

RWE

Factbook 2022



Disclaimer

This document contains forward-looking statements. These statements are based on the current views, expectations, assumptions and information of the management, and are based on information currently available to the management. Forward-looking statements shall not be construed as a promise for the materialisation of future results and developments and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those described in such statements due to, among other things, changes in the general economic and competitive environment, risks associated with capital markets, currency exchange rate fluctuations, changes in international and national laws and regulations, in particular with respect to tax laws and regulations, affecting the Company, and other factors. Neither the Company nor any of its affiliates assumes any obligations to update any forward-looking statements.

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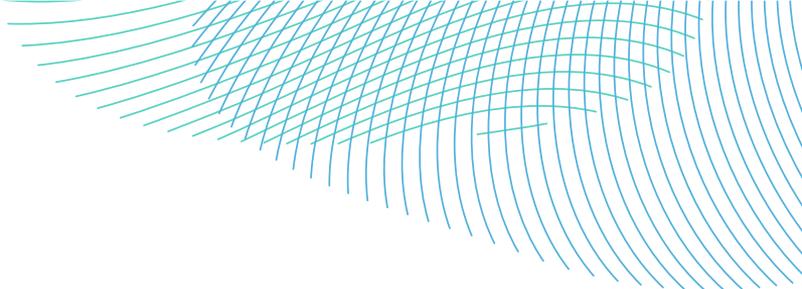


RWE TECHNOLOGIES

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RWE GROUP



Company overview

Key facts

- **HQ Location** Essen
- **Employees** ~18,200
- **Incorporation** 1898
- **Profile & Main activities** A leading operator of green generation assets with strong commercial platform
- **Geographic footprint** Europe, North America and APAC

Executive Board



Dr. Markus Krebber
CEO



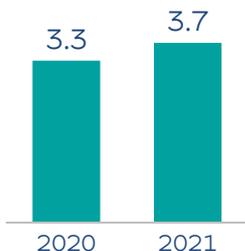
Dr. Michael Müller
CFO



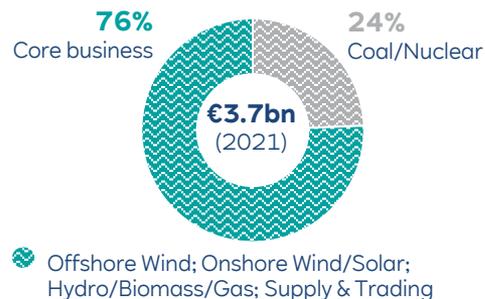
Zvezdana Seeger
CHO

Key financials

Adj. EBITDA, €bn



Adj. EBITDA, breakdown by business



Shareholders

Ownership

Other institutional shareholders	80%
Private shareholders	12%
BlackRock	7%
Employee shareholders	1%

Market cap.

~€24bn¹

Shares

~676mn

¹ Note: As of 31 Dec 2021.

RWE at a glance

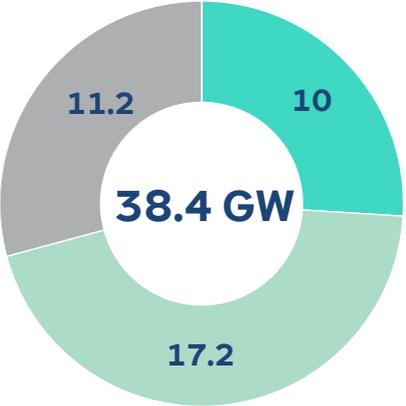
Driving force behind the energy transition – with a powerful position

<p>Well established robust company with strong financial performance</p> 	<p>>120 year track record</p>	<p>~18,200 employees</p>	<p>~€24 bn market cap</p>	<p>~220% total shareholder return past 5 years</p>	<p>€3.0 bn dividend payments past 5 years</p>
<p>Experienced operator of green generation assets with strong commercial platform</p> 	<p>~38 GW generation portfolio</p>	<p>~161 TWh power generated</p>	<p>~27 GW green capacity</p>	<p>70% secured gross margin wind & solar</p>	<p>Top 500 blue chip customers rely on RWE's commodity solutions</p>
<p>Leading the way to a green energy world with our Growing Green Strategy</p> 	<p>Ø 2.5 GW net capacity additions p.a.</p>	<p>>55 GW development pipeline</p>	<p>~50 GW green capacity by 2030</p>	<p>€30 bn net capex 2021-2030</p>	<p>>90% EU Taxonomy eligible capex</p>

Note: Data as of end 2021; pro rata figures.

Unique generation portfolio combined with leading commercial platform

RWE's generation capacity 2021¹ (pro rata)



- Wind, Solar, Batteries
- Flexible Generation²
- Coal, Nuclear³

- **Green global player**
 - >20 years in the renewables business
 - #2 offshore player globally
- **Leading provider of flexibility**
 - #2 gas fleet in Europe
 - >10 battery projects
 - >2 GW of hydro and pump storage capacity
 - >30 hydrogen projects
- **Strong commercial platform**
 - ~1,250 TWh of power & ~693 bcm⁴ of gas traded p.a.

¹ As of 31 Dec 2021. | ² Including "Other" technologies (0.3 GW). | ³ All German lignite, European hard coal & nuclear capacities. | ⁴ Billion cubic metre.

Business model fully aligned with our strategic focus on the energy transition

Core

Coal/Nuclear

Offshore Wind 

- Global offshore activities

~1,300 employees

Onshore Wind/Solar 

- Onshore, solar and storage activities in
 - Europe & APAC
 - Americas

~2,100 employees

Hydro/Biomass/Gas 

- Hydro, biomass and gas plants
 - Germany, UK, NL
- Hydrogen projects
- Kelag stake

~2,600 employees

Supply & Trading 

- Trading/ origination
- Gas & LNG
- Commodity solutions
- Gas storage

~1,800 employees

- German lignite and nuclear operations
- Hard coal plants
- 30% share in Dutch nuclear operator EPZ

~9,900 employees

Capacity:	2.4 GW
Power generation:	7.6 TWh
Adj. EBITDA:	€ 1,110 m
Adjusted EBITDA share:	30%

Capacity:	7.5 GW
Power generation:	16.7 TWh
Adj. EBITDA:	€ 258 m
Adj. EBITDA share:	7%

Capacity:	18.3 GW
Power generation:	67.3 TWh
Adj. EBITDA:	€ 731 m
Adj. EBITDA share:	20%

Capacity:	n/a
Power generation:	n/a
Adj. EBITDA:	€ 769 m
Adj. EBITDA share:	21%

Capacity:	10.2 GW
Power generation:	69.2 TWh
Adj. EBITDA:	€ 889 m
Adj. EBITDA share:	24%

Note: Figures for FY 2021, pro rata capacity.

Our core business is leading the way to a green energy world



Offshore Wind

Strongest growth in Europe, significant potential in global markets



Onshore Wind/Solar

Decarbonisation pledges accelerate growth momentum in US and Europe



Batteries & Flexible Generation

RWE's European core markets require new, low-carbon flexible capacities



Hydrogen

Hydrogen is quickly gaining traction with Europe at the forefront



Commercial Solutions

Decarbonisation of industry drives demand for tailored solutions

RWE's Executive Board

Chief Executive Officer (CEO)



Dr. Markus Krebber

Born 1973, with RWE since 2012, Member of the Executive board of RWE AG since 2016, CEO since 2021.

Group departments

- Group Communications & Public Affairs
- Energy Transition & Regulatory Affairs
- Legal, Compliance & Insurance
- Mergers & Acquisitions
- Strategy & Sustainability
- Corporate Transformation

Chief Financial Officer (CFO)



Dr. Michael Müller

Born 1971, with RWE since 2005, Member of the Executive board of RWE AG since 2020, CFO since 2021.

Group departments

- Accounting
- Controlling & Risk Management
- Finance & Credit Risk
- Investor Relations
- Tax

Chief Human Resources Officer (CHO) & Labour Director



Zvezdana Seeger

Born 1964, with RWE since 2020, Member of the Executive board of RWE AG since 2020, CHO since 2020.

Group departments

- HR Services & Analytics
- Employee Relations
- People Management & Talent Attraction
- IT
- Internal Audit & Security

Supervisory Board

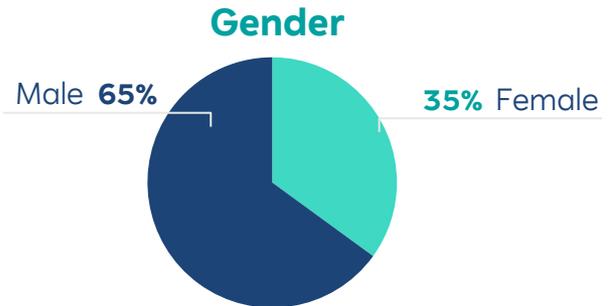
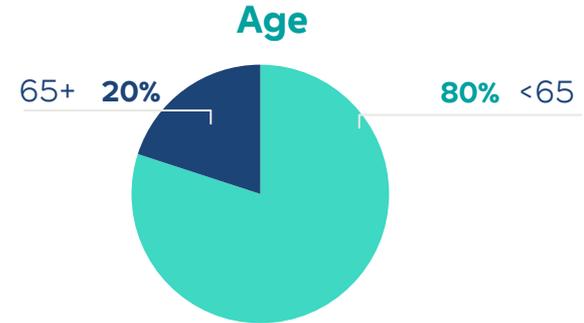
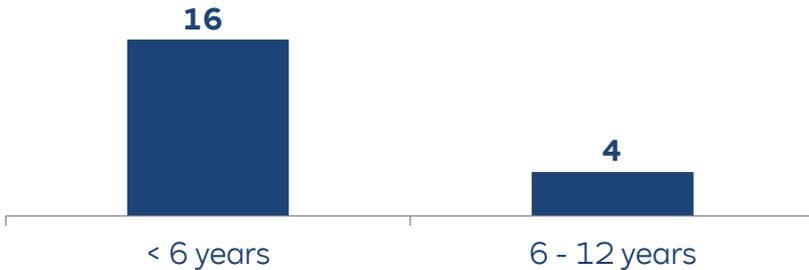
Supported by
6 standing committees

20 Board Members

10 **shareholder representatives** elected by the Annual General Meeting

10 **employee representatives** elected by the employees of RWE AG & its group companies

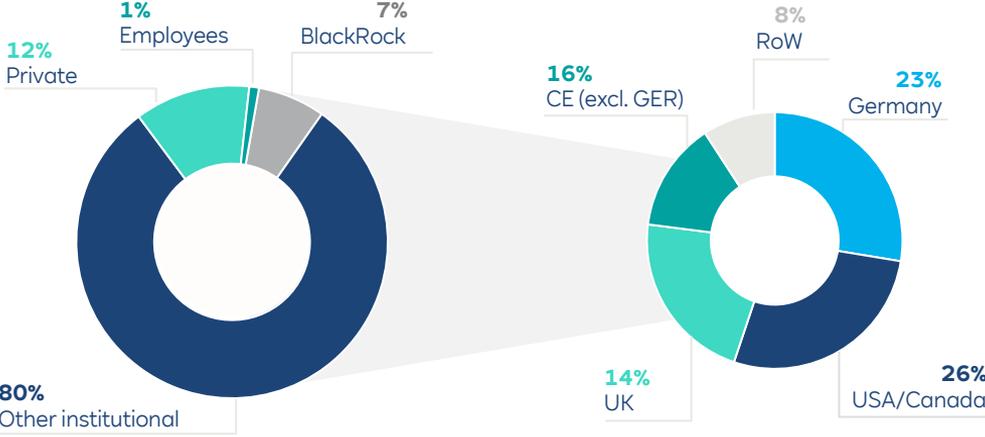
Board Tenure in Years



Shareholder structure of RWE AG

RWE shareholders

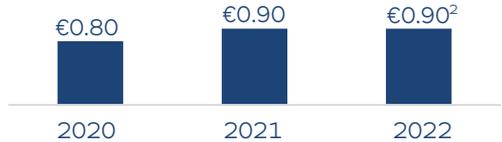
Institutional



Share indicators

		2020	2021
Number of shares	thousands	676,220	676,220
Share price ¹	€	34.57	35.72
Market capitalisation ¹	€ billion	23.4	24.2

Dividend

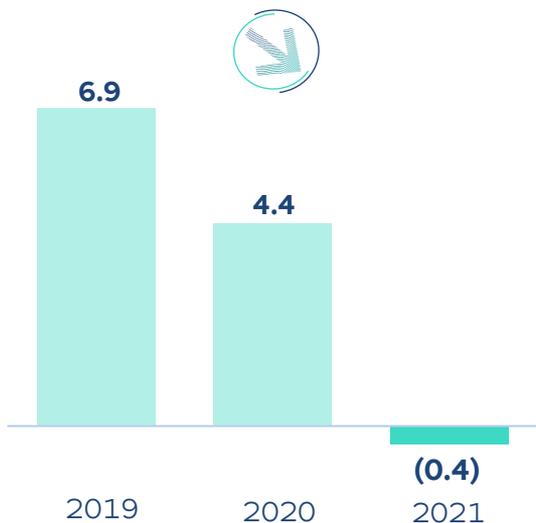


Note: As of 31 Dec 2021. | ¹ As of 31 Dec 2021. | ² Management target.

Capital structure

RWE net debt/ cash¹

in € bn



Credit rating development

	Senior debt		Current rating
Moody's	Baa3	Baa3	Baa2
Fitch	BBB	BBB	BBB+
	Hybrid bonds		
Moody's	Ba2	Ba2	Ba1
Fitch	BB+	BB+	BBB-
	Short-term debt		
Moody's	P-3	P-3	P-2
Fitch	F2	F2	F1
	Outlook		
Moody's	stable	positive	stable
Fitch	stable	stable	stable
	2019	2020	2021/22

- **Stable & sustainable** earnings backed by **balanced** financial position and **strong** investment grade rating
- Credit ratings **continuously improved**

“The Baa2 rating of RWE reflects its large and well-diversified generation portfolio; progress in executing the strategy of growing the renewables generation portfolio while reducing conventional thermal coal-based capacity; and solid financial metrics, underpinned by a prudent financial policy and strong operating performance recently.”

MOODY'S

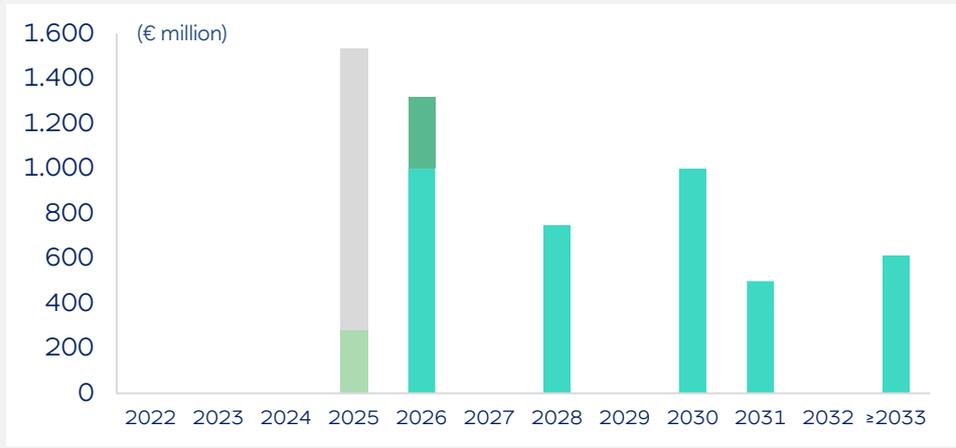
Credit Opinion, July 2022

¹ Net debt definition excludes financially ring-fenced coal phaseout liabilities and dedicated financial assets; see also page 114.

Issuances and maturities of RWE's bonds

RWE's Bond Maturity Profile with Sustainable Bonds as preferred financing tool for future growth

- Green Bonds
- Hybrid USD¹ at First Call Date
- Hybrid EUR at First Call Date
- Conventional Bond



¹ Converted at the exchange rate from 1 Sept 2022. | Note: 2033 year includes a residual amount of €12m private placement.

RWE's issuances

- June 2021 (€500 m, 0.625%, 06/2031)
1st Green Issuance
- Nov 2021 (€750 m, 0.5%, 11/2028)
- Nov 2021 (€600 m, 1.0%, 11/2033)

→ **Total in 2021: €1.85 billion**

- May 2022 (€1,000 m, 2.125%, 05/2026)
- May 2022 (€1,000 m, 2.75%, 05/2030)
- Aug 2022 (€1,250 m, 2.5%, 08/2025)

→ **2022 to date: €3.25 billion**

Hybrid bonds:

- April 2015 (€282 m, 3.50%, 04/2025)
- June 2015 (€317 m, 6.625%, 03/2026)

RWE will be a frequent issuer of green bonds

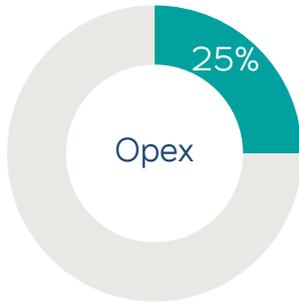
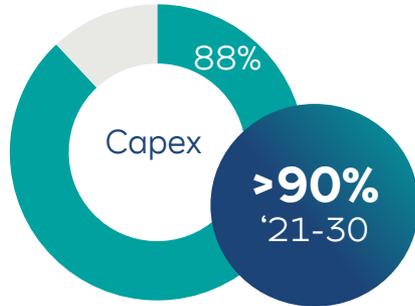


100% of proceeds will be allocated to green technologies

Type	Green Format	<ul style="list-style-type: none">Funding strategy serves RWE's transition to a pure renewables playerConventional bonds only on an exceptional basis
Volumes	Ø €1.5 – 2.5bn p.a.	<ul style="list-style-type: none">Driven by liquidity requirements and market circumstances
Tenors	3 – 20 years	<ul style="list-style-type: none">Aiming to achieve a balanced maturity profile
Currencies	EUR, USD, GBP	<ul style="list-style-type: none">Currencies based on RWE's asset baseOther currencies used opportunistically
Instruments	Senior and Hybrid	<ul style="list-style-type: none">Public senior bonds as base instrumentPrivate placements, promissory notes (Schuldscheindarlehen)Hybrids potential supplemental instrument

Sustainable Finance at RWE

EU Taxonomy: share of RWE's eligible business activities (2021)¹



Sustainability-Linked Financing Instruments, Frameworks and Policies:

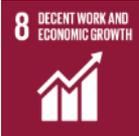
- Taxonomy-aligned KPIs integrated into RWE's **Revolving Credit Facility**
- RWE **Green Bond** Framework
- **Green Bonds** as preferred financing tool
- **ESG criteria** integrated into third-party processes and in financial investments



¹ Our taxonomy-eligible business activities primarily comprise electricity generation from onshore and offshore wind, solar and hydropower (run-of-river, pumped storage).

