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FOREWORD

The Electric Century

Access to energy is shaping the world's future. It spurs progress and plays an essential role in economic and social development and higher living standards. Coal and oil drove the transformations of the 19th and 20th centuries. But today, as environmental concerns become critically important, electricity – a secondary energy source – is increasingly being tapped to meet the needs of an ever-growing global population. Power consumption increased by more than 3% a year between 2000 and 2016, while energy consumption overall rose less than 2% per year¹. And, according to the International Energy Agency's Sustainable Development Scenario, that gap is likely to widen in the years leading up

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1. 2010-2016 (IEA): 3.1% increase per year in electricity use versus a 1.9% per year rise in overall energy consumption.

to 2040, as electricity use climbs steadily while total energy consumption plateaus¹. But power consumption cannot be separated from the power generation method. Our objective is therefore to be actively involved along the entire value chain, from primary energy production to final energy consumption, as a means of combating global warming.

Against this backdrop, Total is resolutely pursuing our ambition of becoming the responsible energy major. We are also committed to helping achieve the United Nations Sustainable Development Goals (SDGs), specifically with regard to climate change, access to energy and biodiversity. I was honored to be named a 2017 SDG Pioneer by the Global Compact, in recognition of Total's pursuit of partnerships and investment in low-carbon energies.

As you will see in this report, our focus on climate concerns is integral to our strategy. We are positioned in fast-growing low-carbon markets, which means we offer an energy mix whose carbon intensity is steadily decreasing.

In support of this change, we have created a tool for measuring the carbon intensity of the energy products we make available to our customers. That metric indicates the average of our products' greenhouse gas emissions, from the time they are produced in our facilities to their end use by the customer.

Total's ambition is to reduce that carbon intensity by 15% between 2015 — the date of the Paris Agreement — and 2030.

In the longer term, beyond 2030, our ambition is to pursue these efforts, or possibly to accelerate as new technologies become available and public policies are put in place, and reach a reduction of 25 to 35% by 2040.

This trajectory constitutes Total's responsible contribution on the road to the objectives set out in the Paris Agreement, while also allowing us to fulfill our mission of supplying affordable, reliable and clean energy to as many people as possible.

To do this, we will be focusing on five major drivers that this report describes in detail: improved operational efficiency, integrated expansion across the natural gas value chain, a strengthened presence in low-carbon electricity, fossil fuel decarbonization, and carbon storage.

The decisions we make in accordance with this strategy must be explained clearly and transparently. With that in mind, in July 2017 we announced our support for the recommendations issued by the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the G20's Financial Stability Board. More recently, in July 2018, the World Business Council for Sustainable Development (WBCSD) released a report on behalf of the TCFD's Oil and Gas Preparer Forum — in which Total actively participates — that provides practical examples on implementing the TCFD recommendations.

That openness and transparency goes hand in hand with a genuine belief in the value of partnerships. Total is active in many joint initiatives, such as the Oil and Gas Climate Initiative (OGCI), with other energy majors. Moreover, we maintain a dialogue with national and regional governments, as well as provide support to start-ups through Total Energy Ventures. Only by mobilizing our collective energy can we tackle the full scale of the challenges posed by climate change.

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We believe that oil and gas will continue to play an essential role in the coming decades, as reflected in all the IEA scenarios². We are therefore maintaining a policy of selective investment in our core businesses that will be critical for long-term performance. Our acquisition of Maersk Oil in 2017 — the Group's largest such transaction since the merger with Elf — is an exemplar of that strategy. It provides Total with a portfolio of exploration and production assets with low technical costs, allowing us to further improve both our competitiveness and the value of our operations. In particular, the deal strengthens our presence in the North Sea, a key region for us, where we are now the second-largest operator. Additionally, the petroleum assets we have acquired will have a shorter life than our projects in natural gas (LNG especially), and low-carbon electricity (such as wind and solar power).

1. 2016-2040 (IEA SDS): 1.8% increase per year in electricity use versus a 0.3% per year rise in overall energy consumption.

2. In the IEA's Sustainable Development Scenario (SDS), oil and gas will account for 48% of energy demand in 2040 versus 54% in 2016. The share of hydrocarbons in 2040 is higher under the other scenarios.



The *Christophe de Margerie* LNG carrier.

ENERGY EFFICIENCY, A KEY DRIVER TO REDUCE EMISSIONS

The first driver to reduce our emissions is optimizing the energy usage of our facilities. Their energy efficiency is a cornerstone of our initiatives. We have set a target of an average 1% per year improvement in the energy efficiency of our facilities from 2010 to 2020, despite the increasingly complex operating environment. We recorded a decrease of more than 10% over the period from 2010 to 2017, reaching and exceeding our original target. We will obviously pursue these efforts at the same pace beyond 2020.

Beyond our walls, we also offer our customers energy efficiency consulting services to help them optimize their energy usage and reduce their greenhouse gas emissions. Our recent acquisition of GreenFlex is aligned with that goal.

THE STRENGTH OF AN INTEGRATED BUSINESS MODEL THAT EMPHASIZES NATURAL GAS

In pursuit of a responsible solution for addressing the sharp rise in electricity demand, we are maintaining our commitment to natural gas, which emits half as much carbon as coal when used for power generation.

The liquefied natural gas (LNG) market in particular grew by 10% in 2017 and promises future growth of more than 5% per year, led by Asian demand.

