RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

“SHELL MAPPING IN EXTRACTS”

APRIL 2020
“SHELL MAPPING IN EXTRACTS”

What this is: This document maps extracts from a number of Shell’s disclosures such as the 2019 Annual Report, 2019 Sustainability Report, and others as listed below against the 11 high-level recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), launched in 2017.

The TCFD recommendations do not ask companies to provide separate “TCFD Reports” but to use the recommendations to shape their “mainstream” and other disclosures.

This mapping document aims to help readers to understand how our disclosures respond to the TCFD recommendations.

More information on the TCFD and its recommendations can be found on their webpage.

What this is not: This mapping document is not meant to be a comprehensive, stand alone “TCFD report”. It was not edited as a separate report but is focusing on mapping key messages against the 11 high-level TCFD recommendations.

All paragraphs of this document can be found in our existing disclosures as listed below.

Shell sources for the extracts in this document:

- 2019 Annual Report
- 2019 Sustainability Report
- Shell’s Net Carbon Footprint Ambition (webpage)
- Sky Scenario
- 2019 CDP Climate Change Submission

Please find DEFINITIONS AND CAUTIONARY NOTE at the end of this document.
GOVERNANCE: Disclose the organization’s governance around climate-related risks and opportunities

a) Describe the board’s oversight of climate-related risks and opportunities

Annual Report (page 91-93): “Our governance and management of climate change risks and opportunities” including references to the Reports’ sections “Corporate governance” (Safety, Environment and Sustainability Committee) (page 128) and “Controls and Procedures” (page 168/169)

OUR GOVERNANCE AND MANAGEMENT OF CLIMATE CHANGE RISKS AND OPPORTUNITIES

Climate change and risks resulting from GHG emissions have been identified as a significant risk factor for Shell and are managed in accordance with other significant risks through the Board and Executive Committee. See “Corporate governance” on pages 168/169.

Shell has a climate change risk management structure in place which is supported by standards, policies and controls. This includes the work of the Board, which discussed a number of matters over the year, including environmental topics and investments in new business areas, for example, in New Energies. In addition, some of the Non-executive Directors received dedicated updates from management and external experts on the various business models, opportunities and risks of having positions along the power value chain, and the opportunities for Shell in the New Energies area. During the annual dedicated strategy meeting, the Board reviewed Shell’s Integrated Power strategy from first principles, set against the context of the energy transition and the external environment, and to see how power can create value for Shell. The Board committees play an important role in assisting the Board with regard to governance and management of climate change risks and opportunities, as described in “Governance” on page 119.

The role of the Safety, Environment and Sustainability Committee (SESCo) (formerly the Corporate and Social Responsibility Committee (CSRC)) is to review and advise the Board on Shell’s strategy, policies and performance in the areas of safety, environment, ethics and reputation against the Shell General Business Principles, the Shell Code of Conduct, and the HSSE & SP Control Framework. During 2019, the Committee reviewed its purpose and updated its terms of reference to ensure it focuses on areas of most strategic importance to Shell. This resulted in a name change effective from December 2019. The SESCo’s duties comprise, for example, to review progress towards meeting Shell’s ambitions regarding climate change, the energy transition and its Net Carbon Footprint. The Committee also has a duty to advise the Remuneration Committee on metrics relating to sustainable development and energy transition.

In 2019, the SESCo balanced its time between a number of topics, with discussion in depth including the energy transition and climate change, Shell’s Net Carbon Footprint ambition, and the Company’s environmental and societal licence to operate. The SESCo conducted one major site visit in Singapore, where the agenda included reviewing Shell’s developing New Energies businesses in the country. In 2020, the Committee’s focus will be on safety, Shell’s policies and commitments related to climate change, environmental performance – for example, in Nigeria and our Canada LNG project – and on specific issues such as plastics, methane, and nature-based solutions.

We will continue to advise the Remuneration Committee on metrics concerning sustainability and energy transition. Find more information on the SESCo on page 128.

The Remuneration Committee (REMCO) is responsible for determining the Directors’ Remuneration Policy in alignment with our business strategy. In 2019, following recommendations by SESCo, REMCO continued to include GHG intensity metrics in annual bonus performance measures and targets. In December 2018, Shell announced plans to link executive remuneration to short-term targets to reduce the Net Carbon Footprint of the energy products we sell, including our customers’ emissions from their use of our energy products.

In 2019, following discussions with major shareholders and based on recommendations from SESCo, REMCO decided to add an energy transition condition to the 2019 Long-Term Incentive Plan (LTIP) award. This condition included our first three-year target aligned with the trajectory of our long-term Net Carbon Footprint ambition. It also featured other measures linked to our strategic ambitions, including the growth of Shell’s power business, the commercialisation of advanced biofuel technology, and the development of sinks to capture and store carbon. See “Directors’ Remuneration Report” on pages 155-163.

The Shell employee scorecard structure for determining employees’ annual bonus in 2019 was consistent with the Executive Directors’ scorecard. The energy transition condition in the 2019 LTIP awards applies to around 150 Senior Executives as well as the Executive Directors. The energy transition condition was included again in the 2020 LTIP awards for Executive Directors and Senior Executives, and will be extended to approximately 16,500 employees across the Group who receive Performance Share Plan awards. For the 2020 award, the target range is a 34% reduction in NCF against the 2016 baseline NCF (79 grams of CO2 equivalent per megajoule). This target range is aligned with the trajectory of our NCF ambition as set out in November 2017. The targets for the other leading energy transition measures are commercially sensitive and will be disclosed retrospectively. Annual updates on our progress in relation to measures will be provided.
The Audit Committee has key responsibilities in assisting the Board in fulfilling its oversight responsibilities in relation to areas such as the effectiveness of the system of risk management and internal control. Any concerns regarding improvement needed are promptly reported to the Board.

The CEO is the most senior individual with accountability for climate change risk. We have set up several dedicated climate change and GHG-related forums at different levels of the organisation where climate change issues are addressed, monitored and reviewed. Each Shell entity and each Shell-operated venture are responsible for implementing climate change policies and strategies.

**CLIMATE CHANGE MANAGEMENT ORGANOGRAM**

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[A] Oversight of climate change risk management.
[B] Non-executive Directors appointed by the Board to review and advise on sustainability policies and practices including climate change.
[C] Non-executive Directors appointed by the Board to oversee the effectiveness of the system of risk management and internal control.
[D] Non-executive Directors appointed by the Board to set the remuneration policy in alignment with strategy.
[E] Responsible for implementing Shell’s GHG strategy. They are represented in the Safety and Environment Leadership Team.
b) Describe management’s role in assessing and managing climate-related risks and opportunities

Annual Report (page 91-93): “Our governance and management of climate change risks and opportunities”

OUR GOVERNANCE AND MANAGEMENT OF CLIMATE CHANGE RISKS AND OPPORTUNITIES

The Executive Vice President Safety & Environment, a senior manager who reports directly to the Projects & Technology Director, is accountable for the oversight of GHG issues. This manager’s department includes the dedicated Group Carbon team, which is accountable for monitoring and examining the strategic implications of climate change for Shell, and the impact of developments in governmental policy and regulation. The Group Carbon team is responsible for preparing proposed policy positions based on analysis within Shell and external input. The team also provides advice to Shell companies to ensure consistency in the application of our core principles and policy tasks in interactions with policymakers.

Group Carbon also has oversight of Shell’s GHG management programme and supports the different lines of business in embedding GHG management strategies. The team includes project managers who advise the projects on the risks and opportunities of GHG-related issues. Risk management at an asset or project level is a structured process of identifying and assessing risks; planning and implementing responses; and monitoring, improving and closing out action items that have an impact on projects’ and assets’ objectives and performance. Shell policy requires these projects to obtain approval on abatement plans and targets from the Executive Vice President Safety & Environment at defined project phases.

Reporting to the same manager is the HSSE & SP Assurance and Reporting team, which is accountable for the delivery of Shell’s nonfinancial reporting and for auditing the businesses’ performance against our HSSE & SP Control Framework requirements, which include climate change risk management. See “Environment and society” on pages 84-90.

Further support for embedding GHG management is provided by a global risk support team for GHG and energy management. This team is a network of subject-matter experts in GHG topics working globally across our lines of business. Team members are experts in their relevant disciplines, defining improvement areas and sharing good practices and experience.

The above-mentioned teams and experts have provided their input to shape a set of mandatory manuals and complementary guidance documents which are ultimately based on our HSSE & SP Control Framework. These documents provide guidance on how to monitor, communicate and report changes in the risk environment, and how to review the effectiveness of actions taken to manage the identified risks, including ways to:

- ensure consistent assessment of climate risk across Shell;
- clarify expectations for risk management and reporting, including roles and responsibilities;
- strengthen decision-making through better visibility and understanding of the climate risk by line of business; and
- enable integration of Shell’s reporting.

For more detail on our definition of risk categories and their relationship to different time horizons, see page 96.
STRATEGY: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning where such information is material

a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term

**Annual Report** (page 96-98): “Our strategy on climate change”

**OUR STRATEGY ON CLIMATE CHANGE**

Our strategy to assess and manage risks and opportunities resulting from climate change includes consideration of different time horizons and specific risks:

- commercial risk: the potential for structural shifts in demand profiles for industry products;
- regulatory risk: the potential for strengthening of existing and introduction of new regulations;
- physical risk: the potential impact on our facilities and the communities in which we operate due to changing physical conditions; and
- societal risk: the potential for a deteriorating relationship with the public, other companies, and governments in countries where Shell operates.

This is how we describe the different time horizons and the relevance for the identification of risks and business planning:

- Short term (up to three years): detailed financial projections are developed and used to manage performance and expectations on a three-year cycle. This three-year plan is shared with the Board;
- Medium term (three years up to around 10 years): the majority of production and earnings expected to be generated in this period come from our existing assets; and
- Long term (beyond around 10 years): for this period, it is expected for the current Shell portfolio to go through changes and evolution with the energy transition. Decision-making and risk identification on the thematic structure of the future portfolio are guided by the pace of progress of society and in step with society as it moves towards the goals of the Paris Agreement.

Shell has a rigorous approach to understanding, managing and mitigating climate risks to its facilities. Shell also requires each business and function to monitor, communicate and report changes in the risk environment and the effectiveness of actions taken to manage identified risks on an ongoing basis. This is outlined in a toolkit for risk management including our Risk Management Manual and complementary guidance documents covering specific aspects such as climate risk. The potential, timing, and severity of the impact of the risks highlighted above are largely dependent on the geographical location and the asset type.

**CDP CLIMATE CHANGE SUBMISSION 2019**

CLICK HERE to download Shell’s complete 2019 CDP Climate Change submission

**Section C2. Risks and Opportunities:**

Extract C2.5: Describe where and how the identified risks and opportunities have impacted your business

<table>
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<tr>
<th>Impact</th>
<th>Description</th>
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<tr>
<td>Products and services</td>
<td>We are adjusting our businesses to meet changing demand in different countries by adapting the products we offer to match the different needs of our customers.</td>
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<td>For example, we are offering hydrogen and electric-vehicle charging, in addition to liquefied natural gas (LNG) and biofuels, in European markets such as Germany where we see a faster transition to lower-carbon energy.</td>
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<td>Also, we are investing in areas such as wind power generation in the Netherlands and the supply of power to retail customers in the UK taking advantage of our existing gas and power trading capabilities while building new business models for the future. Shell expects the power sector to shift toward lower CO2 electricity generated by gas and renewables. Shell uses scenarios to stretch our thinking and consider events that may only be remotely possible. It is impossible to predict with precision how future energy systems will evolve, because there are too many unknowns. Unknowns</td>
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### TCFD Recommendations