RWE's approach to ESG contributes directly to the UN SDGs

Seven SDGs were defined as material in relation to the business activities of RWE

						
<ul style="list-style-type: none"> • 30% of female Executive Board members • Leader in Diversity for the 3rd time in a row recognised by The Financial Times; ranked 2nd among energy companies in Europe 	<ul style="list-style-type: none"> • Leading operator of wind and solar with ~11 GW installed capacity with Ø 2.5 GW net capacity additions p.a. • Highly efficient and flexible power plant portfolio 	<ul style="list-style-type: none"> • Strong employer with workforce of ~18,200 people • Contribution to local communities, support for structural change and socially responsible and fair transition 	<ul style="list-style-type: none"> • Focus on innovative technologies to support climate-neutral transition: hydrogen, storage technologies, floating offshore wind and floating PV, recyclable blades 	<ul style="list-style-type: none"> • CO₂ reduction of 55% since 2012 • Certified 2030 emissions targets; climate neutrality by 2040 • Embedded circularity across all parts of company 	<ul style="list-style-type: none"> • Recultivation programme with focus on biodiversity • Net-positive contribution to biodiversity by 2030 for new assets • Increase in ecology in renaturalised mining areas 	<ul style="list-style-type: none"> • Strict compliance requirements with RWE's Code of Conduct • Member of Bettercoal to promote standards in supply chain



Impressive improvement in major sustainability ratings

ESG Rating

MSCI
AAA to CCC

2020 → 2022

A → **A**
Average → Average

Top half of all Utilities
(Utilities Sector)

ESG Risk Rating

SUSTAINALYTICS
100 to 0
(0 = top mark)

2020 → 2021

33.8 ↗ **22.7**
High → Medium

Lower risk

Top 20% of all Utilities
(Utilities Sector)

ESG Corporate Rating

ISS ESG
A+ to D-

2020 → 2022

C+ ↗ **B-**
→ Prime Status

Top 10% of all Multi Utilities
(Utilities Sector)

Corporate Sustainability Rating

S&P Global
0 to 100
(100 = top mark)

2020 → 2022

63 ↗ **70**

Industry Mover 2022
Top 15% of our industry

Climate Change Rating

CDP
DISCLOSURE INSIGHT ACTION
A to D

2020 → 2021

B → **B**
Management level → Management level

Better than the global average

Note: Last shown rating scores based on the date of last comprehensive rating review.

Ambitious science-based emission reduction targets lead the way to Net Zero



We take action

- **Clear decarbonisation roadmap** with further closures of coal activities; coal exit no later than 2038
- Ongoing significant **expansion in green capacity**
- Driving forward **green H₂**
- Efforts to reduce indirect emissions, e.g. from our **supply chain**

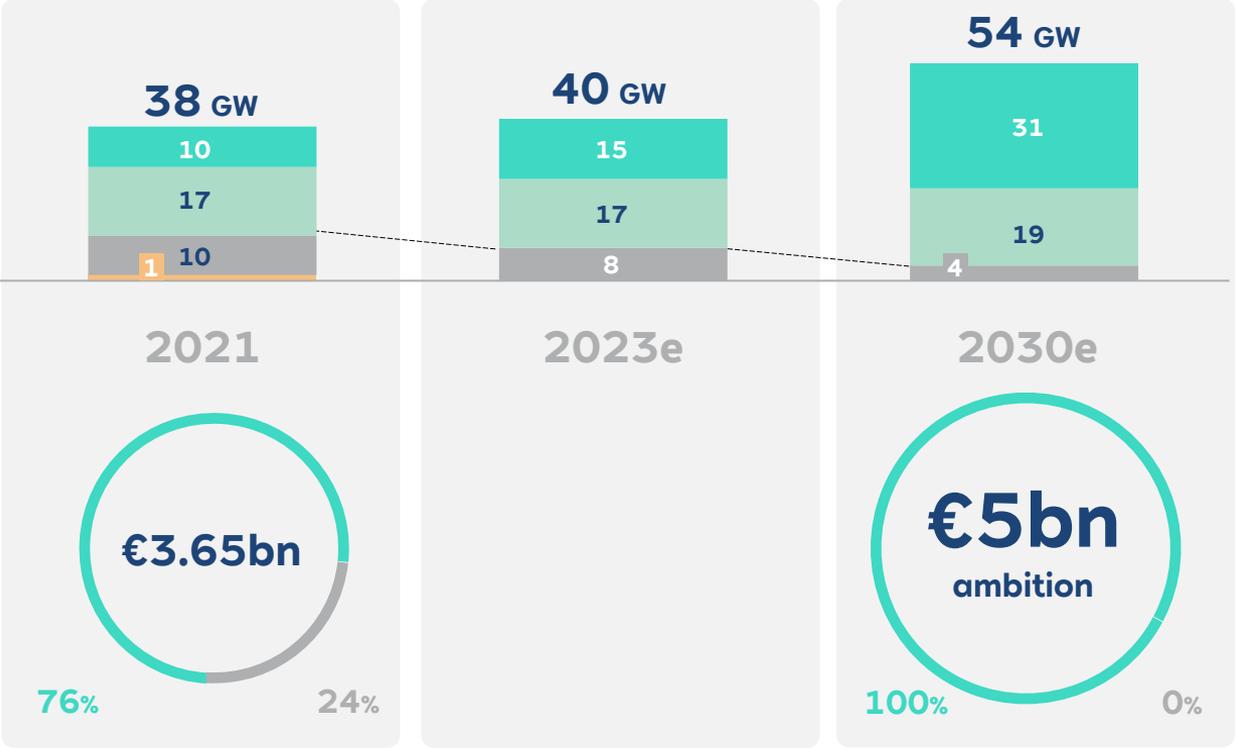
¹ 2019 is the base year for our Science-based Target. | Note: Figures in million tonnes CO₂-equivalent. | For more information on our carbon footprint, please visit www.rwe.com/emissions

We are transforming rapidly into a green energy company

Installed net capacity

GW, pro rata

- Wind/Solar/Batteries
- Flexible Generation/Hydrogen
- Coal
- Nuclear



Adj. EBITDA

- Core business
- Coal/Nuclear



Shaping the future of energy through Innovation – our R&D projects

illustrative

Offshore wind expansion



- **Floating offshore wind**
Demonstration projects for different types of floating foundations
(TetraSpar, SATH, Maine Aqua Ventus)

Hydrogen



- **>30+ H₂ projects along the entire value chain**
See next slide
(GER, NL, UK)

Circular energy / reuse and recycling



- **Multi-fuel conversion / Closed loop recycling**
Conversion of waste into base chemicals
Recycling of sewage sludge incl. recovery of phosphorus
(Furec/ NL; MFC plant GER)



Innovative methods of storing electricity

- **Co-located** energy storage system coupled with **solar**
(Hickory Park, USA)



- **Co-located** battery storage system coupled with **hydro**
(Werne & Lingen, GER)



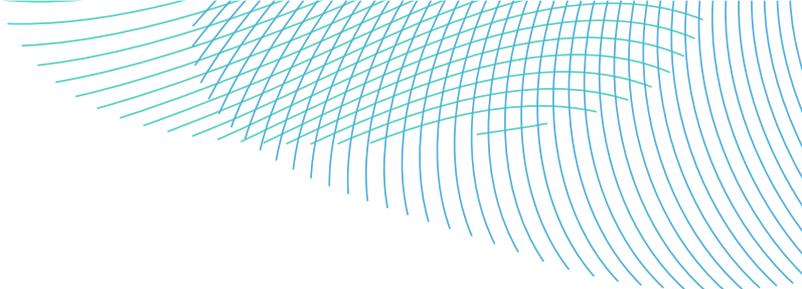
- **Redox flow technology**
Vanadium batteries & Large-scale organic flow batteries
(RWE Campus, GER; salt caverns)



- **Recyclable blades & noise reduction**
Testing of world's first **recyclable** wind turbine blade from Siemens Gamesa
New installation techniques for offshore foundations to **reduce noise** emissions

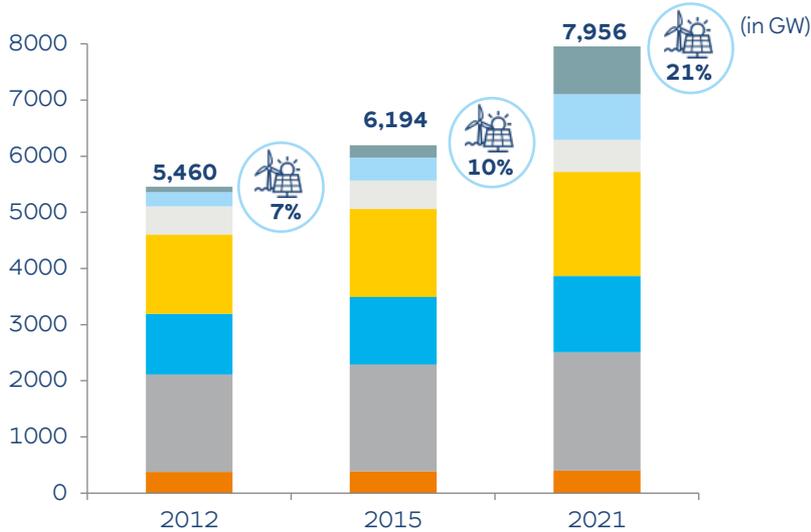


MARKET DATA



Global capacity and generation mix

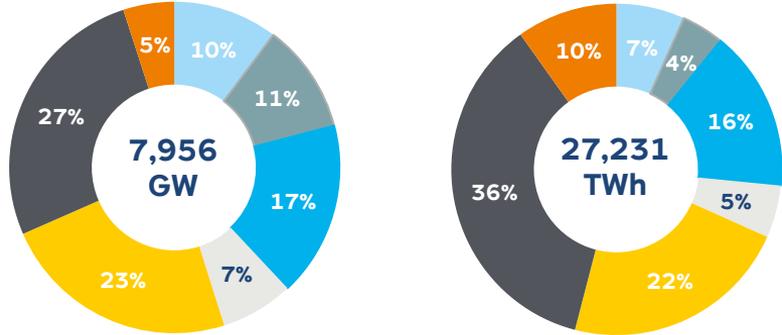
Global installed capacity



■ Nuclear
 ■ Coal
 ■ Hydro
 ■ Gas
 ■ Other
 ■ Wind
 ■ Solar

Source: IHS.

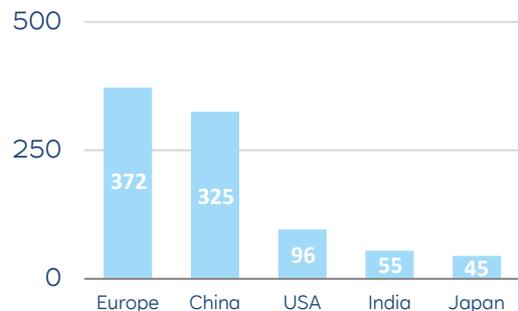
Global installed capacity & generation in 2021



Global country rankings for capacity additions from 2022 – 2050

Capacity additions for Offshore wind

(in GW)



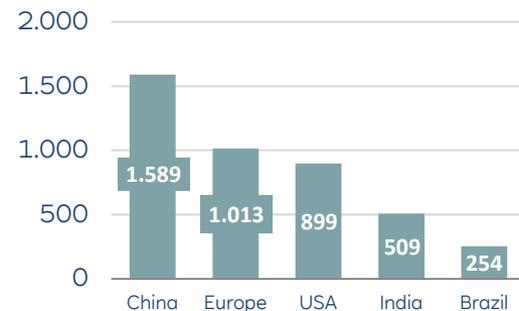
Capacity additions for Onshore wind

(in GW)



Capacity additions for Solar PV

(in GW)



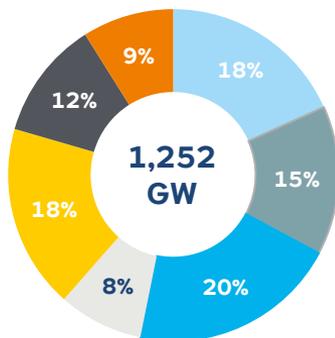
Source: IHS. Note: Russia is not included in Europe and therefore shown separately.



European power generation and capacity mix

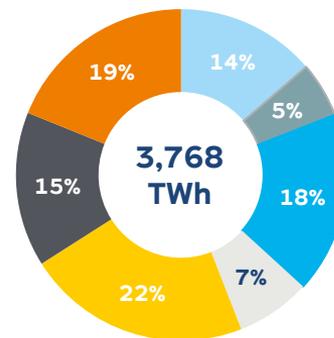
Installed capacity in 2021

	GW
Nuclear	112
Coal	145
Gas	225
Other, oil, batteries, biomass & waste	104
Hydro	255
Solar	182
Wind	229



Generation mix in 2021

	TWh
Nuclear	712
Coal	569
Gas	827
Other, oil, batteries, biomass & waste	275
Hydro	666
Solar	203
Wind	516



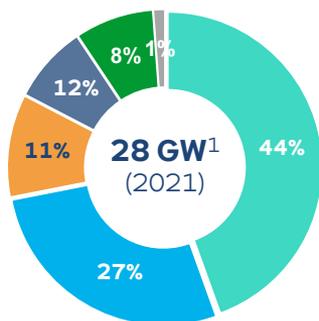
Source: IHS.



European Offshore

Offshore wind generating capacity

	GW
UK	12.5
Germany	7.7
Netherlands	3.0
Belgium	2.3
Denmark	2.3
Rest of Europe	0.3
Total	28.2

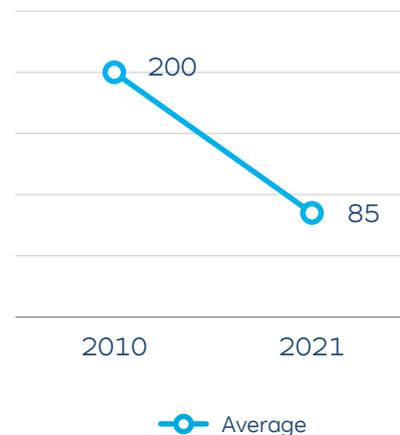


New European capacity installed in 2021

UK	Denmark	Netherlands	Germany	Total
2.32 GW	0.61 GW	0.39 GW	-	3.32 GW

LCOE² for offshore wind

(in \$/MWh)



¹ Source: GWEC Global Wind Report 2022. ² Historic benchmark of Levelised Cost of Electricity (\$/MWh, real); global scope. Source: BNEF.



European Onshore

Onshore wind generating capacity

(in GW)



LCOE¹ for onshore wind

(in \$/MWh)



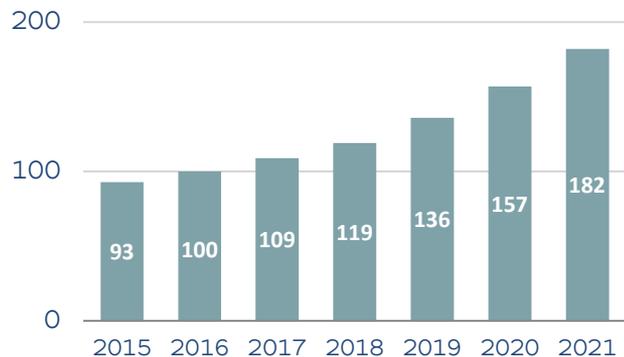
¹ Historic benchmark of Levelised Cost of Electricity (\$/MWh, real); global scope. | Source: IHS.



European Solar

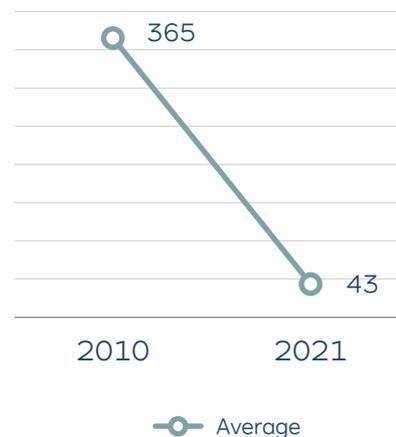
Solar generating capacity

(in GW)



LCOE¹ for PV (non-tracking)

(in \$/MWh)



¹ Historic benchmark of Levelised Cost of Electricity (\$/MWh, real); global scope. | Source: IHS.



