

# Hess Corporation - Climate Change 2018

## C0. Introduction

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### C0.1

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**(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. In 2014, Hess completed its transformation to a pure play exploration and production (E&P) company by divesting its Retail Marketing business.

### C0.2

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**(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 2017	December 31 2017	No	<Field Hidden>

### C0.3

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

Denmark  
Equatorial Guinea  
Malaysia  
United States of America

### C0.4

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

USD

*Note: Third-party verification statement for this CDP Climate Change questionnaire is attached to this PDF and begins on PDF p. 81.*

## 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

**(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) 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 David McManus, William G. Schrader, Dr. Kevin O. Meyers, Rodney F. Chase, Fredric G. Reynolds, and Leonard S. Coleman. In addition, John B. Hess, the Chief Executive Officer (also a Board member), participates in these meetings. This committee has oversight of climate-related issues because EHS matters, including climate change, are deemed high priority issues within the company and by external stakeholders. In addition, 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 strategy for handling these matters.

Position of individual(s)	Please explain
Director on board	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 David McManus, William G. Schrader, Dr. Kevin O. Meyers, Rodney F. Chase, Fredric G. Reynolds, and Leonard S. Coleman. In addition, John B. Hess, the Chief Executive Officer (also a Board member), participates in these meetings. This committee has oversight of climate-related issues because EHS matters, including climate change, are deemed high priority issues within the company and by external stakeholders. In addition, 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 strategy for handling these matters.

## 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	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Setting performance objectives</li> <li>Monitoring implementation and performance of objectives</li> <li>Overseeing major capital expenditures, acquisitions and divestitures</li> <li>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</li> </ul>	Hess updated its climate change strategy in late 2015 and this strategy closely aligns with the Task Force on Climate-Related Disclosures (TCFD) recommendations around their recommended core elements: 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 Environment, Health and Safety (EHS) Board Subcommittee on a regular basis, as the EHS Board Subcommittee has 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
Sporadic - as important matters arise	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 its climate change strategy in late 2015 and this strategy closely aligns with the Task Force on Climate-Related Disclosures (TCFD) recommendations around their recommended core elements: 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 Environment, Health and Safety (EHS) Board Subcommittee on a regular basis, as the EHS Board Subcommittee has oversight of climate-related issues.

## C1.2

**(C1.2) Below board-level, provide the highest-level management 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.**

i. Where in the org this position lies: 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. In addition, formal oversight by the CEO allows him to serve 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 management, target setting and progress against targets) brought to his attention by the EHS and Risk Management groups. In addition he reviewed and 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, in addition to the perspectives offered by internal Hess Experts. 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, as part of our EHS & SR strategy refresh, our CEO participated in the development and review of, and approved, 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. He also reviews progress against these targets each year. Thru 2017, we have achieved a 23% reduction in GHG emissions intensity and a 38% reduction in flaring intensity towards our targets of 25% and 50%. In addition, our CEO participated in discussions, reviewed and approved the \$40/tonne shadow price of carbon that Hess uses in testing all significant new investments (> \$50 million) against exposure to potential carbon regulation.

### **C1.3**

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

Yes

## C1.3a

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**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.**

**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 high potential environmental incident rate. In 2017, the base target was a 10% improvement over our 2016 actual high potential environmental incident rate. This target includes a gas release component, which has the potential to reduce methane emissions, which have a global warming potential of 25 times that of CO2 emissions. Achieving or exceeding this target contributes to a portion of each employee's year-end cash bonus. In 2017, we outperformed this improvement rate, achieving a 50% improvement over our 2016 actual performance.

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**Who is entitled to benefit from these incentives?**

All employees

**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 high potential environmental incident rate. In 2017, the base target was a 10% improvement over our 2016 actual high potential environmental incident rate. This target includes a gas release component, which has the potential to reduce methane emissions, which have a global warming potential of 25 times that of CO2 emissions. Achieving or exceeding this target contributes to a portion of each employee's year-end cash bonus. In 2017, we outperformed this improvement rate, achieving a 50% improvement over our 2016 actual performance.

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## C2. Risks and opportunities

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## C2.1

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**(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 short term to be in the current planning year
Medium-term	1	5	We consider medium term to be part of our annual 5 year planning cycle
Long-term	5	30	Typically, we consider longer term to be beyond our annual 5 year planning cycle or for the life of a new project or field development

## C2.2

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**(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

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**(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	Risks are assessed for the life of the project for new assets, which typically extends beyond 6 years. For existing assets, selective assets are reviewed on a quarterly rotational basis for the remaining life of the asset

### C2.2b

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**(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. 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. 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 environment, health and safety and operational excellence audits also inform the process. We use the results of asset-level risk assessments to generate a company-wide portfolio view of risks and impact on value in financial terms. Included in our recent 2015 Strategy Refresh was a determination of environment, health and safety and social responsibility (EHS & SR) priority risks and stakeholder expectations. Our ERM process and mitigation strategies are overseen by the Hess Executive Leadership Team and reviewed with the Environment, Health and Safety (EHS) Board of Directors Subcommittee. This priority risk register was updated in 2017 to reflect changing business conditions and risk prioritization.

In 2015, Hess completed a project to review and update our environment, health, safety and social responsibility (EHS & SR) strategy to fully align with our transition to an exploration and production company and our commitment to operating as a trusted energy partner. Part of this project included a “Materiality Assessment” where we looked at a wide-range of EHS & SR issues. As a result of this materiality assessment, we identified six priority areas in our EHS & SR strategy, one of which was climate-related issues, which were viewed by senior management, our board and external stakeholders as having the potential to have a substantive impact across our entire business from a physical, strategic, legal and reputational perspective. The 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.

## 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	Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct



	Relevance & inclusion	Please explain
		risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset's and major project's operating rhythm. Our EHS & Government Affairs groups systematically review current energy related regulations, 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. An example of current regulatory risk is cap and trade, to which Hess's Denmark operations are subject under the EUETS. Under Phase III of the EU ETS, Hess makes annual purchases of allowances to cover the gap between free allowances allocated and verified GHG emissions. In 2017, Hess Purchased 105,000 allowances in addition to the 32,900 free allowances allocated.
Emerging regulation	Relevant, always included	Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset's and major project's operating rhythm. Our Government Affairs group systematically reviews energy related emerging regulatory issues for inclusion in the ERM risk register. For example, Hess considers the impact of potential methane regulations to be an emerging regulatory risk. To help mitigate this risk, Hess has implemented an LDAR program at all of our production facilities in North Dakota and Ohio as well as at our gas plants in Texas and North Dakota, which encompass 68% of our total 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 cost of implementing this program is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per MSCF
Technology	Relevant, always included	Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset's and major project's operating rhythm. Our EHS,

	Relevance & inclusion	Please explain
		<p>technology, &amp; operations teams review technology related risks and ensure that they are included in our ERM risk register. Technology risks are assessed in relation to process emissions reductions, and are addressed through various projects. For example, Hess has implemented an LDAR program at all of our production facilities in North Dakota and Ohio as well as at our gas plants in Texas and North Dakota, which encompass 68% of our total 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 cost of implementing this program is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per MSCF</p>
Legal	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our legal team systematically reviews legal issues to ensure that where appropriate legal risks are included in the ERM risk register for each Hess asset. An example of 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.</p>
Market	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our EHS and Economics groups systematically review market related risks to ensure, where appropriate, they are included in the Hess ERM risk register for each asset. For example, relevant market risks include a much more rapid than currently anticipated transition toward natural gas as a bridge fuel to a lower carbon economy. In response to this risk, Hess has invested over \$2.6</p>

	Relevance & inclusion	Please explain
		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.
Reputation	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our Government Affairs &amp; EHS groups systematically review climate-related risks related to ensure that they are included in the ERM risk register for each Hess asset, where appropriate. For example, negative perception of Hess’ management of climate-related issues could theoretically lead to our exclusion from ESG indices, which could increase our cost of capital. 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 a 25% GHG and 50% flare reduction target and consistently been recognized as a leader in the oil and gas industry for our disclosure and transparency by CDP and DJSI for our top quartile performance vs. our peers.</p>
Acute physical	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our operations team systematically reviews acute physical risks to ensure that where appropriate they are included in the ERM risk register for each Hess asset. For example, increased storm activity could materially affect our operations in the Gulf of Mexico. As an example, in 2016 Hurricane Hermine hit the Gulf of Mexico requiring Hess to shut-in its Tubular Bells Production Platform. Total gross deferred production was approximately 175 thousand barrels of oil equivalent which equated to a market value of about \$7-\$9 million, along with additional operating expenses of \$125k. Hess equity share of this asset is 57%.</p>

