatively totals 1%. Hess has activities in three sectors, production, gathering and boosting and processing. In 2018, our methane emissions rate for production was 0.45%, our methane emissions rate from gathering and boosting as 0.20%, and our emissions rate from processing was 0.04%. Our combined methane emissions rate from production, gathering, boosting, and processing was 0.69%, which is above the 2025 One Future combined target of 0.47% for those three sectors. Our relative methane emissions intensity has increased in 2018 due to the sale of our Utica asset. With our planned reductions to flaring and phase out of high-bleed pneumatic controllers in North Dakota we anticipate that we will achieve the ONE Future target by 2025.

Part of emissions target
Int2

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

C-OG4.2a

(C-OG4.2a) If you do not have a methane-specific emissions reduction target for your oil and gas activities or do not incorporate methane into your target(s) reported in C4.2 please explain why not and forecast how your methane emissions will change over the next five years.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	3	68569
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative type
Process emissions reductions

Description of initiative
New equipment

Estimated annual CO2e savings (metric tonnes CO2e)
68569

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
7400000

Investment required (unit currency – as specified in C0.4)
3000000000

Payback period
>25 years

Estimated lifetime of the initiative
>30 years

Comment
A key component of our climate change strategy is to reduce flaring throughout our Operations. Specifically, in North Dakota our goal is to reduce flaring from 27% in 2014 to 10% by 2020. This flare reduction will result from a series of major infrastructure projects beginning in 2012, where cumulative investment has approximated $3 billion thru 2018 to capture and process associated gas from oil production. This flare reduction is a major component of our climate change strategy. We have set a target to reduce the flaring intensity of our current portfolio of assets that we operate by 50% by 2020 compared to a 2014 baseline. Through 2018, we have made substantial progress by reducing our cumulative flaring intensity by 41% versus our 50% target. In 2018, we reduced our absolute flaring by 3212 MMscf from 2017. When you take an average onshore natural gas price of $2.29 per Mcf times the 3212 MMscf reduction in volume of flared gas, this is worth approximately $7.4 million in saving for the year. Our flare reductions in subsequent years will be much more significant (approximately $25 million per year) when all the infrastructure investments are in place and we will be able to monetize an additional 30 MMscfd (27% flaring in 2014 of 51MMscfd vs. 10% flaring in 2020 of 21 MMscfd) In 2018, two additional projects were small and involved emissions reductions related to power generation and reduced transportation resulting in emissions reductions of 6569 tonnes.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Other	Capital projects which meet investment hurdles and are approved by key stakeholders that result in energy efficiency and emissions reductions activities.
Internal price on carbon	We use this when we evaluate new projects to ensure that they are financial viable.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?
Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation
Product

Description of product/Group of products
Natural Gas

Are these low-carbon product(s) or do they enable avoided emissions?
Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Natural gas considered as bridging fuel)

% revenue from low carbon product(s) in the reporting year
15

Comment
We consider natural gas, which typically has about half the GHG emissions of coal in electricity generation, as a bridging fuel as customers transition to a lower carbon economy

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

For the past 22 years, Hess has been a partner in the US EPA's Natural Gas STAR program. This program created a partnership between EPA and industry to identify and share best practices that yield reduced methane emissions. Since joining the Natural Gas STAR program in 1997, Hess has achieved cumulative methane emissions reductions of 3.4 million tonnes of CO2e (7,038,603 MCF).

These results have been achieved through employing the following Natural Gas STAR methane reduction technologies and practices:

a) Installation of vapor recovery units (57.8% of emissions reductions)

b) Installation of electric compressors (20.9%)

c) Installation of flash tank separators on glycol dehydrators (8.7%)

d) Catalytic converter installation (8.4%)

e) Other (4.2%)

In addition, Hess is one of the founding members of ONE Future, a coalition of companies from across the natural gas industry focused on identifying policy and technical solutions that yield continuous improvement in the management of methane emissions associated with the production, processing, transmission and distribution of natural gas. If adopted widely, our system of emissions management could lower total methane emissions to less than 1% of gross production - the point at which the use of natural gas for any purpose provides clear and immediate greenhouse gas reduction benefits compared to any other conventional fuel. To achieve its goal, ONE Future has established methane emission rate targets for each sector of the natural gas value chain: production (0.28%); gathering and boosting (0.08%); processing (0.11%); transmission and storage (0.30%) and distribution (0.22%), which cumulatively total to the 1% target. Hess has activities in three sectors, production, gathering and boosting and processing. In 2018, our methane emissions rate for production was 0.45%, our emissions rate from gathering and boosting was 0.20% and our emissions rate from processing was 0.04%. Our combined methane emissions rate from the production, gathering, boosting, and processing sectors was 0.69%, which is slightly above the interim 2020 target for those three sectors of 0.64% and above the 2025 combined target of 0.47% for those three sectors. With our planned reduction in flaring and phase out of high-bleed pneumatic controllers in North Dakota, we anticipate that we will achieve the ONE Future targets by 2025.

In a related voluntary effort, in 2017 Hess became one of the initial participants in the American Petroleum Institute's Environmental Partnership, which is aiming to reduce air emissions, including methane and volatile organic compounds, associated with natural gas and oil production. Hess is implementing two Environmental Performance Programs of the Environmental Partnership (detailed below) applicable to our operations in North Dakota:

1. Leak Program for Natural Gas and Oil Production Sources: Participants will implement monitoring and timely repair of fugitive emissions at selected sites utilizing detection methods and technologies such as U.S. EPA Method 21 or optical gas imaging cameras. Hess conducted semi-annual surveys at 407 sites in 2018.

2. Program to Replace, Remove or Retrofit High-Bleed Pneumatic Controllers: Participants will replace, remove or retrofit high-bleed pneumatic controllers with low- or zero-emitting devices within five years. Hess has identified 246 high-bleed pneumatic controllers remaining in our North Dakota operations. We plan to phase these out by 2022.