U.S. power generation and capacity mix

Installed capacity in 2021

	GW
Nuclear	96
Coal	211
Gas	470
Other, oil, batteries, biomass & waste	71
Hydro	76
Solar	102
Wind	134



Generation mix in 2021

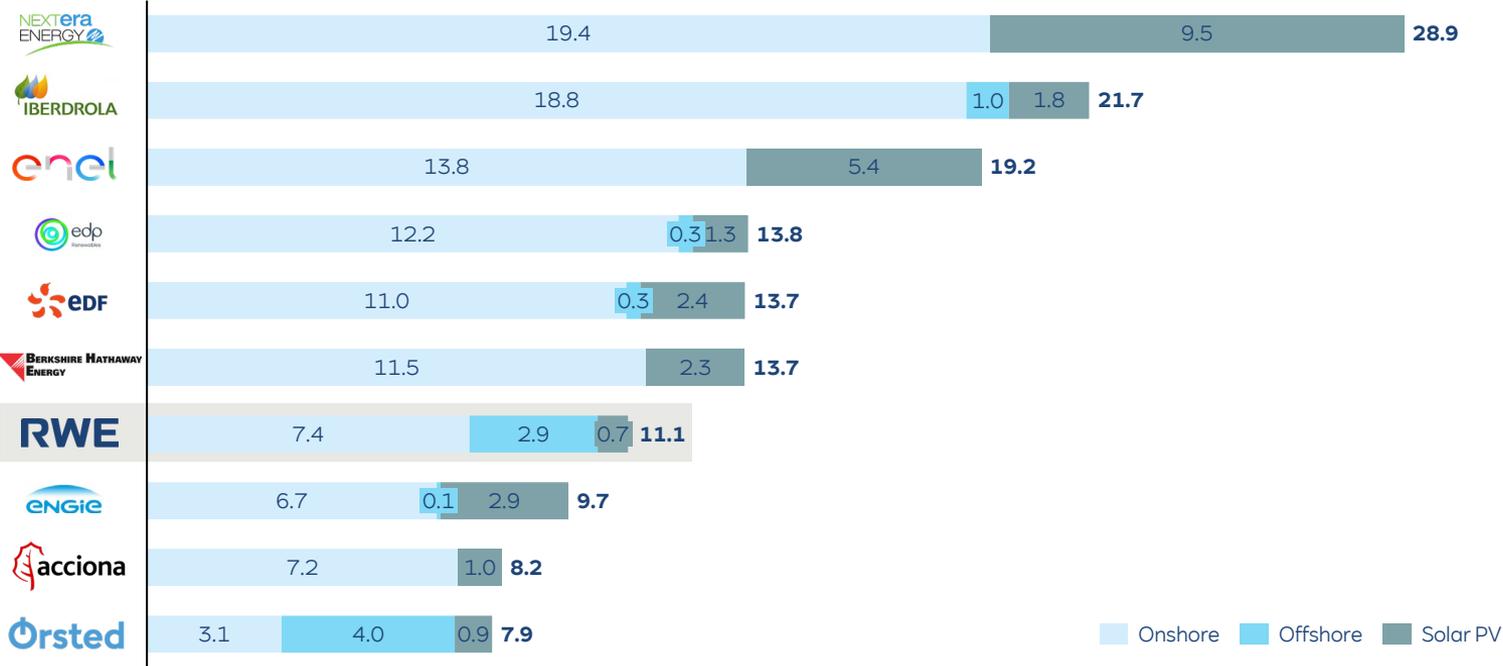
	TWh
Nuclear	859
Coal	1,093
Gas	1,362
Other, oil, batteries, biomass & waste	90
Hydro	569
Solar	202
Wind	459



Source: IHS.

Global renewables competitive landscape with focus on onshore

Competitors Global RES capacity, GW (pro rata)



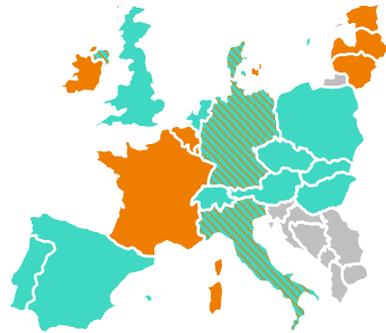
Source: BNEF Ranking of Renewable Project owners Database as of 20 July 2022; rounding differences may occur.



Controllable capacity in Europe significantly decreasing

Without flexibility tools, risk of system inadequacy rise substantially in 2025 (ERAA)¹

(Loss of load expectation, LOLE²)



National estimates scenario 2025

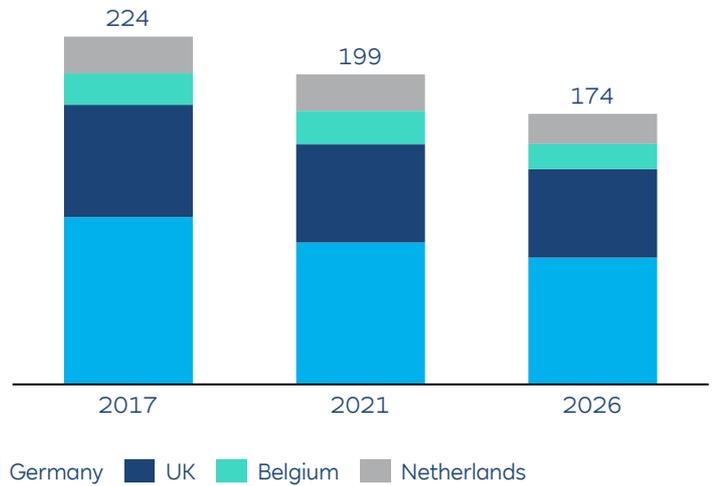
■ Null avg. LOLE
 ■ Avg. LOLE > 0.1h
 ■ Avg. LOLE ≤ 0.1h



Central scenario without intervention / capacity mechanism

Installed controllable capacity in Central Western Europe³

(in GW)



¹ European Resource Adequacy Assessment 2021 of entso-e. | ² Expected number of hours where load cannot be supplied by local resources and imports. | ³ Controllable capacity only, i.e. without PV and wind energy. For more historic data per country, please see local databases: BDEW for Germany, Digest of UK Energy Statistics (DUKE) for UK and Central Office for Statistics Netherlands (CBS).

Ancillary services¹

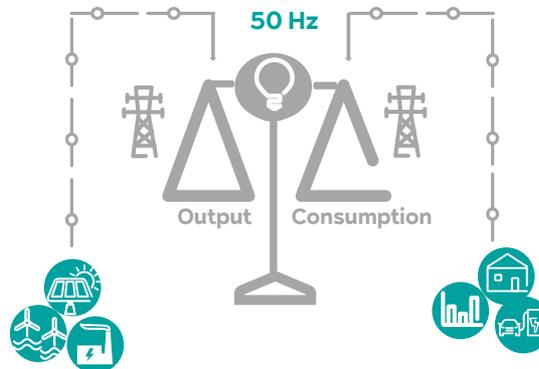
Continuous balancing of power supply and demand

The balancing market:

- A market operated by Transmission System Operators (TSOs) to maintain the power/frequency balance
- It is needed to ensure a continuous and stable frequency in the short term (e.g. when unexpected incidents occur - power plant outages)

Ancillary services:

- Necessary tools/products which TSOs contract from generators in order to maintain system stability and security



Maintains grid quality

System products

- **Reactive power** (voltage support) provides the important function of voltage regulation

Constraint Management

- **Countertrading** – grid operators deal on exchange or OTC (Continental)
- **(Regulated) Redispatch** – ramp-down or ramp-up power stations to relieve power flows from congested grid lines

Maintains energy balance

Energy products

- **Frequency Control & Reserves** – to maintain system frequency at 50Hz \pm x% and to provide additional energy when needed
 - **UCTE / Germany:** primary, secondary, tertiary and time control levels (FCR, aFRR/mFRR, RR)
 - **UK:** frequency response (FFR, MFR, EFR) and reserve (Fast Reserve, STOR, BM start up)

Dedicated to restarting the grid

Security products / emergency

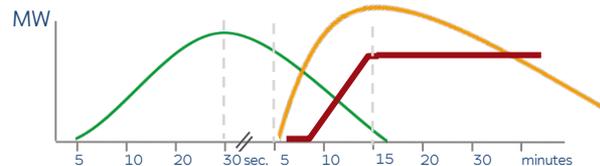
- **Blackstart** ability to restart a grid following a blackout
- **Intertrips** – automatically disconnect a generator
- **SO-SO trading** (system operator to system operator trades) – determines the direction of electricity flow

¹ Range of functions/products which Transmission System Operators (TSOs) contract from generators in order to maintain system stability and security.

Overview of continental reserve category timescales

	Primary reserve	Secondary reserve	Tertiary reserve
Reaction time	<ul style="list-style-type: none"> 30 seconds (100%) 	<ul style="list-style-type: none"> 5 minutes (100%) 	<ul style="list-style-type: none"> 7 - 15 minutes (100%)
System	<ul style="list-style-type: none"> UCTE¹ 	<ul style="list-style-type: none"> Control area 	<ul style="list-style-type: none"> Control area
Activation	<ul style="list-style-type: none"> Automatic and decentralised activation via governor control 	<ul style="list-style-type: none"> Centralised (TSO); active call through IT 	<ul style="list-style-type: none"> Centralised (TSO); active call through phone/IT
Reserved capacity	<ul style="list-style-type: none"> 3,000 MW in UCTE 1,400 MW joint auction (DE, FR, NL, BE, CH, AU) 	<ul style="list-style-type: none"> Decided by TSO (+/-2,000 MW in Germany) 	<ul style="list-style-type: none"> Decided by TSO (+1,200 MW, - 700 MW in Germany)
Auction	<ul style="list-style-type: none"> Daily 	<ul style="list-style-type: none"> Daily 	<ul style="list-style-type: none"> Daily
Remuneration	<ul style="list-style-type: none"> Pay-as-cleared 	<ul style="list-style-type: none"> Pay-as-bid 	<ul style="list-style-type: none"> Pay-as-bid
Typical suppliers	<ul style="list-style-type: none"> Synchronised generators; large-scale battery storage systems 	<ul style="list-style-type: none"> Storage and pumped storage hydro plants; gas turbine power plants; CHP; large-scale battery storage systems 	<ul style="list-style-type: none"> Storage and pumped storage hydro plants; gas turbine power plants; CHP; other thermal power plants

- A **sudden drop** in frequency triggers automated response to **correct the frequency**, followed by **manual interventions** by power system operators.



¹ The Union for the Coordination of the Transmission of Electricity.



REGULATIONS

Regulatory regimes for renewables (1/10)



	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> • Production Tax Credit (PTC) annually inflation-adjusted, paying out over 10 years. Full PTC value for projects that have begun construction before 2017, and then falling to 80% in 2017, 60% in 2018, 40% in 2019, 60% in 2020 until expiring in 2021. Projects must complete construction in 4 years. • Renewable Energy Certificates (RECs) • Mandatory procurement via Renewable Portfolio Standards (RPS)/clean energy goals • Modified Accelerated Cost-Recover System (MACRS): Accelerated depreciation for tax equity investors & developers over 5 years, majority of capex can be expensed in year placed in service (bonus depreciation) • Investment Tax Credits (ITC) also possible, not inflation-adjusted 	<p>Various revenue streams depending on state and market:</p> <ul style="list-style-type: none"> • Tax credits via PTC (\$25/MWh) or ITC (30% of capex) • Energy revenues via wholesale market or PPA (10-20 years) • Capacity revenue via market or part of PPA • RECs via market or part of PPA
Offshore	<ul style="list-style-type: none"> • Investment Tax Credit (ITC) amounts to 30% for projects that have begun construction before 2020 and complete construction before 31 Dec 2023, then gradually decreasing until 10% for projects completing construction after 2023. • Offshore Renewable Energy Certificates (ORECs) • Mandatory procurement via Renewable Portfolio Standards (RPS)/clean energy goals 	
Solar	<ul style="list-style-type: none"> • Investment Tax Credit (ITC) • Renewable Energy Certificates (RECs) • Mandatory procurement via Renewable Portfolio Standards (RPS)/clean energy goals • Modified Accelerated Cost-Recover System (MACRS) 	

Regulatory regimes for renewables (2/10)



	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> Contracts for Difference provides a two-sided CfD, awarded through a competitive pay-as-clear auction The first Contract for Difference (CfD) allocation round was in 2015. Onshore wind and PV were included in the first round but then excluded until Allocation Round 4 (AR4) in 2022 Future auctions will be annual. The next auction is March 2023. To note, onshore wind projects are also eligible for the Capacity Market (CM) Support Scheme. However, generators cannot have a CfD and a CM contract and must face a one-off choice between the two. There has been limited take-up from renewables assets as the scheme de-rates payments based on load factors. 	<p>CfD:</p> <ul style="list-style-type: none"> Wholesale market + CfD top-up/payback to government entity Term: 15 years (inflation linked) Generators with a CfD sell power into the wholesale market and receive the difference between the market price and the strike price level they received in the auction. <p>Onshore wind average CfD clearing prices (2012 money):</p> <ol style="list-style-type: none"> Allocation Round 1 (2015) = £81.25/MWh Allocation Round 4 (2022) = £42.47/MWh <p>Capacity Market (onshore and offshore)</p> <ul style="list-style-type: none"> £/kW payment with de-rating of payment for renewables (92% reduction for onshore wind and 86% reduction for offshore wind) 15 year term for new build assets, 1 year for existing assets
Offshore	<ul style="list-style-type: none"> Contracts for Difference provides a two-sided CfD, awarded through competitive pay-as-clear auction First Contract for Difference (CfD) allocation round was in 2015. Offshore wind has been included in in each round since Offshore was given an exclusive technology budget “pot” in the 2022 auction In future auctions will take place annually. The next auction is March 2023. To note, offshore wind projects are also eligible for the Capacity Market (CM) Support Scheme. However, generators cannot have a CfD and a CM contract and must face a one-off choice between the two. There has been limited take-up from renewables assets as the scheme de-rates payments based on load factors. 	<p>CfD:</p> <ul style="list-style-type: none"> Wholesale market + CfD top-up/payback to government entity Term: 15 years (inflation linked) Generators with a CfD sell power into the wholesale market and receive the difference between the market price and the strike price level they received in the auction. <p>Offshore wind average CfD clearing prices (2012 money):</p> <ol style="list-style-type: none"> Allocation Round 1 (2015) = £117.86/MWh Allocation Round 2 (2017) = £68.36/MWh Allocation Round 3 (2019) = £40.38/MWh Allocation Round 4 (2022) = £37.35/MWh

Regulatory regimes for renewables (3/10)

Germany

	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> • Feed-in tariff (FIT) with direct marketing obligation until COD 2016 (relevant for existing assets) • Pay-as-bid one-sided Contract for Difference (CfD) awarded through auctions since 2017 	<ul style="list-style-type: none"> • One-sided CfD price determined in competitive auctions with May 2022 average 5.85c€/kWh, subject to “reference yield” corrections • Term: 20 years • Pre-tender phase assets receive Feed-in tariff
Offshore	<ul style="list-style-type: none"> • Feed-in tariff (FIT) with direct marketing obligation until 2016 • Since 2017 transition to central auction system in form of 20 year one-sided CfD (for projects with COD after 2026). Two interim auction rounds were held in 2017 and 2018 for projects in advanced stage with COD in 2021 to 2025 • In 2021 and 2022 central auction system with one-sided CfD with zero bids, lottery and subsequent step-in right execution from existing projects • Since 2022, twofold auction scheme for COD starting 2028 with centrally pre-investigated sites tendered via a set of 5 bid criteria and not centrally pre-investigated sites via the known one-sided CfD. Both routes foresee a financial bid although for not centrally pre-investigated sites the financial bid is determined in a dynamic bidding process and only relevant in case of 0-bids in first step. • Remaining step-in rights for 2023 auction require matching of the financial bid only 	<ul style="list-style-type: none"> • Initial tariff: €139 - 154/MWh for 12 years (standard) or €184-194/MWh for 8 years (compression model) depending from the year of commissioning • Base tariff: €39/MWh for residual term • One-sided CfD price in not centrally pre-developed sites determined in competitive pay-as-bid auctions (zero bids possible) • No support scheme for centrally pre-developed sites with focus on PPA market but auctions based on selected quantitative and qualitative criteria.
Solar	<ul style="list-style-type: none"> • Feed-in tariff (FIT) with direct marketing obligation until COD 2016 (relevant for existing assets) • Pay-as-bid one-sided Contract for Difference (CfD) awarded through auctions since 2017 (after pilot auctions) 	<ul style="list-style-type: none"> • One-sided CfD price determined in competitive auctions with June 2022 average 5.51c€/kWh • Term: 20 years • Pre-tender phase and small-scale assets receive Feed-in tariff

Regulatory regimes for renewables (4/10)

Netherlands

	Support regime	Remuneration ¹
Onshore	<ul style="list-style-type: none"> • SDE+ (available from 2011-2019) a technology based one-sided CfD • SDE++ (available since 2020): One-sided CfD support based on auction for lowest carbon abatement cost As such carbon abatement technologies other than renewables can apply for subsidy • SDE++ is being phased out for solar and onshore wind projects by 2025. • A safety net support scheme for Solar and onshore Wind is under development. 	<ul style="list-style-type: none"> • Term: 12 or 15 years • Pay-as-bid CfD
Offshore	<ul style="list-style-type: none"> • No support scheme, but auctions based on beauty contests based on scoring criteria e.g. experience, risk mitigation, innovation • Financial bid amount included as part of scoring criteria 	<ul style="list-style-type: none"> • Full market exposure • Grid connection provided by TSO
Solar	<ul style="list-style-type: none"> • No specific support scheme for solar as primary support scheme is generic for all carbon abatement technologies onshore (see onshore) 	

¹ Not linked to inflation.