**“Shell Mapping in Extracts”**

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<th>Supply chain and/or value chain</th>
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<td>Various national, regional and state based low carbon fuel directives and targets such as: Low Carbon Fuel Standards (LCFS) and Renewable Fuel mandates in the European Union and USA mean that new fuels must be developed and brought to market to comply with a variety of programmes. Such developments may introduce new CO2 costs to our businesses, for example, the costs of LCFS credit and average price for December 2017 was $188.10 per MT. This may also change the cost structure of Shell’s operations against uncertainty in fuel prices.</td>
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<th>Adaptation and mitigation activities</th>
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<td>Shell assesses and manages the potential social impact of our projects as part of integrated environmental, social and health impact assessments. Our engagement is essential to identifying how we might impact people and to helping us design and apply impact monitoring and mitigation measures. In Alberta, Canada, at the Shell Scotford complex, we consult local people who may be affected by our activities and find ways to address their specific issues. For example, in 2017 the Scotford team discussed with a local farmer how to minimise unwanted snow melt and rainwater that were running off a Shell well pad at our carbon capture facility. These discussions led to a project that will divert the water and ensure the landowner’s crops do not get waterlogged.</td>
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<th>Investment in R&amp;D</th>
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<td>Technology and innovation are essential to our efforts to meet the world’s energy needs in a competitive way. If we do not develop the right technology, do not have access to it or do not deploy it effectively, this could have a material adverse effect on the delivery of our strategy and our licence to operate. In 2018, our overall research and development expenses were $986 million. Our main technology centres are in India, the Netherlands and the USA, with other centres in Brazil, China, Germany, Oman and Qatar. As an example of an impact on Shell R&amp;D strategy is the strength of our patent portfolio. A strong patent portfolio underlies the technology that we employ in our various businesses. In total, we have around 10,325 granted patents and pending patent applications.</td>
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<th>Operations</th>
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<td>The energy system will evolve differently in different countries and economic sectors, and the business risks and opportunities will vary significantly. Our global business has operations in more than 70 countries, giving us a wide geographic reach. This exposure is spread across countries at different stages in their economic development and transition to lower-carbon energy, reducing our exposure to potential rapid changes in any one country. These businesses range from the primary extraction of energy and its processing, to the eventual sale to customers, giving us flexibility to manage risk and returns as the energy system evolves. As an example, in Canada, we have included measures to reduce carbon intensity at our Groundbirch asset, a tight shale gas operation in British Columbia. These include using electricity instead of natural gas for the processing plant, using gas instead of diesel to power drilling and using solar energy to power pumps. Our resilience is strengthened by having operations in many parts of the energy system, as demonstrated by our seven strategic themes: Conventional Oil and Gas, Deep Water, Shales, Integrated Gas, Oil Products, Chemicals and our recently created New Energies business, which focuses on power and new fuels. We actively consider the use of carbon capture and storage (CCS) to reduce emissions from our projects. Where CCS is not economically feasible at current CO2 prices, we design some projects to be available for CCS retrofits in the future. Shell-operated facilities and proposed projects that generate more than 50,000 tonnes of GHG emissions per year are required to produce a GHG and energy management plan with annual updates. These plans provide clarity on investment options to reduce CO2 intensity in each of our assets and have allowed us to identify and prioritise opportunities across our portfolio.</td>
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April 2020
b) Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning

Annual Report (page 92): “Our governance and management of climate change risks and opportunities”

Our Governance and Management of Climate Change Risks and Opportunities

We review our portfolio annually to identify emerging risks from changing GHG regulatory regimes and physical conditions. As described in our Shell Energy Transition Report (2018), we tested the resilience of our portfolio against externally published future pathways, including a low-emissions pathway. In 2017, we announced a long-term ambition to reduce the Net Carbon Footprint of the energy products we sell, in step with society’s drive to reduce GHG emissions as it moves towards the goal of the Paris Agreement. We aim to reduce the Net Carbon Footprint of the energy products we sell – expressed in grams of CO2 equivalent per megajoule consumed – by around half by 2050, and as an interim step, by 2035; we aim for a reduction of around 20% compared with our 2016 level, both predicated on societal progress. This was followed by an announcement, in 2018, of our intention to set short-term targets in line with that ambition. Meeting the Net Carbon Footprint ambition requires evolving our portfolio over the medium to longer term, to reduce the carbon intensity of the products that we sell. We plan for this by developing ideas about how we would like to shape our future portfolio to meet our ambition. These ideas then guide investment decisions. Within the selected portfolio mixes, we develop individual projects and aim to make them as resilient as possible to the future scenarios.

Annual Report (page 96): “Our strategy on climate change”

Our Strategy on Climate Change

Shell has a rigorous approach to understanding, managing and mitigating climate risks to its facilities. Shell also requires each business and function to monitor, communicate and report changes in the risk environment and the effectiveness of actions taken to manage identified risks on an ongoing basis. This is outlined in a toolkit for risk management including our Risk Management Manual and complementary guidance documents covering specific aspects such as climate risk. The potential, timing, and severity of the impact of the risks highlighted above are largely dependent on the geographical location and the asset type.

Each Shell business unit needs to consider the adequate management of climate-related risks in their portfolios. To ensure informed judgements are made, businesses’ senior managers present their current assessments of how likely climate risks are to happen, what their potential impact would be, and what is being done to mitigate the risk. Each risk is then categorised as either adequately managed or needing improved mitigation and this aims to guide their ongoing operations and maintenance schedules and response planning. In some instances, Shell may also deploy a risk assessment approach which includes the work of a team of experts to analyse, for example, the physical impact of weather and climatic-related issues and the associated adaptation aspects.

Shell Energy Transitions Report (page 24):

Our Resilience in the Medium Term, to 2030

Shell’s strategy, portfolio and strong financial framework give us the sources of resilience to potential changes in the energy system to 2030. The transition to lower-carbon energy presents opportunities, as well as risks, for Shell. It requires major changes to industrial, commercial and residential infrastructure. This takes time and substantial investment. We are reshaping our company to provide the energy, and related products and services, that consumers need as society works to meet the goals of the Paris Agreement.

Our strategic ambitions are to be a world-class investment case, to thrive through the energy transition, and to maintain a strong societal licence to operate. We aim to grow our business in areas that will be essential in the energy transition, and where we see growth in demand over the next decade. We expect these will include natural gas, chemicals, electricity, renewable power, and new fuels such as biofuels and hydrogen. We are also growing our oil business, including in deep water and shales, to meet continued demand. We have a diverse portfolio – both geographically and across different parts of the energy industry. This means we are not dependent on any one country or sector. It also means we can respond to change. We assess portfolio decisions, including divestments and investments, against potential impacts from the transition to lower-carbon energy. These include higher regulatory costs linked to carbon emissions and lower demand for oil and gas.

At the same time, we plan to maintain a strong financial framework. This means growing free cash flow and creating the financial capacity to provide returns to investors, and to invest in new business models. It also means reducing costs in our businesses so that we can profitably produce the oil and gas that the world will need for decades to come, even if prices remain low for a long time.

These sources of resilience reduce the risk of stranded assets in our portfolio, a risk we see as low. We consider the resilience of our portfolio in the medium term by exploring potential ranges in oil prices, and their implications for Shell’s cash flows. To ensure that we challenge our thinking, these ranges go beyond the prices implied by our three main scenarios – Mountains, Oceans and Sky. In the longer term, after 2030, there is far more uncertainty. Here we use scenarios to consider how we could reshape Shell’s portfolio of products to meet the changing needs of society, depending on how the pace of transition develops.
## Extract C2.6: Describe where and how the identified risks and opportunities have been factored into your financial planning process.

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Description</th>
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<tr>
<td>Revenues</td>
<td>Upstream earnings in 2018 were $6,798 million, compared with $1,551 million in 2017. The increase was mainly driven by higher realised oil and gas prices, lower impairment charges, the absence of a charge as a result of US tax reform legislation in 2017, and lower well write-offs. As reported in the Shell Energy Transition Report (p36), assuming we meet the conditions in our operational plans, especially with regards to production and costs, we estimate that to 2027, a $10 per barrel change in oil prices would be expected to have a roughly $6 billion impact per year on our cash flow from operations. This is an indicative estimate and not a prediction. Based on this assumption, if the oil price fell from around $65 per barrel today to $40 per barrel money-of-the-day, our cash flow from operations would be expected to decrease by $15 billion per year. Similarly, if the oil price rose to $100 per barrel money-of-the-day, our cash flow from operations would be expected to rise by $21 billion per year. Finally, the impact of CO2 has been embedded in our financial planning. For example, in the Shell Energy Transition Report (p37), we reported that at the current CO2 emission levels, we estimated that a $10 per tonne increase in global CO2 prices would result in a reduction of about $1 billion in Shell’s pre-tax cash flows. By embedding a CO2 cost in our outlook for cash flow, we are reflecting potential changes and ensuring our cash flow is robust in the face of these changes.</td>
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<tr>
<td>Operating costs</td>
<td>The transition to lower-carbon energy requires major changes to industrial, commercial and residential infrastructure. This takes time and substantial investment. It also means reducing costs in our businesses so that we can profitably produce the oil and gas that the world will need for decades to come, even if prices remain low for a long time. Specific to Shell Upstream business, since 2015, we have reduced costs by more than 20%, while increasing production by 20%. For example, in the Shell Energy Transition Report (April 2018 - p39), we reported that at our Permian basin in the USA, we have reduced direct field expenses in our shales business by 33% in the last year, and by 60% since 2015.</td>
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<tr>
<td>Capital expenditures / capital allocation</td>
<td>Transition to lower-carbon energy requires major changes to industrial, commercial and residential infrastructure and it takes time and substantial investment. Shell’s capital discipline gives us greater flexibility for investments in the future. For example, we have reduced annual capital investment by $22 billion, from $46 billion in 2013 to $24 billion in 2017. We will maintain our annual capital investment range of between $25 billion and $30 billion until 2020, with the option to go below the lower end of the range but with the communicated commitment to not go above the higher end. Discretionary capital spending provides us with the flexibility to respond to volatility in energy markets. In the remaining period to 2020, we expect around 30% of our capital spending to be discretionary, meaning that we have flexibility in how we spend it; whether to grow the value of our existing businesses, or to invest in new businesses. Also, the capital investment levels included in our business plan offer sufficient flexibility to be reduced by $5-10 billion per year, without materially impacting the long-term sustainability of our business. In one project, the Vito deep-water project in the Gulf of Mexico, we reduced overall capital investment costs by 70% compared to our initial concept. Finally, we expect our capital investment in New Energies to be between $1 billion to $2 billion a year, on average, until 2020. Beyond 2020, Shell plan to invest 2-3 billion of total capex between 2021-2025 in projects with target returns of 8-12% for emerging on-stream integrated power business. We expect the largest part of our investments to be in power, where we will invest to gain access to customers, and in generation powered by solar, wind and gas.</td>
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## Acquisitions and divestments

We have reshaped and refined our portfolio through our divestment programme. Our $30 billion divestment programme for 2016-18 made good progress in 2017 and finally completed in 2018 with investments made in a disciplined manner. Divestments included oil sands interests in Canada, onshore upstream operations in Gabon, a number of assets in the UK North Sea, and our shares in Woodside in Australia. Shell’s interest in a petrochemicals joint venture in Saudi Arabia and the separation of assets of the Motiva joint venture in the USA have been divested.

By the end of 2020, Shell plans to complete its $25 billion share buyback programme (subject to further progress with debt reduction and oil price conditions) in combination with reaching a gearing level of 25% (20% pre-IFRS16) and delivering $28-33 billion of organic free cash flow ($25-30 billion pre-IFRS16) at $60 per barrel (real terms, 2016). Our operating expenses have been reduced by approx. $10 billion in the 2016-2018 period with the BG synergies having been delivered which demonstrates the success of the combination.

One impact of divestment on our financial planning is that, in certain divestment transactions, liabilities related to dismantling and restoration are de-recognised upon transfer of these obligations to the buyer. For certain of these obligations Shell has issued guarantees to third parties and continues to be liable in case that the primary obligator is not able to meet its obligation. These potential obligations arising from issuance of these guarantees are assessed to be remote.

Finally, we assess our portfolio decisions, including divestments and investments, against potential impacts from the transition to lower-carbon energy. These include higher regulatory costs linked to carbon emissions and lower demand for oil and gas. The portfolio changes we are making reduce the risk of having assets that are uneconomic to operate, or oil and gas reserves that are uneconomic to produce because of changes in demand or CO2 regulations.

## Access to capital

Shell’s financial strength and access to capital give us the ability to reshape our portfolio and to lead and respond as demand changes. It also allows us to withstand volatility in oil and gas markets. This strong financial framework is based on growing free cash flow, continued capital discipline and capital flexibility, and a strong balance sheet.

Shell satisfies its funding and working capital requirements from the cash generated from its operations, the issuance of debt and divestments. In 2018, access to the international debt capital markets remained strong, with our debt principally financed from these markets through central debt programmes consisting of:

- a $10 billion global commercial paper (CP) programme, with maturities not exceeding 270 days;
- a $10 billion US CP programme, with maturities not exceeding 397 days;
- an unlimited Euro medium-term note (EMTN) programme (also referred to as the Multi-Currency Debt Securities Programme); and
- an unlimited US universal shelf (US shelf) registration.