The third program, involving manual liquids unloading for natural gas production sources, is not applicable to Hess as the company does not currently operate any natural gas-only production wells.

COG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

In order to meet both our ONE Future and Environmental Partnership commitments, we continued implementation of our leak detection and repair (LDAR) program across all of our production facilities (existing and new) in North Dakota, at our gas plant in North Dakota. Based on our U.S. methane emissions, the scope of this program includes 100% of our total on-shore operated methane emissions. The protocol includes: monthly audible, visual and olfactory inspection of equipment with the potential to leak; and, semi-annual optical gas imaging which is performed by our field assurance personnel who are certified in the use of infra-red thermal cameras and other monitoring techniques to detect fugitive emissions. For example, we apply this protocol at our North Dakota production operations where we typically examine approximately 400 well sites with approximately 2000 fugitive components per site. In 2018, the cost of implementing this program across all of our U.S. operations was approximately $3 million, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of 33.70 per Mcf. These measures, together with the steps we are taking to reduce flaring in North Dakota, aim to help further reduce our fugitive methane emissions.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Because reducing flaring across our operations is a major component of Hess's emissions reduction strategy, Hess has set a flaring reduction target for operated production to reduce the flaring per BOE produced by 50% from 2014 to 2020. Through 2018, Hess has made substantial progress against this target by reducing its flaring intensity by 41% versus our 2020 target of 50%. Hess views this as a substantive business decision. Our primary focus on flaring reduction remains to decrease our GHG emissions, which includes investing approximately $3 billion in natural gas capture, processing and fractionation capacity, adding much-needed regional capacity for our own production and that of other operators to process and monetize natural gas and reduce wellhead flaring. Hess is a founding member of ONE Future, a group of companies from across the natural gas industry focused on identifying policy and technical solutions that yield continuous improvement of methane emissions. The goal is to voluntarily reduce methane emissions to less than 1% of methane production across the value chain- each sector is responsible for meeting its own sectoral target representing a portion of this overall goal. With our planned reductions to flaring and phase out of high-bleed pneumatic controllers in North Dakota, we anticipate that we will achieve the ONE Future target by 2025. Our principal focus is the implementation of an extensive leak detection and repair (LDAR) program across all of our production facilities (new and existing) in North Dakota. This supplements our ongoing LDAR programs at our gas plant in North Dakota.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
2499949

Comment

Scope 2 (location-based)

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
376357

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
3577301

Start date
January 1 2018

End date
December 31 2018

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
342678

Scope 2, market-based (if applicable)
303833

Start date
January 1 2018

End date
December 31 2018

Comment
Market-based calculation is based on location-based emissions for 88% of electricity consumed and 12% of emissions (approximately 70,000 MWh) for purchased Green-e Certified RECs for wind energy. Emissions factors for wind energy from 2014 IPCC GWP for selected electricity sources, onshore wind. As the RECs are not related to the specific Hess asset but are purchased at a Hess Corp. level, for calculation purposes the RECs are allocated across assets according to their share of total MWh.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Hess reports Scope 3 emissions in accordance with the industry guidance issued by IPIECA and API in 2016: "Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions". In 2014 Hess completed divestment of all downstream (refining, terminals and retail) operations and became a pure play E&P company. Hess uses 5% of Scope 3 Category 11, Use of Sold Products as the materiality threshold for reporting. Therefore, our 2018 materiality threshold is 2,000,000 tonnes CO2e. Per the guidance and the Hess materiality threshold, Hess only has two material Scope 3 emissions categories which are Scope 11 (use of sold products) and Scope 10 (processing of sold products). As a pure play E&P company Hess has two sold products: oil and natural gas. Hess calculates use of sold products by taking the entire volume of crude and natural gas produced and assuming that it is all ultimately consumed as a fuel by end users. This conservative method accounts for all possible GHG emissions that could be associated with our sold products. Hess uses EPA GHG emissions factors for crude oil and natural gas in our Scope 3 calculations. Hess uses GHG emissions factors multiplied by the quantity of crude produced to calculate the category 10 processing of sold products.

Capital goods

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes Co2e) for determining the materiality/relevance of other Scope 3 categories. Based on the calculations that we performed in 2012, when oil drilling was at its peak, we did not exceed the 5% threshold. Since oil drilling has declined significantly since 2012, this category is still not material.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

The reporting boundary for this Scope 3 category is operational control. In 2014, we obtained total volumes of third party fuel consumed by Hess in our operations. We utilized life cycle GHG emissions factors from the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL document DOE/NETL 1009-1346) for stage 1 (raw material acquisition), stage 2 (raw material transport) and stage 3 (liquid fuel production). Global Warming Potentials (GPWs) for C02, methane and N2O were 1, 25, NS 298, respectively (IPCC Fourth Assessment Report AR4-100). Data quality: The DOE NETL study provides detailed information on data quality for life cycle stages 1, 2, and 3 (see pages 123-127). The resulting GHG of 93,000 tonnes was determined to be immaterial. Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. Since 2014, purchased fuel has not increased so this category is still deemed to be not material.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

Our most significant Scope 3 emissions are associated with customer and consumer use of our fuel and other products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. In previous years, calculated Scope 3 emissions were substantially below our materiality threshold and we did not recalculate upstream transportation and distribution emissions this year (2013 emissions were substantially below the materiality threshold and business activity has declined since then).

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Explanation

The reporting category for this Scope 3 category is operational control. We reviewed our 2013 enterprise-wide waste generation amounts and waste management methods, and entered waste volumes by management method into the U.S. EPA's Waste Reduction Model (WARM version 12). The GPWs for CO2, methane and N2O were from the IPCC Fourth Assessment Report (AR4-100 year); these were 1, 25 and 298 respectively. Data quality: The WARM model is typically used to compare CO2 emissions between one type of waste management method and alternatives and there can be a high degree of uncertainty. Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. Based on calculations we performed in 2013, and the fact that waste quantities were even less in 2018 due to reduced activity, we did not recalculate emissions from this source because 2013 emissions were substantially below the materiality threshold.