	Relevance & inclusion	Please explain
Chronic physical	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our operation and project teams systematically review chronic physical risks to ensure, where appropriate, they are included in the ERM risk register for each Hess asset. A specific example of mitigating chronic physical risk, would be the substantive business decision Hess made to implement an extensive leak detection and repair (LDAR) program across all Hess production facilities in the Bakken region of North Dakota and the Hess gas plants in Tioga, ND and Seminole, TX to repair leaks related to the aging condition of production infrastructure.</p>
Upstream	Relevant, always included	<p>Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our enterprise risk management (ERM) process is used to develop a holistic risk profile for each asset and major project, drawing input from subject matter experts, 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. Our Risk Management Standard- finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset’s and major project’s operating rhythm. Our operations, EHS and Government affairs groups systematically review upstream risks to ensure, where appropriate, they are included in the ERM risk register for each Hess asset. An example of mitigating upstream risks, would be evaluating the viability for significant new projects based on potential future carbon constraints. Hess applies a shadow carbon price of \$40/tonne of carbon dioxide in economic evaluations for significant new projects. Factoring carbon dioxide prices into our valuation process enables us to evaluate project viability based on differing ranges of potential future carbon constraints. For example, as part of our Value Assurance process, shadow pricing of \$40/tonne carbon was applied to Hess's North Malay Basin project in 2016 and did not result in any risk associated with the project's future viability.</p>

	Relevance & inclusion	Please explain
Downstream	Relevant, sometimes included	Hess applies a comprehensive, standardized approach to identifying and managing risks of all types, including climate change, across our operations. Our Risk Management Standard-finalized in early 2017- will further improve the alignment and integration of risk management across our operations and functional areas. The risk management requirements in this standard apply 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. As part of our ERM process, we conduct risk assessments for all assets and major capital projects annually. Risk registers and reports that are generated through these processes are reviewed and updated throughout the year as part of each asset's and major project's operating rhythm. Risks associated with these issues are selectively reviewed with joint venture partners and where possible mitigation strategies are put in place prior to engaging in these types of joint ventures. As an example, flare reduction is a key component of Hess's climate change strategy. Hess has invested \$2.6 billion between 2012-2017 in midstream infrastructure in North Dakota to capture and monetize natural gas produced from our operations and minimize flaring. In addition to our strategy to reduce flaring within our own operations, we look for opportunities to generate revenue and reduce 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. The new gas plant will be located at Targa's existing Little Missouri facility, south of the Missouri River in McKenzie County, North Dakota. This plant will help Hess and its downstream partners process and monetize additional amounts of natural gas and reduce flaring.

## 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 us grow our business while mitigating risk. As part of our Risk Management Process in 2017 we finalized our Risk Management Standard which will further improve the alignment and integration of risk management across our operations and functional areas. For all types of risk, including climate-related risks, 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. Key elements of the standard include the following: Minimum risk management expectations for each asset and major capital projects (risk plan, ERM assessment, functional risk assessment(s), stakeholder engagement plan, integrated risk register and risk monitoring) to help 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 tiers of risk; A formalized process for aligning risk assessment with stakeholder engagement, including the facilitation of stakeholder mapping at ERM workshops and ; A risk monitoring process with accountabilities 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's climate change strategy, we also 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. An example of a way to reduce emissions throughout our operations and take advantage of an opportunity to use natural gas as a bridging fuel in a transition to a lower carbon environment is through our climate-related flare reduction strategy. We have invested over \$2.6 billion in infrastructure 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 operating costs and the need to buy other fuels.

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 and conditions as well as the forecast of movements 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. As an example, in 2016, Hurricane Hermine hit the Gulf of Mexico, requiring Hess to shut-in its Tubular Bells Production Platform while executing emergency response plans as outlined above. Deferred production from shutdown amounted to approximately 175 thousand barrels of oil at market value of \$7-9 million. Following the emergency response risk management procedures during this hurricane resulted in minimal damage to the facility and minimized the financial impact of the shutdown. 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

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**(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

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**(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 driver**

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### **Company- specific description**

Hess' Denmark operations are subject to the European Union Emissions Trading Scheme (EUETS). Under Phase III of the EU ETS, Hess makes annual purchases of allowances to cover the gap between free allowances allocated and verified GHG emissions. In 2017, Hess Purchased 105,000 allowances in addition to the 32,900 free allowances allocated. In addition, we also received 55,258 allowances from our partner, Dong. We expect the gap between the annual number of free allowances allocated to Hess (EUAs) and actual GHG emissions to widen. This means we will need to purchase more allowances which will add to routine operating costs

### **Time horizon**

Current

### **Likelihood**

Virtually certain

### **Magnitude of impact**

Low

### **Potential financial impact**

1300000

### **Explanation of financial impact**

Our cost to purchase additional allowances in 2017 was approximately \$1.3 million. This is estimated based on an EU ETS Allowance Unit (EUA) cost of \$6-\$7 per EUA. In 2017, Hess's cost to purchase additional allowances was \$826,000, and our partner, Dong's, cost was approximately \$435,000. While it is difficult to estimate future implications, using the past several years of costs may serve as a reasonable proxy.

### **Management method**

2017 Summary: In compliance with regulation, our management strategy is to purchase allowances in addition to our free allocation to meet regulatory requirements going forward. Hess' Demark operations banked free allowances under EU ETS Phase II. In order to meet 2017 obligations, we carried over surplus allowances from 2016 and applied these, as well as a portion of our 2017 free allowances toward our 2017 obligations. We also received allowances from our partners and utilized

a third-party to purchase additional EUAs. In 2017, to meet our full obligations, we purchased 105,000 allowances on the spot market.

**Cost of management**

25000

**Comment**

There is minimal to no cost for managing the purchase of allowances we need to meet our EU ETS obligations as the cost of using a third party to purchase allowances on our behalf is already included in the price we pay for the EUAs. 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.

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**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 driver**

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

**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 resulted 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 January 2015, the U.S. Environmental Protection Agency (EPA) issued a rule to control methane emissions from new and modified sources of methane and volatile organic compounds (VOC)'s at oil wells. Certain aspects of this rule went into effect in 2016, with remaining provisions currently under review by EPA. In an effort to mitigate this risk,, Hess has joined One Future, a voluntary group committed to reducing methane emissions by setting a target to reduce methane emissions to less than 1% of gross methane production across the value chain by 2025. In addition, in Hess became one of the principal participants in the American Petroleum Institutes Environmental partnership which is focused on voluntary reductions in methane emissions.. For example, if methane reduction regulations were implemented in North Dakota and Hess was not taking comprehensive voluntary actions to minimize its methane emissions, it might be required to shut-in Hess Bakken production facilities that potentially had methane leakage rates above



hypothetical regulatory requirements until these leakage issues were mitigated. A principal focus in 2017 was implementation of an extensive LDAR program across all of our production facilities in North Dakota.

**Time horizon**

Medium-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium

**Potential financial impact**

2000000

**Explanation of financial impact**

Financial impact cannot be reasonably determined until we understand what regulations might be imposed. However, as an example, this number is reflective of annual LDAR program costs in North Dakota around potential new regulation.

**Management method**

Hess has already been undertaking measures to understand and reduce its methane emissions. 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. In 2017 Hess became an initial participant in API's Environmental Partnership, which is furthering action to reduce air emissions associated with natural gas and oil production. Hess participates in three separate programs established by the Partnership: Leak Program for Natural Gas and Oil Production Sources; Program to Replace, Remove or Retrofit High-Bleed Pneumatic Controllers; and Program for Manual Liquids Unloading for Natural Gas Production Sources. For example, Hess has implemented an LDAR program at all of our production facilities in North Dakota and Ohio as well as at our gas plants in Texas and North Dakota, which encompass 68% of our total 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 \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per MSCF.