In 2018, we issued $3 billion of bonds under our US shelf registration. Periodically, for working capital purposes, we issued CP. We believe our current working capital is sufficient for our present requirements. While our subsidiaries are subject to restrictions, such as foreign withholding taxes on the transfer of funds in the form of cash dividends, loans or advances, such restrictions are not expected to have a material impact on our ability to meet our cash obligations.

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## Assets

We consider the resilience of our assets/portfolio medium term by exploring potential ranges in oil prices, and their implications for Shell’s cash flows.
The following is quoted from our Shell Energy Transitions report, published April 2018 (p37):

Assuming we meet the conditions in operational plans, especially with regards to production/costs, we estimate that by 2027, a $10/barrel change in oil prices would be expected to have a roughly $6 bln impact per year on our cash flow from operations. This is an indicative estimate, not a prediction.

- Scenario analysis: To ensure that we challenge our thinking, these ranges go beyond prices implied by our 3 main scenarios: Mountains, Oceans and Sky. Longer term, after 2030, there is far more uncertainty. Here we use scenarios to consider how we could reshape Shell’s portfolio of products to meet the changing needs of society, depending on how the pace of transition develops.

- Proved reserves: we report that around 76% of our proved plus probable oil and gas reserves, known as 2P, will be produced by 2030, and only 24% after that time. Today (time of publication April 2018), we hold around 8.8 years (y) of proved reserves and 13y of 2P reserves. We hold between 20 and 26y of resources (2P plus 2C). As a result, we believe we have the potential to sustain our Upstream business into the 2030s.

- Stranding Analysis: In addition, we rank the break-even prices of our assets in the Upstream and Integrated Gas businesses to assess their resilience against low oil and gas prices. These assessments indicate that the risk of stranded assets in the current portfolio is low. Alongside our existing assets, we are improving cost competitiveness of our future supply projects. Over the last few years, we have lowered unit cost of supply of the investment options we hold in our portfolio. For example, in one project, the Vito deep-water project in the Gulf of Mexico, we reduced overall capital investment costs by 70% compared to our initial concept. We also aim to reduce costs to a level that makes any project we execute able to produce and deliver LNG at a price that is competitive in relevant gas markets. This is a necessary condition for any further investments in LNG supply.

**Liabilities Impacted**

In the Shell Energy Transition Report (April 2018, p37), we report that at our current CO₂ emission levels, we estimate that a $10 per tonne increase in global CO₂ prices would result in a reduction of about $1 billion in Shell’s pre-tax cash flows. In 2017, we increased the CO₂ costs reflected in our cash-flow projections as part of our planning process, with an impact of a reduction of around $1 billion on a net present value basis.

Between now and 2030, we are confident that our current portfolio is resilient in Sky, our most rapid transition scenario. By embedding a CO₂ cost in our outlook for cash flow, we are reflecting potential changes and ensuring our cash flow is robust in the face of these changes. For Shell, this means that we will still produce and sell the oil and gas that society needs, while preparing our portfolio to move more into lower-carbon energy, where this makes commercial sense.

**c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario**

*Shell Energy Transitions Report (page 50):*

**CHANGING OUR PORTFOLIO IN THE LONG TERM, AFTER 2030 - DIVERSE BUSINESS SEGMENTS**

The energy system will evolve differently in different countries and economic sectors, and the business risks and opportunities will vary significantly. Our diverse business helps reduce our exposure to unexpected changes in any one sector or country. It also gives us the ability to shift in and out of assets and businesses depending on our outlook. Our resilience is strengthened by having operations in many parts of the energy system, as demonstrated by our seven strategic themes: Conventional Oil and Gas, Deep Water, Shales, Integrated Gas, Oil Products, Chemicals and our recently created New Energies business, that focuses on power and new fuels. These businesses range from the primary extraction of energy and its processing, to the eventual sale to customers, giving us flexibility to manage risk and returns as the energy system evolves. We have demonstrated the strength of our integrated model. In the past three years, our Downstream business, which includes chemicals, marketing, and refining and trading, generated strong earnings. This helped offset the impact of the downturn in oil and gas prices on our Upstream and Integrated Gas businesses. It also demonstrated how each part of the energy system can be impacted differently by shifts in demand, supply and commodity prices.
OUR PORTFOLIO DIVERSITY PROVIDES RESILIENCE THROUGH PRICE CYCLES

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>$ billion</td>
<td>$/bbl</td>
<td></td>
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<tr>
<td>Downstream</td>
<td></td>
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<tr>
<td>Integrated Gas</td>
<td></td>
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<tr>
<td>Brent price RHS</td>
<td></td>
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<tr>
<td>Upstream</td>
<td></td>
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<tr>
<td>Corporate</td>
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</tbody>
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Source: Shell analysis

DEMAND IMPACT UNDER SKY FOR DIFFERENT ENERGY PRODUCTS

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>India</th>
<th>US</th>
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<tr>
<td></td>
<td>2020-25</td>
<td>2025-30</td>
<td>2030-40</td>
</tr>
<tr>
<td>Coal</td>
<td>+0.3%</td>
<td>-0.6%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Gas</td>
<td>+2.1%</td>
<td>+0.9%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Oil</td>
<td>+0.9%</td>
<td>-0.9%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Biofuels</td>
<td>+2.5%</td>
<td>+1.2%</td>
<td>+9.6%</td>
</tr>
<tr>
<td>Oil products*</td>
<td>+1.0%</td>
<td>-0.8%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>consumed by road transport</td>
<td>+0.9%</td>
<td>-1.1%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>consumed by aviation</td>
<td>+1.2%</td>
<td>+0.9%</td>
<td>+3.0%</td>
</tr>
<tr>
<td>consumed by marine</td>
<td>+1.1%</td>
<td>+0.8%</td>
<td>+0.6%</td>
</tr>
<tr>
<td>consumed by industry</td>
<td>+1.5%</td>
<td>-2.7%</td>
<td>-6.4%</td>
</tr>
<tr>
<td>used for (petro)chemicals</td>
<td>+2.1%</td>
<td>+1.3%</td>
<td>+0.8%</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>+29.7%</td>
<td>+25.9%</td>
<td>+17.6%</td>
</tr>
<tr>
<td>Solar PV</td>
<td>+20.3%</td>
<td>+19.0%</td>
<td>+10.3%</td>
</tr>
<tr>
<td>Solar Thermal</td>
<td>+8.1%</td>
<td>+8.3%</td>
<td>+8.3%</td>
</tr>
<tr>
<td>Wind</td>
<td>+11.3%</td>
<td>+9.5%</td>
<td>+10.1%</td>
</tr>
</tbody>
</table>

1 Oil demand excludes refinery gains, biofuels and synthetics.
* The demand for liquid hydrocarbon fuels is used as a proxy for oil products demand. By 2030, a minor fraction (less than 5%) of the liquid hydrocarbon fuels will come from biofuels alongside crude oil. By 2060, this will be close to 25% on average globally (more than 10% in India and close to 40% in the USA).

Source: Shell analysis, Sky scenario

SKY SCENARIO: DESCRIBES OUR SCENARIOS APPROACH

[page 7/8] That transformation has always been, and remains, a journey measured in generations, now extending out to the end of this century. In 2013 Shell published its New Lens Scenarios comprising two outlooks named Mountains and Oceans. For the first time, the scenarios featured energy-system modelling stretching to 2100, which allowed long-term transitions to be seen in their entirety. While exploring very different socio-political contexts, the scenarios show that persistent and widespread application of CO2-targeted policy frameworks, including large-scale switching to renewable energy and extensive use of CCS [carbon capture and storage], would lead to net-zero emissions in the energy system. However, in the two scenarios, that outcome is achieved around the end of the century, which means that they fall short of the temperature goal of the Paris Agreement. Looking beyond Mountains and Oceans Drawing lessons from that previous work and additional analyses, we now present a possible pathway for decarbonising the global economy with the societal aim of achieving net-zero emissions from energy use by 2070 – a scenario called “Sky.” Sky recognises that a simple extension of current efforts, whether efficiency mandates, modest carbon taxes, or renewable energy supports, is insufficient for the scale of change required. The relevant transformations in the energy and natural systems require concurrent climate policy action and the deployment of disruptive new technologies at mass scale within government policy environments that strongly incentivise investment and innovation. No single factor will suffice to achieve the transition. Instead, Sky relies on a complex combination of mutually reinforcing drivers being rapidly accelerated by society, markets, and governments.
Introducing **Sky** – an ambitious scenario to hold the increase in the global average temperature to well below 2°C.

This requires a complex combination of mutually reinforcing drivers being rapidly accelerated by society, markets, and governments.

**From now to 2070 –**

1. A change in consumer mindset means that people preferentially choose low-carbon, high-efficiency options to meet their energy service needs.
2. A step-change in the efficiency of energy use leads to gains above historical trends.
3. Carbon-pricing mechanisms are adopted by governments globally over the 2020s, leading to a meaningful cost of CO₂ embedded within consumer goods and services.
4. The rate of electrification of final energy more than triples, with global electricity generation reaching a level nearly five times today’s level.
5. New energy sources grow up to fifty-fold, with primary energy from renewables eclipsing fossil fuels in the 2050s.
6. Some 10,000 large carbon capture and storage facilities are built, compared to fewer than 50 in operation in 2020.
7. Net-zero deforestation is achieved. In addition, an area the size of Brazil being reforested offers the possibility of limiting warming to 1.5°C, the ultimate ambition of the Paris Agreement.

**SHELL SCENARIOS COMPARED – GLOBAL AVERAGE SURFACE TEMPERATURE RISE**

![Graph showing temperature rise](image)

*Note:* The MIT Joint Program on the Science and Policy of Global Change modelled the climate impacts of Sky in comparison with those of Mountains and Oceans. All series are five-year moving averages.

*Source:* MIT
RISK MANAGEMENT: Disclose how the organization identifies, assesses, and manages climate-related risks

a) Describe the organization’s processes for identifying and assessing climate-related risks

Annual Report (pages 71-73): “Our governance and management of climate change risks and opportunities”

[Note: overlap with “role of management”]

OUR GOVERNANCE AND MANAGEMENT OF CLIMATE CHANGE RISKS AND OPPORTUNITIES

The Executive Vice President Safety & Environment, a senior manager who reports directly to the Projects & Technology Director, is accountable for the oversight of GHG issues. This manager’s department includes the dedicated Group Carbon team, which is accountable for monitoring and examining the strategic implications of climate change for Shell, and the impact of developments in governmental policy and regulation. The Group Carbon team is responsible for preparing proposed policy positions based on analysis within Shell and external input. The team also provides advice to Shell companies to ensure consistency in the application of our core principles and policy tasks in interactions with policymakers.

Group Carbon also has oversight of Shell’s GHG management programme and supports the different lines of business in embedding GHG management strategies. The team includes project managers who advise the projects on the risks and opportunities of GHG-related issues. Risk management at an asset or project level is a structured process of identifying and assessing risks, planning and implementing responses; and monitoring, improving and closing out action items that have an impact on projects’ and assets’ objectives and performance. Shell policy requires these projects to obtain approval on abatement plans and targets from the Executive Vice President Safety & Environment at defined project phases.

Reporting to the same manager is the HSSE & SP Assurance and Reporting team, which is accountable for the delivery of Shell’s nonfinancial reporting and for auditing the businesses’ performance against our HSSE & SP Control Framework requirements, which include climate change risk management. See “Environment & Society”, Annual Report, pages 84-90.

Further support for embedding GHG management is provided by a global risk support team for GHG and energy management. This team is a network of subject-matter experts in GHG topics working globally across our lines of business. Team members are experts in their relevant disciplines, defining improvement areas and sharing good practices and experience.

The above-mentioned teams and experts have provided their input to shape a set of mandatory manuals and complementary guidance documents which are ultimately based on our HSSE & SP Control Framework. These documents provide guidance on how to monitor, communicate and report changes in the risk environment, and how to review the effectiveness of actions taken to manage the identified risks, including ways to:

- ensure consistent assessment of climate risk across Shell;
- clarify expectations for risk management and reporting, including roles and responsibilities;
- strengthen decision-making through better visibility and understanding of the climate risk by line of business; and
- enable integration of Shell’s reporting.