Business travel

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

3190

Emissions calculation methodology

The reporting boundary for this Scope 3 category is operational control. We utilize our travel agency's records which include the number of short, medium and long haul flights flown. We calculate CO2e emissions in accordance with the US EPA Climate Leaders GHG Inventory Protocol, Table 7 Business Travel Emissions Factors. GPWs used for CO2, CH4 and N2O were 1, 25 and 298, respectively. Data quality (flight miles): the uncertainty is between 5% and 10%.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Explanation

While GHG emissions with business travel are significantly below our 5% materiality threshold, we are reporting these emissions because a component of our climate change strategy is to offset 100% of emissions associated with employee business travel with carbon offsets. In 2018, we purchased 15,000 carbon offsets which more than offset the emissions from employee business travel.

Employee commuting

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
We took the following steps in 2012 to investigate and identify the relevance of this Scope 3 category: We determined that employee commuting by air carrier is already included in our Scope 3 Business Travel emissions; employee commuting via company-contracted services is already included in our Scope 1 emissions; and made conservative assumptions regarding potential employee commuting by car. The conclusion of our investigation was that Scope 3 emissions from employee commuting are well below the 5% materiality threshold (2,000,000 tonnes CO2e). Based on the calculations we performed in 2012, and the fact that we have significantly fewer employees in 2018, we did not recalculate emissions from this source (2012 were substantially below the materiality threshold).

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. We reviewed our Hess operated assets to determine if there were upstream leased assets that were not included in our Scope 1 emissions and determined that there were none.

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a 5% threshold of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. Hess exited the downstream transportation and Distribution business in 2014.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3100000

Emissions calculation methodology

Hess uses GHG emission factors multiplied by the quantity of crude produced to calculate the Category 10 processing of sold products.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

Hess reports Scope 3 emissions in accordance with the industry guidance issued by IPIECA and API in 2016: "Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions". In 2014 Hess completed divestment of all downstream (refining, terminals and retail) operations and became a pure play E&P company. Hess uses 5% of Scope 3 Category 11, Use of Sold Products as the materiality threshold for reporting. Therefore our 2018 materiality threshold is 2,000,000 tonnes CO2e. Per the guidance and the Hess materiality threshold, Hess has only two material Scope 3 emissions categories: Scope 11 (use of sold products) and Scope 10 (processing of sold products). As a pure play E&P company Hess has two sold products: oil and natural gas. Hess calculates use of sold products by taking the entire volume of crude and natural gas produced and assuming that it is all ultimately burned as a fuel by end users. This conservative method accounts for all possible GHG emissions that could be associated with our sold products. Hess uses EPA GHG emissions factors for crude oil and natural gas in our Scope 3 calculations. Hess uses GHG emission factors multiplied by the quantity of crude produced to calculate the Category 10 processing of sold products.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

40300000

Emissions calculation methodology

Hess reports Scope 3 emissions in accordance with the industry guidance issued by IPIECA and API in 2016: "Estimating Petroleum Industry Value Chain (Scope 3) Greenhouse Gas Emissions". This guidance, which is currently the industry standard, is based on the World Resources Institute's and World Business Council for Sustainable Development's Scope 3 guidance. In 2014 Hess completed divestment of all downstream (refining, terminals and retail) operations and became a pure play E&P company. Hess uses 5% of Scope 3 Category 11, Use of Sold Products as the materiality threshold for reporting. Therefore our 2018 materiality threshold is 2,000,000 tonnes CO2e. As a pure play E&P company Hess has two sold products: oil and natural gas. Hess calculates use of sold products by taking the entire volume of crude and natural gas produced and assuming that it is all ultimately burned as a fuel by end users. This conservative method accounts for all possible GHG emissions that could be associated with end use of our sold products. Hess uses EPA GHG emissions factors for crude oil and natural gas in our Scope 3 calculations.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Explanation

As a pure Exploration and Production company, per IPIECA guidance, category 11 "Use of Products Sold" are related to the carbon emissions resulting from use of our crude oil and natural gas products. Hess conservatively calculates these emissions by using EPA factors for the carbon content of crude oil and natural gas and assumes that all of the carbon is emitted.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. In 2012, we took the following steps to investigate and determine the relevance of this Scope 3 source: 1) reviewed GHG life cycle assessments of petroleum fuels; 2) established that these studies do not include an "end-of-life treatment of sold products" stage since fossil fuel products are consumed during use. Thus we concluded that this Scope 3 category is not relevant to Hess.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. Historically, Hess had very few leased facilities and the emissions were insignificant. In 2014, Hess divested all retail stations including leases. Emissions from this Scope 3 source are well below our materiality threshold.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Hess has no franchises.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation
Our most significant Scope 3 emissions are associated with customer and consumer use of our crude oil and natural gas products. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 2,000,000 tonnes CO2e) for determining the materiality/relevance of Scope 3 categories. None of our joint-venture Investments exceed this materiality threshold, therefore they have been excluded from the Investment category.

Other (upstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
0.000611327

Metric numerator (Gross global combined Scope 1 and 2 emissions)
3865418

Metric denominator
unit total revenue

Metric denominator: Unit total
6323000000

Scope 2 figure used
Location-based

% change from previous year
19

Direction of change
Decreased

Reason for change
Absolute GHG emissions are about 5% lower than in 2017 and Hess revenues increased by 16%. Hess does not consider revenue to be an appropriate normalization factor for determining the company's GHG emissions intensity. We have set a target to reduce the GHG and flaring emissions intensity of our current portfolio of assets that we operate by 25% and 50%, respectively, by 2020 compared to a 2014 baseline. Through 2018, we have made substantial progress by reducing our cumulative GHG emissions intensity by 17% and our cumulative flaring emissions intensity by 41% vs. our 25% and 50% targets, respectively.