**Cost of management**

800000

**Comment**

Cost of management cannot be reasonably determined until we understand what regulations might be imposed. However, as an example, this number is reflective of the LDAR program's fixed cost of labor as a potential example of cost of administration. The \$800,000 is inclusive of the \$2 million financial impact.

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**Identifier**

Risk 3

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

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**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 Hess' Tubular Bells Production Platform 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

**Potential financial impact**

10000000

**Explanation of financial impact**

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 2016 Hurricane Hermine hit the Gulf of Mexico requiring Hess to shut-in its Tubular Bells Production Platform. Total gross deferred production was approximately 175 thousand barrels of oil equivalent which had a market value of about \$7-\$9 million, along with additional operating expenses

of \$125k. Without these extensive processes in place the impact could have been more significant. Hess equity share of this asset is 57%.

#### **Management method**

Each Hess asset, including Tubular Bells, 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 and conditions as well as the forecast of movements 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. As an example, in 2016, Hurricane Hermine hit the Gulf of Mexico, requiring Hess to shut-in its Tubular Bells Production Platform while executing emergency response plans as outlined above. Deferred production from shutdown amounted to approximately 175 thousand barrels of oil at market value of \$7-\$9 million. Following the emergency response risk management procedures during this hurricane resulted in minimal damage to the facility and minimized the financial impact of the shutdown. 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.

#### **Cost of management**

2100000

#### **Comment**

Typical cost for annual subscription or maintenance cost for weather forecasting, emergency response preparedness and cost for evacuating up to (3) platforms

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#### **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 driver**

Reputation: Reduced revenue from decreased demand for goods/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 risk 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 evaluation of risk and impact, level of internal and external stakeholder interest, and applicability of international reporting frameworks and oil and gas sector guidelines and best practices. 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 2017, at least \$7.5 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 views a financial risk of \$100 million or greater with a high potential to occur as significant.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium-high

**Potential financial impact**

100000000

**Explanation of financial impact**

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 2017, at least \$7.5 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 reputational risk through implementation of our climate change strategy, which is closely aligned with the TCFD recommendations around Governance, Strategy, Risk Management and Metrics and Targets. Our strategy includes public disclosure of our climate change strategy, programs and performance; reducing operational flaring, becoming more energy efficient and incorporating more renewable energy in our energy spend. For example, in 2017, we purchased 90,000 MWH Greene Energy certified RECs for wind power; 11% of purchased electricity from E&P operated assets; included energy efficiency and carbon cost considerations in all major new investments. We are dedicated to disclosure and transparency through reporting activities including an annual GRI Sustainability Report GRI (with a Content Index and external assurance). Hess continues to meet our goal of top quartile performance in our sector for the quality of our climate change disclosures. In 2017, Hess earned CDP climate leadership status and was among the top-ranking energy producers on the list and was included in DJSI North America for the 8th consecutive year. We work with others in our industry on energy efficiency and GHG reduction best practices, energy management systems, operational flaring reduction, and upstream energy performance methodology. We are proactively reducing GHGs in several countries where we operate, including those where GHG emissions are not currently regulated.

#### **Cost of management**

500000

#### **Comment**

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 of management related to internal costs for ESG reporting helps us achieve our goal of first quartile ESG transparency, disclosure and performance.

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## **C2.4**

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**(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**

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**(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 driver**

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 gas serves as a bridging fuel in a transition to a lower carbon environment and it also 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. Over \$2.6 billion has been invested in midstream infrastructure in North Dakota between 2012-2017 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 38% through 2017, compared to our 2014 baseline.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Potential financial impact**

10000000

**Explanation of financial impact**

We estimate Hess' infrastructure investments will allow us to reduce our flaring rate from 27% in 2013 to 10% by 2020. Achieving this target will also result in an absolute reduction in our total volume of gas flared. Based on the average onshore natural gas price of \$1.96 per thousand cubic foot (MCF) found in Hess' 2018 SEC 10-K, the estimated market value of the amount of wellhead gas and natural gas liquids that would be captured instead of flared was approximately \$10 million in 2017.

### **Strategy to realize opportunity**

Part of Hess's climate change strategy is 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. As an example, Hess has invested \$2.6 billion in natural gas capture, processing and fractionation capacity in the Bakken region in North Dakota over the past several years. Our most noteworthy example is, Hess' expansion of its Tioga Gas Plant from 115 million cubic feet of natural gas per day (MMSVFD) to 250 MMSCFD and expansion of its natural gas liquids processing capacity from 8 thousand barrels per day (MBD) to 60 MBD provides the Bakken region with much needed capacity, both for Hess and other operators, to process and monetize the liquids-rich associated natural gas and reduce operational flaring at the wellhead. Hess also has short-term wellhead gas capture projects ongoing. Hess is a member of the North Dakota Petroleum Council's Flaring Task Force, has regulatory and government affairs specialists on staff and has a local landowner notification system. Hess has also replaced an internal voluntary target to reduce our wellhead flaring rate in North Dakota to 10 percent with newly established regulatory targets that require 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.

### **Cost to realize opportunity**

2600000000

### **Comment**

Hess has invested \$2.6 billion to construct infrastructure to capture, transport, process and fractionate Bakken natural gas which is rich in natural gas liquids. 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.

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### **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 driver**

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, in an effort to realize opportunities related to voluntarily reducing methane, Hess has joined One Future, a voluntary group committed to reducing methane emissions by setting a 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 Institutes Environmental partnership which is focused on voluntary reductions in methane emissions. To help achieve these voluntary methane emissions reductions, Hess has implemented an LDAR program covering 68% of our total methane emissions across our production and gathering facilities in the Bakken region of North Dakota, our Utica operations in Ohio and our gas plants in Tioga, ND and Seminole, TX. 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 a 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

**Potential financial impact**

500000

**Explanation of financial impact**

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 \$1.96 per thousand cubic foot (per Hess 2018 SEC 10-K) and 260 Mcf natural gas savings for each of the 350 units. The monetized value from reducing emissions is approximately \$180,000 per year. Potential additional maintenance cost savings range from \$90,000 to \$520,000 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 became one of the initial participants in API's Environmental Partnership, a key activity of which is



furthering action to reduce air emissions associated with natural gas and oil production. To accomplish this, the Partnership has developed three Environmental Performance programs. Hess has agreed to implement all three programs, which are not required for participation, one of which includes a Leak Program for Natural Gas and Oil Production Sources: Implement monitoring and timely repair of fugitive emissions at selected sites utilizing detection methods and technology such as U.S. EPA Method 21 or optical gas imaging cameras. For example, Hess has implemented an LDAR program at all of our production facilities in North Dakota and Ohio, as well as at our gas plants in Texas and North Dakota, which encompass 68% of our total operated methane emissions. The implementation cost is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr. at an average cost of \$17.75 per MSCF.

**Cost to realize opportunity**

740000

**Comment**

Using EPA's Natural Gas STAR estimated implementation cost per unit \$1,850, total implementation costs would be approximately \$740,000. This is a one-time capital cost.

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Please select

**Type of financial impact driver**

Please select

**Company- specific description**

Opportunities for improved efficiency: In support of our GHG emissions and flaring intensity 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 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. The bi-fuel engines use natural gas captured at the wellhead. They reduce air emissions by using cleaner burning natural gas, reduce emissions associated with less diesel fuel truck deliveries, and reduce flaring. In addition, we have converted nine boilers to operate exclusively on natural gas during winter operations. In North Dakota, through our partnership with GTUIT, we have developed an innovative new approach to recover high-BTU gas from locations that were

producing NGLs and flaring. Also in North Dakota, we use flexible hose to transport freshwater directly from the water source to our wells, instead of using trucks across our entire Bakken production operation.

**Time horizon**

Current

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium-low

**Potential financial impact**

2000000

**Explanation of financial impact**

Each project has its own financial implications, but as an example: A bi-fuels conversion system, including conversion of drilling rig boilers to natural gas saved an estimated \$2 million in 2016 based on the cost differential between diesel fuel and natural gas.

