

# CFO TASKFORCE FOR THE SDGS

Blueprint for CFO Principles implementation

Industry Case Studies Electric Utility



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### 1 Introduction

RWE has transformed fundamentally over the last few years from an integrated utility to a global renewables player. In the past, our company was active along the entire energy value chain from generation to grids to retail. It has been known for its coal- and nuclear power plant operations. Now, we are a company specializing in power production and energy trading that drives the transition of the energy sector, putting sustainability at the core of our business. Our goal is a climate-neutral electricity supply that is both secure and affordable.

This unique transformation began in 2016 when we carved out the Renewables, Retail and Grid divisions in a subsidiary called innogy and listed it on the stock market. One-and-a-half years later, in early 2018, we agreed an extensive asset swap with E.ON, another German utility, which turned us into one of the leading renewable energy companies. We operate a capacity of around 11 gigawatts based on renewable energy, including hydropower and biomass. With a highly efficient gas fleet and an international energy trading business, we are an all-rounder in electricity generation at the forefront of creating a sustainable energy system. To become climate-neutral by 2040, we will heavily invest in wind energy, photovoltaics and storage technologies, flexible hydrogen-ready gas-fired generation, enter the green hydrogen production business, and phase out electricity generation from fossil fuels. In doing so, we are playing our part in achieving the Paris climate goals, as officially confirmed by the independent Science Based Targets initiative at the end of 2020.

### 2 Historical Drivers and Evaluation

Up to 2016, RWE was one of the leading integrated suppliers of electricity and gas in Europe. The company covered all stages of the energy value chain, from the mining of lignite, electricity generation from gas, coal, nuclear and renewables, to energy trading and distribution networks, and the supply of electricity & gas. The major markets were Germany, the United Kingdom, the BeNeLux-Region and Central Eastern Europe.

However, the traditional business model of energy utility companies came under increasing pressure, as renewables expanded, network operation required significant investments, and the retail business became increasingly competitive. Responding to these fundamental changes, RWE made the decision at the end of 2015 to bundle the Renewables, Retail and Grid Divisions in a new subsidiary and to list this new company "innogy" on the stock market.

Correspondingly, RWE became an energy utility with three main pillars: the divisions Conventional Power Generation, Trading/Gas Midstream and the financial investment in innogy.

At the same time, RWE faced a continuing decline in wholesale electricity prices and a further intensifying political debate about electricity generation from coal in Germany. Given the clear separation from innogy, RWE had no own renewables electricity generation assets, thus investment in green technologies had no meaningful relevance. With its significant fleet of coal fired power plants, RWE was a large carbon emitter in Europe with 148,3 million tonnes of CO2 from power generation in 2016. In fiscal 2016, RWE's operating business generated  $\[ \]$  1.2bn EBITDA. RWE's market capitalization stood at  $\[ \]$  7.1bn at year-end 2016. Thereof  $\[ \]$  c. 14bn attributed to its stake in innogy implying that the operating business of RWE had a negative equity value. Not only then, it was clear that we had to continue and further accelerate the transformation of our company.

## 3 Sustainability Disruption

At the UN Climate Conference 2015 in Paris, the global community agreed on a convention to limit global warming. The World Climate Convention, which was adopted unanimously, became the internationally legally binding successor agreement to the 1997 Kyoto Protocol. It envisaged limiting the rise in the global average temperature to significantly below two degrees centigrade and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels.

On 4 November 2016, almost one year after the Paris conference on climate change, the resulting international agreement on combating global warming entered into force, conditional to the ratification by at least 55 countries responsible for at least 55 % of global emissions of greenhouse gases.

All of RWE's core countries took action: The UK announced already in the run-up to the Paris Agreement that it intends to phase-out coal until 2025, which was casted into law in January 2018. In the Netherlands, the Dutch government adopted a bill in May 2018 which prohibits power plants to run on hard coal in 2030 or even earlier, depending on the age of the plants.

Germany – the country where RWE had the biggest share of its thermal electricity generation portfolio - initiated the necessary steps to reduce its carbon emissions in the energy sector, too. A commission was established by the German government consisting of representatives from industry, trade unions, the scientific community, associations, civic industries, and environment organizations. In January 2019, the commission presented a concept for Germany to achieving its climate protection goals in the energy sector. The recommendations encompassed an exit of coal fired power production by no later than 2038.