Intensity figure
33.8

Metric numerator (Gross global combined Scope 1 and 2 emissions)
3865418

Metric denominator
barrel of oil equivalent (BOE)

Metric denominator: Unit total
114344323

Scope 2 figure used
Location-based

% change from previous year
0

Direction of change
No change

Reason for change
Our GHG intensity was essentially flat in 2018 compared to 2017. Our adjusted GHG emissions, after removing the impact of divestitures, were up approximately 900,000 tonnes; however our production was up by almost 28 million BOE (30%) which resulted in essentially no change in emissions intensity from the previous year. While our GHG intensity remained flat between 2017-2018, since 2014, we have reduced our GHG intensity by 17% vs. our 2014 baseline and we are on track to achieve our 25% GHG intensity reduction target for 2020.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)
Other, please specify (Thousand BOE)

Metric tons CO2e from hydrocarbon category per unit specified
30.8

% change from previous year
0

Direction of change
No change

Reason for change
Between 2017 and 2018, GHG emissions from Operated assets, after adjustments to remove the impact of divestitures, increased by 900,000, primarily related to about a 28 million (30%) BOE increase in production year over year. While our GHG emissions intensity remained flat between 2017 and 2018, we have reduced our GHG intensity by 17% from our 2014 baseline and are on track to achieve our 25% GHG intensity reduction target by 2020.

Comment

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division
Upstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division
0.18

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division
0.08

Comment

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	3291639	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	282955	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	2707	IPCC Fourth Assessment Report (AR4 - 100 year)

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category
Flaring

Value chain
Upstream

Product
Oil

Gross Scope 1 CO2 emissions (metric tons CO2)
1478735

Gross Scope 1 methane emissions (metric tons CH4)
3519

Total gross Scope 1 emissions (metric tons CO2e)
1567336

Comment

Emissions category
Combustion (excluding flaring)

Value chain
Upstream

Product
Oil

Gross Scope 1 CO2 emissions (metric tons CO2)
934222

Gross Scope 1 methane emissions (metric tons CH4)
645

Total gross Scope 1 emissions (metric tons CO2e)
951816

Comment

Emissions category
Fugitives

Value chain
Upstream

Product
Oil

Gross Scope 1 CO2 emissions (metric tons CO2)
91

Gross Scope 1 methane emissions (metric tons CH4)
3767

Total gross Scope 1 emissions (metric tons CO2e)
94258

Comment

Emissions category
Flaring

Value chain
Upstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
76083

Gross Scope 1 methane emissions (metric tons CH4)
429

Total gross Scope 1 emissions (metric tons CO2e)
86864

Comment

Emissions category
Combustion (excluding flaring)

Value chain
Upstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
317906

Gross Scope 1 methane emissions (metric tons CH4)
20

Total gross Scope 1 emissions (metric tons CO2e)
318728

Comment

Emissions category
Fugitives

Value chain
Midstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
21725

Gross Scope 1 methane emissions (metric tons CH4)
791

Total gross Scope 1 emissions (metric tons CO2e)
41490

Comment

Emissions category
Fugitives

Value chain
Upstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
0

Gross Scope 1 methane emissions (metric tons CH4)

1566

Total gross Scope 1 emissions (metric tons CO2e)
39157

Comment

Emissions category
Flaring

Value chain
Midstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
187714

Gross Scope 1 methane emissions (metric tons CH4)
576

Total gross Scope 1 emissions (metric tons CO2e)
202205

Comment

Emissions category
Combustion (excluding flaring)

Value chain
Midstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
275163

Gross Scope 1 methane emissions (metric tons CH4)
5

Total gross Scope 1 emissions (metric tons CO2e)
275447

Comment

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	2992455
Denmark	194742
Malaysia	390104
Please select	

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
North Malay Basin	390104	7.013	103.214
South Arne	194742	56.096	4.221
Baldpate	138292	27.735	91.895
North Dakota Production	1897369	48.286	102.917
Tioga Gas Plant	210254	48.286	102.917
North Dakota Gathering	327253	48.286	102.917
TBells	123416	28.294	88.875
Utica	54560	40.37	80.634
Stampede	241311	27.3	90.33

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility generation activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	3577301	<Not Applicable>	
Oil and gas production activities (downstream)	0	<Not Applicable>	Not applicable to Hess
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	342678	303833	0	70000

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
North Dakota Production	189535	168050
Tioga Gas Plant	153143	135783

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	342678	303833	
Oil and gas production activities (downstream)	0	0	Not applicable to Hess
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change		
Other emissions reduction activities	68569	Decreased	2	Emissions reductions attributed to emissions reduction activities are 68569 tonnes in 2018 which equates to 2% of scope 1 and 2 emissions in 2017 which were 4147147. This was calculated as follows: (68,569 tonnes/4,147,147tonnes)*100 = 2%. CO2 savings from emissions reduction initiatives, including flaring reductions. Because Hess uses location-based Scope 2 emissions to compare year-over-year performance, this figure is exclusive of RECs. These emissions reductions tie back to the projects outlined in question 4.3(a).
Divestment	1137715	Decreased	27	These emissions reductions result from divestment of our Equatorial Guinea and Permian basin assets and gas plant. The 27% reduction is calculated as follows: (1,137,715 tonnes/4,147,147 tonnes)*100 =27%)
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	979115	Increased	24	The increase emissions result from a 30% increase in production between 2017 and 2018. This emissions calculation is as follows: (979115/4147147=24%)
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	No

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	7017940	7017940
Consumption of purchased or acquired electricity	<Not Applicable>	165751	439774	605525
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	165751	7457714	7623465

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)
Fuel Gas

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
5557295

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
HHV (higher heating value)

Total fuel MWh consumed by the organization
1460645

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration
<Not Applicable>

Comment

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor
74.1538

Unit
kg CO2e per million Btu

Emission factor source
EPA Mandatory Reporting Rule

Comment
Fuel Gas

Fuel Gas

Emission factor
59.0448

Unit
kg CO2e per million Btu

Emission factor source
EPA Mandatory Reporting Rule

Comment

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor
Energy attribute certificates, I-RECs

Low-carbon technology type
Wind

Region of consumption of low-carbon electricity, heat, steam or cooling
North America

MWh consumed associated with low-carbon electricity, heat, steam or cooling
70000

Emission factor (in units of metric tons CO2e per MWh)
0.011

Comment
2014 IPCC, GHG emissions factors of selected electricity sources

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-OG9.2a

(C-OG9.2a) Disclose your net liquid and gas hydrocarbon production (total of subsidiaries and equity-accounted entities).