**Strategy to realize opportunity**

To manage the opportunities presented by energy efficiency, we are implementing a number of projects, including bi-fuels conversion: Once the opportunity for bi-fuels conversion was identified, a project justification document was prepared. This information was integrated into the relevant drilling services contracts. Under the terms of the contract, the drilling contractors are responsible for purchasing, installing and commissioning the bi-fuels system. Hess observes and provides certain feedback to our contractors relating to activities needed to tie-in to a gas supply. For example, during the last several years, Hess launched a bi-fuel installation project in which our contractors retrofitted diesel engines to gas/diesel engines on several of the drilling rigs operated for Hess in the Bakken play of North Dakota. In addition to engine conversions, the boilers were converted to operate exclusively on natural gas. Besides cost savings, bi-fuel conversions provide additional benefits including reduced flaring and diesel truck delivery trips, thus reducing CO2 and other air emissions. In 2017, we replaced 21,910 barrels of diesel fuel that was previously used for operations at three remote sites in the Bakken. This resulted in a GHG emissions reduction 2664 tonnes.

**Cost to realize opportunity**

350000

**Comment**

Each project has its own costs, but as an example: bi-fuel rig conversions, inclusive of all necessary components (bi-fuel system installation and commissioning, boiler conversion, and other equipment and installation costs at the well site) are approximately \$350,000 per rig conversion. Each rig conversion is a one-time cost to the drilling contractor. There are no costs for project and contract management beyond the normal course of business.

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**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 driver**

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 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. 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.

**Time horizon**

Medium-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium-high

**Potential financial impact**

100000000

#### **Explanation of financial impact**

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. In early 2018, at least \$7.5 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 potential opportunities through implementation of our climate change strategy, which includes public disclosures of our climate change strategy, programs and performance reducing operational flaring associated with stranded gas becoming more energy efficient and incorporating more renewable energy in our energy spend including energy efficiency and carbon cost considerations 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 2017, Hess was recongnized by CDP as a leader in addressing climate-related risks and opportunities. Hess earned leadership status, the highest category, and was among the top-ranking energy producers on the list. Also, for the eight consecutive year we were included in the Dow Jones Sustainability Index North America. We also work with others in our industry on energy efficiency and GHG emissions reduction best practices, energy management systems, operational flaring reduction, and upstream energy performance methodology. We are proactively reducing greenhouse gas emissions intensity in several countries where we operate, including those where GHG emissions are not currently regulated.

#### **Cost to realize opportunity**

500000

#### **Comment**

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.

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## **C2.5**

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

	Impact	Description
Products and services	Impacted	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 that 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. 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. As we do this, we have invested over \$2.6 billion in a substantive business decision to add infrastructure 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. For example, we have invested over \$2.6 billion in infrastructure in North Dakota to reduce flaring, which allows us to increase revenue by capturing and selling natural gas that was previously flared, as well as using it to run our operations thereby reducing costs and 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 ND. 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. The cost of implementation in ND is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per Mscf. 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	When Hess goes into new joint venture projects with partners, we engage directly to evaluate project economics, as well as how to help ensure safety and minimize emissions. For example, in another substantive business decision at our Stabrock Block (offshore Guyana) in which Hess holds a 30% interest, we worked with our joint venture partners on initial development of the Lisa field (within the block) to attempt to minimize emissions as we develop these fields. While these types of joint venture investments are equity investments for Hess, we view these investments as having the potential for reputational risks and opportunities. 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 as an extension of our strategy. We would view this activity as having a substantive impact on our business.
Adaptation and mitigation activities	Impacted	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. This is another example of a substantive impact related to our updated climate change strategy. Through 2017, Hess has reduced its GHG intensity by 23% versus our 25% target and our flaring intensity by 38% vs. our 50% target. Also in 2017, our methane emissions rate for production was 0.13% and our methane emissions rate for processing was 0.14%. Our combined methane emissions rate from production and processing was 0.13%, which is well below the One Future combined target of 0.47% for the two sectors in which Hess operates. However, while Hess's actual combined methane emissions rate for production and processing is already below the 2025 target, we will continue to endeavor to further reduce methane emissions through our LDAR program.

	Impact	Description
Investment in R&D	Not impacted	Hess does not invest in fundamental R&D. A company of our size has limited resources and as a result we have 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.
Operations	Impacted	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 that 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. 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. As we do this, we have invested over \$2.6 billion in a substantive business decision to develop infrastructure 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. For example, we have invested over \$2.6 billion in infrastructure in North Dakota to reduce flaring, which allows us to increase revenue by capturing and selling natural gas that was previously flared, as well as using it to run our operations thereby reducing costs and 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 ND. 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. The cost of implementation in ND is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per Mscf. 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 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.
Operating costs	Impacted	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, our 2017 cost to purchase additional allowances under the EU ETS was \$826,000. At present, this does not have a substantive impact on our business.

	Relevance	Description
Capital expenditures / capital allocation	Impacted	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 U.S. EPA's social cost of carbon (Obama Administration) and consistent with international projections for the cost of carbon. To date, imposing this \$40/tonne shadow price of carbon has not had a substantive impact on 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.
Acquisitions and divestments	Not impacted	Because Hess is a leader among its peers in climate related disclosures, 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 acquisitions and divestments.
Access to capital	Not impacted	Because Hess is a leader among its peers in climate related disclosures, 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.
Assets	Impacted	Reducing flaring is a significant part of Hess's climate change strategy. We have invested over \$2.6 billion in a substantive business decision to enhance midstream infrastructure in the Bakken region of North Dakota between 2012-2017 to capture and monetize natural gas produced from our operations and minimize flaring.
Liabilities	Not impacted	Because Hess is a leader among its peers in climate related disclosures, 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 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

**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)**

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**(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.**

In development, we plan to complete it within the next 2 years

### **C3.1c**

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

i/ii) In 2015, we completed an EHS & SR Strategy Refresh project, which identified a wide range of material issues for benchmarking and evaluated Hess' strategic position relative to peers to inform strategy development. Next, we focused on 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. We set new 2020 targets for reducing flaring intensity by 50% and GHG intensity by 25% compared to 2014 for the current portfolio of assets that we operate. Since 2014, we have respectively reduced flaring intensity by 38% and GHG intensity by 23% through 2017. Two of Hess's key enterprise processes, Enterprise Risk Management (ERM) and Value Assurance (VA) incorporate non-technical risk considerations, including climate change risk. As part of our risk analysis, we examined the 2017 IEA World Energy Outlook New Policy scenario in which worldwide use will grow by 28% between 2016 and 2040. This scenario incorporates all announced GHG emissions and energy policy commitments, including the Paris climate agreement pledges signed by 194 countries. As a result of looking at scenario analysis, we recognize we need to be prepared to potentially operate in a lower carbon environment and have enhanced our strategy and business objectives to establish climate-related targets around GHG emissions intensity, flare reduction intensity and methane emissions reductions. We have set three voluntary targets related to climate-reduction activities. Our 25% GHG intensity reduction target for 2020 is aimed at operating our business more efficiently by reducing emissions per barrel of output throughout our operations. Our 50% flare intensity reduction target for 2020 and ONE Future methane reduction targets for 2025 are aimed at improving efficiency and generating additional revenue by monetizing gas that was previously flared.