This structured approach supports the prioritisation of risks and opportunities. We actively monitor the GHG emissions of all our assets, as well as the lifecycle of our products, to quantify future regulatory costs related to GHG or other climate-related policies. This allows us to effectively prioritise areas of greater concern and assess mitigation options and the most viable responses. Climate-related risks are analysed in context of other identified material risks.

Sustainability Report (page 6): “About this report”

ABOUT THIS REPORT – TOPIC SELECTION

The topic selection process identifies the sustainability subjects that were most relevant to Shell and our stakeholders or were prominent globally in 2019.

Each year, we use a structured process to select the report’s content. We engage with various groups and individuals to understand specific concerns about our business and its impact worldwide, particularly relating to the environment and society. We consider the views of others, such as non-governmental organisations, customers, the media, academics, investors and employees. We gather opinions and advice in various ways, including formal and informal meetings, workshops and surveys.
This report lists the topics that were a priority for Shell in 2019. Topics that consistently ranked of higher importance were energy transition and climate change, business ethics, transparency and corporate governance.

The main steps involved in selecting topics were:

- identify and understand topics that are important to our stakeholders and our strategy;
- collate the topics identified as of high importance;
- identify the topics that will be covered on www.shell.com;
- consider input from our Report Review Panel to ensure that coverage is balanced, relevant and complete; and
- inform Shell’s Executive Committee of the topics, for their endorsement.

b) Describe the organization’s processes for managing climate-related risks

Annual Report (page 93): “Our governance and management of climate change risks and opportunities”

**OUR GOVERNANCE AND MANAGEMENT OF CLIMATE CHANGE RISKS AND OPPORTUNITIES**

To assess the resilience of new projects, we consider the potential costs associated with operational GHG emissions. In 2018, to help us stay in step with society’s progress toward the goals of the Paris Agreement, we switched from using a flat project screening value (PSV) of $40/tonne of GHG emissions, to country-specific estimates of future carbon costs. By 2050, our carbon cost estimates for all countries increase to $85/tonne of GHG emissions. These estimates were developed using the current Nationally Determined Contributions (NDCs) submitted by countries as part of the Paris Agreement. They are the first NDCs under the Paris Agreement and are scheduled to be revised every five years.

Therefore, as countries update their NDCs, we expect to update our estimates too. Accordingly, we believe they are a more accurate reflection of society’s current implementation of the Paris Agreement. The UN believes the current NDCs are consistent with limiting the average global temperature rise to around three degrees Celsius above pre-industrial levels. In coming decades, we expect countries to tighten these NDCs to meet the goals of the Paris Agreement. We further test the robustness of our high-emitting projects by using long-term carbon cost estimates that are consistent with limiting the average global temperature rise to well below two degrees Celsius.

Projects under development that are expected to have a material GHG footprint must meet carbon performance standards or industry benchmarks to allow them to compete and prosper in a more GHG constrained future. These assessments can lead to projects being stopped, designs being changed, and potential GHG mitigation investments being identified, in preparation for when regulation would make these investments commercially compelling. Our approach continues to evolve with the shifting policy landscape and the differing pace of energy transitions in different regions.

While monitoring emerging climate change plans, we considered the robustness of our activities against a range of scenarios, as referenced in our 2018 SET report. We believe our business strategy is resilient to the implementation of the Paris Agreement, which is now progressing through countries developing their individual NDCs. The emissions from customers using Shell energy products are largely covered by these NDCs. The Paris Agreement acknowledges that emissions will continue and even grow in some parts of the world. It does not stipulate that emissions must fall in all sectors or countries simultaneously, or that all actors within the system will reduce their emissions at the same time or to the same degree. What is important is that overall emissions fall.

Annual Report (page 93): “Our portfolio and climate change”

**OUR PORTFOLIO AND CLIMATE CHANGE**

We are seeking cost-effective ways to manage GHG emissions in line with our NCF ambition, and we intend to enable customers to make lower carbon-intensity choices by bringing lower-carbon-intensity products to the market aligned with demand.

We seek to contribute to reducing global GHG emissions in a number of ways:

- supplying more natural gas to replace coal for power generation;
- developing carbon capture and storage (CCS);
- implementing energy-efficiency measures in our operations where reasonably practicable;
- developing new fuels for transport such as advanced biofuels and hydrogen;
- maintaining a focus on using natural gas and renewable electricity to generate power; and
- working with nature-based solutions.
To support this, we continue to advocate the introduction of effective government-led carbon pricing mechanisms. We are committed to reducing our GHG intensity, but with energy demand increasing and the number of easily accessible oil and gas reservoirs declining, we may develop resources that require more energy and advanced technologies to produce. If our production becomes more energy intensive, this could result in an associated increase in direct GHG emissions from our upstream facilities. We continue to invest in long-range research and carbon-abatement technologies to provide technical solutions to address these challenges.

Some governments have introduced carbon pricing mechanisms, which we believe can be an effective measure to reduce GHG emissions across the economy at lowest overall cost to society. We expect more governments to follow. However, we believe measures taken by governments to control national energy transitions may also have unintended consequences. For example, the prohibition of one technology may encourage other substitute technologies that result in an increase in overall GHG emissions. See “Risk factors” on page 30.

NATURAL GAS

According to the IEA, more than 40% of global CO₂ emissions in 2015 came from electricity and heat generation. For many countries, using gas instead of coal in power generation can make a large contribution, at lower cost, to meeting GHG emission reduction objectives. We expect that, in combination with renewables and the use of CCS, natural gas will be essential in significantly lowering GHG emissions. Natural gas made up more than half of Shell’s proved reserves at the end of 2019. As a leader in liquefied natural gas (LNG), and with our conventional gas assets and technologies for recovering gas from tight-rock formations, we can supply natural gas to replace coal for power generation. Natural gas can also act as a partner for intermittent renewable energy, such as solar and wind, to maintain a steady supply of electricity, because gas-fired plants can start and stop relatively quickly.

Methane is a potent greenhouse gas. When released into the atmosphere, it has a much higher global warming impact than CO₂. Natural gas consists mainly of methane. Efforts to address climate change therefore require the industry to reduce both deliberate and unintended methane emissions from the gas value chain, from production to the final consumer. The IEA estimates that natural gas operations have an average methane leakage rate of 1.7%. At this rate, natural gas emits between 45% and 55% less GHG emissions than coal when burnt at a power plant. Higher levels of methane emissions, however, would reduce this benefit, and we recognise the importance of assessing, and where possible, reducing methane emissions.

Methane from the flaring and venting of gas (including equipment venting) in our upstream oil and gas operations was the largest contributor to our reported methane emissions in 2019. We are working to reduce methane emissions from these sources by reducing the overall level of flaring and venting. We also continue to implement leak detection and repair programmes across our sites to identify unintended losses and high-emission equipment, such as high-bleed pneumatic devices, so they can be replaced or repaired. We continue to work on confirming that we have identified all potential methane sources and that we have reported our emissions from these sources in line with regulations and industry standards. In 2017, we joined the Climate and Clean Air Coalition Oil & Gas Methane Partnership. It brings together industry, governments and non-governmental organisations to improve quantification of methane emissions globally and work towards reducing them.

Also in 2017, Shell led the development of a set of non-binding Methane Guiding Principles for reducing methane emissions across the natural gas value chain. The principles focus on: continually reducing methane emissions; advancing strong performance across gas value chains; improving accuracy of methane emissions data; advocating sound policies and regulations on methane emissions; and increasing transparency. Shell has been involved in the development of all actions associated with the guiding principles, including the development of a major global outreach programme. The objective is to address a gap in knowledge on managing methane emissions, and thereby provide high-quality educational material and courses on methane science, methane reduction strategies and planning, measurement techniques, technology, policy, and where to get guidance and support. The publicly accessible programme consists of two courses: an executive course targeting senior managers and executives, and masterclasses for managers of frontline staff.

CARBON CAPTURE, UTILISATION AND STORAGE

CCS or CCUS is a technology used for capturing CO₂ before it is emitted into the atmosphere, then transporting it by pipelines or ships and injecting it into a deep geological formation for permanent storage. In the IPCC Global Warming of 1.5°C special report, the middle-of-the-road scenario (P3) shows cumulative abatement provided by CCS of 687 billion tonnes of CO₂ by 2100. This compares with over 260 million tonnes of man-made CO₂ that has been injected to date (Global Status of CCS 2019 report). By May 2019, our Quest CCS project in Canada (Shell interest 10%), had captured and safely stored more than 4 million tonnes of CO₂ since it began operating in 2015. The Gorgon CCS project in Australia (Shell interest 25%, not operated), which started operating in 2019, is expected to store between 3.4 and 4 million tonnes of CO₂ each year. In Norway, we are involved in the Northern Lights CCS project for capturing and storing industrial CO₂, and in TCM, a CO₂ capture test centre in Mongstad. As a member of the Oil and Gas Climate Initiative (OGCI), Shell is participating in its Kickstarter initiative to unlock large-scale investment in CCUS. The initiative is designed to help decarbonise multiple industrial hubs around the world, starting with those in the USA, UK, Norway, the Netherlands and China. The aim is to create the necessary conditions for a commercially viable, safe and environmentally responsible CCUS industry. Shell is one of six strategic partners.
In 2015, Raizen opened its first advanced biofuels plant at the Costa Pinto mill in Brazil. The technology was first developed from our Raízen joint venture, we produce one of the lowest CO2 biofuels available today. Raízen produces approximately 2 billion litres of ethanol from sugar cane annually. Brazilian sugar-cane ethanol can reduce CO2 emissions by around 70% when compared with conventional gasoline, from cultivation of the sugar cane to using the ethanol as fuel.

In 2017, we completed construction of a demonstration plant at the Shell Technology Centre Bangalore, India. The plant demonstrates a technology called IH2® that turns waste feedstock into transport fuel. The plant can process around five tonnes per day of feedstock, such as agricultural waste, and aims to demonstrate the technology for possible scaling up and commercialisation.
We continue to look for opportunities to invest in third-party technologies and to collaborate in scaling these up for commercialisation. In February 2019, Shell became an equal equity partner in a commercial-scale waste-to-chemicals project called W2C Rotterdam – in partnership with Air Liquide, Enerkem, Nouryon and the Port of Rotterdam. The partners plan to build Europe’s first commercial-scale facility for producing chemicals and biofuels from waste materials which cannot otherwise be recycled. The facility in the Botlek area of the Port of Rotterdam in the Netherlands will use Enerkem’s proprietary technology.

Also in 2019, Shell signed an equity investment agreement with PRESPL, an Indian company specialising in biomass aggregation and processing for energy production.

In line with our strategy of developing more sustainable feedstocks for transport, we are also investing in renewable natural gas (RNG) for use in natural-gas-fuelled vehicles, in the USA and Europe. RNG is produced from biogas collected from landfill sites, or via anaerobic digestion of food waste or manure and then processed until it is fully interchangeable with conventional natural gas. The use of RNG in natural-gas vehicles, either in the form of compressed natural gas (CNG) or LNG, offers customers using these vehicles an attractive way of lowering their CO₂ footprint.

In the USA, in May 2018, we acquired the JC Biomethane plant in Junction City, Oregon. We aim to start production after completing an expansion of the facility in 2020. This will increase the facility’s capacity to produce RNG.

**POWER**

Power is the fastest-growing segment of the energy system. We expect that people and companies around the world will use more electricity to power transport and industry, instead of coal and oil, as part of the drive to lower carbon emissions. To help meet this demand, Shell aims to become an integrated power player and grow, over time, a material new business. We are working to deliver more electricity generated by renewable energy, from developing wind and solar projects to selling electricity generated by renewable sources. See “Integrated Gas” on page 49.

**NATURE-BASED SOLUTIONS**

We believe that nature will play an important role in the transition to a lower-carbon world. Using nature to capture carbon from the atmosphere presents an immediate opportunity. It can help to bridge the gap until other low-carbon solutions are deployed at scale, or to compensate for emissions which cannot be avoided. Nature-based solutions are expected to be one of Shell’s tools to reduce our Net Carbon Footprint. Nature-based projects typically involve the protection or redevelopment of natural ecosystems such as forests and wetlands, allowing those ecosystems to capture and store more carbon on our behalf.