In June 2021, the federal government of Germany further tightened the greenhouse gas reduction targets. A reduction of 65% compared to 1990 should be reached by 2040, a reduction by 88% until 2040. Germany's current goal is to become climate neutral by 2045. The energy sector will have to contribute the vast amount of additional effort.

In parallel to the regulatory disruption, power markets around the world continued their transformation. Global renewable power generation capacity grew from 1,200 GW in 2010 to 2,400 GW in 2018 with annual capacity additions in RWE's core markets of 4 GW in the UK and 8 GW in Germany on average. At the same time, the competitiveness of renewables continued to improve with so-called "levelized cost of electricity generation" of solar PV falling at a rate of about 13% p.a. and onshore wind falling about 5% p.a. in these two countries. This was accompanied by a further tightening of power prices declining from mid-40  $\mbox{\ensuremath{\notin}}$ /MWh in 2010 to below 30  $\mbox{\ensuremath{\notin}}$ /MWh in 2016 and a resurrection of CO2 prices after their low in 2016 with 5  $\mbox{\ensuremath{\notin}}$ /t to 16  $\mbox{\ensuremath{\notin}}$ /t in 2018.

## 4 Strategic Response

RWE grasped this opportunity and we fundamentally transformed our company changing the company's setup to fully support the energy transition and SDG 7.

# RWE transforms into leading renewables company via € 60bn asset Swap with E.ON laying the foundation for green growth

In March 2018, RWE struck an agreement with E.ON, another German utility, to conduct an extensive exchange of business activities and shareholdings. While RWE sold its financial investment in innogy, the transaction gave RWE approximately 9 GW of zero-carbon electricity generation capacity from renewable sources, mostly from onshore and offshore wind farms. This transformed RWE into Europe's No. 3 in renewables and the world No 2 in off-shore wind. Renewable Energy was set to account for more than half of RWE Groups adjusted EBITDA.

#### RWE commits to accelerated coal phase out in Germany, NL and UK

At the same time, RWE committed to an accelerated phase-out of our coal-fired power generation in all our markets. RWE agreed with the German government a phase out plan of all of its lignite power plants until 2038. The first unit closed by year-end 2020 and additional 2.5 GW lignite power plants are set to be decommissioned by year-end 2022. The exit from coal was agreed in close alignment with employees representatives and unions, as evidenced by the "coal exit" collective bargaining agreement with the unions.

In August 2019, RWE announced the early closure of 1.6 GW Aberthaw power plant in Wales, our last hard coal fired power station the UK. The decision contributed to the company's goal to reduce its Greenhouse gas emissions step by step. In the Netherlands, RWE secured a feed in tariff to convert its two remaining hard coal power plants partially to biomass, further reducing the carbon emissions from power generation.

In December 2020, RWE was successful in the voluntary tender for additional hard coal power plant closures in Germany, putting an end to power generation from hard coal in Germany for RWE. In addition to the coal closures, RWE in 2020 has committed to not invest in coal activities in the future; neither new nor existing ones.

#### RWE grows low-carbon security of supply

In parallel, RWE continued the modernization of its gas fleet laying the foundation for further decarbonization and providing flexible backup capacity for a volatile renewable energy system. In terms of generation capacity, gas is already our main conventional source of energy, and its share in our German power plant portfolio is expected to increase further. In November 2020, RWE qualified in an auction for the construction of a 300 MW grid stabilization unit at the Biblis site. The company is also investing in existing assets that ensure security of supply: for instance, RWE acquired the modern 382 MW King's Lynn station in the east of England in early 2020 with a 15-year capacity contract.

In addition, RWE is building one of the largest and most innovative battery storage systems in Germany. A battery system with a total capacity of 117 megawatts is being installed at the company's power plant sites in Lingen and Werne. The batteries will be virtually coupled with RWE's run-of-river power stations along the river Mosel. By raising or decreasing the flow-through at these power stations, RWE can make additional capacity available, also as balancing energy. The system is scheduled to start operations at the end of 2022.