In addition, Hess believes there is a high likelihood our proved reserves will be monetized. 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 reputational risks and opportunities, as well as energy efficiency opportunities. For example, Hess is a founding member of the ONE Future coalition, a group 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 percent of gross methane production across the value chain by 2025. Although Hess is already below our combined ONE Future sectoral targets, we are committed to further improving our performance. Our principal focus in 2017 was implementation of an extensive leak detection and repair (LDAR) program across our production facilities in North Dakota, another substantial business decision. This supplements our ongoing LDAR program at our gas plants in Texas and North Dakota and our production operations in Ohio. In addition, since 2012, we have invested over \$2.6 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) reducing GHG emissions (operational/energy efficiency, revenue opportunities and/or regulatory drivers); B) top-quartile climate change transparency; and C) physical risk management. A) 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. Before the NDIC flaring order, we had started a multi-year effort to capture natural gas from our wells and minimize flaring by investing over \$2.6 billion in gas gathering and processing infrastructure in North Dakota. B) 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. C) We have a physical risk management 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. We address these through setting targets to reduce GHG and flaring 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.

vii) Strategic advantages: We have been included in the CDP leadership indices since 2009 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 U.S. 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 450	<p>We do not change any of the assumptions, inputs, etc. in IEA scenarios. We use as is to qualitatively assess any potential risks and opportunities associated with our portfolio of assets. We look at IEA's New Policy scenario (which includes NDC's) and their Sustainable Development scenario (which includes 2 degree case). (1)The time horizon for our scenario planning exercise parallel's IEA's long term scenarios, ranging from today until 2040. We chose this time frame to be in alignment with the IEA's timeline since their scenarios are currently the most well recognized ones available for our industry and Hess does not have the internal resources to develop it's own scenarios. (2) Our scenario planning exercise currently covers all of Hess's Operated assets. We plan to expand this in the next year to include non-operated assets where we currently hold significant interests. (3) As a result of examining the IEA's most likely scenario, the New Policy scenario, where energy demand grows by 24% by 2040 and accounts for 52% of the energy mix, down from 54% today, we currently see no significant impact on Hess's oil and gas business. Stranded asset advocates argue that extractive companies be left with stranded reserves over the next 30 to 40 years, thus undercutting financial valuations. According to a recent IHS Energy study, while proved reserves on average account for only 24% of the resource base by volume, they account for 84% of the 2014 resource base that drives a company's total valuation. Therefore reserves that are expected to be produced beyond a 15 year time horizon appear to have limited impact on a company's valuation. Based on the IHS study and the IEA positions cited above that 52% of the energy mix will come from oil and gas in 2040, Hess believes that there is a high likelihood our reserves will be monetized and that markets are currently valuing our carbon assets rationally. In our most recent annual report, our Chief Executive Officer, John Hess stated that Hess would be cash generative at \$50 per barrel Brent oil price post 2020. Based on IEA's forecast that oil and gas are expected to account for 52% of the energy mix in 2040 with an oil price in excess of \$70 per barrel, we believe that Hess's proved reserves which are expected to be produced over the next 10-15 years will be fully monetized. However, in order to further evaluate any potential climate change-related risks and opportunities associated with Hess's portfolio, senior management has approved a carbon asset risk scenario planning exercise to test the resilience of our portfolio against IEA's main scenarios. This exercise will establish a range of energy supply, demand, oil price and emissions estimates that are projected to prevail under different publicly available, long-term secenarios for environmental policy and market conditions. We anticipate this exercise will allow us to qualitatively assess any areas of potential stress on Hess' portfolio in a lower carbon environment. We expect to conduct this scenario planning exercise in 2018 and publish the results in 2019. (4/5) As a result of looking at scenario analysis, we recognize we need to be prepared to potentially operate in a lower carbon environment and as a result have enhanced our strategy and business objectives to establish climate- related targets around GHG emissions intensity, flare reduction intensity and methane emissions reductions. In terms of specific examples, we have set three voluntary targets related to climate-reduction activities. Our 25% GHG intensity reduction target for 2020 is aimed at operating our business more efficiently by reducing emissions per barrel of output throughout our operations. Our 50% flare intensity reduction target for 2020 and One Future methane reduction targets for 2025 are aimed at improving efficiency and generating additional revenue by monetizing gas that was previously flared.</p>

## C4. Targets and performance

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### C4.1

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

Intensity target

### C4.1b

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**(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

**% reduction from baseline year**

25

**Metric**

Metric tons CO<sub>2</sub>e per unit of production

**Base year**

2014

**Start year**

2015

**Normalized baseline year emissions covered by target (metric tons CO<sub>2</sub>e)**

43

**Target year**

2020

**Is this a science-based target?**

No, and we do not anticipate setting one in the next 2 years

**% achieved (emissions)**

81

**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)

**% change anticipated in absolute Scope 1+2 emissions**

10

**% change anticipated in absolute Scope 3 emissions**

0

---

**Target reference number**

Int 2

**Scope**

Scope 1

**% emissions in Scope**

100

**% reduction from baseline year**

50

**Metric**

Metric tons CO2e per unit of production

**Base year**

2014

**Start year**

2015

**Normalized baseline year emissions covered by target (metric tons CO2e)**

287

**Target year**

2020

**Is this a science-based target?**

No, and we do not anticipate setting one in the next 2 years

**% achieved (emissions)**

77

**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**

50

**% change anticipated in absolute Scope 3 emissions**

0

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**C4.2**

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

**Target**

Renewable energy consumption

**KPI – Metric numerator**

Megawatt hours

**KPI – Metric denominator (intensity targets only)**

**Base year**

2017

**Start year**

2017

**Target year**

2017

**KPI in baseline year**

789739

**KPI in target year**

240050

**% achieved in reporting year**

100

**Target Status**

Underway

**Please explain**

Part of Hess's strategy is to purchase at least 10% renewables based on net electricity each year. Based on grid, 19% came from renewables and we purchased RECs equal to 11% of net electricity. As a result, we have 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

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**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**

**KPI in target year**

**% achieved in reporting year**

**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 (0.36%); processing (0.11%); transmission and storage (0.30%) and distribution (0.22%), which cumulatively totals 1%. Hess has activities in two sectors, production and processing. In 2017, our methane emissions rate for production was 0.13%, and our methane emissions rate from processing was 0.14%. Our combined methane emissions rate from production and processing was 0.13%, which is well below the One Future combined target of 0.47% for those two sectors. However, while Hess's actual combined methane emissions rate for production and processing is already below the 2025 target, we will continue to endeavor to further reduce methane emissions.

**Part of emissions target**

Int2

**Is this target part of an overarching initiative?**

No, it's not part of an overarching initiative

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### C-OG4.2a

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**(C-OG4.2a) Explain, for your oil and gas production activities, why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in C4.2; and forecast how your methane emissions will change over the next five years.**

### C4.3

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**(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

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

	Number of projects	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*	4	274874
Not to be implemented	0	0

### C4.3b

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

**Activity type**

Process emissions reductions

**Description of activity**

New equipment

**Estimated annual CO2e savings (metric tonnes CO2e)**

269059

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency - as specified in CC0.4)**

6785520

**Investment required (unit currency - as specified in CC0.4)**

2600000000

**Payback period**

16-20 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

A key component of our climate change strategy is to reduce flaring in North Dakota and Equatorial Guinea. 2017 flaring from EG and North Dakota were reduced by a combined 3462 MMscf from 2016 levels. Calculation: 2016 flaring emissions were 1,730,120 CO2e tonnes and 2017 flaring emissions were 1,461,061 tonnes resulting in a reduction of 269,059 tonnes. Calculations are based upon flare gas composition, flare volume and EPA Mandatory Reporting Rule emissions calculations. This flare reduction has resulted from a series of major infrastructure projects beginning in 2012, where cumulative investment has totaled over \$2.6 billion thru 2017 to capture and process associated gas from oil production. 2017 cost savings: 3462 MMscf gas times \$1.96 per mcf 2017 average onshore natural gas price = \$6,785,520. This flare reduction initiative 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. Thru 2017, we have made substantial progress by reducing our cumulative flaring intensity by 43% vs. our 50% target

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**C4.3c**

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**(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	

## C4.5

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**(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

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**(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**

16

**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

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## C-OG4.6

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**(C-OG4.6) Describe your organization's efforts to reduce methane emissions from oil and gas production activities.**

For the past 20 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 2.6 million tonnes of CO<sub>2</sub>-e (5,369,095 MCF).

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

- a) Installation of vapor recovery units (47.1% of emissions reductions)
- b) Installation of electric compressors (24.8%)
- c) Installation of flash tank separators on glycol dehydrators (11.4%)
- d) Catalytic converter installation (11.1%)
- e) Other (5.6%)

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 one percent 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 (0.36 percent); processing (0.11 percent); transmission and storage (0.30 percent) and distribution (0.22 percent), which cumulatively total to the 1 percent target. Hess has activities in two sectors, production and processing. In 2017, our methane emissions rate for production was 0.13 percent, and our emissions rate from processing was 0.14 percent. Our combined methane emissions rate from the production and processing sectors was 0.13 percent, which is well below the ONE Future combined target of 0.47 percent for those two sectors. Although we are already below the ONE Future 2025 target, we continue to examine opportunities to further reduce methane emissions.