These projects, which also support local communities and conserve biodiversity, generate carbon-emission rights that can then be bought by energy consumers around the world. In 2019, we launched a programme to invest in natural ecosystems as part of our strategy to act on global climate change. For example, in the UK, we are working with Forestry and Land Scotland, a government agency, to generate carbon credits by helping to plant or regenerate around 1 million trees over the next five years.

**CARBON-NEUTRAL DRIVING AND TRANSPORT**

In 2019, we started to offer customers nature-based carbon credits to offset the CO₂ emissions generated by the extraction, refining, distribution and use of the Shell fuel they buy. We launched the programme at around 400 service stations in the Netherlands and about 1,000 service stations in the UK. We plan to expand the programme to Germany, Austria and Switzerland in 2020.

We also offer nature-based carbon credits to business customers operating heavy- and light-duty fleets in 10 countries across Europe and Asia. We delivered the world’s first carbon-neutral liquefied natural gas cargoes to Tokyo Gas and GS Energy. We used nature-based carbon credits to compensate the CO₂ emissions generated from exploration and production to use by the consumer. The cargoes provided enough carbon-neutral energy to power nearly 300,000 homes for a year.

We buy our carbon credits from a global portfolio of nature-based projects. These projects are certified to standards, such as the Verified Carbon Standard and the Climate, Community and Biodiversity Standard. We believe that nature-based solutions are a critical tool in support of society’s efforts to achieve the goals of the Paris Agreement. Accelerating the pace of deployment will require collaboration between governments, industry and investors, and wider society.

**WORKING TOGETHER TO LOWER EMISSIONS**

We continue to work with others to find ways to lower emissions, both our own and society’s more generally. We are a founding member of the Energy Transitions Commission, which brings together leaders representing a wide range of sectors and interests. The commission
aims to accelerate change towards low-carbon energy systems that enable robust economic development and limit the rise in global average temperature this century to well below 2°C above preindustrial levels.

We work with the Oil and Gas Climate Initiative (OGCI), a voluntary CEO-led group that focuses on carbon capture, usage and storage (CCUS), methane detection and reduction, as well as energy efficiency. In 2019, the OGCI launched an initiative to unlock large-scale investment in CCUS, with an early aspiration to double the amount of carbon dioxide that is currently stored globally before 2030. The initiative aims to decarbonise industrial hubs around the world, starting in China, Norway, the Netherlands, the UK and the USA.

We are also members of the Hydrogen Council, a group comprised of CEOs working to raise the profile of hydrogen’s role in the transition to a low-carbon energy system.

In 2019, we published our first Industry Associations Climate Review, which assesses our alignment with 19 selected, key industry associations on climate-related policy. Read more about our work with industry associations at www.shell.com/public-advocacy-and-politicalactivity.

We have announced support for various country climate initiatives, including the direct regulation of methane in the USA, net-zero missions in the UK by 2050, and the climate accord in the Netherlands. We also support the European Commission’s proposal for the EU to achieve net-zero emissions by 2050. Visit www.shell.com/public-advocacy-and-politicalactivity for more on advocacy.

Sustainability Report [page 40]: “Net Carbon Footprint”

NET CARBON FOOTPRINT

We want to play our part and contribute to the global effort to tackle climate change and meet the goal of the Paris Agreement. In 2017, Shell announced a long-term ambition to reduce the Net Carbon Footprint of the energy products we sell. This is a carbon intensity measure that takes into account their full life-cycle greenhouse gas (GHG) emissions, including customers’ emissions when they use these products.

By 2050, our ambition is to align our Net Carbon Footprint with the average footprint of the energy mix in the global energy system. We aim to reduce the Net Carbon Footprint of the energy products we sell – expressed in grams of carbon dioxide (CO₂) equivalent per megajoule consumed – by around 50% by 2050. As an interim step, by 2035, and predicated on societal progress, we aim for a reduction of around 20% compared with our 2016 level.

While we seek to enhance our operations’ average energy intensity through both the development of new projects and divestments, we have no immediate plans to move to a net-zero emissions portfolio over our investment horizon of 10-20 years.


We are building on our long-term ambition with a commitment to set specific Net Carbon Footprint targets for shorter periods. Shell will set the target each year, for the following three- or five-year period. Starting in 2019, we linked these targets and other measures to our executive remuneration policy.

In 2019, we set a target to reduce our Net Carbon Footprint by 2-3% compared to 2016, by 2021. In early 2020, we decided to set a net Carbon Footprint target for 2022 of 3-4% lower than our 2016 Net Carbon Footprint of 79 grams of CO₂ equivalent per megajoule.

The calculation of the Net Carbon Footprint includes:

- emissions directly from Shell operations associated with the production and processing of energy products;
- emissions generated by third parties who supply energy to us;
- our customers’ emissions from their use of our energy products; and
- carbon offsets such as reforestation as well as carbon capture and storage (CCS) emissions reduction.

Also included are emissions from elements of this life cycle not owned by Shell, such as oil and gas that we process but do not produce, or from oil products and electricity marketed by Shell that have not been processed or generated at a Shell facility. The calculation also includes biofuels, as well as emissions that we offset by using CCS or natural carbon sinks, such as forests and wetlands. Chemicals and lubricants products, which are not used to produce energy, are excluded from the scope of this ambition.

ACHIEVING OUR AMBITION

To meet the decarbonisation goals of the Paris Agreement, society needs an increasing supply of energy products that produce lower or zero GHG emissions over their full life cycle, and needs to use those products more efficiently and to store emissions that cannot be avoided in sinks. Within this framework, our strategy is to keep increasing the share of such low-carbon energy products in our portfolio, while also developing carbon sinks. By broadening our focus to the full life-cycle emissions from the energy products that we sell to our
customers, instead of solely on our operational emissions, we believe we will be better aligned with societal need and growing customer demand for more energy with lower life-cycle GHG emissions. Our strategy is to reduce our Net Carbon Footprint, mainly by increasing the proportion of lower-carbon products such as natural gas, biofuels, electricity and hydrogen in the mix of products we sell to our customers.

We are also investing in ways to mitigate emissions through capturing and storing CO2 safely underground, or by planting and protecting natural ecosystems.

c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management

Annual Report (page 168): “Controls and procedures”

CONTROLS AND PROCEDURES

CONTROLS AND PROCEDURES The Board is responsible for maintaining a sound system of risk management and internal control, and for regularly reviewing its effectiveness. It has delegated authority to the Audit Committee to assist it in fulfilling its responsibilities in relation to internal control and financial reporting [see “Audit Committee Report” on pages 129-134].

A single overall control framework is in place for the Company and its subsidiaries that is designed to manage rather than eliminate the risk of failure to achieve business objectives. It therefore only provides a reasonable and not an absolute assurance against material misstatement or loss.

The diagram below illustrates the Control Framework’s key components: “Foundations”, “Management processes” and “Structural”. “Foundations” comprises the objectives, principles and rules that underpin and establish boundaries for Shell activities. “Management processes” refers to the more significant management processes, including how strategy, planning and appraisal are used to improve performance and how risks are to be managed through effective controls and assurance. The “Structural” component defines how Businesses and Functions facilitate achievement of the Shell group’s overall business objectives.

CONTROL FRAMEWORK

An annual review of the effectiveness of risk management and internal control was carried out by both the Executive Committee and the Audit Committee. This was based on their own insights and experience throughout the year as well as outcomes from the Group Assurance Letter process, a structured internal assessment of compliance with legal and ethical requirements and the Shell Control Framework carried out by each Executive Director. As part of their annual review, the Executive Committee and Audit Committee also considered annual reports from the Chief Internal Auditor, Chief Ethics & Compliance Officer and the External Auditor. The insights and conclusions from this annual assessment were reviewed and discussed by the Board.

The system of risk management and internal control over financial reporting is an integral part of the Control Framework. Regular reviews are performed to identify the significant risks to financial reporting and the key controls designed to address them. These controls are documented, responsibility is assigned, and they are monitored for design and operating effectiveness. Controls found to be ineffective are remediated. The principal risks faced by Shell are set out in “Risk factors” on pages 27-36.

Shell has a variety of processes for obtaining assurance on the adequacy of risk management and internal control. Emerging risks are identified through [among others] the monitoring of external developments, risk indicators, learnings from incidents and assurance findings.
and through the appraisal of Shell’s forward-looking plans. A broad array of measures are used to manage Shell’s various risks which are set out in the relevant sections of this Report. There are also risks that Shell accepts or does not seek to fully mitigate. The Executive Committee and the Board regularly consider group-level risks and associated control mechanisms.

Shell has developed a risk appetite framework that considers three distinct factors: Strategic Risk Appetite, Operational Risk Appetite and Conduct Risk Appetite. These three factors aim to capture the range and variety of risks affecting Shell, with specific risk appetite parameters identified and monitored for each one.

Strategic Risk Appetite is about current and future portfolio considerations, examining parameters such as country concentration or exposure to high-risk countries. It also considers “long-range” developments in order to test key assumptions or beliefs in relation to energy markets.

Operational Risk Appetite is about material operational exposures and promotes a more granular assessment of key risks facing the organisation. Conduct Risk Appetite brings together leading and lagging risk indicators to provide an overall view of the culture of the organisation.

The Financial Framework sets certain boundary conditions in the consideration of risk appetite, as the financial resilience of Shell should logically inform the aggregate level of risk appetite that could be sustained.

Shell has a climate change risk management structure which is supported by standards, policies and controls (see “Risk factors” on page 34 and “Climate change and energy transition” on pages 91-98). Climate change and risks resulting from greenhouse gas emissions have been identified as significant risk factors for Shell and are managed in accordance with other significant risks through the Board and Executive Committee.

Many of our major projects and operations are conducted in joint arrangements or associates, which may reduce the degree of control and ability to identify and manage risks (see “Risk factors” on page 27-36). In each case, Shell appoints a representative to manage its interests who seeks to ensure that such projects operate under equivalent standards to Shell.

We operate in more than 70 countries that have differing degrees of political, legal and fiscal stability. This exposes us to a wide range of political developments that could result in changes to contractual terms, laws and regulations. In addition, we and our joint arrangements and associates face the risk of litigation and disputes worldwide (see “Risk factors” on page 27-36). We continuously monitor geopolitical developments and societal issues relevant to our interests. Employees who engage with government officials are subject to specific training programmes, procedures and regular communications, in addition to Shell General Business Principles and Shell Code of Conduct compliance. We are prepared to exit a country if we believe we can no longer operate in that country in accordance with our standards and applicable law, and we have done so in the past.

The Board confirms that there is a robust process for identifying, evaluating and managing the principal risks. Further, the Board confirms it carries out a robust assessment of Shell’s emerging risks, the procedures in place to identify the emerging risks, and how the risks are being managed or mitigated to the achievement of Shell’s objectives. This has been in place throughout 2019 and up to the date of this Report and is regularly reviewed by the Board and accords with the FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting.

The Board has conducted its annual review of the effectiveness of Shell’s system of risk management and internal control in respect of 2019, such review covering all material controls, including financial, operational and compliance controls.

Sustainability Report (page 11/12): “Sustainability at Shell”

Sustainability at Shell means providing more and cleaner energy solutions in a responsible manner – in a way that balances short- and long-term interests, and that integrates economic, environmental and social considerations into decision-making.

Sustainability is integrated across our business on three levels:

RUNNING A SAFE, EFFICIENT, RESPONSIBLE AND PROFITABLE BUSINESS

This is the foundation of our approach. We strive to produce and deliver energy responsibly – with respect for people, their safety and their environment. At the simplest level, this means doing no harm. We apply global standards to manage safety, the environment and how we engage with communities and we work to continuously improve our performance.

HELPING TO SHAPE A MORE SUSTAINABLE ENERGY FUTURE

We provide products that people need and want to improve their lives – in their homes and businesses, and for transport. We aim to be responsible stewards for these products. We intend to adapt, innovate and play our part in the global shift to provide more and cleaner energy. This means transforming our product mix over time. We are taking action to provide lower-carbon products to help customers
reduce their emissions. We aim to reduce the Net Carbon Footprint of the energy products we sell by around half by 2050, in step with society’s progress to align with the goals of the Paris Agreement.

**MAKING A POSITIVE CONTRIBUTION TO SOCIETY**

We aim to play a positive role in communities where we operate and in wider society. We contribute to the development of local economies by creating jobs, boosting skills, sourcing from local suppliers, as well as paying taxes and royalties. We support community projects that are based on the needs of local people. Our ambition is to provide a reliable electricity supply to 100 million people, primarily in Africa and Asia, by 2030.