RWE establishes a Hydrogen business to drive the decarbonisation of the industry. The economy can only be decarbonized completely if solutions are also found for applications where direct electrification is not an option. Examples are the production of steel and fertilizers as well as aviation and shipping. In the near future, these areas offer the greatest potential for utilizing hydrogen produced by zero-carbon methods. RWE intends to spur the expansion of the hydrogen economy, especially in Germany, the Netherlands, and the United Kingdom. In pursuit of this goal, we will work along the entire value chain, from green electricity generation and hydrogen production

by electrolysis to hydrogen trading and storage and the conclusion of commercially optimized supply agreements with industrial customers. In the last two years, we have forged numerous partnerships with businesses and research institutes seeking to create a nationwide hydrogen infrastructure. Examples of this are the German GET H2 and AquaVentus initiatives and the Dutch Eemshydrogen and NortH2 ventures.

#### Science Based Targets initiative confirms RWE's carbon reduction targets are in line with the Paris Agreement

To provide further evidence on the transition, RWE has extended its climate protection targets in December 2020 to all activities and greenhouse gas emissions of the Group. Specifically, this means that RWE has committed to achieving a 50% reduction in specific greenhouse gas emissions from Scope 1 and 2 by the year 2030, compared to the base year 2019. The company aims to reduce Scope 3 emissions by 30% by 2030. These company-specific targets have been the subject of a comprehensive review by the Science Based Targets initiative (SBTi), an independent initiative of the WWF, UN Global Compact, the World Resources Institute and CDP. Based on climate science, the SBTi has attested that RWE's targets are in line with the Paris Agreement which aims to limit global warming to well below two degrees Celsius. In addition, RWE has extended its goal of being carbon-neutral by 2040 to cover all corporate activities – Scope 1, 2 and 3 – and all greenhouse gases.

#### New sustainable financing strategy to support business strategy

To further strengthen its commitments to ESG and SDGs, RWE has adjusted its financial policy in 2021. In addition to existing SDG 7 financing like project finance or tax equity financing for renewables projects, two sustainable financing instruments and a guidance for financial asset management were established:

- In April 2021, RWE extended the term of its syndicated credit line by a year and added a sustainability-linked cost component to its conditions. The conditions of a € 3bn tranche now depend on the development of the three sustainability indicators: (i) the share of renewable energy in RWE's generation portfolio, (ii) the carbon intensity of assets, and (iii) the percentage of capital expenditure classified as sustainable according to the EU Taxonomy Regulation. By underpinning the credit line with these provisions, RWE is reaffirming the binding nature of our emission reduction strategy. In contrast to usual KPI agreements with banks, RWE has made a unilateral (at RWE's expense only) agreement to show proactive initiative.
- In June 2021, RWE placed its first green bond on the market with a volume of €500 million. The placement attracted strong interest from investors and was more than three times oversubscribed. Green bonds are intended for a specific purpose: proceeds from the issuance must be used for projects that benefit the environment and protect the climate. RWE will invest all these funds in SDG7 related projects (wind and solar)in accordance with its green bond framework in line with the generally accepted Green Bond Principles of the International Capital Market Association (ICMA). Further growth financing will be with sustainable instruments, of which Green Bonds are currently the preferred instruments.
- On the asset management side, RWE defined ESG minimum requirements for the majority of its asset portfolio.

#### ESG targets included in management incentive scheme

In 2020, RWEs supervisory board refined the Executive Board remuneration system to align it with our strategy. As such, it has introduced in the long-term incentive scheme the reduction of RWE's carbon intensity as an additional KPI. Management compensation is therefore positively linked with the speed of transition in decarbonizing the emissions of the power generation portfolio.

### SDG Investments

#### Fast growth in wind and solar power to drive SDG No. 7

The transaction with E.ON has turned RWE into a leading producer of electricity from renewable sources. RWE is expanding this business rapidly. By the end of 2020, RWE already had renewable energy assets with a total capacity of 10.6 GW. Electricity production from renewables is clearly already RWE's strongest income generator. In 2020, it accounted for about half of adjusted EBITDA. RWE has announced the target to grow wind and solar capacity to over 13 GW (pro-rata) by the end of 2022 by investing over €1.5 billion in net every year. Reinvesting proceeds from sales of investments will actually cause the gross expenditure to be much higher to € 8-9bn from 2020-2022. Typical examples for our investment projects are the GBP 2bn investment in the 860 MW offshore wind park Triton Knoll off the cost of UK and our 250 MW onshore wind park Scioto Ridge in Ohio, USA. At the same time, RWE is continuously expanding its development pipeline for future renewables projects.