Members of Our Nation's ONE Future Energy Future Coalition (ONE Future): AGL Resources, Apache Corporation, BHP Billiton, Hess Corporation, Kinder Morgan, Inc., National Grid, Southwest Energy Company.

In a related voluntary effort, in 2017 Hess became one of the initial participants in the American Petroleum Institute's Environmental Partnership. A key activity of the Environmental Partnership is furthering action to reduce air emissions, including methane and volatile organic compounds, associated with natural gas and oil production. To accomplish this, the Environmental Partnership has developed three separate Environmental Performance Programs for participating companies

to implement and phase into their operations starting January 1, 2018. Although not required for participation in the Partnership, Hess has agreed to implement all three programs, which include:

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 Method 21 or optical gas imaging cameras.
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.
3. Program for Manual Liquids Unloading for Natural Gas Production Sources: Participants will minimize emissions associated with the removal of liquids that, as a well ages, can build up and restrict natural flow.

In addition to these programs, the Environmental Partnership will provide a platform for industry to collaborate with stakeholders and learn from one another.

## COG4.7

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**(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

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**(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 plants in Texas and North Dakota and our production operations in Ohio. Based on our global methane emissions, the scope of this program includes 68% of our total 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. The cost of implementing this

program across all of our U.S. operations is approximately \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average control cost of \$17.75 per Mscf. 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**

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**(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. Thru 2017, Hess has made substantial progress against this target by reducing its flaring intensity by 38% 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 more than \$2.6 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 one percent of methane production across the value chain- each sector is responsible for meeting its own sectoral target representing a portion of this overall goal. Although Hess has already met its combined ONE Future 2025 sectoral targets, we are committed to further improving our performance. 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 plants in Texas and North Dakota and our production operations in Ohio.

## **C5. Emissions methodology**

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### **C5.1**

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**(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 CO<sub>2</sub>e)**

4944576

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2014

**Base year end**

December 31 2014

**Base year emissions (metric tons CO2e)**

522671

**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**

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**C6.1**

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

**Row 1**

**Gross global Scope 1 emissions (metric tons CO2e)**

3723444

**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 CO<sub>2</sub>e?**

**Row 1**

**Scope 2, location-based**

423703

**Scope 2, market-based (if applicable)**

376407

**Comment**

Market-based calculation is based on location-based emissions for 89% of electricity consumed and 11% of emissions (approximately 90,000 MWh) for purchased Green-e Certified RECs for wind energy. Emission factor for wind energy from 2014 IPCC GWP for selected electricity sources, onshore wind. As the RECs are not related to a 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 the total MWh.

## C6.4

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**(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

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### **(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 CO<sub>2</sub>e**

##### **Emissions calculation methodology**

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

##### **Explanation**

In 2014 Hess completed divestment of all downstream (refining, terminals and retail) operations. This eliminated the material GHG emissions associated with motor fuels purchased for sale at our retail sites. Our most significant Scope 3 emissions are associated with customer and consumer use of our natural gas product. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 506,366 tonnes CO<sub>2</sub>e) for determining the materiality/relevance of other Scope 3 categories.

#### **Capital goods**

##### **Evaluation status**

Not relevant, explanation provided

##### **Metric tonnes CO<sub>2</sub>e**

##### **Emissions calculation methodology**

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

##### **Explanation**

Our most significant Scope 3 emissions are associated with customer and consumer use of our natural gas product. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 506,366 tonnes CO<sub>2</sub>e) 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 CO<sub>2</sub>e**

## **Emissions calculation methodology**

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

#### **Explanation**

The reporting boundary for this Scope 3 category is operational control. In 2014 we obtained total volumes of third party fuels 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 fuels production). Global Warming Potentials (GPWs) for CO<sub>2</sub>, methane and N<sub>2</sub>O were 1,25 NS 298, respectively (IPCC Fourth Assessment Report AR4-100 year). 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 natural gas product. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 506,366 tonnes CO<sub>2</sub>e) 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 CO<sub>2</sub>e**

## **Emissions calculation methodology**

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

#### **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 506,366 tonnes CO<sub>2</sub>e) 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 CO<sub>2</sub>e**

## **Emissions calculation methodology**

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



### **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 GWPs for CO<sub>2</sub>, methane and N<sub>2</sub>O 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 CO<sub>2</sub> emissions between one type of waste management method and alternative and there can be a high degree of uncertainty. Our most significant Scope 3 emissions are associated with customer and consumer use of our natural gas product. We have established a threshold of 5% of total Scope 3 emissions (equivalent to 506,366 tonnes CO<sub>2</sub>e) for determining the materiality/relevance of other Scope 3 categories. Based on calculations we performed in 203, and the fact that waste quantities were even less in 2017 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 CO<sub>2</sub>e**

4600

#### **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 CO<sub>2</sub>e emissions in accordance with the US EPA Climate Leaders GHG Inventory Protocol, Table 7 Business Travel Emissions Factors. GWPs used for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O 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 2017, we purchased 5000 carbon offsets which more than offset the emissions from employee business travel.

### **Employee commuting**

#### **Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****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 our materiality threshold. Our most significant Scope 3 (equivalent to 506,366 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories. Based on calculations we performed in 2012, and the fact that we have significantly fewer employees in 2017, we did not recalculate emissions from this source (2012 emissions were substantially below the materiality threshold).

**Upstream leased assets****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****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 506,366 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****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****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 506,366 tonnes CO<sub>2</sub>e) 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 CO<sub>2</sub>e**

3110776

#### **Emissions calculation methodology**

The reporting boundary for this Scope 3 category is operational control for our crude oil which is processed at refineries. Crude production volumes were multiplied by an emissions factor from the International Energy Agency's 2017 report. The GPWs we used for CO<sub>2</sub>, methane and N<sub>2</sub>O were from the IPCC Fourth Assessment Report (AR4-100 year); these were 1, 25 and 298 respectively. Data quality: Production volumes numbers were taken from the company's production accounting records which are based on rigorous transfer of custody meters. The uncertainty of our emissions is 5% or less.

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

0

#### **Explanation**

### **Use of sold products**

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO<sub>2</sub>e**

10007023

#### **Emissions calculation methodology**

The reporting boundary for this Scope 3 category is operational control for our natural gas produced. Production volumes were multiplied by EPA GHG emissions factors from Table MM-1 and NN-1 in Subparts MM and NN of US EPA's Mandatory Reporting of Greenhouse Gases rule. The GPWs we used for CO<sub>2</sub>, methane, and N<sub>2</sub>O were from the IPCC Fourth Assessment Report (AR4-100 year); these were 1, 25 and 298 respectively. Data quality: Production volumes numbers were taken from the company's production accounting records which are based on rigorous transfer of custody meters. The uncertainty of our emissions estimate is 5% or less.

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

0

## **Explanation**

### **End of life treatment of sold products**

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO<sub>2</sub>e**

#### **Emissions calculation methodology**

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

#### **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 506,366 tonnes CO<sub>2</sub>e) 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 source is not relevant to Hess.

### **Downstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO<sub>2</sub>e**

#### **Emissions calculation methodology**

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

#### **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 506,366 tonnes CO<sub>2</sub>e) 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****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****Explanation**

Hess has no franchises.

**Investments****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****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 506, 366 tonnes CO2e) for determining the materiality/relevance of other Scope 3 categories.