**SUPPORT FOR INTERNATIONAL AGREEMENTS**

We welcome the UN sustainable development goals, which seek to tackle the world’s economic, social and environmental challenges by 2030. We aim to play our part in helping governments and society to achieve them (see Sustainable Development Goals).

We aim to respect human rights as set out in the UN’s Universal Declaration of Human Rights and the International Labour Organization’s core conventions. We are a founding member of the UN Global Compact and also support a number of external voluntary codes that promote responsible business practices. Read more about these codes at www.shell.com/sustainability/transparency/external-voluntary-codes.

We fully support the Paris Agreement’s goal to keep the rise in global average temperature this century to well below two degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

Find out more about our approach to sustainability at www.shell.com/sustainability/our-approach/sustainability-at-shell.

**EMBEDDING SUSTAINABILITY INTO PROJECTS**

Safety, the environment and communities are vital considerations when we plan, design and operate our projects and facilities.

We conduct impact assessments for every major project and consider the economic, social, environmental and health opportunities and risks. Managing these as well as political, commercial and technical risks is essential to delivering a successful project.

We engage with communities and other stakeholders to discuss the project. Their input helps us to design better projects, comply with relevant social and environmental regulations and align with international standards. This includes standards from the World Bank and the International Finance Corporation.

We train our project teams to embed sustainability into projects and aim to balance short- and long-term business interests. Specialists support our project teams in areas such as biodiversity, waste, air, energy and water management, and human rights including indigenous peoples’ rights, cultural heritage and resettlement.

The mandatory requirements in our Health, Safety, Security, Environment and Social Performance Control Framework help to ensure our projects and facilities are managed safely, responsibly and in a consistent way. We use our framework for greenhouse gas (GHG) management in projects to evaluate options to drive our GHG intensity performance. Our planning process helps to guide our decisions on technology and whether to move ahead with the project. Projects and facilities that produce more than 50,000 tonnes of GHG emissions a year are required to have a GHG and energy management plan. To assess the resilience of proposed projects, we also consider potential costs associated with operational GHG emissions (see Greenhouse gas emissions).

We track and report our Net Carbon Footprint and work on reducing the environmental impact of our operations. Our Net Carbon Footprint is a carbon intensity measure that takes into account the estimated full lifecycle greenhouse gas emissions, including customers’ emissions, of these products.

We work continuously to improve the energy efficiency of our assets. This work includes monitoring our electricity use, making our equipment more efficient through regular and smart scheduling of maintenance, and increasingly by seeking opportunities to use renewable energy sources. We have also started to collaborate with communities on district heating and using co-generation power plants at our projects.

We aim to work with contractors and suppliers who are economically, environmentally and socially responsible. The Shell Supplier Principles outline what we expect from suppliers. We aim to contribute to the development of local economies in the regions where we operate by creating jobs, boosting skills and sourcing from local suppliers.

We work to play a positive role where we operate. Our General Business Principles and Code of Conduct describe how we live up to our core values of honesty, integrity and respect for people.
### A guide to sustainability across the life of a project

<table>
<thead>
<tr>
<th>Identify and assess</th>
<th>Select</th>
<th>Define</th>
<th>Execute</th>
<th>Operate</th>
<th>Decommission and restore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify people who may be interested in or affected by the project</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Engage with stakeholders (e.g. communities, host governments and NGOs) and feed responses into our risk analyses and decision-making process</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>Conduct baseline studies of the local environment (e.g. water, biodiversity, social livelihoods) and consider how the project may affect it</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Based on assessment of potential impacts and stakeholder engagement, identify mitigation and enhancement measures</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Implement a mitigation plan for project development, construction, operation, decommissioning and restoration</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<td>✓</td>
</tr>
</tbody>
</table>
**METRICS AND TARGETS:** Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process

### Sustainability Report [page 88/89] “Environment data”

**Environmental performance data**

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<tr>
<td><strong>Greenhouse gas emissions (GHGs)</strong></td>
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<td><strong>Total GHG Emissions</strong></td>
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<tr>
<td>Net Carbon Footprint (gCO2e/MJ)</td>
<td>78</td>
<td>79</td>
<td>79</td>
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<tr>
<td>Direct GHG emissions (Scope 1) (million tonnes CO2 equivalent) [A]</td>
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<td>71</td>
<td>73</td>
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<td>Carbon dioxide (CO2) (million tonnes)</td>
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<td>73</td>
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<td>Methane (CH4) (thousand tonnes) [P]</td>
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<td>92</td>
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<td>Nitrous oxide (N2O) (thousand tonnes)</td>
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<td>Hydrazine (HCN) (thousand tonnes) [P]</td>
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<td>31</td>
<td>22</td>
<td>21</td>
<td>20</td>
<td>16</td>
<td>18</td>
<td>23</td>
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<td>Energy indirect GHG emissions (Scope 2) (million tonnes CO2 equivalent) [B]</td>
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<td>11</td>
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<td>GHG emissions associated with exported energy (subset of direct GHGs)</td>
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<td>Use of our refinery and natural gas products (Scope 3 Category 1) (million tonnes CO2 equivalent)</td>
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<td>599</td>
<td>579</td>
<td>600</td>
<td>560</td>
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<td><strong>GHG emissions breakdown by business (Scope 1 and 2)</strong></td>
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<tr>
<td>Scope 1 - Upstream (million tonnes CO2 equivalent)</td>
<td>12.9</td>
<td>14.8</td>
<td>19.6</td>
<td>18.7</td>
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<tr>
<td>Scope 1 - Integrated Gas (million tonnes CO2 equivalent)</td>
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<td>13.0</td>
<td>12.0</td>
<td>15.7</td>
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<td>Scope 1 - Downstream (million tonnes CO2 equivalent)</td>
<td>40.3</td>
<td>42.2</td>
<td>41.1</td>
<td>37.6</td>
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<tr>
<td>Scope 2 - Upstream [B] (million tonnes CO2 equivalent)</td>
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<td>1.4</td>
<td>1.4</td>
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<tr>
<td>Scope 2 - Integrated Gas [B] (million tonnes CO2 equivalent)</td>
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<td>2.4</td>
<td>2.4</td>
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<tr>
<td>Scope 2 - Downstream [B] (million tonnes CO2 equivalent)</td>
<td>7.3</td>
<td>6.8</td>
<td>7.5</td>
<td>7.3</td>
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<td><strong>GHG intensity by Business</strong></td>
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<tr>
<td>Upstream and Integrated Gas GHG intensity</td>
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<td>0.158</td>
<td>0.166</td>
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<td>Refinery GHG intensity</td>
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<td>1.05</td>
<td>1.14</td>
<td>1.18</td>
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<td>Chemical GHG intensity</td>
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<td>0.95</td>
<td>0.99</td>
<td></td>
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<tr>
<td><strong>Flaring</strong></td>
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<tr>
<td>Flaring (upstream) (million tonnes CO2 equivalent)</td>
<td>5.9</td>
<td>5.2</td>
<td>8.2</td>
<td>7.6</td>
<td>11.8</td>
<td>12.5</td>
<td>8.0</td>
<td>7.7</td>
<td>10.7</td>
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<tr>
<td>Flaring (upstream) (million tonnes hydrocarbon flares)</td>
<td>1.8</td>
<td>1.5</td>
<td>2.5</td>
<td>2.3</td>
<td>3.5</td>
<td>3.7</td>
<td>2.1</td>
<td>2.3</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Flaring (downstream) (million tonnes CO2 equivalent)</td>
<td>0.7</td>
<td>0.6</td>
<td>0.8</td>
<td>0.5</td>
<td>0.9</td>
<td>1.2</td>
<td>1.1</td>
<td>1.5</td>
<td>2.0</td>
<td>2.4</td>
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<tr>
<td>Rest of the world [E]</td>
<td>1.2</td>
<td>1.0</td>
<td>1.7</td>
<td>1.8</td>
<td>2.6</td>
<td>2.5</td>
<td>1.0</td>
<td>0.8</td>
<td>1.4</td>
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<tr>
<td><strong>Energy Intensity</strong></td>
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<tr>
<td>Upstream excl. oil and gas (gigajoules per tonne production) [C] [E]</td>
<td>1.07</td>
<td>1.06</td>
<td>1.05</td>
<td>1.02</td>
<td>0.83</td>
<td>0.87</td>
<td>0.89</td>
<td>0.83</td>
<td>0.75</td>
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<tr>
<td>Refineries: Refinery Energy Index [G]</td>
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<td>94.3</td>
<td>94.8</td>
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<td>95.4</td>
<td>94.9</td>
<td>95.6</td>
<td>98.4</td>
<td>100.8</td>
<td>101.8</td>
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<tr>
<td>Chemicals: Chemicals Energy Intensity</td>
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<td>18.3</td>
<td>17.6</td>
<td>18.9</td>
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<tr>
<td><strong>Acid gases and VOCs</strong></td>
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<tr>
<td>Sulphur oxides (SO2) (thousand tonnes SO2) [P]</td>
<td>65</td>
<td>74</td>
<td>81</td>
<td>83</td>
<td>88</td>
<td>97</td>
<td>99</td>
<td>113</td>
<td>136</td>
<td>139</td>
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<tr>
<td>Nitrogen oxides (NOx) (thousand tonnes NOX)</td>
<td>108</td>
<td>111</td>
<td>107</td>
<td>113</td>
<td>104</td>
<td>146</td>
<td>144</td>
<td>147</td>
<td>146</td>
<td>159</td>
</tr>
<tr>
<td>Volatile organic compounds (VOCs) (thousand tonnes)</td>
<td>55</td>
<td>59</td>
<td>95</td>
<td>153</td>
<td>131</td>
<td>151</td>
<td>89</td>
<td>89</td>
<td>129</td>
<td>147</td>
</tr>
</tbody>
</table>

[A] Greenhouse gas emissions (GHG) comprise carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and nitrogen trifluoride. The data are calculated using locally regulated methods where they exist. Where there is no locally regulated method, the data are calculated using the 2009 IPCC Protocol, which is the recognised industry standard under the GHG Protocol Corporate Accounting and Reporting Standard. There are inherent limitations to the accuracy of such data. Oil and gas industry guidelines (IPCA/ANOGP) indicate that several sources of uncertainty can contribute to the overall uncertainty of our direct GHG emissions to be around 3%. 2015-2019 estimates are calculated using Global Warming Potential factors from the IPCC’s Fourth Assessment Report. Data for prior years were calculated using Global Warming Potential factors from the IPCC’s Second Assessment Report.

[B] These estimates were calculated using the industry-regulated method in line with the GHG Protocol Corporate Accounting and Reporting Standard.

[C] The term upstream in this context includes assets and activities from our Upstream and Integrated Gas businesses.

[D] Nigeria includes SOPEP onshore operations (0.6 million tonnes flared in 2019) and SNEPCo offshore operations (0.02 million tonnes flared in 2019).

[E] Flaring from flares is assumed to be equal to the difference between upstream and integrated gas flares.

[F] Methodology was updated in 2012. Data for prior years are not directly comparable.

MANAGING GHG EMISSIONS

We are taking action to manage the emissions from our own operations and the emissions from the energy we use in our operations. Improving the energy efficiency of our facilities is one of the ways to help us achieve our Net Carbon Footprint ambition to cut the intensity of the greenhouse gas (GHG) emissions of the energy products we sell by around half by 2050, in step with society’s progress to align with the goal of the Paris Agreement.

We require projects and facilities that produce more than 50,000 tonnes of greenhouse gas emissions a year to have a GHG and energy management plan in place.

These plans help drive our emissions performance through various actions. This includes using more energy-efficient equipment, installing power from renewable sources and considering carbon capture and storage in the design of our new and largest projects. GHG and energy management plans must include the sources of GHG emissions, as well as a forecast of expected emissions at the site for at least 10 years. Projects under development that are expected to have a material GHG footprint must meet carbon performance standards or industry benchmarks.

During development, projects are expected to evaluate relevant low-carbon technologies and options to remove GHG emissions. To assess the resilience of proposed projects, we consider factors such as potential costs associated with operational GHG emissions.

We use estimates of future carbon costs that are specific to each country. This is an important part of our efforts to stay in step with society’s progress toward the goals of the Paris Agreement. These estimates were developed using the current Nationally Determined Contributions (NDCs) submitted by countries as part of the Paris Agreement. By 2050, our estimates for all countries increase to $85 a tonne of GHG emissions.