Regulatory regimes for renewables (5/10)



	Support regime	Remuneration ¹
Onshore	<ul style="list-style-type: none"> Assets with COD until 2013: Feed-in premium (FIP) to market price Auction system applicable since 2013 	<ul style="list-style-type: none"> Wholesale market + premium Premium for year t: $(180 - \text{market price } t-1) * 78\%$ Term: 12 years for pre-2008 COD, 15 years for post-2008 COD Auction design Pay-as-bid one-sided CfD through auctions since 2013 and two-sided CfD since 2019 Term: 20 years Avg CfD price (Feb 2022 auction): €65.14/MWh
Solar	<ul style="list-style-type: none"> Auction system applicable since 2013 	<ul style="list-style-type: none"> Auction design Pay-as-bid one-sided CfD through auctions since 2013 and two-sided CfD since 2019 Avg CfD price (Feb 2022): €65.12/MWh

¹ Not linked to inflation.

Regulatory regimes for renewables (6/10)



Spain

	Support regime	Remuneration ¹
Onshore	<ul style="list-style-type: none"> Market income plus investment retribution in €/MW Compensation since mid 2013 CfD auction system applicable since 2020 	<ul style="list-style-type: none"> Market income plus investment retribution (€/MW) Each technology has a regulatory life to recover their regulated CAPEX. For wind it is max. 20 years. The standard facility can recover the regulated capex in a shorter period. Once CAPEX is recovered no more subsidy is paid. Auction design Pay-as-bid CfD auction. Term: 12 years Avg CfD price (Oct 2021 auction): €30.2/MWh
Solar	<ul style="list-style-type: none"> Market income plus investment retribution in €/MW Compensation since mid 2013 CfD auction system applicable since 2020 	<ul style="list-style-type: none"> Market income plus investment retribution (€/MW) Each technology has a regulatory life to recover their regulated CAPEX. For PV it is max. 30 years. The standard facility can recover the regulated capex in a shorter period. Once CAPEX is recovered no more subsidy is paid. Auction design Pay-as-bid CfD auctions Term: 12 years Avg. CfD price (Jan 2021 auction): €31.6/MWh

¹ Not linked to inflation.

Regulatory regimes for renewables (7/10)

Denmark

Sweden

	Support regime	Remuneration	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> • Contract for difference (CfD), whereby CfD strike price is derived through auction process. • Alternate route is wholesale with PPA 	<ul style="list-style-type: none"> • Wholesale market plus CfD premium to reach CfD strike price • CfD price determined in competitive auctions • Alternate wholesale route 	<ul style="list-style-type: none"> • Wholesale market with potential PPA 	<ul style="list-style-type: none"> • Wholesale market with potential PPA
Offshore	<ul style="list-style-type: none"> • Contract for difference (CfD), whereby CfD strike price is derived through auction process. 	<ul style="list-style-type: none"> • Wholesale market plus CfD premium to reach CfD strike price – two-sided cap • CfD price determined in competitive auctions (€ 0.00135/MWh in 2021 auction for Thor) • Likely updated tender rules to follow in 2022 	<ul style="list-style-type: none"> • Wholesale market with potential PPA • Governmental instruction for TSO to cover cost for transmission grid within territorial waters 	<ul style="list-style-type: none"> • See above

Regulatory regimes for renewables (8/10)



France



Poland

	Support regime	Remuneration	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> • Feed-in tariff (FIT) with direct marketing obligation until 2016 • Small scale projects (6 turbines max, 3MW/turbine max, tower height <50m) can still benefit from FIT until 2021 • Pay-as-bid two-sided CfD awarded through direct contracting and tendering process since 2017. Since 2017 auction system in form of CfD 	<ul style="list-style-type: none"> • Pay-as bid CfD • Term: 20 years • Avg price (2021): €59.5/MWh 	<ul style="list-style-type: none"> • Competitive auction based pay-as-bid Contract for Difference (CfD) since 2018 • Two auction baskets: for projects up to 1 MW installed capacity and beyond 1 MW. • Quota system with Green certificates until 2016 that will expire in 2031 for entitled assets 	<ul style="list-style-type: none"> • Term: 15 years • CfD price, annually CPI adjusted • Dec '21 result: >1MW installed capacity: avg €50/MWh • 1 green certificate/MWh current 2022 market price: €43/MWh
Offshore	<ul style="list-style-type: none"> • Feed-in tariff (FIT) with direct marketing obligation from 2012 to 2014 (6 projects) • Pay-as-bid two-sided CfD awarded through a central auction system since 2015 for 20 years 	<ul style="list-style-type: none"> • Pay-as bid CfD • Term: 20 years • Prices not public 	<ul style="list-style-type: none"> • Dedicated scheme set up in 2021 • Administratively awarded CfD for mature projects, requiring individual EU state aid notification decision and final CfD level confirmation by Polish regulator • Competitive pay-as-bid auctions to award CfDs planned in 2025 and 2027 	<ul style="list-style-type: none"> • two-sided, CPI indexed, CfD strike price over 100k hours of full load generation • Term: not longer than 25 years • Administratively granted initial strike price at €71/MWh, pending possible downward adjustment for each individual project at EU and/or national level • Max. bid prices remain to be set
Solar	<ul style="list-style-type: none"> • Support mechanisms depending on the power of the unit: FIT through direct contracting for units <100kWc (roof) or through tendering process for units between 100kWc - 500 kWc (roof or ground) • two-sided CfD through tendering process for units > 500 kWc (ground) 	<ul style="list-style-type: none"> • Feed-in tariff (FIT) or CfD • Term: 20 years • Avg price (2021): €60.1/MWh 	See onshore	See onshore

Regulatory regimes for renewables (9/10)



Ireland



Australia

	Support regime	Remuneration	Support regime	Remuneration
Onshore	<ul style="list-style-type: none"> REFIT (Feed-in Tariff) scheme, closed to new entrants in 2015. Tariffs set on a technology basis, with rates indexed with CPI RESS – Pay-As-Bid two-sided Contract for Difference (CfD) introduced in 2020 for all onshore renewable technologies. Scheme requires mandatory €2/MWh community benefit funding Next auction due Q2 23 	<ul style="list-style-type: none"> REFIT – Current 2022 (indexed) price for onshore wind $\geq 5\text{MW}$ = €72.686/MWh Term – 15 years CfD averaged weighted bid price – all project category: RESS1 (2020) - €74.08 MWh RESS2 (2022) - €97.87 MWh Term – 15-16.5 years 	<ul style="list-style-type: none"> Green Certificate System for large scale renewables introduced on federal level in 1999 to facilitate 33 TWh target by 2020, phaseout until 2030 Additional support schemes on state level, so far auctions in Australian Capital Territory, Queensland, Victoria and New South Wales 	<ul style="list-style-type: none"> Wholesale market + 1 green certificate/MWh 2022 certificate price: 48 AUD, decreasing trend (not linked to inflation) Term: To be received until 2030
Offshore	<ul style="list-style-type: none"> ORESS – Pay As Bid two-sided CfD – first auction to be launched Q1 23 with bids submitted in Q2 2023). Scheme requires mandatory €2/MWh community benefit funding Second offshore RESS auction expected 2024/25 	<ul style="list-style-type: none"> CfD first auction will take place Q1/2 (pre-qualification and bid submission) Discussions to allow for partial indexation are progressing well. 		
Solar	See onshore above	See onshore above	See above	See above

Regulatory regimes for renewables (10/10)

Japan

Taiwan

	Support regime 	Remuneration	Support regime 	Remuneration
Offshore	<ul style="list-style-type: none"> Feed-in tariff (FiT) for Offshore projects through auctions (50% qualitative and 50% price based assessment criteria) Feed-in-Premium to be phased in from April 2022 per technology. Offshore wind will shift to FiP from the next round auction. Feed-in tariff to be grandfathered for already awarded projects 	<ul style="list-style-type: none"> 20 year pay as bid FiT No participation in green certificate markets if under FiT After FiT-award execution of standard PPA with local utility Results of Round 1 Offshore Wind Auction Akita x 2 and Chiba Choshi: Akita 478.8 MW JPY 13.26/kWh Akita 819 MW JPY 11.99/kWh Chiba 390.6 MW JPY 16.49/kWh 	<ul style="list-style-type: none"> Auction for grid allocation which also locks in Feed-in tariff (FiT) rate. Current auction rules with price cap 2.49 TWD/kWh and size cap 500MW (may have more 100MW from the government) 	<ul style="list-style-type: none"> 20 year pay as bid FiT via PPA with state-owned utility Alternatively, option to pursue a CPPA through the market which could allow for „zero bid“ in grid allocation process (as no need for PPA with state-owned utility)



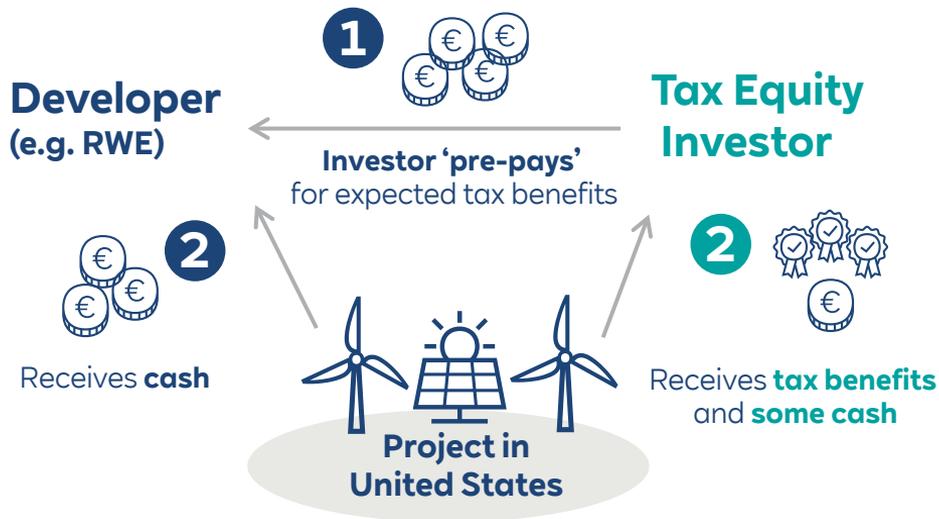
South Korea

Offshore	<ul style="list-style-type: none"> Mandated renewable quotas for state-owned generation companies and IPPs with over 500MW installed capacity through Renewable Portfolio Standards (RPS), to steadily increase the renewable energy mix The RPS Obligors purchase Renewable Energy Certificates (RECs) to meet the RPS requirements 	<ul style="list-style-type: none"> Differentiated REC multiplier is granted per technology while offshore wind receives the highest REC multiplier based on water depth and distance to the shore. (e.g. 2.5 - 4.9, approx.) Under the business-as-usual scenario, renewable electricity is sold to the state-owned utility, KEPCO, while RECs are sold to the RPS Obligors (e.g. state-owned GENCOs and IPPs over 500MW) via long-term REC offtake contracts. On-going discussion on the power market liberalization continues and corporate PPA is getting a growing momentum.
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Regulatory regimes for renewables - negative pricing rules

-  **DE**
 - 4-hour rule introduced for new installations in 2021, i.e. support payments are stopped for negative pricing events of 4 hours or more, hours with foregone support are recorded for simple prolongation of 20y support period
 - Exemption for small scale installation (<500kW) and pilot installations
 - For installations commissioned before 2021 or with auction award before 2021 the previous 6-hour rule is grandfathered
-  **FR**
 - Onshore: Compensation in the event of 20 or more negative hours (consecutive or not) during a calendar year if installation has not produced during these hours
 - PV: Compensation in the event of 15 or more negative hours (consecutive or not) during a calendar year if installation has not produced during these hours
-  **NL**
 - 6-hour negative pricing rule
-  **ES**
 - The incentive of the CfD contract is not paid in case the energy market price gets below a defined minimum threshold (“waiver price”)
 - Currently the waiver price is set to 0€/MWh (government can also change this value)
-  **IT**
 - The incentive settlement of the CfD is suspended only in case the energy zonal market price is 0 or negative for more than 6 consecutive hours. The CfD contract duration is prolonged at end of the contract (20 years) by the amount of the energy that didn't get the incentive.
-  **DK**
 - Negative prices = 1 hour rule, i.e. no subsidy payments in non-positive price hours
-  **IR**
 - No subsidy paid if market reference price is below €0/MWh for both onshore and offshore CfD schemes
-  **UK**
 - 6-hour rule was implemented for two CfD Allocation Rounds (Allocation Round 2 in 2017 and Allocation Round 3 in 2019)
 - Going forward (Allocation Round 4 in 2021 and beyond), rules will be stricter, with new CfDs having top-up payments stopped at any time when reference prices turn negative

Tax Equity in the US - financing structure



1

- Tax Equity Investor invests into project **to capture tax benefits**, based on a pre-agreed financial return
- The **developer continues to manage the project**
- Tax Equity investment accounted as Debt under IFRS

2

- The **benefits** generated by the project will be **split between the developer and the investor** until the investor has reached a **specified return** on his investment (IRR)

- The developer **repays the investor** with a **mix of tax items** (production tax or investment tax credits and tax benefits from accelerated depreciation) **and cash**. In addition the Tax Equity Investor maintains a small residual interest in the project after repayment.

Power Purchase Agreement (PPA) - tailored subsidy-free contract for long-term certainty

Characteristics & benefits



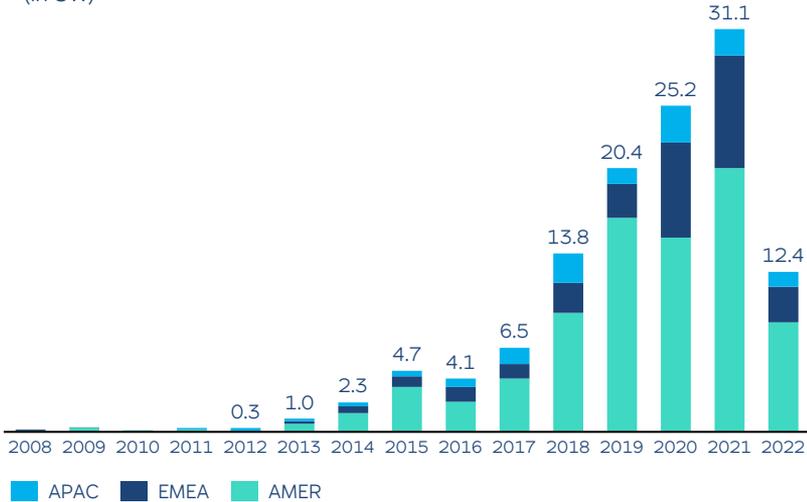
- PPAs provide **financial certainty** to a project developer
- Customers can **avoid** long-term **commodity price risk**
- Customers can **achieve** their **carbon reduction** goal cost-effectively
- With the secured income RWE can offer an even **larger portfolio** and more PPAs
- Additionally, customers can **support** the **transition** to a renewable energy supply

- A Power Purchase Agreement (PPA) is a **long-term supply contract** between a power company and a customer for (green) electricity. Power producers conclude PPAs either bilaterally with a consuming company (**Corporate PPA**), or with a trader who purchases the electricity produced and sells it on the market (**Route to market PPA**).

Global corporate PPAs

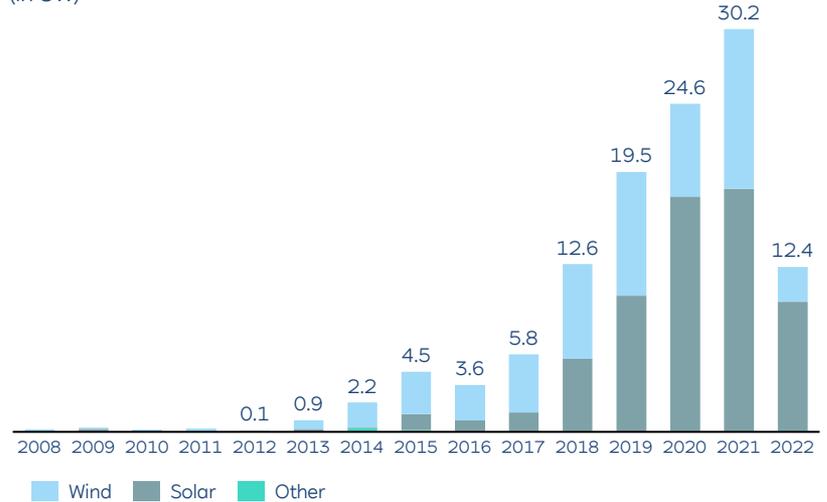
Global corporate PPAs by region¹

(in GW)



Global corporate PPAs by technology²

(in GW)

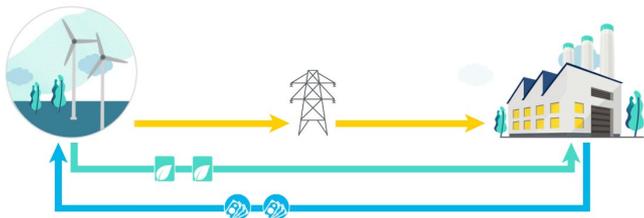


Source: BNEF. | ¹ Chart is for offsite PPAs only. APAC capacity is estimated. Pre-market reform Mexico PPAs excluded. | ² Chart only includes disclosed, offsite PPAs. APAC estimates are not included; data as of June 2022.