	In-year net production	Comment
Crude oil and condensate, million barrels	53.36	From 10K
Natural gas liquids, million barrels	14.12	From 10K
Oil sands, million barrels (includes bitumen and synthetic crude)	0	Not Applicable
Natural gas, billion cubic feet	201.96	From 10K

C-OG9.2b

(C-OG9.2b) Explain which listing requirements or other methodologies you use to report reserves data. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this.

Proved reserves – In accordance with Securities and Exchange Commission regulations and practices recognized in the publication of the Society of Petroleum Engineers entitled, “Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information,” those quantities of crude oil and condensate, NGLs and natural gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

We cannot provide data for 2P and 3P reserves because this information is highly speculative in nature and might lead to misleading conclusions by investors and the company considers this information confidential.

C-OG9.2c

(C-OG9.2c) Disclose your estimated total net reserves and resource base (million boe), including the total associated with subsidiaries and equity-accounted entities.

	Estimated total net proved + probable reserves (2P) (million BOE)	Estimated total net proved + probable + possible reserves (3P) (million BOE)	Estimated net total resource base (million BOE)	Comment
Row 1				

C-OG9.2d

(C-OG9.2d) Provide an indicative percentage split for 2P, 3P reserves, and total resource base by hydrocarbon categories.

	Net proved + probable reserves (2P) (%)	Net proved + probable + possible reserves (3P) (%)	Net total resource base (%)	Comment
Crude oil / condensate / Natural gas liquids				
Natural gas				
Oil sands (includes bitumen and synthetic crude)				

C-OG9.2e

(C-OG9.2e) Provide an indicative percentage split for production, 1P, 2P, 3P reserves, and total resource base by development types.

Development type
Shallow-water

In-year net production (%)
25

Net proved reserves (1P) (%)
16

Net proved + probable reserves (2P) (%)

Net proved + probable + possible reserves (3P) (%)

Net total resource base (%)

Comment
We cannot provide data for 2P and 3P reserves because this information is highly speculative in nature and might lead to misleading conclusions by investors and the company considers this information confidential.

Development type
Deepwater

In-year net production (%)
21

Net proved reserves (1P) (%)
13

Net proved + probable reserves (2P) (%)

Net proved + probable + possible reserves (3P) (%)

Net total resource base (%)

Comment
We cannot provide data for 2P and 3P reserves because this information is highly speculative in nature and might lead to misleading conclusions by investors and the company considers this information confidential.

Development type
Tight/shale

In-year net production (%)
47

Net proved reserves (1P) (%)
59

Net proved + probable reserves (2P) (%)

Net proved + probable + possible reserves (3P) (%)

Net total resource base (%)

Comment
We cannot provide data for 2P and 3P reserves because this information is highly speculative in nature and might lead to misleading conclusions by investors and the company considers this information confidential.

C-CO9.6/C-EU9.6/C-OG9.6

(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.

Investment start date
January 1 2018

Investment end date
December 31 2018

Investment area
Equipment

Technology area
Methane detection and reduction

Investment maturity
Large scale commercial deployment

Investment figure
3000000

Low-carbon investment percentage
0-20%

Please explain
Hess has an ongoing leak detection and repair (LDAR) program at all of our production facilities (existing and new) and gas plant in North Dakota, which encompass 100% of our total US on-shore operated methane emissions. This program comprises monthly audible, visual and olfactory inspection of our equipment with the potential to leak and semi-annual optical gas imaging to detect fugitive emissions. The implementation cost is approximately $3 million per year, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of $33.70 per Mcf.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.
50

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

Scope

Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Page/ section reference
full document

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Scope
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Page/ section reference
full document

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Scope
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Page/ section reference
full document

Relevant standard
ISO14064-3

Note: The third-party assurance statement is attached to this PDF and begins on PDF p. 68.

Proportion of reported emissions verified (%)
100
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope
Scope 3- all relevant categories

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Attach the statement
Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Page/section reference
full document

Relevant standard
ISO14064-3

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year emissions intensity figure	ISO14064-3	All of the 2018 and 2017 (as well as 2014 base year Scope1 and 2) emissions have been previously/separately verified, therefore the year on year changes are covered by those verifications. In 2018, Hess restated its GHG and Flaring emissions baseline for the impact of recent divestitures and that restatement was verified by ERMCVS as part of this year's verification. Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISO14064-3	All of the 2018 and 2017 (as well as 2014 base year Scope 1 and 2) emissions have been previously/separately verified, therefore the year on year changes are covered by those verifications. In addition, in 2018 Hess restated its GHG and Flaring emissions baseline for the impact of recent divestitures and that restatement was verified by ERMCVS as part of this year's verification. Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Hess_2018 CDP_Assurance Statement_FINAL_17 July 2019.pdf

Note: The third-party assurance statement is attached to this PDF and begins on PDF p. 68.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

EU ETS

% of Scope 1 emissions covered by the ETS

5.4

Period start date

January 1 2018

Period end date

December 31 2018

Allowances allocated

32325

Allowances purchased

144825

Verified emissions in metric tons CO2e

177150

Details of ownership

Facilities we own and operate

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

2018 Summary: In compliance with regulation, our management strategy is to purchase allowances to meet regulatory requirements going forward. Under Phase III of the EU ETS, Hess' Demark operations makes annual purchases of allowances to cover the gap between free allowances and verified GHG emissions. In 2018, Hess purchased 91,545 allowances in addition to the 32,325 free allowances. Our joint venture partner, INEOS also purchased 53,280 allowances. We expect the gap between the annual number of free allowances and actual GHG emissions to widen. We expect that we will need to purchase more allowances, which will likely add to routine operating costs.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Landfill gas

Project identification

We purchased 15,000 tonnes of carbon credits from First Climate Markets AG from a third-party landfill gas recovery project in Ohio. All of these were retired in 2018 as a part of our EHS and SR strategy.