These are the first NDCs under the Paris Agreement and are scheduled to be revised every five years. Therefore, as countries update their NDCs, we expect to update our estimates as well. The United Nations believes the current NDCs are consistent with limiting the average global temperature rise to around three degrees Celsius above pre-industrial levels. In coming decades, we expect countries to tighten these NDCs in order to meet the goals of the Paris Agreement.

We have also developed and implemented a comprehensive CO2 and energy management information system that supports our facilities, for example, by analysing real-time data to highlight maintenance gaps and monitor performance.

GREENHOUSE GAS EMISSION PERFORMANCE

Our greenhouse gas (GHG) emissions decreased from 71 million tonnes of CO2-equivalent in 2018 to 70 million tonnes on a CO2-equivalent basis in 2019. The main reasons for the decrease were divestments (for example in Argentina, Canada, Iraq, Malaysia, Norway and the UK). These decreases were partially offset by the start-up of the Prelude floating liquefied natural gas facility in Australia.

METHANE EMISSIONS PERFORMANCE

In 2019, our total methane emissions were 91 thousand tonnes compared with 92 thousand tonnes in 2018, in part driven by divestments (for example in Iraq and Canada). Methane emissions were less than 5% of Shell’s greenhouse gas emissions on a CO2-equivalent basis. More than 60% of our reported methane emissions in 2019 came from flaring and venting in our upstream and midstream operations.
We report our methane emissions in accordance with applicable regulations and industry standards. We also engage in industry-wide work on developing more accurate reporting methods, such as through IPIECA, the global oil and gas industry association for advancing environmental and social performance.


**Annual Bonus** (page 152)

There are no changes to the scorecard measures and weightings for 2020. Performance measures are comprised of cash flow from operating activities, operational excellence and sustainable development measures. These measures and weightings were reviewed by the REMCO as part of the 2020 policy review, with the REMCO determining that these remain well-aligned with our strategic and operational priorities and consistent with the performance indicators set out on pages 42-44. The performance measures, weightings and link to strategy for the 2020 performance year are set out [in the table on the right].

Annual bonus scorecard targets are not disclosed prospectively because to do so in a meaningful manner would require the disclosure of commercially sensitive information. As in previous years, scorecard targets will be disclosed in the subsequent Directors’ Remuneration Report when they are no longer deemed to be commercially sensitive.
LONG-TERM INCENTIVE PLAN

On January 31, 2020, a conditional award of performance shares under the LTIP was made to the Executive Directors resulting in 200,589 Royal Dutch Shell plc A shares (A shares) being conditionally awarded to Ben van Beurden and 59,062 Royal Dutch Shell plc A American Depositary Shares (A ADSs) to Jessica Uhl. The award had a face value of 300% (maximum performance outcome 600%) of the base salary for the CEO and 270% (maximum performance outcome 540%) of the base salary for the CFO, excluding potential share price appreciation and dividends. In making these awards, the REMCO considered the Company’s share price and determined that there was no significant share price volatility that would require an adjustment to the size of the awards.

The award for the CEO has been reduced from a face value award of 340% (maximum vesting outcome 680%) in prior years. This reduction is part of the REMCOs response to addressing quantum and further details are provided on pages 137-138.

For LTIP awards made in 2020, performance will be assessed over a three-year period based on four financial measures and an energy transition condition.

The target for the FCF metric is the aggregate of our annual operational business plan FCF targets over the three-year performance period. These are considered to be commercially sensitive and will be disclosed retrospectively, with annual updates on progress provided.

The NCF target range for the 2020 – 2022 LTIP grant is set as a 3-4% reduction from the 2016 NCF of 79g CO₂e/MJ. This target is aligned with the trajectory of our NCF ambition set out in November 2017. There is no change to the other energy transition measures other than the advanced biofuel technology measure is extended to include a measure of alternative fuel development. The targets for the other leading energy transition measures are commercially sensitive and will be disclosed retrospectively.
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

Greenhouse gas webpage: www.shell.com/ghg provides our performance data on Scope 1, 2, 3
- Scope 1 and 2: operational and equity
- Scope 1 and 2: by business sector (Downstream including Shipping and Oil Sands, Upstream, Integrated Gas & New Technologies)
- Scope 3 according to GHG Protocol Corporate Value Chain Accounting and Reporting Standard

Annual Report (page 29): “Risk Factors”

Rising climate change concerns have led and could lead to additional legal and/or regulatory measures which could result in project delays or cancellations, a decrease in demand for fossil fuels, potential litigation and additional compliance obligations.

In December 2015, 195 nations adopted the Paris Agreement, which we fully support. The Paris Agreement aims to limit increases in global temperatures to well below two degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. As a result, we expect continued and increased attention to climate change from all sectors of society. This attention has led, and we expect it to continue to lead, to additional regulations designed to reduce greenhouse gas (GHG) emissions.

We expect that a growing share of our GHG emissions will be subject to regulation, resulting in increased compliance costs and operational restrictions. If our GHG emissions rise alongside our ambitions to increase the scale of our business, our regulatory burden will increase proportionally. We also expect that GHG regulation, as well as emission reduction actions by customers, will continue to result in suppression of demand for fossil fuels, either through taxes, fees and/or incentives to promote the sale of lower-carbon electric vehicles or even through the future prohibition of sales of new diesel or gasoline vehicles, such as the prohibition in the United Kingdom (UK) beginning in 2035. This could result in lower revenue and, in the long term, potential impairment of certain assets.

In addition, the physical effects of climate change such as, but not limited to, rise in temperature, sea-level rise and fluctuations in water levels could adversely impact both our operations and supply chains.

In some countries, governments, regulators, organisations and individuals have filed lawsuits seeking to hold fossil fuel companies liable for costs associated with climate change. While we believe these lawsuits to be without merit, losing any of these lawsuits could have a material adverse effect on our earnings, cash flows and financial condition.

Additionally, some groups are pressuring certain investors to divest their investments in fossil fuel companies. If this were to continue, it could have a material adverse effect on the price of our securities and our ability to access capital markets. Additionally, some groups are pressuring commercial and investment banks from financing fossil fuel companies. Furthermore, according to press reports, some financial institutions also appear to be considering limiting their exposure to certain fossil fuel projects. Accordingly, our ability to use financing for future projects may be adversely impacted. This could also adversely impact our potential partners’ ability to finance their portion of costs, either through equity or debt.

If we are unable to find economically viable, as well as publicly acceptable, solutions that reduce our GHG emissions and/or GHG intensity for new and existing projects or for the products we sell, we could experience additional costs or financial penalties, delayed or cancelled projects, and/or reduced production and reduced demand for hydrocarbons. This could have a material adverse effect on our earnings, cash flows and financial condition.

If we are unable to keep pace with society’s energy transition or we are unable to provide the desired low-GHG-emissions products needed to facilitate society’s energy transition, it could have a material adverse effect on our earnings, cash flows and financial condition. See “Climate change and energy transition” on page 91.

HOW THIS RISK IS MITIGATED:

The risk is actively monitored and reviewed by the Executive Committee. These regular reviews lead to actions designed to address all the different components of the risk. Overall the mitigation of the risk is addressed through our strategy to thrive in the energy transition. This is made up of three components:
- reducing the GHG emissions intensity of our operations;
- demonstrating resilience by adopting the guidance on disclosure by the Task Force on Climate-related Financial Disclosures; and
- working towards our ambition to reduce the Net Carbon Footprint of the energy products we sell, in step with society’s drive to reduce GHG emissions.

Please refer to the risk factor “The nature of our operations exposes us, and the communities in which we work, to a wide range of health, safety, security and environment risks” for further explanation of how the physical effects of climate change on our operations and supply chains are managed.
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

[see also a)]


Shell’s purpose is to power progress together by providing more and cleaner energy solutions.

Our strategy is to strengthen our position as a leading energy company by providing oil, gas and low-carbon energy products and services as the world’s energy system transforms. Safety and social responsibility are fundamental to our business approach. Shell will only succeed by working collaboratively with customers, governments, business partners, investors and other stakeholders.

Our strategy is founded on our outlook for the energy sector and the chance to grasp the opportunities arising from the substantial changes in the world around us. The rising standard of living of a growing global population is likely to continue to drive demand for energy for years to come. The world will need to find a way to meet this growing demand, while transitioning to a lower-carbon energy system to counter climate change. While liquid and gaseous fuels, including biofuels and hydrogen, will continue to be an important part of the energy mix, over time electricity needs to play a bigger part in the world if it is to meet the goals of the Paris Agreement. Technological advances and the need to tackle climate change mean there is a transition under way to a lower-carbon, multi-source energy system with increasing customer choice.

We recognise that the pace and the path forward are uncertain and so require agile decision-making.

“We know the energy transition is unfolding, and we must be part of it if we are to survive as a business. Those companies that do not stay in step with society will be left behind.” BEN VAN BEURDEN – Chief Executive Officer.

Annual Report (page 21): “Our strategic themes”

OUR STRATEGIC THEMES

As part of our strategy, we divide our portfolio into strategic themes, each with distinctive capabilities, growth strategies and risk management. Organising our businesses into seven strategic themes has helped us focus our investment priorities and drive delivery of our long-term ambitions.

Due to the evolution of our businesses and the external environment, in 2019 we refreshed the way we group the strategic themes to better communicate our portfolio strategy and long-term outlook:
OUR STRATEGY ON CLIMATE CHANGE

We aim to reduce the GHG intensity of our portfolio and we continue to work on improving the energy efficiency of our existing operations. As discussed above, and as a better way to inform and drive our investment choices and adapt our business over time, in 2017, we announced our Net Carbon Footprint ambition.

Our approach to calculating the Net Carbon Footprint covers emissions directly from Shell operations (including from the extraction, transportation and processing of raw materials, and transportation of products), those generated by third parties who supply energy to us for production, and our customers’ emissions from their use of our energy products. Also included are emissions from elements of this life cycle not owned by Shell, such as oil and gas processed by Shell but not produced by Shell, or from oil products and electricity marketed by Shell that have not been processed or generated at a Shell facility. The calculation also includes biofuels, as well as emissions that we offset by using CCS or natural carbon sinks, such as forests and wetlands. Chemicals and lubricants products, which are not used to produce energy, are excluded from the scope of this ambition.

When selecting our Net Carbon Footprint ambition, we have deliberately chosen a wide and meaningful frame against which to manage our performance. The emissions from our operations are important but those of our customers from their use of the energy products are much larger in proportion. More information on our Net Carbon Footprint ambition is available on our webpage.
To meet the decarbonisation goals of the Paris Agreement, society needs an increasing supply of energy products that produce lower or zero GHG emissions over their full life cycle, to use those products more efficiently and to store emissions that cannot be avoided in sinks. Within this framework, our strategy is to keep increasing the share of such low-carbon energy products in our portfolio, while also developing carbon sinks. By broadening our focus to the full life-cycle emissions from the energy products that we sell to our customers, instead of solely on our operational emissions, we believe we will be better aligned with societal need and growing customer demand for more energy with lower life-cycle GHG emissions. Therefore, our strategy is to reduce our Net Carbon Footprint, mainly by increasing the proportion of lower-carbon products such as natural gas, biofuels, electricity and hydrogen in the mix of products we sell.

We will publish annual updates on our progress towards lowering the Net Carbon Footprint of our energy products. See the Shell Sustainability Report to be published in April 2020 for more information.

Our long-term ambition is to reduce the Net Carbon Footprint of our energy products to be in line with that of society as a whole by 2050. This is a stretching aspiration that aims to ensure that Shell continues to develop a resilient and relevant portfolio over the coming decades. While this is a long-term aspiration that will need periodic recalibration in line with the pace of change in broader society and the wider energy system, it is intended to help ensure that we remain relevant and are competitively positioned in the energy transition. This means supplying energy products and services that our customers need, now and in the future, and developing a resilient portfolio in line with our purpose of providing more and cleaner energy to society.