In November 2020, RWE purchased the European project development business of wind turbine manufacturer Nordex for €400 million, receiving a project pipeline of new onshore wind and solar farms with a total installed capacity of 2.7 GW. At an auction held in the UK in February 2021, RWE secured the rights to develop 3,000 MW of offshore wind capacity across two neighboring locations in the English North Sea. The sites are situated on Dogger Bank in a shallow region of the North Sea. RWE is already developing Sofia, a further offshore wind project, in the vicinity.

For the first 18 months of the investment program – from 01 Jan 2020 until 30 June 2021 – total investments in wind & solar amounted to  $\in$  4.7bn. In the same period, maintenance investments in coal & nuclear amounted to less than  $\in$  0.3bn. Thus, 90% of RWE's capital expenditure meets the taxonomy criteria for environmentally sustainable investments proposed by the EU Commission.

#### RWE issues equity to accelerate growth in renewables

#### 6

## Assessing Sustainability Outcomes and Financial Results

#### Sustainability delivered – operationally and financially

RWE has changed itself significantly in the recent years. We have faced an eroding business model marked by high dependency on fossil fuels and not fit for the future. Today, a successful turnaround has been achieved. RWE's strategy is fully focused on a low-carbon energy system. This development is well reflected by RWE's EBITDA having almost tripled from approx.  $\[ \in \]$  1.2 bn in 2016 to  $\[ \in \]$  3.2 bn in 2020. In the same period, RWE's market capitalization more than tripled from  $\[ \in \]$  7.1bn to  $\[ \in \]$  23.4 bn.

RWE has established itself as a leading renewables player, driving the energy transition and the decarbonisation While RWE's renewables capacity was practically zero in 2016, it now amounts to 11 GW representing nearly 25% of our total installed capacity.

At the same time, we take responsibility for our legacy. RWE is committed to responsibly end the production of electricity from fossil fuels. This means a speedy reduction of greenhouse gas emissions while taking the social impact and effects on security of supply into account.

We managed to halve our GHG emissions in less than 4 years and have a clear ambition to be climate neutral by 2040.

RWE has embarked on a journey 5 years ago, significant milestones have already been achieved on this journey and we have a clear vision and strategy to proceed in the future. We are dedicated to further expand our renewables portfolio, to drive the decarbonisation of RWE and enable the decarbonisation of other industries. On our way, by contributing to achieve SDG number 7, we will create value for RWE and for the society.

## Al Appendix 1 - RWE's power generation emissions and coal capacities



Target to achieve **net zero** by **2040** includes **all** direct and indirect **GHG emissions** (Scope 1, 2 and 3)



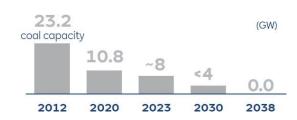
Fully supportive and aligned<sup>1</sup> with **Paris Climate Agreement** 





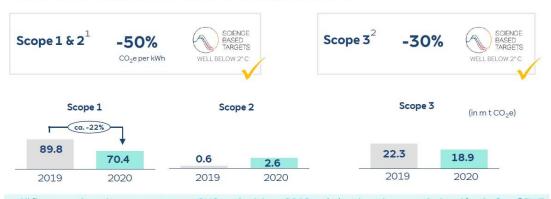
Proven **track record** of carbon emission reductions with **clear coal phaseout** roadmap





## A2 Appendix 2 – RWE's science based targets

From a 2019 base year RWE commits to reduce until 2030..



All figures are based on our most recent GHG methodology. 2019 emissions have been recalculated for the "new" RWE. For more information on our GHG emissions and our accounting approach, please see <a href="https://www.rwe.com/emissions">www.rwe.com/emissions</a>.

#### We take action. This includes:

- Clear decarbonisation roadmap with further closures of coal activities
- Ongoing expansion of our **renewables** portfolio
- Driving forward green hydrogen
- Improving efficiency