Verified to which standard

CAR (The Climate Action Reserve)

Number of credits (metric tonnes CO2e)

15000

Number of credits (metric tonnes CO2e): Risk adjusted volume

15000

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price
Stakeholder expectations
Drive energy efficiency
Stress test investments

GHG Scope
Scope 1
Scope 2

Application
Cost of carbon effective across all business units

Actual price(s) used (Currency /metric ton)
40

Variance of price(s) used
We use a carbon price of $40/tonne to evaluate all significant new investments, unless this investment is in a country that currently has carbon regulations. In that instance, we would use whatever price is in effect in that country. For example, Hess has recently applied the $40/tonne shadow price of carbon when evaluating the Stampede project in the Gulf of Mexico in 2013 and the North Malay Basin project in Malaysia in 2016. The resulting outcome of applying this $40/tonne shadow price for carbon did not substantially impact the Net Present Value of these projects and both were sanctioned. In addition, in our scenario planning analysis which is now part of our annual business cycle, we use an internal carbon price of $40/tonne in our Hess base case, as well as the 2018 IEA WEO carbon prices which range from $8/tonne to $125/tonne when stress testing IEA's Current Policies, New Policies and Sustainable Development scenarios against Hess' portfolio of current assets and intended forward investments.

Type of internal carbon price
Shadow price

Impact & implication
A cost of carbon is incorporated in the financial planning of all significant new projects as a sensitivity analysis to financials to ensure that we understand and evaluate the ramifications that potential carbon regulations may have on our business. Starting in 2016, our economic evaluation process for significant new projects (any project requiring an investment of at least $50 million) was updated to include a carbon price of $40/tonne, which was equivalent to the U.S. EPA's social cost of carbon. If a carbon regulation is in effect in a particular country where we do business, the cost of carbon is part of the base financial analysis as opposed to being used in a sensitivity analysis. To date, imposing this $40/tonne shadow price of carbon has not had a substantive impact on the decision to move forward in any new project, including the decision to sanction the Stampede project in the Gulf of Mexico in 2013 and the North Malay Basin project in Malaysia in 2016. In addition, carbon prices ranging from $8/tonne up to $140/tonne are used in our annual scenario planning exercise to stress test Hess' portfolio of existing assets and intended forward investments against the 2018 IEA WEO's three main scenarios.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Innovation & collaboration (changing markets)

Details of engagement
Other, please specify (Identify innovative technologies to recover gas being flared or reduce energy use)

% of suppliers by number
1

% total procurement spend (direct and indirect)
1

% Scope 3 emissions as reported in C6.5
1.24

Rationale for the coverage of your engagement
In our North Dakota operations we engage with suppliers to help us reduce gas being flared or reduce energy use. Examples are two suppliers with innovative technologies. One supplier has a product that takes gas that would otherwise be flared and condenses the gas into a saleable natural gas liquids product. Another supplier provides flexible pipe that is used to transport water used in our operations rather than delivering water via tank trucks. Both of these products are new to oil field operations and result in reduced GHG emissions.

Impact of engagement, including measures of success
In 2018 the recovery of gas by conversion to natural gas liquids resulted in reduction of 37,378 tonnes of GHG. In 2018 the use of flexible pipe to replace all water transported by truck resulted in reduction of 12,199 tonnes of GHG.

Comment

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

We engage with venture partners throughout our value chain.

Method of engagement: When we enter into new joint venture projects with partners, we engage directly to evaluate project economics, as well as, how to help minimize emissions.

Strategy for prioritizing engagement: Our strategy for prioritizing joint ventures is in line with our overall business strategy. Our mission is to be a trusted energy partner and we are committed to help meet the world's growing energy needs in a safe, environmentally responsible, socially sensitive and profitable way. Sustainability practices are a fundamental part of our business strategy and operations-they create value for our shareholders and opportunities to continuously improve business performance. We evaluate all potential partnerships while considering the overall impact on our business and the environment, including project economics and emissions production. Specifically, we prioritize select joint venture partners based on the size of our financial investment. When we make significant financial investments (over $50 million), we engage in a higher level of direct involvement to minimize our environment, social and reputational risk.

Success is based on whether or not the goals of the project have been met, which include measuring actual performance against financial, environmental, and social metrics established during the project planning process. In addition, in countries where we have joint ventures which include regulatory related emissions trading schemes, success is based on measuring compliance costs for carbon emissions.

As an example, flare reduction is a key component of Hess's climate change strategy. Since 2012, Hess has invested in midstream infrastructure in North Dakota to capture and monetize natural gas produced from our operations and minimize flaring. Annually, the cost of conducting this program was approximately $3 million, which resulted in approximately 89,000 Mcf of recovered gas for the year at an average cost of approximately $33.70 per Mcf. We also look for opportunities to generate revenue and reduce emissions with joint venture partners. One such example is a 50/50 joint venture between Hess Midstream Partners LP and Targa Resources Corp., another midstream energy company, to construct a new 200 million standard cubic feet per day gas processing plant called Little Missouri Four. The new gas plant will be located at Targa's existing Little Missouri facility, south of the Missouri River in McKenzie County, North Dakota. The plant is expected to be operational in the second half of 2019 and will help Hess and its joint venture partner process and monetize additional amounts of natural gas and reduce flaring.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association
International Petroleum Industry Environmental Conservation Association (IPIECA)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
IPIECA is a global oil and gas association for environmental and social issues. It is the industry's principal channel of communication with the United Nations. The association supports the international community's commitment to address the global challenge of climate change and has a Climate Change Working Group, its actions include: a) developing GHG management good practices, b) publishing guidelines for monitoring, measuring and reporting GHG emissions and emissions reduction projects; c) proposing sustainable biofuels standards; d) developing industry tools to help reduce flaring and venting and improve energy efficiency; e) sharing knowledge on carbon capture and storage, including through partnerships such as with the Global Carbon Capture and Storage Institute (GCCSI); f) engaging with the international policy process under the UN Framework Convention on Climate Change, and g) supporting climate science, including engaging with the Intergovernmental Panel on Climate Change (IPCC).