Power Purchase Agreement (PPA)

PPA Type

Physical PPA



Main characteristics

- RWE delivers power **directly** to the customer and receives the PPA price
- RWE sells surplus power to grid
- The customer buys additional power from the grid/utility
- The customer receives **guarantees of origin** (where available)

Financial / Virtual PPA



- RWE delivers power to the grid and is reimbursed via its existing market access
- The customer buys power from the grid and pays the spot price
- RWE and the customer settle the difference between the spot price and PPA strike price
- The customer receives **guarantees of origin** (where available)

RWE's successful PPA footprint across the globe

Illustrative



15 year tailored PPA with **Honda** for 120 MW wind farm in Oklahoma



10 year PPA for a German PV asset (170 GWh) with **Volkswagen**



15 year CfD PPA for 860 MW **Triton Knoll Offshore** Windfarm



15 year CfD PPA for 1.4 GW **Sofia** Offshore Windfarm



5-15 year agreement with **Deutsche Bahn** for offtake from Ambrumbank and Nordsee Ost offshore wind farm



10 year PPA for an existing onshore wind farm in the UK with **Molson Coors**



13 year offtake PPA for power, ROCs & REGOs for 219 MW **Humber Gateway Offshore** Windfarm



20 year 150 MW renewable PPA with **TVA/Facebook** for a solar/storage asset in Tennessee



10 year PPA for a new onshore wind farm in Italy with **Sofidel**



Route to market optimization PPA for the first **RWE battery projects** in Europe

Policy support for green technologies gaining momentum



European Green Deal

- **55% GHG** reduction target **by 2030** vs. 1990 levels
- **60 GW offshore** wind capacity installed **in 2030** with offshore wind to become **the largest single source** of electricity in Europe by 2040
- Also **promoting emerging ocean energy technologies**, e.g. floating solar and wind, and tidal energy
- **600 GW solar PV** capacity installed **in 2030**, 320 GW by 2025
- **40 GW electrolyser** capacity by 2030 producing up to 10 million tonnes of renewable **hydrogen**
- **€750bn** recovery package – 37% earmarked for climate **spending**
- **2050** target to reach **CO₂ neutrality**



US Policy on Climate Change

- **50%** reduction in U.S. GHG emissions from 2005 levels **by 2030**
- **Carbon-free** power system **by 2035**
- **30 GW** offshore wind capacity target by 2030¹
- **Rejoining** the Paris agreement; administrative fast tracking and planned new seabed lease auction rounds.

¹ Announced by the White House end of March 2021. | Source: Europa.eu; eur-lex.europa.eu; congress.gov; whitehouse.org.

Major regulatory measures for the European utility markets

	Market design	CO ₂ reduction	Renewables	Conventional generation
	<ul style="list-style-type: none"> Revised Electricity Market Regulation and Directive in force since June 2019, the latter to be transposed into national law by Member States by end of 2020 EU Green Deal - Fit for 55 package: proposal for revision of Gas Market Directive and Regulation presented Dec 2021 	<ul style="list-style-type: none"> EU Emissions Trading Scheme: proposal for revision by EU Commission presented on 14 July 2021 European Climate Law: climate neutrality in 2050, -55% until 2030 	<ul style="list-style-type: none"> EU Renewable Energy Directive (RED): proposal for revision by EU Commission presented on 14 July 2021; REPowerEU-Package, 18 May 2022: proposal to raise RES headline target to 45% by 2030; total RES capacities of 1,236 GW by 2030 	<ul style="list-style-type: none"> EU Action Plan "Zero Pollution for Air, Water and Soil" <ul style="list-style-type: none"> Industrial emissions directive: Proposal for revision presented on 05 April 2022 BREF-LCP (rolling process) Revision of Water Framework Directive not decided yet
	<ul style="list-style-type: none"> Energy-only with strategic reserve components Revised grid fee system Acceleration of grid expansion & new provisions for redispatch Prolongation of CHP support Renewable Energy Act (REA) 	<ul style="list-style-type: none"> Climate Protection law <ul style="list-style-type: none"> Climate neutrality by 2045 Minus 65% by 2030 based on binding sectoral targets, minus 88% in 2040 	<ul style="list-style-type: none"> Renewable Energy Act (EEG): latest revision agreed upon early July 2022, increased RES targets, acceleration of permitting, deletion of EEG levy National implementation of REDII in transport sector 	<ul style="list-style-type: none"> Coal phaseout by 2038 fixed by law, assessment for earlier phase out in Aug. 2022 BREF-LCP implementation finalised Nuclear exit & final storage regulation
	<ul style="list-style-type: none"> Energy Market Reform (EMR) with a Capacity Market; currently under 5 year review. Long-term Review of Electricity Market Arrangements (REMA) announced April 2022 Energy Bill due Q2 2022 	<ul style="list-style-type: none"> Climate Change Act (Net zero target by 2050) 6th Carbon Budget – 78% CO₂ reduction by 2035 UK ETS with Auction Reserve Price – consultation on alignment with Net Zero Target 	<ul style="list-style-type: none"> CfD regime - annual auctions announced from 2023 Energy Security Bill: 50GW Offshore Wind, 5GW Floating Wind by 2030; support solar deployment; CfD also for onshore wind 	<ul style="list-style-type: none"> Power System Decarbonisation 2035 Target Coal Phase out by Oct 2024 Future of BAT
	<ul style="list-style-type: none"> New Energy Law still in preparation phase. Not clear when this will be send to Parliament Execution of National Climate Agreement 	<ul style="list-style-type: none"> Coalition Agreement: 55% CO₂ reduction by 2030 Climate fund of 34 bn EUR introduced by new government Urgenda measure Eemshaven '21 - '24: 35% coal burning cap, compensated 	<ul style="list-style-type: none"> SDE+ regulation (Stimulation Renewable Energy) since 2011 	<ul style="list-style-type: none"> Coal phaseout: end of 2024 for plants built in the 1990s and end of 2029 for plants built in 2000 and thereafter Discussions with sector on how to decarbonise gas plants

Emissions Trading System in the EU and UK as key tool for reducing greenhouse gas emissions

EU ETS (reform process started)

- Established by the EU Emission Trading Directive; entered into force on 1 January **2005**. Covers ~40% of EU greenhouse gas emissions
- Fit-for-55-Package by EU commission to reach targets of EU Green Deal (climate neutrality 2050, 55% reduction by 2030 vs 1990) presented on 14 July 2021. The EU ETS revision is currently ongoing
- Emissions** under the system are **capped** and newly proposed to be reduced by 61% by 2030 vs 2005. This is an increase vs. the earlier target of 43% and increased to be consistent with the new 55% EU GHG reduction target.
- Based on '**cap and trade**' system, whereby a cap is set on the total amount of greenhouse gases that can be emitted by installations covered by the system
- Market Stability Reserve (MSR)** as a rule-based mechanism that allows the supply of allowances to respond to market oversupply to stay in place. EU commission proposed to keep intake rate of MSR at 24% until 2030 (currently reduction to 12% foreseen)
- The cap is reduced over time in line with the **Linear Reduction Factor (LRF)**. Within the cap, companies receive or buy emission allowances which they can trade with one another as needed. The **LRF** is proposed to be increased to 4.2% (from previously 2.2%) from the year following the entry into force of the revision. The increased LRF should be combined with a one-off downward adjustment of the cap (rebasings) so that the new LRF has the same effect as if it had been applied from 2021.

UK ETS

- The UK Emissions Trading Scheme went live on 1 January 2021, **replacing the UK's participation in the EU ETS**. On 19th May, UK ETS auctions commenced. The first Compliance date was in Q1 2022 for 2021 emissions.
- The scheme largely **mirrors the operation of the EU ETS**, by introducing the supply of allowances via auctions which can subsequently be traded in a secondary market
- The **total number of allowances** available for auction in 2022 is ~80 million. This is more than half of the total UK ETS 2022 **cap** of ~150 million allowances. The number allowances are **set to fall** by 2.2% annually until 2030.
- The Auction Reserve Price (the **minimum price** for bids in auctions) is set at £22. Auctions take place twice a month. Auctions carried out by UK government at ICE.
- The Total Carbon Price that power sector emitters face is comprised of the Carbon Price Support (at £18) plus the price of UK ETS permits.
- UK government will be conducting reviews into the scheme at the latest by 2023 to set it on a Net Zero trajectory. The implementation of it is planned for 2024. The Governmental consultation proposed a net-zero aligned cap between 887 and 936 million allowances. Compared to the current legislation this would result in a cap reduction of 30-35%.

Source: ec.europa.eu/clima/policies/ets_en.

Current regulatory developments in the core H2 markets

European Union

- **"REPowerEU" package presented** on 18 May - H2 relevant: Increase production and imports to 20 million tonnes of renewable hydrogen in 2030, call for additional increase of RFNBO¹ targets in industry (75% instead of 50%) and transport (5% instead of 2.6%) in the ongoing RED II revision
- On 20 May, the draft **Delegated Act (DA)** on green power criteria was published
- **Ongoing legislative work on "Fit for 55%"** package and gas package: influence of Ukraine war on final documents open

Germany

"Easter Package" passed on 7/8 July:

- **Regulations on reduction or exemption from other levies** (CHP and offshore levy) to be retained in principle after abolition of the EEG levy
- **Tender** for a total of 4.4 GW (RE capacity) for **hydrogen-based electricity storage** from 2023 - 2028 foreseen
- **Tender** of 4.4 GW for plants for the **generation of power from green hydrogen** between 2023 - 2026 foreseen
- **Tender** for a total of **3 GW electrolyser capacity** from 2023 - 2028 foreseen

Netherlands

- **Dutch Draft Climate Policy Program** published on 2 June 2022, leaving most decisions affecting the regulatory and subsidy landscape for hydrogen in the Netherlands open
- Government currently **exploring options** for a purchase obligation, contracts for difference as well as tenders with subsidies for investments in electrolyzers as an alternative to production subsidies currently available
- Detailed policy plan for the hydrogen market is expected **later this year**

United Kingdom

- British Energy Security Bill** introduced in Parliament 6 Jul 2022
- **By 2025:** 2 GW of low carbon hydrogen operational or in construction of which >50% electrolytic; Certification scheme and Business Models for hydrogen transport and storage
 - **By 2030:** 10 GW of low carbon hydrogen production
 - £240m Net Zero Hydrogen Fund (until 2025), Hydrogen Levy to fund support after 2025

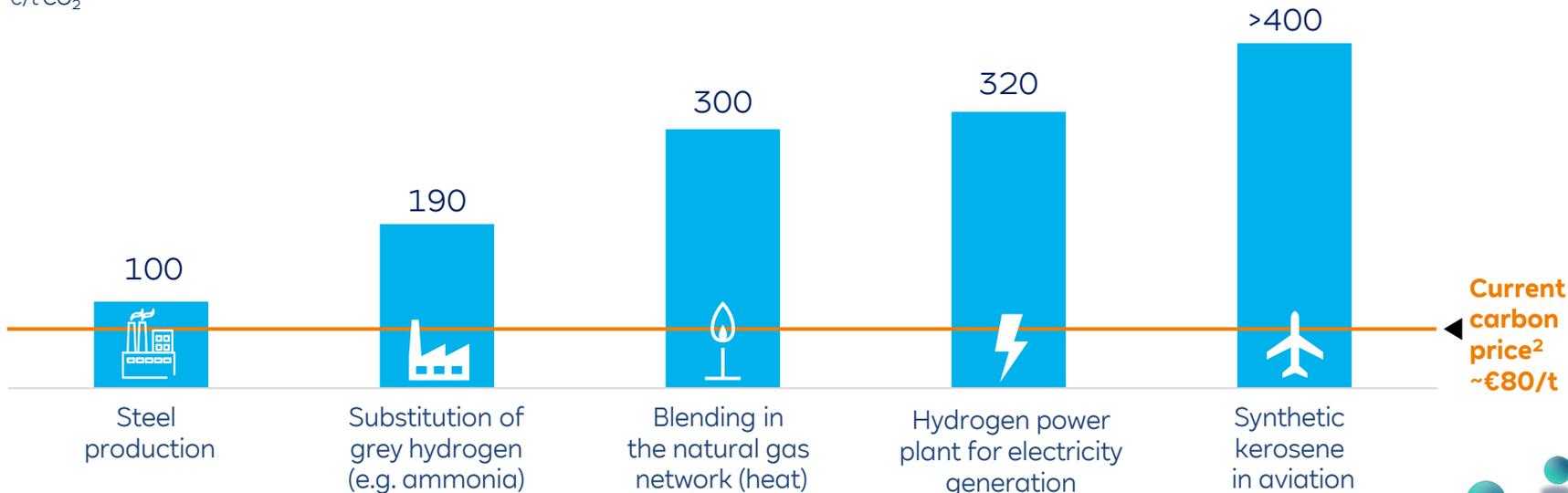
¹ Will be included in the update of the EU energy & climate legislation.



Hydrogen applications require further financial support based on the current carbon price

CO₂ avoidance costs¹ of selected hydrogen applications

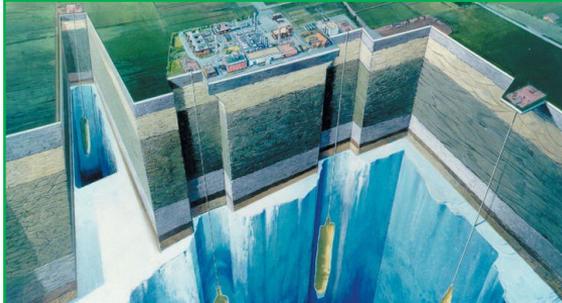
€/t CO₂



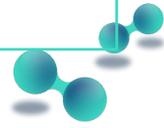
Source: RWE AG | ¹ Based on reference year 2030 and a hydrogen cost of €3/kg. | ² Certificate price in the European Emissions Trading System.



Use of natural gas infrastructure for hydrogen

Gas pipeline hydrogen repurpose	Gas storage hydrogen repurpose	Hydrogen production from natural gas
<p>A large part of the European long-distance gas network can be repurposed for hydrogen transport</p>	<p>Salt cavern storage facilities are considered suitable for hydrogen storage; suitability of other gas storage facilities still uncertain</p>	<p>Production of natural gas-based carbon-neutral hydrogen via methane pyrolysis could enable hydrogen supply far from coastal areas</p>
		
<p>80% ...energy transport capacity of hydrogen vs. natural gas pipeline¹</p>	<p>25% ...max. energy storage capacity of hydrogen vs. natural gas in a salt cavern</p>	<p> Part of the existing natural gas infrastructure remains necessary to transport natural gas</p>

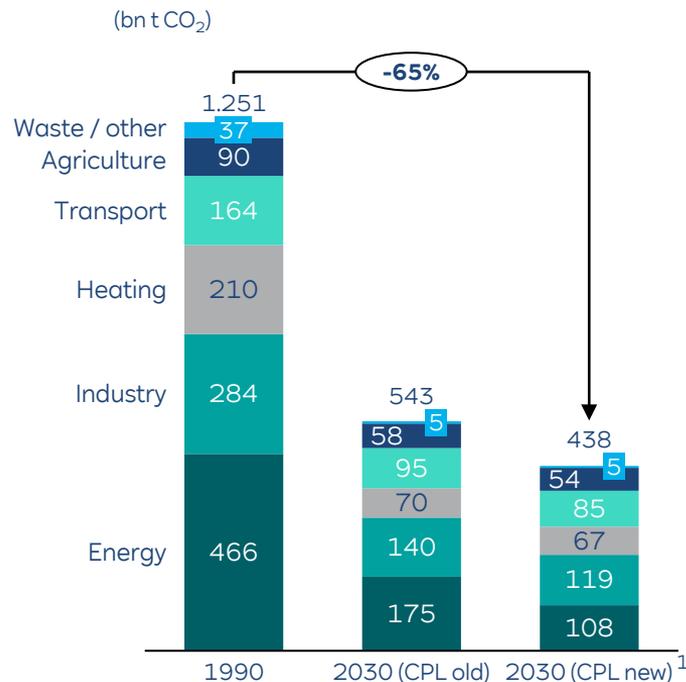
Source: RWE AG | ¹ Capacity loss limited by hydrogen's higher flow speed.



Climate Protection in Germany and new Easter Package triggers ongoing discussions

Energy

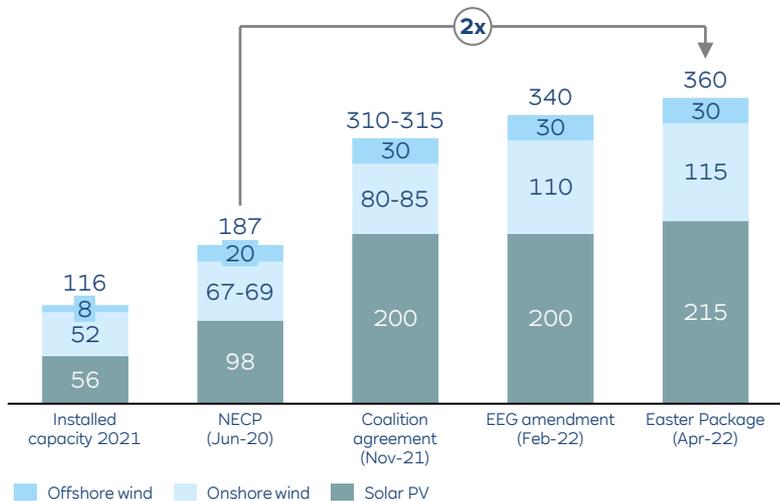
- **New climate protection target 2030: -65% compared to 1990**
- **Increased reduction target for the energy sector** in Germany:
 - **108 Mio. t CO_{2eq}** instead of 175 Mio. t CO_{2eq}
- Increase of **RES auction volumes in 2022** for Wind onshore +1.1 GW and PV +4.1 GW
- Acceleration of market ramp-up for green H₂ including financial support schemes
- Relieve of **storage** from double taxation / EEG levy
- **Coal phaseout by 2038 at the latest**
- **Easter Package was adopted by the Bundestag in July 2022** and envisages **share of renewable energies** at least 80% of gross consumption in 2030
- **Further acceleration of expansion of RES – targets 2030:**
 - **Wind offshore: 30 GW, Wind onshore: 115 GW, Solar: 215 GW**
- **Use of renewable energy** in public interest and serving public safety, to increase permitting
- **Reduction of EEG-levy to Oct/kWh** from July 2022, permanent abolition from January 2023



German 2030 renewables ambitions Easter Package

Germany has nearly doubled its 2030 renewables ambitions over the past two years

2021 installed capacity and 2030 targets (GW)



Source: European Commission, Federal Ministry for Economic Affairs and Climate Action and IHS.