**Other (upstream)****Evaluation status****Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****Explanation****Other (downstream)****Evaluation status****Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****Explanation****C6.7**

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**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

No

## **C6.10**

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

**Intensity figure**

0.000758717

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

4147147

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

5466000000

**Scope 2 figure used**

Location-based

**% change from previous year**

21

**Direction of change**

Decreased

**Reason for change**

Absolute GHG emissions are about 13% lower than in 2016 and Hess revenues decreased by 15%. Hess does not consider revenue to be an appropriate normalization factor for determining the company's GHG emissions intensity. This decreased emissions intensity was also attributable to the emissions reduction activities that occurred in 2017. This includes our flare reduction initiative, which 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. Thru 2017, we have made substantial progress by reducing our cumulative flaring intensity by 43% vs. our 50% target

---

**Intensity figure**

33.4

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

4147147

**Metric denominator**

barrel of oil equivalent (BOE)

**Metric denominator: Unit total**

124064440

**Scope 2 figure used**

Location-based

**% change from previous year**

6

**Direction of change**

Decreased

**Reason for change**

Absolute GHG emissions are about 13% lower than in 2016 and Hess production decreased by 6% in 2017. This decreased emissions intensity was also attributable to the emissions reduction activities that occurred in 2017. This includes our flare reduction initiative, which 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. Thru 2017, we have made substantial progress by reducing our cumulative flaring intensity by 43% vs. our 50% target

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## C-OG6.12

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**(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**

30.01

**% change from previous year**

3

**Direction of change**

Decreased

**Reason for change**

This decreased emissions intensity was at least partially attributable to the emissions reduction activities that occurred in 2017. This includes our flare reduction initiative, which 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. Thru 2017, we have made substantial progress by reducing our cumulative flaring intensity by 43% vs. our 50% target

**Comment**

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## **C-OG6.13**

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**(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**

0.19

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

0.09

**Comment**

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## **C7. Emissions breakdowns**

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### **C7.1**

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**(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?**

Yes

#### **C7.1a**

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**(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).**

<b>Greenhouse gas</b>	<b>Scope 1 emissions (metric tons of CO2e)</b>	<b>GWP Reference</b>
CO2	3407331	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	313432	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	2681	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.**

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives (Oil:Total)	1407898	9506.7	1646145.3	
Fugitives (Oil: Venting)	0	0	0	
Fugitives (Oil: Flaring)	1407339.2	3627.4	1498604.5	
Fugitives (Oil: E&P, excluding venting and flaring)	558.8	5879.3	147540.8	
Fugitives (Oil: All Other)	0	0	0	
Fugitives (Gas: Total)	438984.9	2347.3	497661.5	
Fugitives (Gas: Venting)	0	0	0	
Fugitives (Gas: Flaring)	394266	1011	419545	
Fugitives (Gas: E&P, excluding venting and flaring)	21359.4	680.8	38379.4	
Fugitives (Gas: Midstream)	23359.5	655.5	39737.1	
Fugitives (Gas: All other)	0	0	0	
Combustion (Oil: Upstream, excluding flaring)	1019405.9	664.5	1037453.2	
Combustion (Gas: Upstream, excluding flaring)	541042	19	541962.1	
Combustion (Refining)	0	0	0	
Combustion (Chemicals production)	0	0	0	
Combustion (Electricity generation)	0	0	0	
Combustion (Other)	0	0	0	
Process emissions	0	0	0	
Emission not elsewhere classified	0	0	0	

**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	2754744
Equatorial Guinea	627943
Denmark	201215
Malaysia	139542

### 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
Equatorial Guinea	627943	1.405	9.405
North Malay Basin	139542	7.013	103.214
South Arne	201215	56.096	4.221
Baldpate	20029	27.735	91.895
North Dakota Production	1484298	48.286	102.917
Seminole Gas Plant	404376	32.719	102.644
Seminole Production	4400	32.719	102.644
Tioga Gas Plant	211838	48.286	102.917
North Dakota Gathering	253143	48.286	102.917
TBBells	320796	28.294	88.875
Utica	55864	40.37	80.634

**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
Oil and gas production activities (upstream)	3723444	<Field Hidden>	
Oil and gas production activities (downstream)	0	<Field Hidden>	Not applicable to Hess

**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	423703	376407	789739	90000

**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	183981	163422
Seminole Gas Plant	63092	56073
Seminole Production	37904	33688
Tioga Gas Plant	138726	123224

## 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
Oil and gas production activities (upstream)	423703	376407	
Oil and gas production activities (downstream)	0	0	Not applicable to Hess

## 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	0	
Other emissions reduction activities	274874	Decreased	6	Emissions reductions attributed to emissions reduction activities are 274874 tonnes in 2017 which equates to 6% of Hess's combined Scope 1 and 2 GHG emissions in 2016, which were 4595540. This was calculated as follows: (274874 tonnes/4595540 tonnes)*100 = 6.0. CO2 savings from emissions reduction initiatives, including flaring reduction. Because Hess uses location-based Scope 2 emissions to compare year-over-year performance, this figure is exclusive of RECs.
Divestment	0	No change	0	
Acquisitions	0	No change	0	
Mergers	0	No change	0	
Change in output	173519	Decreased	3.8	Decreased emissions are attributable to reduced production activities throughout various assets in 2017.
Change in methodology	0	No change	0	
Change in boundary	0	No change	0	
Change in physical operating conditions	0	No change	0	
Unidentified	0	No change	0	
Other	0	No change	0	

### **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	7232698	7232698
Consumption of purchased or acquired electricity		152151	637588	789739
Total energy consumption		152151	7870286	8022437

## 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 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**

5949300

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1283398

## C8.2d

---

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

### **Diesel**

#### **Emission factor**

74.1538

#### **Unit**

kg CO<sub>2</sub>e per million Btu

#### **Emission factor source**

EPA Mandatory Reporting Rule

#### **Comment**

### **Fuel Gas**

#### **Emission factor**

59.0448

#### **Unit**

kg CO<sub>2</sub>e per million Btu

#### **Emission factor source**

EPA Mandatory Reporting Rule

#### **Comment**

## C8.2f

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**(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

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

90000



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

0.011

**Comment**

2014 IPCC emission factor for onshore wind

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**C9. Additional metrics**

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**C9.1**

---

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

**C-OG9.2a**

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**(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	64.75	From 10k
Natural gas liquids, million barrels	15.15	From 10k
Oil sands, million barrels (includes bitumen and synthetic crude)	0	N/A
Natural gas, billion cubic feet	189.62	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)
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 (%)
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**

Onshore

**In-year net production (%)**

10.3

**Net proved reserves (1P) (%)**

13.3

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

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

**Net total resource base (%)**

**Comment**

---

**Development type**

Shallow-water

**In-year net production (%)**

7.8

**Net proved reserves (1P) (%)**

18.2

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

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

**Net total resource base (%)**

**Comment**

---

**Development type**

Deepwater

**In-year net production (%)**

28.4

**Net proved reserves (1P) (%)**

14.8

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

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

**Net total resource base (%)**

**Comment**

---

**Development type**

Tight/shale

**In-year net production (%)**

53.6

**Net proved reserves (1P) (%)**

53.7

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

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

**Net total resource base (%)**

**Comment**

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

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**(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 2017

**Investment end date**

December 31 2017

**Investment area**

Equipment

**Technology area**

Methane detection and reduction

**Investment maturity**

Large scale commercial deployment

**Investment figure**

2000000

**Low-carbon investment percentage**

0

**Please explain**

Hess has implemented an LDAR program at all of our production facilities in North Dakota and Ohio as well as at our gas plants in Texas and North Dakota, which encompass 68% of our total 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 \$2 million per year, which results in controlled emissions of approximately 117 million scf/yr at an average cost of \$17.75 per MSCF.

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## 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

[erm cvs 2017 cdp assurance statement hess final.pdf](#)

##### Page/ section reference

full document

##### Relevant standard

*Note: Third-party verification statement for this CDP Climate Change questionnaire is attached to this PDF and begins on PDF p. 81.*

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**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**

[erm cvs 2017 cdp assurance statement hess\\_final.pdf](#)

**Page/ section reference**

full document

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**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**

[erm cvs 2017 cdp assurance statement hess\\_final.pdf](#)

**Page/ section reference**

full document

*Note: Third-party verification statement for this CDP Climate Change questionnaire is attached to this PDF and begins on PDF p. 81.*

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**C10.1b**

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**(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**[erm cvs 2017 cdp assurance statement hess final.pdf](#)**Page/section reference**

full document

**Relevant standard**

ISO14064-3

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**C10.2**

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**(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**

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

*Note: Third-party verification statement for this CDP Climate Change questionnaire is attached to this PDF and begins on PDF p. 81.*

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISO14064-3	All of the 2017 and 2016 (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 <a href="#">erm cvs 2017 cdp assurance statement hess final.pdf</a>
C6. Emissions data	Year on year emissions intensity figure	ISO14064-3	All of the 2017 and 2016 (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 <a href="#">erm cvs 2017 cdp assurance statement hess final.pdf</a>

## 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 2017

**Period end date**

December 31 2017

**Allowances allocated**

*Note: Third-party verification statement for this CDP Climate Change questionnaire is attached to this PDF and begins on PDF p. 81.*



32900

**Allowances purchased**

16258

**Verified emissions in metric tons CO2e**

193158

**Details of ownership**

Facilities we own and operate

**Comment**

**C11.1d**

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

2017 Summary: In compliance with regulation, our management strategy is to purchase allowances in addition to our free allocation to meet regulatory requirements going forward. Hess' Demark operations banked free allowances under EU ETS Phase II. In order to meet 2017 obligations, we carried over surplus allowances from 2016 and applied these, as well as a portion of our 2017 free allowances toward our 2017 obligations. We also received allowances from our partners and utilized a third-party to purchase additional EUAs. In 2017, to meet our full obligations, we purchased 105,000 allowances on the spot market.