How have you influenced, or are you attempting to influence their position?
Hess is an active participant in the relevant working groups and committees, including Climate Change, Reporting, Water and Supply Chain.

Trade association
International Oil and Gas Producers Association (IOGP)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
IOGP works on behalf of the world's oil and gas exploration and production companies to promote safe, responsible, and sustainable operations. It represents the industry before international organizations and regionally at the European Commission. IOGP supports the international community's commitment to address the global challenge of climate change. IOGP also believes that the oil and gas industry can help address this challenge while meeting society's future energy needs. IOGP believes that the long term objective of climate change policy should be to reduce the risk of serious impacts on society and ecosystems, while recognizing the importance of reliable and affordable energy to society.

How have you influenced, or are you attempting to influence their position?
Hess is an active participant in the relevant committees and working groups, including Safety, Environmental, Process Safety, Environmental data, Oil Spill, Land Transport and Aviation.

Trade association
American Petroleum Institute (API)

Is your position on climate change consistent with theirs?
Mixed

Please explain the trade association's position
The American Petroleum Institute (API) is a national trade association that represents all aspects of America's oil and gas industry. API and its members consider climate change an important issue and are engaging constructively to address this complex global challenge. API's Executive Committee has directed API to prioritize efforts to address the risks of global climate change through research, advocacy, and education. API supports minimizing methane emissions and where practical and safe, releases of methane should be captured and recovered. API also recognizes the growing focus on improving the quality of emissions estimation and has provided guidance to companies on mandatory reporting accuracy. API's Methane Task Force identifies opportunities to improve emissions estimation and methane management. That group works closely with EPA on these issues. API member companies endorsed methane reduction steps, including phasing out the use of certain equipment and a program to find and fix methane leaks along the gas value chain.

How have you influenced, or are you attempting to influence their position?
Hess's Chief Executive Officer, serves on the API Board of Directors and Executive Committee. Hess is a member of API's Methane Task Force, Committee on Federal Relations, and Upstream Issues Committee, among others. Hess also chairs API's Environmental Strategies Committee, the primary environmental advocacy group at API. We have our own internal Methane Working group to share information and promote Hess's position on emerging regulatory approaches to methane leakage. Our internal working group is partially informed by studies coming out of the Environmental Defense Fund.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Climate change is a global challenge that requires government, business leaders and civil society to work together on cost-effective policies. We believe that climate risks can be addressed while also providing the safe, affordable and reliable energy to ensure human welfare and global economic development in the context of the United Nations Sustainable Development Goals. Hess supports the aim of the Paris Agreement to limit global average temperature rise to well below 2 degree C. Hess' Board of Directors and senior leadership have set aggressive targets for GHG emissions reductions, and over the past 11 years our company has reduced our Scope 1 and 2 equity GHG emissions by approximately 64%.

Hess is committed to developing oil and gas resources in an environmentally responsible and sustainable manner. Our Board is actively engaged in overseeing Hess' sustainability and climate change practices, working alongside senior management to evaluate sustainability risks and global scenarios in making strategic decisions. We have tested the robustness of Hess' portfolio under the energy supply and demand scenarios from the International Energy Agency (IEA), including the ambitious GHG reductions assumed within the IEA's Sustainable Development scenario. Our strategy aligns with the energy transition needed to achieve the Sustainable Development scenario, wherein oil and gas will continue to be essential to meeting the world's growing energy demand. Our current asset portfolio is resilient, and our pipeline of intended forward investments provides strong financial returns even under the Sustainable Development scenario. We take steps to monitor, measure and reduce our carbon footprint. Hess belongs to a number of trade associations, primarily to give the company access to the business, technical and industry best practices expertise of these associations. Hess actively engages in various industry and trade groups in the United States.

In 2018, Hess senior management approved a scenario planning study to test the resilience of our portfolio against various views of the market. To further identify, assess and make recommendations with respect to climate change mitigation strategies, and emissions reduction technologies and opportunities, Hess established a new team, led by the Senior VP Production in 2019. The team will focus on flare reduction, energy efficiency, carbon capture, utilization and storage, low carbon technology investments, carbon offsets and trading, digitization and methane monitoring. The team will evaluate additional emissions reduction opportunities and make recommendations to the EHS Board Subcommittee for consideration and implementation in early 2020. The team will also update our Materiality assessment in 2019 thru early 2020 and begin making recommendations regarding a new series of emissions reduction targets once our current 2020 emissions reduction targets are completed. Consistent communication of our climate change strategy helps ensure that our activities are aligned with this strategy. In addition, to address concerns related to potential misalignment between our positions and those of the associations, organizations and collaborative working groups in which we participate, we publish our positions on key sustainable issues in our annual corporate sustainability report. Internal and external communication helps ensure that all parties who engage with policymakers on Hess's behalf are aware of our climate change strategy.