New addition targets

Targeted onshore wind and solar additions (GW)
scenario for 600 TWh renewables electricity in 2030



Offshore wind

Based on the offshore law, the expansion targets for **offshore wind** will be significantly increased to at least **30 GW by 2030**, at least **40 GW by 2035** and at least **70 GW by 2045**. At the same time, the tender volumes will be increased and the WindSeeG revised in order to implement the accelerated expansion.

Road Map of German Coal Exit

Different approaches for lignite and hard coal

In July 2020 the German Parliament decided on the coal exit by 2038 with following milestones:

- **By 2022 reduction** to a total remaining capacity of **15 GW lignite** and **15 GW hard coal**
- **By 2030 reduction** to a total remaining capacity of **9 GW lignite** and **8 GW hard coal**
- Newly formed coalition of social democrats, liberals and greens intend to accelerate coal exit, if possible by 2030 – further details still unclear
- Implementation of capacity mechanism to be investigated to retain security of supply

Find out a list of agreed **lignite** power plants here:
https://www.buzer.de/Anlage_2_KVBG.htm

Implementation of the recommendations differs between lignite and hard coal:

Lignite:

- Decision on **which lignite** power plants will be shut down at what point based on **negotiations** with operators
- **Compensation** for shutdowns of power plants including costs for open cast mines
- Preservation of the Hambach Forest

Hard Coal:

- Decision on **which hard coal** power plants will be shut down at what point based on decommissioning **auctions** (basically voluntary; 1st auction round on 1 Dec, 2020: 4.8 GW; 2nd auction round on 1 Apr 2021: 1.5 GW)
- From 2027 onwards and in case of missing coal capacity to achieve auction targets as of 2024: **administrative shut down** mainly based on age **without any compensation**
- Datteln 4 coming online

Overall:

- **Reviews in 2023, 2026 and 2029** (climate protection, security of supply, power prices, regional development and employment)
 - **Cancellation of CO₂ certificates** corresponding to emission reduction resulting from coal closures if not covered by market stability reserve
 - Mostly **linear reduction path** for coal in total
- State aid approval by EU Commission still pending

UK is first major economy to pass net zero emissions law

UK is **first G7 country** to legislate a **net zero**¹ greenhouse gas emission target by **2050**.

Implications of the target

- **Full decarbonisation** of the power sector **by 2035** (subject to security of supply), through a combination of renewables, nuclear, gas with CCS² and low carbon hydrogen. This will result in an 80-85% reduction in emissions by 2035 when compared to 1990³.

Electricity demand

- Expected **40-60% increase in demand** for electricity by 2035
- **50 GW of offshore wind by 2030** incl. 5 GW of floating wind⁴

Hydrogen use

- Production capacity ambition of **10 GW by 2030**, with at least half of this from electrolytic hydrogen, which could increase to **17 GW** by 2035 depending on the role of hydrogen for heat⁵

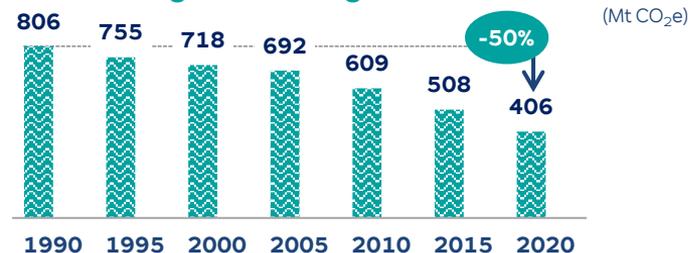
CCS

- **Deliver four carbon capture usage and storage clusters by 2030**, capturing 20-30 MtCO₂ across the economy, including 6 MtCO₂ of industrial emissions, per year

The UK has been a leader in cutting emissions whilst growing the economy

- By **2021**, UK reduced its total **GHG emissions** by **~47%** vs 1990
- **Coal ~3%** of power generation **compared to 65%** in 1990; Government wants to phase it out completely by Oct **2024**
- **50 GW offshore wind target** (11.3 GW installed in 2021) and **5 GW floating** wind target by **2030**

Final annual greenhouse gas emissions in the UK⁶



¹ Net zero means any emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage.

² Carbon capture and storage. | ³ Residual emissions limited to CCUS, unabated gas and energy from waste. | ⁴ Latest targets set in the British Energy Security Strategy, April 2022. | Source: UK Department for Business, Energy & Industrial Strategy; UK Committee on Climate Change. | ⁵ UK Net Zero Strategy. | ⁶ BEIS CO₂ emissions.

GB capacity market

Establishment

- **Adopted in 2013** as part of the Energy Act 2013 in the UK
- Provides generators with the ability to set the price at which they are willing to commit to keeping plant available
- **Used to secure supply** since Q4 2017
- UK government determines amount of capacity needed for each delivery year (quantity-based-mechanism)

Delivery Year	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
T-1 Auction (£/kW)	6.95	6.00	0.77	1.00	45.00	75.00			
T-4 Auction (£/kW)		19.40	18.00	22.50	8.40	6.44 ¹	15.97	18.00	30.59

Price

- Auction price can be between £0 – 75/kW
- Auction price is **determined by the marginal capacity**. All units receive the price of the highest successful unit ('descending clock' format)
- Units which leave the auction before it closes will not be offered a Capacity Market Agreement

Capacity quantities

- The largest part of the capacity is awarded in the first auction (T-4); a small part follows in another auction one year before the respective delivery year (T-1 auction)
- The 'agreement' terms are between 1 and 15 years – depending on whether it is existing plants or new plants
- Delivery year begins on the 1st October through to the 30th September

¹ In 2020 a T-3 auction replaced the T-4 auction, which was unable to take place in 2019 given the standstill in the GB Capacity Market following the legal challenge by Tempus Energy. | Source: RWE Analysis.

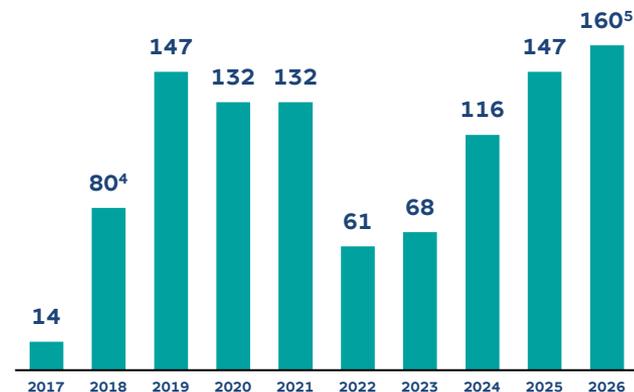
GB capacity market - RWE plants

RWE plants in GB Capacity Market

Derated capacity (MW)	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Aberthaw ¹	1,475	1,486	1,490	1,475	1,486	0	0	0
Didcot B (excl. OCGT)	1,358	1,364	1,380	1,395	1,395	1,395	1,395	1,395
Little Barford	681	683	691	699	699	699	699	699
Great Yarmouth	359	361	365	369	369	369	369	369
Staythorpe	1,626	1,633	1,652	1,670	1,670	1,670	1,670	1,670
Pembroke	2,081	2,090	2,114	2,138	2,138	2,138	2,138	2,138
King's Lynn			329	333	333	333	333	333
Other ²	322	425	382	390	466	426	426	371
Total (qualified)	7,901	8,043	8,403	8,468	8,556	7,030	7,031	6,975
Total (successful capacity)	7,901	7,991	6,913	6,951	6,989	6,938	6,895	6,895

Revenue from capacity market³

(in £ million, pre inflation)



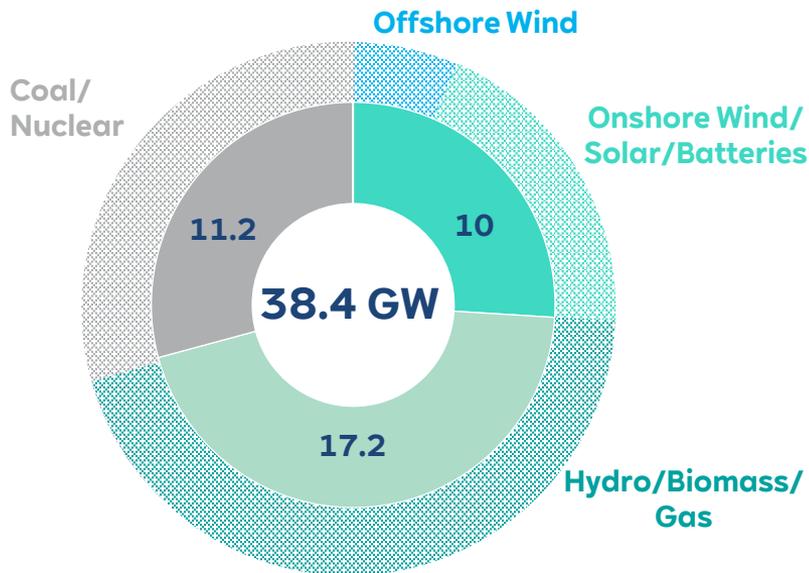
¹ Due to the closure of Aberthaw in March 2020 the Power Station's existing Capacity Market agreements for the years 2019/2020 and 2020/2021 were transferred to third parties and a small proportion to other units within RWE's fleet. | ² Includes Cowes OCGT, Didcot OCGT, Cheshire GT, Conoco Phillips, Hythe, Grimsby A. | ³ Based on cleared capacity prices (nominal) and capacity contracts secured by RWE. |

⁴ This includes approximately £42m that was received in 2019 due to the suspension of payments in 2018. | ⁵ This includes full year for King's Lynn and Grimsby A due to award of 15 year CM agreements and to September 2025 for other units; rounding differences may occur.

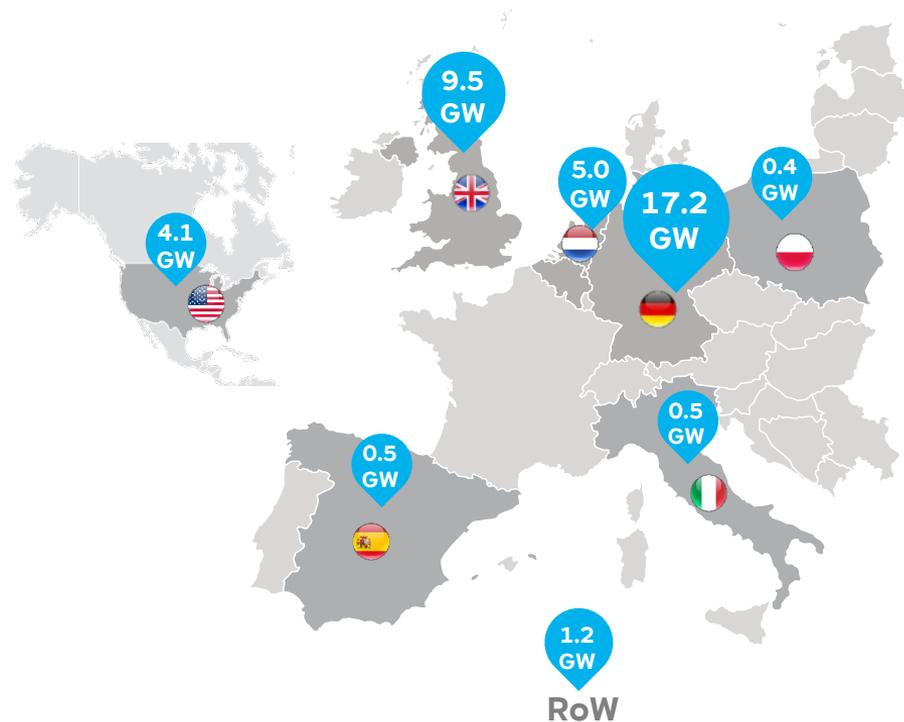


CORE TECHNOLOGIES

RWE's power generation portfolio



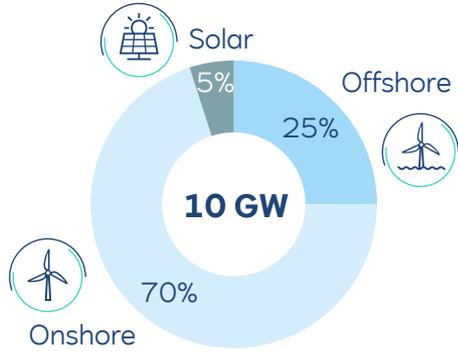
- Wind, Solar, Batteries
- Flexible Generation¹
- Coal, Nuclear²



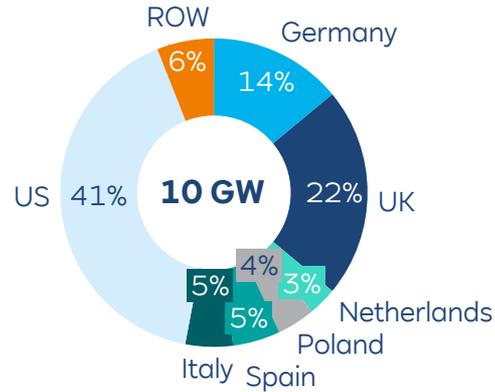
Note: Pro rata. As of 31 Dec 2021. | ¹ Including "Other" technologies (0.3 GW). | ² All German lignite, European hard coal & nuclear capacities.

Powerful position in wind and solar

Installed capacity by technology¹

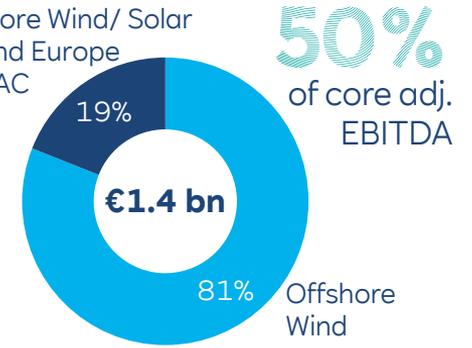


Installed capacity per country¹



Wind/Solar adj. EBITDA 2021

Onshore Wind/ Solar
US and Europe
& APAC



¹ Pro rata, excluding storage. As of 31 Dec 2021; rounding differences may occur.

Strong growth platform across all technologies

Secured offshore rights



Additional offshore pipeline from central tenders/lease auctions

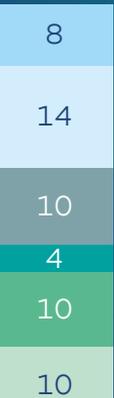


Expected submissions
until end of 2022
of **9 GW**

Powerful development pipeline of green generation technologies



>55 GW



- Offshore wind
- Onshore wind
- Solar
- Batteries
- Flexible generation
- Hydrogen

Europe



Americas



- Onshore wind
- Solar
- Batteries

Note: As of CMD Nov 2021; rounding differences may occur.

We are accelerating our growth investments to €5bn gross annually

Share from gross cash investments by technology:

Green investment programme of €50bn gross 2021 - 2030

45% Offshore wind



+

45% Onshore wind, solar and batteries



+

10% Flexible Generation & hydrogen



Share by region:

United Kingdom

~ **25%**

Germany

~ **25%**

United States

~ **25%**

Rest of the world

~ **25%**

>90%
EU Taxonomy eligible

Stable and sustainable earnings profile

Gross margin 2021 - 2023

12
years

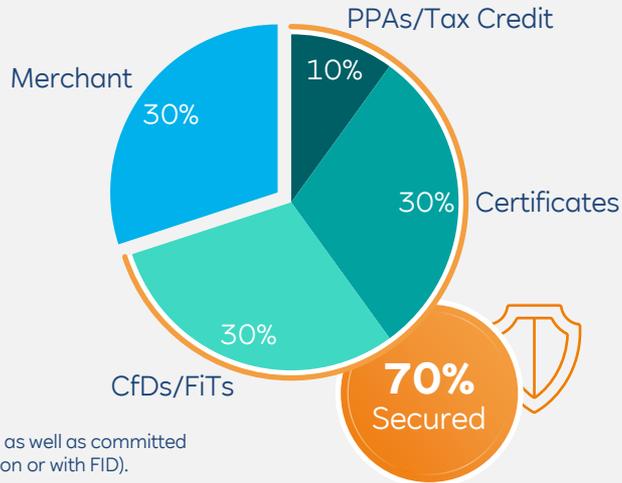
Weighted average remaining support tenor¹ **Wind/Solar**

¹ Considers the current operating asset base as well as committed projects with COD by 2023 (under construction or with FID).

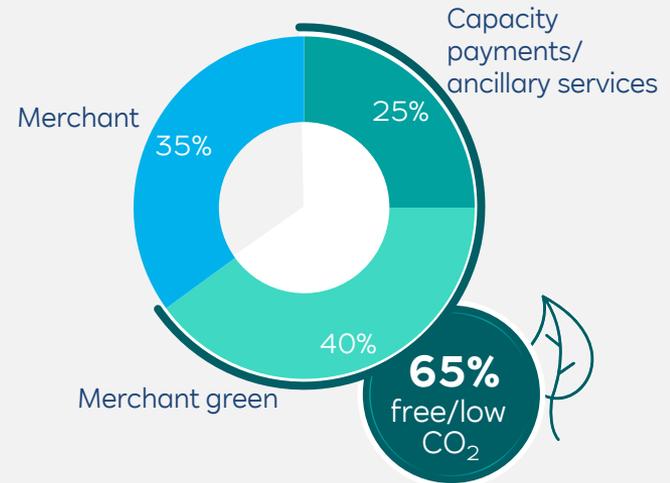
Note: Merchant includes volumes to be hedged.