In the period to 2035, we believe that all forms of GHG reduction measures must be accelerated and increased in scale by society. Major improvements in energy efficiency and new sources of energy, such as renewables, combined with the use of cleaner fossil fuels, such as replacing coal with natural gas, are needed to meet the growing global population’s energy needs while reducing GHG emissions. In addition, the world will need significant growth in CCS and sustained improvements in efficiency. Massive reforestation is also needed to limit temperature rises to 1.5°C. The management of GHG emissions is increasingly important to our shareholders as concerns over climate change lead to tighter environmental regulations. Policies and regulations designed to limit the increase in global temperatures to well below 2°C could have a material adverse effect on Shell – through higher operating costs and reduced demand for
some of our products. We actively monitor and assess these potential developments and believe we are best able to manage them when local policies provide a stable and predictable regulatory foundation for our future investments. At this stage, industry is still facing significant uncertainty about how local regulatory policies and consumer behaviour will shape the evolution of the energy system and which technologies and business models will thrive.

In December 2018, we announced our intention to set short-term Net Carbon Footprint targets. In early 2020, it was decided to set a Net Carbon Footprint target for 2022 of 3-4% lower than our 2016 Net Carbon Footprint of 79 grams of CO₂ equivalent per megajoule. We have received third-party limited assurance on our Net Carbon Footprint for the years 2016 to 2019. For 2019, our Net Carbon Footprint was 78 grams of CO₂ equivalent per megajoule. The reduction in our Net Carbon Footprint was due to an increase in sales of electricity in markets with declining grid carbon intensity, and growth in customer demand for carbon-neutral product offerings.


2019 annual bonus outcome (audited) [A][B]

<table>
<thead>
<tr>
<th>Measures</th>
<th>Weight</th>
<th>Threshold</th>
<th>Target set</th>
<th>Outstanding</th>
<th>Result achieved</th>
<th>Score (0-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow from operating activities ($ billion)</td>
<td>30%</td>
<td>44</td>
<td>50</td>
<td>56</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Operational excellence</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.72</td>
</tr>
<tr>
<td>Production (kboe/d)</td>
<td>12.5%</td>
<td>3,647</td>
<td>3,760</td>
<td>3,873</td>
<td>3,665</td>
<td>0.16</td>
</tr>
<tr>
<td>LNG liquefaction volumes (mtpa)</td>
<td>12.5%</td>
<td>35.3</td>
<td>36.4</td>
<td>37.4</td>
<td>35.6</td>
<td>0.23</td>
</tr>
<tr>
<td>Refineries and chemical plant availability (%)</td>
<td>12.5%</td>
<td>88.4</td>
<td>90.4</td>
<td>92.4</td>
<td>90.8</td>
<td>1.20</td>
</tr>
<tr>
<td>Project delivery on schedule (%)</td>
<td>6.25%</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>90</td>
<td>1.50</td>
</tr>
<tr>
<td>Project delivery on budget (%)</td>
<td>6.25%</td>
<td>105</td>
<td>100</td>
<td>95</td>
<td>99</td>
<td>1.10</td>
</tr>
<tr>
<td>Sustainable development</td>
<td>20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.59</td>
</tr>
<tr>
<td>Total recordable case frequency (injuries/million hours)</td>
<td>5%</td>
<td>0.9</td>
<td>0.7</td>
<td>0.5</td>
<td>0.9</td>
<td>-</td>
</tr>
<tr>
<td>Operational Tier 1 and 2 process safety events (number)</td>
<td>5%</td>
<td>145</td>
<td>115</td>
<td>85</td>
<td>130</td>
<td>0.50</td>
</tr>
<tr>
<td>Upstream and Integrated Gas GHG intensity (tonnes of CO₂ equivalent/tonne of hydrocarbon production available for sale)</td>
<td>4%</td>
<td>0.167</td>
<td>0.168</td>
<td>0.160</td>
<td>0.168</td>
<td>1.00</td>
</tr>
<tr>
<td>Refining GHG intensity (tonnes CO₂ equivalent per Solomons Utilized Distillation Capacity (UDC™))</td>
<td>4%</td>
<td>1.11</td>
<td>1.01</td>
<td>1.01</td>
<td>1.06</td>
<td>1.00</td>
</tr>
<tr>
<td>Chemicals GHG intensity (tonnes CO₂ equivalent/tonne of petrochemicals production)</td>
<td>2%</td>
<td>1.10</td>
<td>1.00</td>
<td>0.90</td>
<td>1.04</td>
<td>0.60</td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Sustainability Report (page 13): “UN Sustainable Development Goals”

UN SUSTAINABLE DEVELOPMENT GOALS

7 ☀️ Goal 7: Ensure access to affordable, reliable, sustainable and modern energy

Globally, around 860 million people live without access to electricity, according to the International Energy Agency’s World Energy Outlook 2019, and hundreds of millions more are estimated to have an unreliable supply. Access to reliable and safe energy is critical to enabling economic and social development.

Our contribution to Goal 7 includes investments in companies that offer innovative energy access solutions, such as solar mini-grids and solar home systems. We continue working to achieve our ambition to provide a reliable electricity supply to 100 million people, primarily in Africa and Asia, by 2030.

For more information on our approach, see Access to energy.

8 🤝 Goal 8: Decent work and economic growth

Employment is a critical route out of poverty and helps people towards prosperity.

We provide jobs and follow applicable labour, health and safety standards. We work with governments and others to offer training to build local skills and expertise. We encourage local businesses to be part of our supply chain and seek to ensure our suppliers meet Shell standards.
We also support entrepreneurs and help young people start their own businesses through programmes such as Shell LiveWIRE. We contribute to economic growth by paying taxes and royalties to local governments. In December 2019, we published a new report detailing the corporate income tax that Shell companies paid in countries and locations around the world in 2018. For more information on our approach, see Contributions to society.

The world needs to take action to tackle climate change. The Paris Agreement set a goal of holding the rise in global average temperatures this century to well below two degrees Celsius above pre-industrial levels. Everyone in society has a role to play to achieve the Paris goals, and Shell intends to play its part. We aim to reduce the Net Carbon Footprint of the energy products we sell by around 50% by 2050, and 20% less by 2035, in step with society. This is what we call our Net Carbon Footprint ambition.

We only control the emissions from our own activities, but by changing the mix of energy products we supply, we also aim to help customers to lower their emissions. For example, continuing to increase the lower emission energy products we offer, including natural gas, biofuels, hydrogen and renewable power. We will also invest more in natural ecosystems to help drivers to offset their carbon emissions. For more information on our approach, see Climate change and energy transition.

... and on our webpage:
  - Shell Scenarios
  - Shell Energy Transition Report
  - Climate change: an imperative to act
  - Nature-based solutions
  - Net Carbon Footprint Q&A
  - Industry Associations Climate Review 2019

Annual Report (page 94): “Natural Gas”

METHANE EMISSIONS

In 2018, Shell announced a target to maintain its methane emissions intensity below 0.2% by 2025. This target covers all Shell-operated Upstream and Integrated Gas oil and gas facilities. The baseline and target intensities are expressed as percentage figures, representing estimated methane emissions from Shell-operated gas and oil facilities as a percentage of the total amount of gas marketed, or the quantity of marketed oil and condensate where facilities have no marketed gas (e.g. those that re-inject produced gas).

Methane emissions include those from unintentional leaks, venting and incomplete combustion, for example in flares and turbines. In 2019, our overall methane intensity was 0.08% for facilities with marketed gas and 0.01% for facilities without marketed gas. Intensities at facility level ranged from below 0.01% to 1.3%. We believe our methane emissions are calculated using the best methods currently available: a combination of industry standard emission factors (established emission rates per throughput or per piece of equipment), engineering calculations and some actual measurements. There are uncertainties associated with methane emissions quantification. To reduce these uncertainties, our Upstream and Integrated Gas businesses are rolling out methane improvement programmes to further enhance data quality and reporting, continue implementation of leak detection and repair programmes, and make use of methane abatement opportunities.

By 2025, all Shell-operated facilities are expected to have implemented more robust quantification methodologies. Externally, we continue to work on new technologies and improved quantification methods through partnerships and several other initiatives.

Shell is also a member of the Oil and Gas Climate Initiative (OGCI), a CEO-led effort to lead the industry’s response to climate change. One of OGCI’s focus areas is methane management. In 2018, OGCI announced a target to reduce the collective average methane intensity of its members’ aggregated upstream gas and oil operations by one fifth, to below 0.25% by 2025, with an ambition to achieve 0.2%, corresponding to a reduction of one third.

Annual Report (page 94): “Carbon Capture, Utilisation and Storage”
CCS/CCUS

As a member of the Oil and Gas Climate Initiative (OGCI), Shell is participating in its Kickstarter initiative to unlock large-scale investment in CCUS. The initiative is designed to help decarbonise multiple industrial hubs around the world, starting with those in the USA, UK, Norway, the Netherlands and China. The aim is to create the necessary conditions for a commercially viable, safe and environmentally responsible CCUS industry. Shell is one of six strategic partners working with OGCI Climate Investments to possibly develop the UK’s first commercial clean gas power full-chain CCS project, to be located in Teesside as part of the UK hub.
DEFINITIONS AND CAUTIONARY NOTE

Divestments is a measure used to monitor the progress of our divestment programme. This measure comprises proceeds from sale of property, plant and equipment in businesses, joint ventures and associates, and other Integrated Gas, Upstream and Downstream investments in equity securities, adjusted onto an accruals basis and for any share consideration received or contingent consideration initially recognised upon the related divestment, as well as proceeds from sale of interests in entities while retaining control (for example, proceeds from sale of interests in Shell Midstream Partners, L.P.).

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate legal entities. In this report “Shell”, “Shell Group” and “Royal Dutch Shell” are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words “we”, “us” and “our” are also used to refer to Royal Dutch Shell plc and its subsidiaries in general or to those who work for them. These terms are also used where no useful purpose is served by identifying the particular entity or entities. “Subsidiaries”, “Shell subsidiaries” and “Shell companies” as used in this report refer to entities over which Royal Dutch Shell plc either directly or indirectly has control.

Entities and unincorporated arrangements over which Shell has joint control are generally referred to as “joint ventures” and “joint operations”, respectively. Entities over which Shell has significant influence but neither control nor joint control are referred to as “associates”. The term “Shell interest” is used for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries. The use of the term Shell’s “Net Carbon Footprint” is for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries.

Also, in this report we may refer to Shell’s “Net Carbon Footprint”, which includes Shell’s carbon emissions from the production of our energy products, our suppliers’ carbon emissions in supplying energy for that production and our customers’ carbon emissions associated with their use of the energy products we sell. Shell only controls its own emissions. But, to support society in achieving the Paris Agreement goals, we aim to help such suppliers and consumers to likewise lower their emissions. The use of the term Shell’s “Net Carbon Footprint” is for convenience only and not intended to suggest these emissions are those of Shell or its subsidiaries.

This report contains forward-looking statements (within the meaning of the U.S. Private Securities Litigation Reform Act of 1995) concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management’s current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management’s expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as “aim”, “ambition”, “anticipate”, “believe”, “could”, “estimate”, “expect”, “goals”, “intend”, “may”, “objectives”, “outlook”, “plan”, “probably”, “project”, “risks”, “schedule”, “seek”, “should”, “target”, “will” and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward looking statements included in this report, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell’s products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) risks associated with the impact pandemics, such as the COVID-19 (coronavirus) outbreak, and changes in trading conditions. No assurance is provided that future dividend payments will match or exceed previous dividend payments. All forward-looking statements contained in this report are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional risk factors that may affect future results are contained in Royal Dutch Shell’s Form 20-F for the year ended December 31, 2019 (available at www.shell.com/investor and www.sec.gov).

These risk factors also expressly qualify all forward-looking statements contained in this report and should be considered by the reader. Each forward-looking statement speaks only as of the date of this report, April 7, 2020. Neither Royal Dutch Shell plc nor any of its subsidiaries undertake any obligation to publicly update or revise any forward-looking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this report.

We may have used certain terms, such as resources, in this report that the United States Securities and Exchange Commission (SEC) strictly prohibits us from including in our filings with the SEC. U.S. investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website www.sec.gov.

Shell LiveWIRE, Shell PurePlus, Shell Helix, Shell GameChanger, Shell TechWorks, Shell V-Power, Shell Rimula and NXplorers are Shell trademarks.

Documents on display

The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. All of the SEC filings made electronically by Shell are available to the public on the SEC website at www.sec.gov (commission file number 001-32575). This Report is also available, free of charge, at www.shell.com/annualreport or at the offices of Shell in The Hague, the Netherlands and London, United Kingdom. Copies of this Report also may be obtained, free of charge, by mail.

April 2020