We aim to be present along the entire gas value chain, from production right to the end customer. We have carried out major projects and transactions to achieve that objective. In the upstream, we have an interest in the giant Yamal LNG development in northern Russia and we have also acquired Engie's upstream LNG business. With these complementary portfolios, we will be managing nearly 40 million tons of LNG in 2020, making us the world's second-largest operator in the sector, with a 10% market share.

In the downstream, one strategic acquisition was Direct Energie, a supplier of natural gas and power to the French and Belgian markets. Another was a 25% stake in Clean Energy, the leading distributor of natural gas fuel for heavy-duty trucks in the United States, reflecting our determination to advance the development of new natural gas applications. So does the agreement signed with CMA CGM, the first shipping company to equip its transcontinental container ships with LNG-powered engines.

Total believes in the future of natural gas as a transportation fuel and is investing in this area, thereby contributing to greener mobility.

AN EXPANDED PRESENCE IN LOW-CARBON ELECTRICITY

We are also expanding our positions along the entire low-carbon electricity value chain, from power generation to storage and sales to end customers.

One upstream illustration is our acquisition, currently in progress, of two combined cycle gas turbine (CCGT) power plants with an overall capacity of about 825 MW. This deal demonstrates the value of natural gas as a flexible partner for renewable energies.

We have strengthened our position as a solar energy producer, thanks both to SunPower's state-of-the-art technologies and affiliate Total Solar's ground-mounted solar plant projects and work to solarize production facilities. Through our recently acquired stake in EREN Renewable Energy, now renamed Total Eren, we are consolidating that strategy in renewable energies (especially in emerging economies) and staking out a position in the wind power market as well.

Our acquisition of Direct Energie¹ helps us achieve critical mass in France and Belgium, mainly in electricity distribution, but also in power generation from natural gas and renewable energies. This transaction will also generate multiple synergies with many of our existing offerings, such as Lampiris — Belgium's third-largest supplier of power, natural gas and energy services — and Total Spring, which now sells natural gas and green power.

Alongside natural gas, electricity is making a growing contribution to new forms of mobility, as consumers, municipal fleets and mass transit increasingly turn to electric vehicles. In addition to investing in battery development through Saft, Total is devising a number of electric charging solutions for municipalities, businesses, consumers and service station networks.

Lastly, our affiliate Saft rounds out our offerings with energy storage technology, necessary to the future growth of renewable energies.

1. Total closed its acquisition of 73% of Direct Énergie's share capital on July 6, 2018; a mandatory tender offer for the remaining shares is currently in progress.



DECARBONIZING FOSSIL FUELS

Total is active in the biofuel segment and in developing various biomass conversion pathways. Renewable resources with low carbon emissions, biofuels are essential to decrease emissions caused by the use of oil and gas, especially in transportation.

A pioneer in biofuels for more than 20 years, Total is now the European leader, incorporating 2.4 million tons in gasoline and diesel in 2017. With the start-up in 2018 of La Mède, France's first world-class biorefinery, we are confirming our ambition with a significant share of over 10% of the Europe market for hydrotreated vegetable oil (HVO) production.

Today, most biofuels are manufactured from vegetable oils or sugar. Our R&D teams have been preparing the future for more than a decade by developing technology to expand the range of resources that can be sustainably and competitively processed. The BioTfuel consortium, for example, is working on converting lignocellulose, a type of plant waste.

Lastly, Total is positioning itself in the biogas sector, for example by entering the NGV fuel for trucks market through our affiliate Clean Energy in the United States. In the hydrogen fuel sector, we have opened stations in Germany as part of the H2 Mobility Germany joint venture.

CARBON STORAGE THROUGH FORESTS AND CCUS

Carbon storage is a must for the planet to achieve carbon neutrality in the second half of the century. We are aiming to implement this storage in two forms: one is promoting carbon capture, utilization and storage (CCUS), and the other is preserving and restoring the ability of ecosystems — forests in particular — to act as carbon sinks.

We are allocating substantial resources to expand CCUS, an essential technology for the many industries — such as cement manufacturing or steelmaking — that emit huge amounts of carbon. In its Sustainable Development Scenario, the IEA predicts that more than 2 billion tons of carbon will be captured and stored in 2040. We have earmarked 10% of our R&D budget for CCUS research, and recent months have brought significant progress, including the Northern Lights initiative in Norway, developed in partnership with Equinor (formerly Statoil) and Shell. This project will yield technology that can subsequently be deployed at other sites, as well as

financial and contract models to ensure the long-term success of CCUS solutions, notably by enlisting the public sector as a participant.

Through Total Foundation, we have embarked on a large-scale global program that emphasizes preservation and restoration initiatives for forests, mangroves and wetlands, which are natural carbon repositories. It also includes projects to restore degraded soils so as to increase productive land available for agriculture, to meet food demand without thinning forest cover and also to combat deforestation. In addition, Total Foundation supports efforts to educate young people about the importance of preserving these ecosystems as part of climate action.

Beyond our own initiatives, one key success factor remains the introduction of carbon pricing that aligns energy prices more closely with carbon content, to ensure a more balanced mix that favors sources with lower emissions.

Putting a price on carbon is the most efficient financial mechanism to change the rules of the game quickly and hasten the switch to natural gas and renewables for low-carbon power generation.

As the term “energy mix” would suggest, Total is developing a blend of solutions. By improving the energy efficiency of our facilities, reinforcing our presence across the integrated natural gas and low-carbon electricity chains, from production to marketing to end customers, and developing carbon storage, we are building a comprehensive and diversified response that will deliver long-term growth.