**C11.2**

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

No

**C11.3**

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

Yes

**C11.3a**

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

**Objective for implementing an internal carbon price**

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 \$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.

## **Type of internal carbon price**

Shadow price

## **Impact & implication**

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 (any project requiring an investment of at least \$50 million) was updated to include a carbon price of \$40/tonne, which is equivalent to the U.S. EPA current 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.

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## **C12. Engagement**

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### **C12.1**

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#### **(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, other partners in the value chain

#### **C12.1c**

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

We engage with other partners in the value chain through joint venture partnerships.

Method of engagement: When we go into new joint venture projects with partners, we engage directly to evaluate project economics as well as how to help ensure safety and minimize emissions, we work with our partners to provide development plans to local governments.

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. 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, as noted in the previous column, 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. Hess has invested \$2.6 billion between 2012-2017 in midstream infrastructure in North Dakota to capture and monetize natural gas produced from our operations and minimize flaring. In addition to our strategy to reduce flaring within our own operations, we 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 will help Hess and its joint venture partner process and monetize additional amounts of natural gas and reduce flaring.

### **C12.3**

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**(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**

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

Yes

**C12.3c**

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**(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 develops, shares and promotes good practices and knowledge to help the industry improve its environmental and social performance; and is the industry's principal channel of communication with the United Nations. The IPIECA Climate Change Working Group was formed in 1988 and 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, or are you attempting to, influence the position?**

Hess is an active participant in the relevant working groups and committees, including Climate Change, Reporting, Water and Supply Chain.

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**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 is very much a part of the solution to this challenge and that it can be addressed while meeting society's future energy needs. The oil and gas industry produces abundant, affordable and reliable energy relied on by billions for heat, light and mobility. 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, or are you attempting to, influence the 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.

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### **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 works closely with the public, Congress, the Executive Branch, state governments, and other trade associations to achieve members' public policy goals. API and its members consider climate change a very 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 that, 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, established in 2014, continues to identify opportunities to improve emissions estimation and improved methane management. That group continues to work closely with EPA on these issues and 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, or are you attempting to, influence the position?**

Hess's Chief Executive Officer, John Hess, 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. In 2014, Hess established an

internal Methane Working group to share information and promote Hess's position on emerging regulatory approaches to methane leakage which will be partially informed by studies coming out of the Environmental Defense Fund that Hess has helped to support. The internal group continued to meet in 2017 to identify opportunities to reduce methane from our operations and to shape our engagement with the Federal government on the issue.

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## C12.3f

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### **(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?**

Hess' position is that climate change is a global challenge that requires government, business leaders and civil society to work together on cost-effective policy responses that recognize the vital role safe, affordable and reliable energy plays in ensuring human welfare, economic growth and security. Our clean water and sanitation, food production and storage; lighting, heating, and cooling; and transportation and defense systems depend predominantly on abundant, affordable and secure supplies of oil and gas. At Hess, we understand oil and gas are essential to meet the world's growing energy demand and are committed to developing resources in an environmentally responsible and sustainable manner. 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.

We recently completed our EHS & SR Strategy Refresh project, which has culminated in ongoing communication of this strategy externally as well as throughout the organization. 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

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**(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 accordance with the CDSB Framework

**Status**

Complete

**Attach the document**

[hess annual report final.pdf](#)

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

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**Publication**

In voluntary communications

**Status**

Complete

**Attach the document**

[hess 2017 sustainability report.pdf](#)

**Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

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## C14. Signoff

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### C-FI

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**(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

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**(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

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**In which language are you submitting your response?**

English

**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 information relating to Greenhouse Gas (GHG) emissions reported in its CDP Climate Change Questionnaire 2018 (“the CDP Questionnaire”).

Engagement summary	
<b>Scope of our assurance engagement</b>	<p>Whether the consolidated corporate GHG emissions data for Hess’s global operations for the period 1st January to 31st December 2017 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<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>, includes:</p> <ul style="list-style-type: none"> <li>• Total absolute Scope 1 Direct GHG emissions from stationary fuel combustion, mobile fuel combustion, flaring, and fugitive sources (metric tonnes CO<sub>2</sub>e).</li> <li>• Total absolute Scope 2 Indirect GHG emissions (location-based and market-based) associated with purchased electricity (metric tonnes CO<sub>2</sub>e).</li> <li>• Total absolute Scope 3 Other indirect emissions from the following categories (metric tonnes CO<sub>2</sub>e): <ul style="list-style-type: none"> <li>• use of sold products;</li> <li>• processing of sold products; and</li> <li>• business travel.</li> </ul> </li> </ul> <p>Whether the percentage change from the previous year in emissions intensity (revenue basis) and the changes from the previous year in gross global emissions (Scope 1 and 2 combined) reported at Sections C6.10 and C7.9a, respectively, of the CDP Questionnaire are fairly presented.</p>
<b>Reporting criteria</b>	The World Resources Institute and the World Business Council for Sustainable Development (WRI/WBCSD) GHG Protocol, and IPIECA’s Petroleum Industry Guidelines for reporting GHG emissions, 2nd edition, 2011
<b>Assurance standard</b>	International Organization for Standardization (ISO) 14064-3:2006: Specification with guidance for the validation and verification of greenhouse gas assertions
<b>Assurance level</b>	Limited assurance.
<b>Respective responsibilities</b>	<p>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.</p> <p>ERM CVS’s responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.</p>

### Our conclusions

Based on our activities, nothing has come to our attention to indicate that the following consolidated corporate 2017 GHG emissions data are not fairly presented, in all material respects, with the reporting criteria:

- Scope 1 GHG emissions: 3,723,444 tCO<sub>2</sub>e**
- Scope 2 GHG (location-based) emissions: 423,703 tCO<sub>2</sub>e**
- Scope 2 GHG (market-based) emissions: 376,407 tCO<sub>2</sub>e**
- Scope 3 GHG (use of sold products): 10,007,023 tCO<sub>2</sub>e**
- Scope 3 GHG (processing of sold products): 3,110,776 tCO<sub>2</sub>e**
- Scope 3 GHG (business travel): 4,600 tCO<sub>2</sub>e**

In addition, nothing has come to our attention to indicate that the percentage change from the previous year in emissions intensity (revenue basis) and the changes from the previous year in gross global emissions (Scope 1 and 2 combined) reported at Sections C6.10 and C7.9a, respectively, of the CDP Questionnaire are 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 2017 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 asset in the North Malay Basin, offshore Malaysia, as well as a remote verification of Hess’ production operations in North Dakota, 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 total revenue figures used in the calculation of the percentage change from the previous year in emissions intensity (revenue basis) at Section C6.10 of the CDP Questionnaire, our work was limited to confirming these figures to Hess's Form 10K for the years ended 31 December 2017 and 31 December 2016. We have not independently verified these total revenue figures.



Jennifer Iansen-Rogers  
Head of Corporate Assurance  
10 August 2018

ERM Certification and Verification Services, Atlanta  
[www.ermcvs.com](http://www.ermcvs.com); email: [post@ermcvs.com](mailto:post@ermcvs.com)

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**ERM CVS**  
Informed Assured