Gross margin split Wind/Solar



Gross margin split Flexible Generation



Note: As of CMD Nov 2021.

Having a closer look at our different business pillars



Offshore Wind

Strongest growth in Europe, significant potential in global markets



Onshore Wind/Solar

US green ambitions and European Green Deal accelerate growth momentum in US and Europe



Flexible Generation & Batteries

RWE's European core markets require new, low-carbon flexible capacities



Hydrogen

Hydrogen is quickly gaining traction with Europe at the forefront



Commercial Solutions

Decarbonisation of industry drives demand for tailored solutions



Strong market position



RWE Group



Market Data



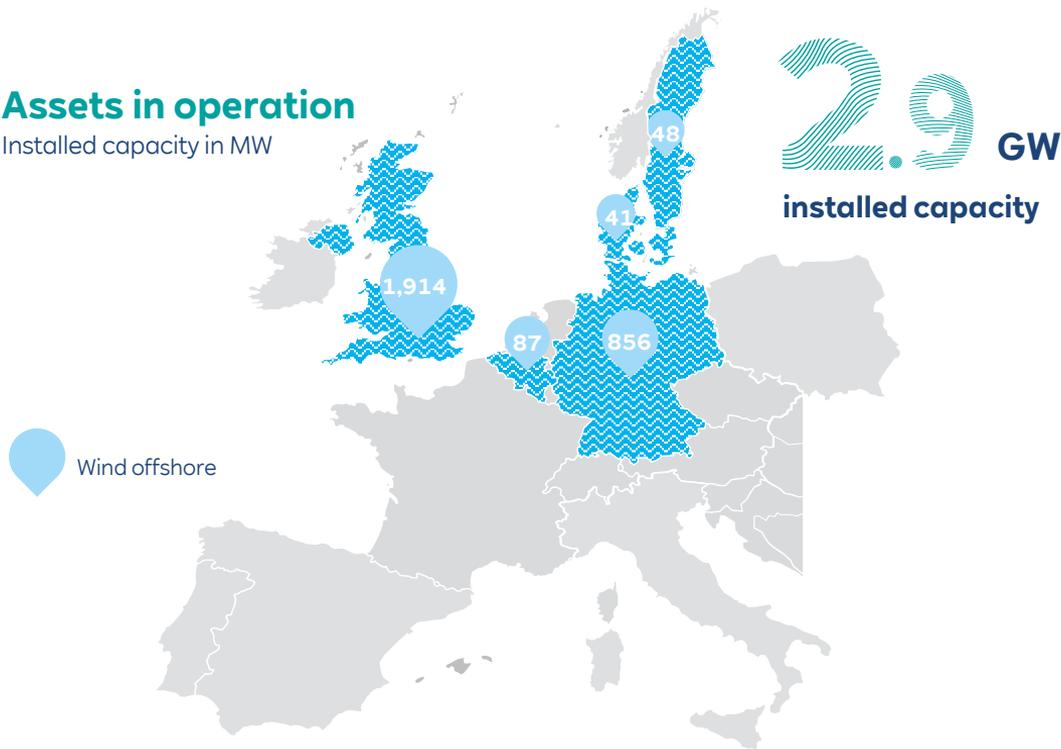
Regulations



RWE Technologies

Assets in operation

Installed capacity in MW



#2 leading global market position

- **Extensive experience** in technology & **high-class partnerships** in new markets

7.6 TWh power generation

>26 assets in Europe

& Kaskasi (342 MW)

Sofia (1,400 MW) wind farms

under construction

- Continuous **improvement of our operations** by taking over windfarms into **self-perform/in-housing** and by exploiting synergies

Note: Pro rata figures as of 31 Dec 2021, capacity figures incl. Triton Knoll (commissioned in Apr 2022); rounding differences may occur.



Offshore Wind assets - operational



illustrative

Arkona (Germany, Baltic Sea)



- COD: 2019
- RWE share: 50%
- Capacity: 385 MW¹
- 60 x Siemens Gamesa 6.4 MW turbines
- Water depth: 23-37 m
- Location: 35 km northeast of the island of Rügen
- Subsidy scheme: FiT (EEG compression model)
- ~0.4 million potential households supplied annually
- Q&M provided by RWE
- Equity partner: Equinor, Credit Suisse Energy Infrastructure Partners AG

Galloper (UK, North Sea)



- COD: 2018
- RWE share: 25%
- Capacity: 353 MW¹
- 56 x Siemens Gamesa 6.3 MW turbines
- Water depth: 27-36 m
- Location: 27 km of the Suffolk coast
- Subsidy scheme: 1.8x ROC/MWh
- Q&M provided by RWE & Siemens Gamesa (turbine)
- ~0.4 million potential households supplied annually
- Equity partners: Siemens Financial Services, Sumitomo Corporation, ESB and a consortium managed by Green Investment Group and Macquarie Infrastructure and Real Assets

¹ Total installed capacity.



Offshore Wind assets - operational and under construction

Triton Knoll (UK, North Sea)



- COD: April 2022
- RWE share: 59%
- Capacity: 857 MW
- 90 x MHI Vestas 9.5 MW turbines
- Water depth: 15-24 m
- Location: 32 km distance to UK mainland (Lincolnshire)
- Subsidy scheme: two-sided CfD with a strike price of 74.75 £/MWh² for 15 years
- ~0.8 million potential UK homes supplied annually
- Equity partner: J-Power, Kansai Electric Power: J-Power, Kansai Electric Power
- One turbine rotation can power a typical home in the UK for 29 hours



RWE Group



Market Data



Regulations



RWE Technologies

illustrative

Kaskasi (Germany, North Sea)



- COD (expected): 2022
- RWE share: 100%
- Capacity: 342 MW¹
- 38 x Siemens Gamesa 9 MW turbines
- Water depth: 18-25 m
- Location: 35 km north of the island of Heligoland in the “Trident Cluster” together with the offshore wind parks Amrumbank and Nordsee-Ost
- Subsidy scheme: one-sided CfD with a strike price of more than 46.6 €/MWh³ for 20 years
- ~0.4 million Germans homes will be supplied annually
- RWE to pilot first ever recyclable rotor blades by Siemens Gamesa at Kaskasi

¹ Total planned capacity. | ² 2012 prices. | ³ €46.6 per MWh was the average strike price achieved in the auction.



Offshore Wind assets – under construction & development

illustrative

Sofia (UK, North Sea)



- COD (expected): 2026
- RWE share: 100%
- Capacity: 1400 MW¹
- 100x Siemens Gamesa 14 MW
- Water depth: 20-35 m
- Location: Dogger Bank, 195 kilometers from the nearest point on the UK's Northeast coast
- Subsidy scheme: two-sided CfD with a strike price of GBP 39.65²/MWh
- ~1.4 million potential households supplied annually
- About 50% of Onshore and Offshore station to be manufactured locally in UK
- Will employ the worlds longest and most powerful HVDC-System to date

Thor (Denmark, North Sea)

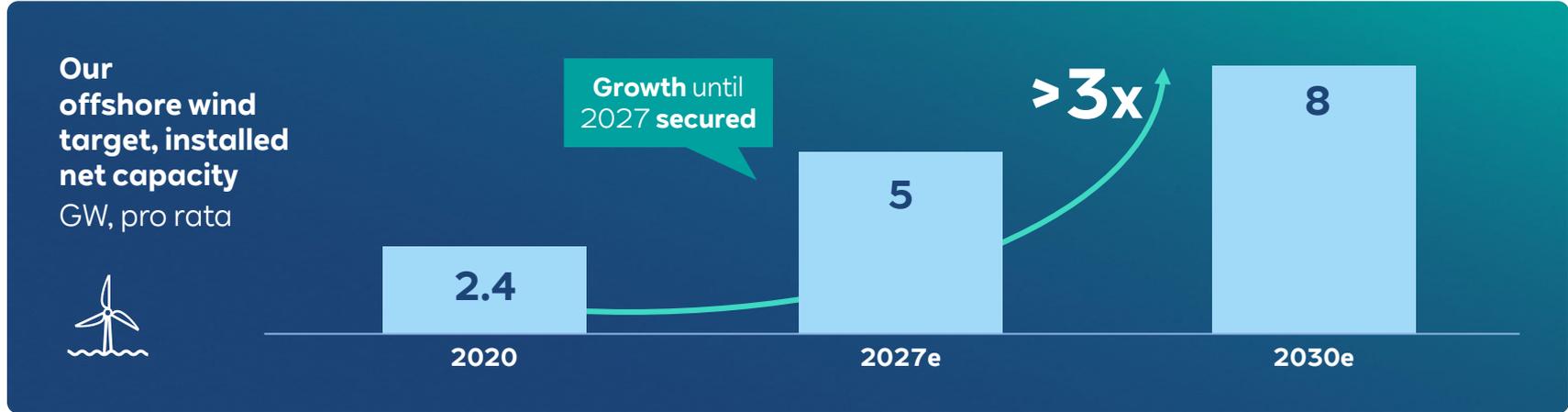


- COD (expected): 2026
- RWE share: 100%
- Capacity: 1000 MW¹
- Water depth: Avg. 30 m
- Location: 22 kilometers off the coast of Thorsminde on the west coast of Jutland
- 30-year operational license with further 5-year extension possible
- ~1 million potential households supplied annually
- Grid connection agreement with Energinet
- Will be biggest Danish Offshore Wind project

¹ Total planned capacity. | ² 2012 prices.

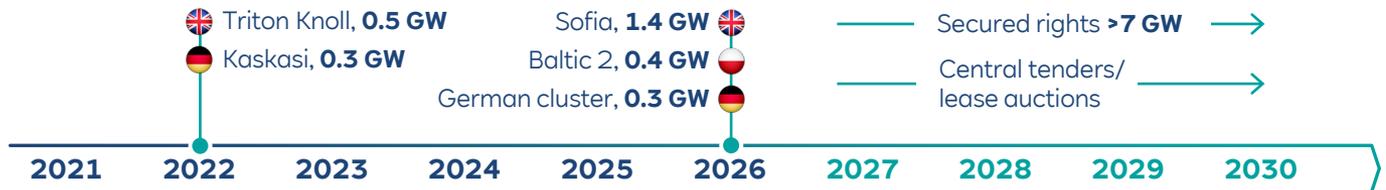


Our offshore installed net capacity will triple by 2030



Good visibility on capacity additions

GW, pro rata

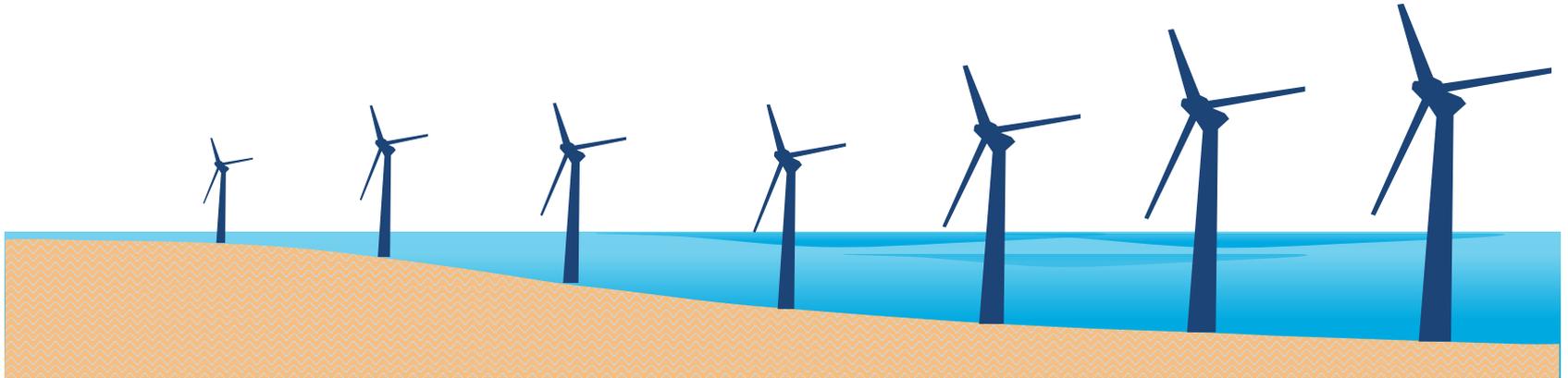


Note: As of CMD Nov 2021; please also note: without Thor in Denmark (1 GW, Dec 2021) and the awarded seabed in the New York Bight offshore wind lease auction (3 GW, Feb 2022).



Offshore Wind: Evolution of RWE's offshore wind farms

Project	Scroby Sands	Rhyl Flats	Amrumbank	Arkona	Triton Knoll	Sofia	Thor
Go Live	2004	2010	2015	2018	2022	2025/26 (expected)	2026 (expected)
Capacity	60 MW	90 MW	288 MW	385 MW	857 MW	1400 MW	1000 MW
Turbines	30 x 2.0 MW	25 x 3.6 MW	80 x 3.6 MW	60 x 6.4 MW	90 x 9.5 MW	100 x 14 MW	>14 MW
Water depth	1 - 11 m	10 - 15 m	19 - 24 m	21 - 27 m	15 - 24 m	20 - 35 m	Avg. 30 m
Distance to shore	2 - 3 km	8 km	35 km (to Heligoland)	35 km	32 km	195 km	25 km

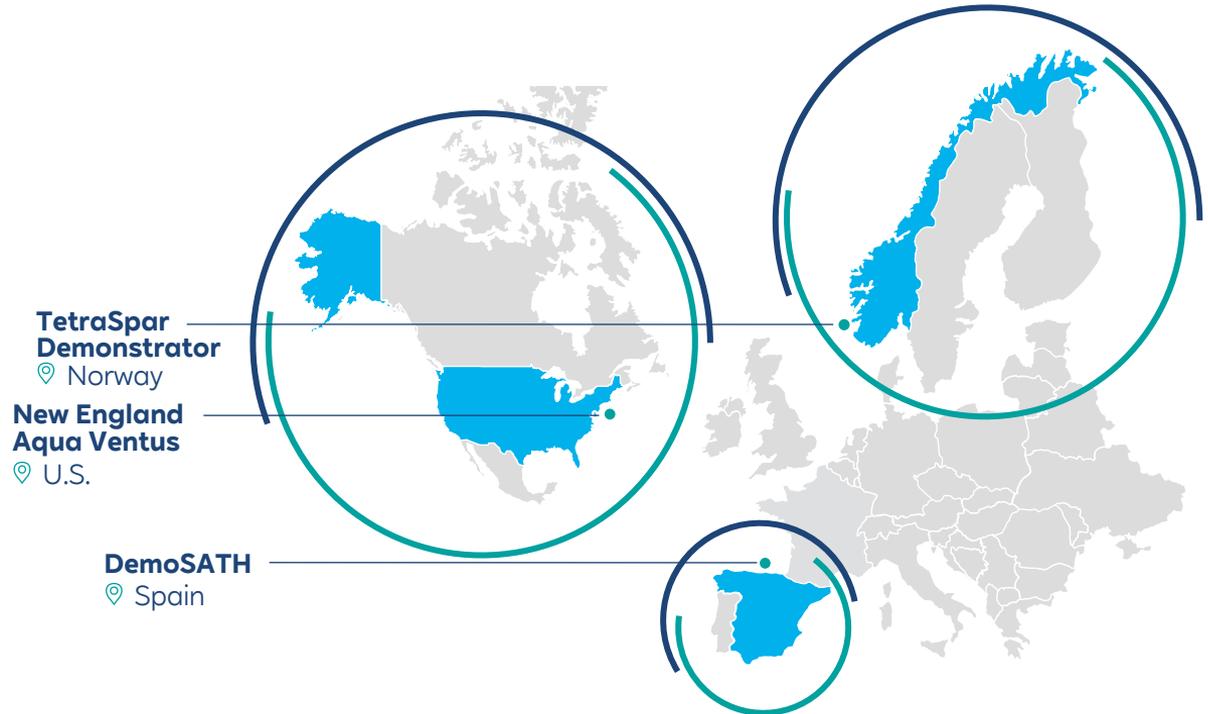




Floating Wind

RWE is building on its extensive offshore wind experience to become a leader in floating wind

- RWE aims to have **1 GW** of floating capacity underway **by 2030**
- RWE is developing a multi-gigawatt **global pipeline** of activity to deploy in the 2030s and beyond
- We have a global approach & **international growth strategy** with activities planned in France, Spain, Norway, UK, U.S. and Asia.