Because we are just one of many members, we recognize that our positions cannot always fully align with all formal positions of the associations, organizations, and collaborative working groups in which we participate. Effective communication of our climate change strategy helps all stakeholders understand where our positions align, even though our participation or funding should not be considered a direct endorsement of the entire range of activities undertaken by these membership organizations.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports, in line with the CDSB framework (as amended to incorporate the TCFD recommendations)

Status
Complete

Attach the document
1020149_Hess_AR_2018.pdf

Page/Section reference
pages 3,9,10,11

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In voluntary sustainability report

Status
Complete

Attach the document
hess-2018-sustainability-report.pdf

Page/Section reference
39/ Climate Change and Energy 42/ Carbon Asset Risk Assessment

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President and COO	President

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	Public or Non-Public Submission	I am submitting to
I am submitting my response	Public	Investors

Please state the main reason why you are declining to respond to your Customers

Prefer to work directly with customer, not through a third party

Please confirm below

I have read and accept the applicable Terms

Independent Assurance Statement to Hess Corporation

ERM Certification and Verification Services ("ERM CVS") was engaged by Hess Corporation ("Hess") to provide limited assurance on selected Greenhouse Gas (GHG) emissions data and information which Hess has reported in its CDP Climate Change Questionnaire 2019 ("the CDP Questionnaire").

Engagement summary	

Scope of our assurance engagement	Whether the consolidated corporate GHG emissions data for Hess's global operations for the period 1st January to 31st December 2018 reported at Sections C6.1, C6.3 and C6.5 of the CDP Questionnaire are fairly presented, in all material respects, in accordance with the reporting criteria. The GHG inventory, reported on an operational control basis and covering emissions of CO_2, N_2O and CH_4, includes:
	• Total absolute Scope 1 Direct GHG emissions from stationary fuel combustion, mobile fuel combustion, flaring, and fugitive sources (metric tonnes CO_2e).
	• Total absolute Scope 2 Indirect GHG emissions (location-based and market-based) associated with purchased electricity (metric tonnes CO_2e).
	• Total absolute Scope 3 Other indirect emissions from the following categories (metric tonnes CO_2e):
	  • use of sold products;
	  • processing of sold products; and
	  • business travel.
	Whether the information reported at the following sections of the CDP Questionnaire is fairly presented: C4.1, C4.1b*, C4.2, C5.1, C5.2, C6.2, C6.4, C6.10*, C7.1a, C7.1b, C7.2, C7.3b, C7.4, C7.5, C7.6, C7.7, C7.9a* and C8.2a

Reporting criteria	The World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol, IPIECA's Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011, and US EPA Mandatory Greenhouse Gas Reporting Rule
Assurance standard	International Organization for Standardization (ISO) 14064-3:2006: Specification with guidance for the validation and verification of greenhouse gas assertions
Assurance level	Limited assurance.
Respective responsibilities	Hess is responsible for preparing the data and for its correct presentation in the Report to third parties, including disclosure of the reporting criteria and boundary. ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

Our conclusions

Based on our activities, nothing has come to our attention to indicate that the following consolidated corporate 2018 GHG emissions data reported at Sections C6.1, C6.3 and C6.5 of the CDP Questionnaire are not fairly presented, in all material respects, with the reporting criteria:

Scope 1 GHG emissions:	**3,577,301 tCO2e**
Scope 2 GHG emissions:	
Location-based	**342,678 tCO2e**
Market-based	**303,833 tCO2e**
Scope 3 GHG emissions:	
Use of sold products	**40,300,000 tCO2e**
Processing of sold products	**3,100,000 tCO2e**
Business travel	**3,190 tCO2e**

In addition, nothing has come to our attention to indicate that the information reported in the sections of the CDP Questionnaire listed under 'Scope of our assurance engagement', above, taking into account the limitations described under 'The limitations of our engagement' below, is not fairly presented.

Our assurance activities

Our objective was to assess whether the assured emission data are reported in accordance with the principles of completeness, comparability (across the organisation) and accuracy (including calculations, use of appropriate conversion factors and consolidation). We planned and performed our work to obtain all the information and explanations that we believe were necessary to provide a basis for our assurance conclusions.

A global team of GHG and assurance specialists performed the following activities:

- An analytical review of the 2018 GHG emissions data from all assets and a check on the completeness and accuracy of the data consolidation at the Hess corporate level;
- A site visit to Hess's Stampede asset in the Gulf of Mexico, and a remote verification of Hess's operation in the North Malay Basin, offshore Malaysia, to verify the source data for the assets' GHG emissions;
- A visit to Hess's head office in Houston, Texas to review the data consolidation process and the results of the internal data validation process, and to conduct interviews with subject matter experts responsible for preparing the GHG inventory and the CDP Climate Change Questionnaire;
- Evaluation of the data management systems and processes (including data collection and internal review processes) used for collecting and reporting the GHG data;
- A review of the calculations of the GHG emissions from underlying activity data, including the conversion factors and

emission factors used, and the accuracy of the consolidation of the GHG data at the corporate level;

- A review of samples of documentary evidence, including internal and external documents, supporting the underlying data on which the GHG emissions data are based; and
- A review of the calculations of the percentage change in emissions intensity and the changes in gross global emissions from the previous year.

The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

* For the production and forecast emissions figures used in the calculations of progress against intensity targets included in Section C4.1b of the CDP Questionnaire, the revenue and production figures used in the calculations of the intensity targets included in Section C6.10 of the CDP Questionnaire, and the production figures used in the calculation of the change in emissions from the previous year included in Section C7.9a of the CDP Questionnaire, we have not independently reviewed or verified the production or revenue figures and also provide no assurance on Hess's forecasts of future performance against the stated targets.

Our work in relation to these figures was limited to confirming, where possible, consistency with data in Hess's Form 10K for the years ended 31 December 2018 and 31 December 2017 and other relevant supporting documentation provided by Hess.

Jennifer Iansen-Rogers
Head of Corporate Assurance
17 July 2019

ERM Certification and Verification Services, Atlanta
www.ermcvs.com; email: post@ermcvs.com

ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS staff that have undertaken this engagement work have provided no consultancy related services to Hess in any respect.

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