Floating Wind

RWE is participating in various high-profile floating demo projects for detailed insight and experience

- Floating offshore wind has great potential and **opens attractive market opportunities** not accessible via fixed bottom installations
- **Focus of demo projects:** performance and load behaviour of platform under all possible conditions, operational experience, maintenance process

Demo project New England Aqua Ventus

- Location: Gulf of Maine, U.S. east coast
- Water depth: 80-120 m
- Distance to shore: 12 miles
- Capacity: 11 MW
- Platform type: concrete-based
- Expected COD: 2024



Demo project DemoSATH

- Location: Bay of Biscay, Spain
- Water depth: 80 metres
- Distance to shore: 3 km
- Capacity: 2 MW
- Platform type: concrete-based
- Expected COD: 2022



Demo project TetraSpar Demonstrator

- Location: Norwegian coast
- Water depth: 200 metres
- Distance to shore: 10 km
- Capacity: 3.6 MW
- Platform type: steel-based
- Achieved in: 2021

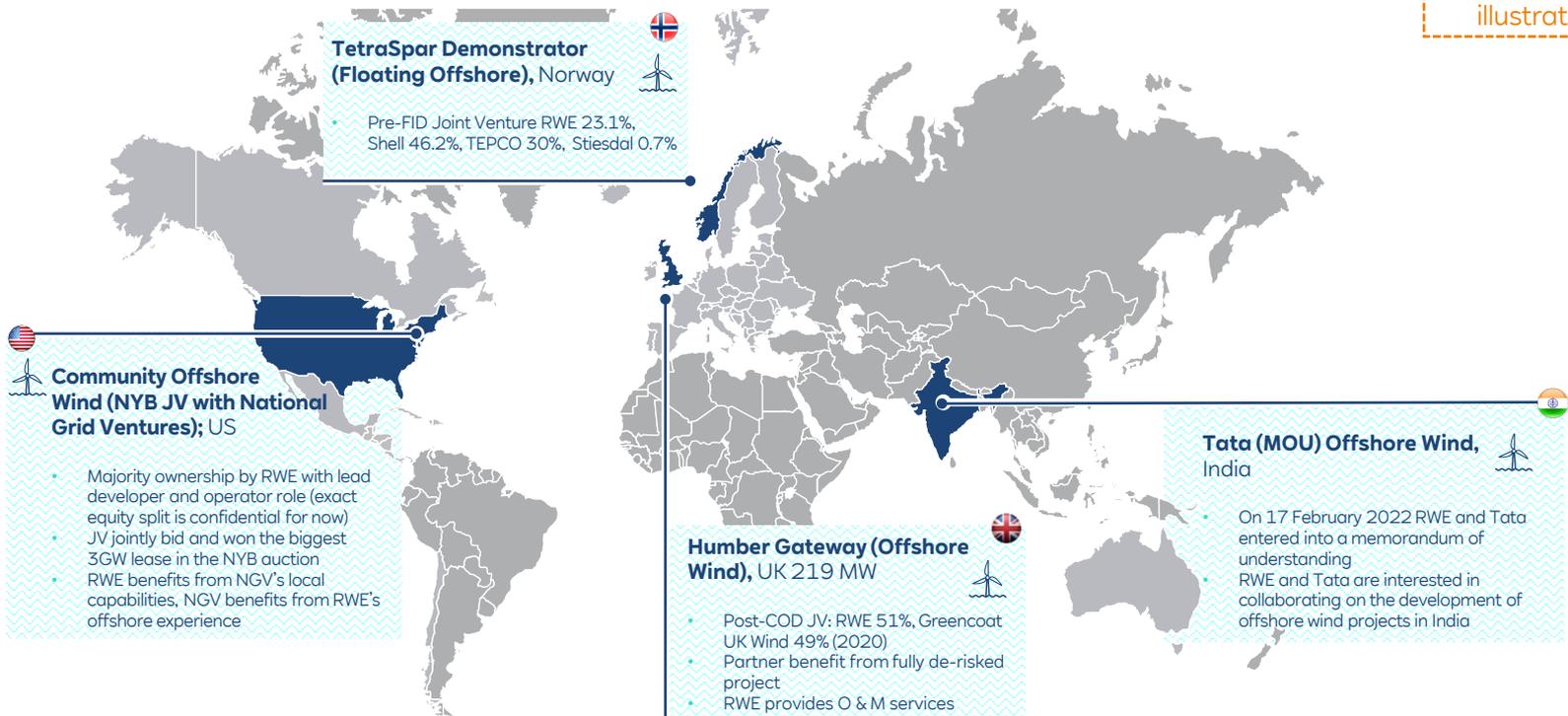




Partnerships at all stages of the value chain

Partnerships are an essential part of RWE's business model to support our growth ambition

illustrative



Having a closer look at our different business pillars



Offshore Wind

Strongest growth in Europe, significant potential in global markets



Onshore Wind/Solar

US Green ambitions and European Green Deal accelerate growth momentum in US and Europe



Flexible Generation & Batteries

RWE's European core markets require new, low-carbon flexible capacities



Hydrogen

Hydrogen is quickly gaining traction with Europe at the forefront



Commercial Solutions

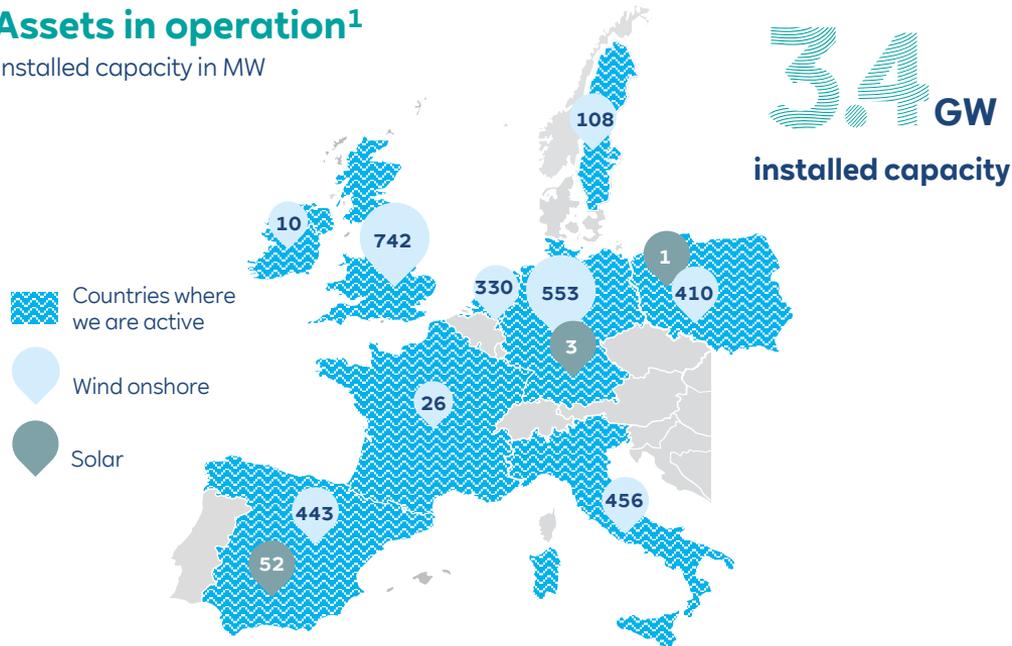
Decarbonisation of industry drives demand for tailored solutions



Onshore Wind/Solar Europe: Experienced operator with strong competitive position

Assets in operation¹

Installed capacity in MW



3.4 GW
installed capacity

- Regionally well **diversified portfolio**

~7.3 TWh power generation

- Extensive experience in technology**



>100 assets in operation in Europe

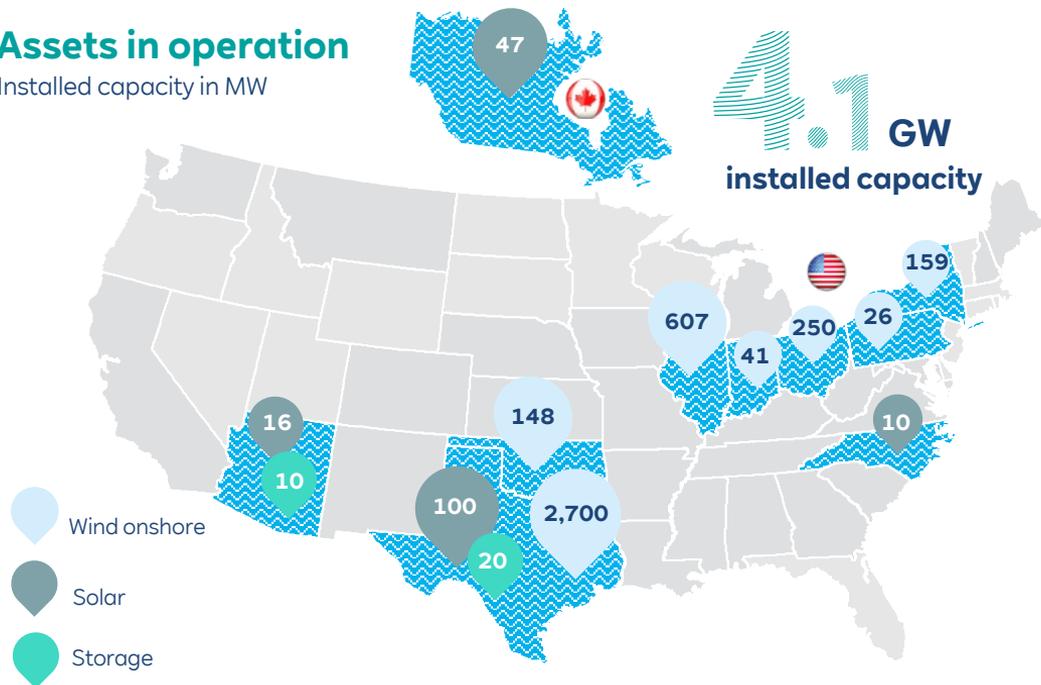
Note: As of 31 Dec 2021; capacity figures in pro rata view; generation figures in accounting view; rounding differences may occur. | ¹ Please note: Australian Solar asset Limondale (249 MW) is not disclosed in the map.



Onshore Wind/Solar Americas: Strong and diversified footprint across the US

Assets in operation

Installed capacity in MW



• **Well established** wind, solar & battery storage **operator**

~**9.3 TWh** power generation

• **Extensive experience in technology**



> **33** assets in operation in the US

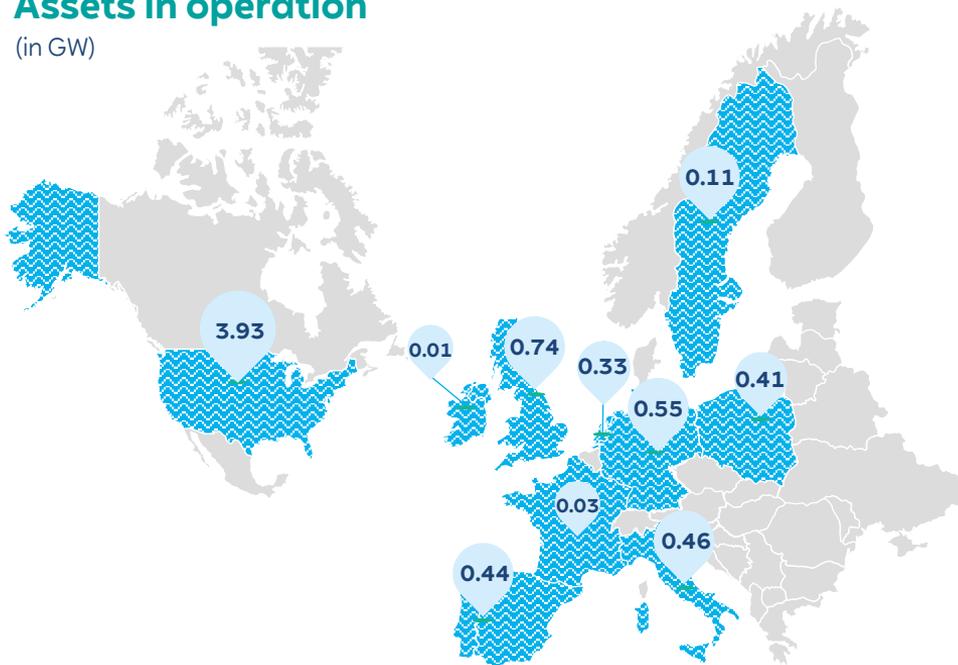
Note: As of 31 Dec 2021; capacity figures in pro rata view; generation figures in accounting view; rounding differences may occur.



Onshore Wind total

Assets in operation

(in GW)



Note: Pro rata figures as of 31 Dec 2021. Rounding differences may occur.

- Regionally well **diversified portfolio with**

~7 GW Onshore Wind globally
across Europe and the US

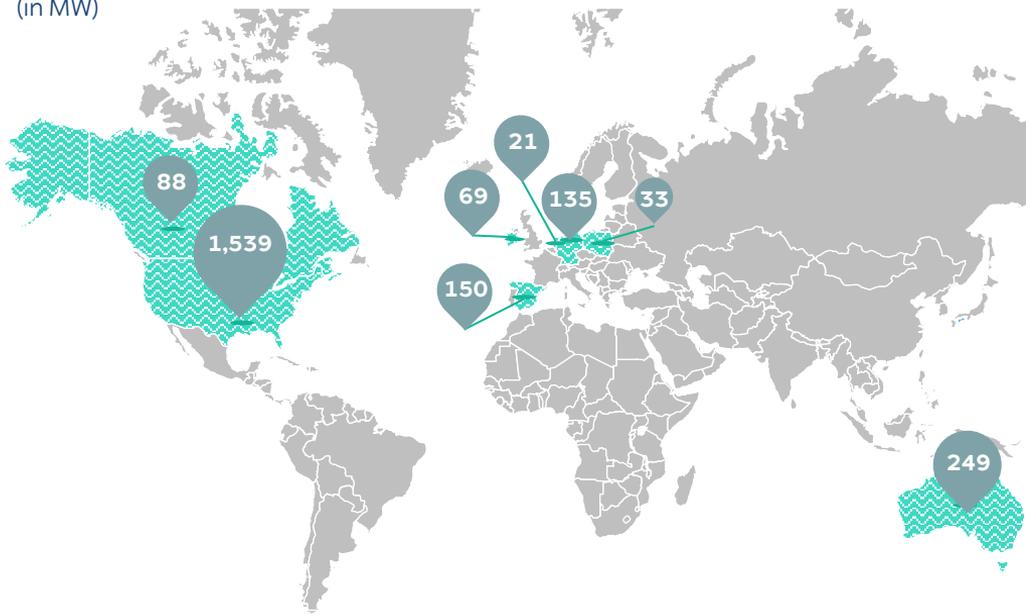
- Development **pipeline** of **~14 GW**
- Industry-leading expertise** in core capabilities, from supply chain management through operational excellence, fostering future growth
- Impressive track record** of developing, constructing and operating highest performing and most efficient sites



Excellent capabilities in Solar and Storage

Pro rata installed/under construction capacity

(in MW)



- Globally **~2 GW** of Solar PV and Storage **projects in operation or under construction** with a strong footprint in the US
- **>10 GW** PV and **4 GW** storage **pipeline** globally
- Excellent global solar and storage **engineering backbone**
- Our **Storage solutions are tailor-made** covering a wide range of applications ranging from ancillary services to T&D deferral and energy shifting, leveraging our strong technical capabilities

Note: Pro rata figures as of 31 Dec 2021. Rounding differences may occur.



Ambitious onshore wind targets and steep solar growth

Our onshore wind and solar target, installed net capacity

GW, pro rata

● Solar ● Onshore wind



3x
Capacity growth in onshore wind and solar



Note: As of CMD Nov 2021.



Onshore Wind assets - operational

illustrative

Scioto Ridge (USA, Ohio)



- COD: 2021
- RWE share: 100%
- Capacity: 250 MW
- 75 x Siemens Gamesa turbines
- Location: Ohio, Hardin and Logan Counties
- Subsidy scheme: REC/PTC
- Offtake: PPA
- More than 60,000 potential households supplied annually
- RWE's 1st onshore wind project in Ohio

Zuidwester (The Netherlands, Urk)



- COD: 2016
- RWE share: 100%
- Capacity: 90 MW
- 12 x 7.5 MW Enercon turbines
- Location: Westermeerdijk and Zuidermeerdijk
- Subsidy scheme: FiT (SDE+€120/MWh)
- ~80,000 potential Dutch homes supplied annually
- Q&M provided by EPK Enercon
- Zuidwester ist part of Noordoostpolder, one of Europe's largest wind power projects



Solar and Storage assets - operational

illustrative

West of the Pecos (USA, Texas)



- COD: 2019
- RWE share: 100%
- Capacity: 100 MW
- More than 350,000 photovoltaic panels built over a 270-hectare area
- Location: Reeves County, TXS, approx. 75 miles southwest of Midland-Odessa
- Subsidy scheme: ITC
- Offtake: PPA and Firm Hedge
- Q&M provided by RWE

Hickory Park (USA, Georgia)



- COD: 2022
- RWE share: 100%
- Capacity: 196 MW coupled with a 40 MW 2-hour battery storage system
- Location: Mitchell County, Georgia
- Subsidy scheme: ITC
- Offtake: PPA
- Hickory Park is RWE's largest solar plus storage project in the U.S.
- Offtake: 30-year utility contract
- Solar power plant will interconnect more than 650,000 solar panel
- Hickory Park covers an area of about 728 hectares



Onshore Wind/Solar assets - operational

illustrative

Cassadaga (USA, New York)



- COD: 2021
- RWE share: 100%
- Capacity: 125 MW
- 27 x Nordex and 10 Siemens turbines
- Location: Chautauqua County, NY
- Subsidy scheme: REC/PTC
- Offtake: PPA
- ~37,000 potential US homes supplied annually
- RWE's 29th onshore wind farm in the U.S. and represents RWE's second onshore wind project in New York

Limondale Sun Farm (Australia)



- COD: 2021
- RWE share: 100%
- Capacity: 249 MW
- approx. 872,000 panels used for this project
- Location: New South Wales
- Offtake product: merchant, PPAs and Green Certificates
- One of the largest solar parks in Australia, covering an area of around 900 hectares, 450 football fields
- ~ 105,000 potential households supplied annually



Solar assets – under construction

illustrative

Bright Arrow (USA, Texas)



- COD (expected): 2023
- RWE share: 100%
- Capacity: 300 MW + 100 MW battery storage system
- 876,000 photovoltaic panels and 85 central inverters
- Location: 80 miles east of Dallas, Hopkins county, TX
- Subsidy scheme: REC/PTC
- Offtake: merchant

Fifth Standard (USA, California)



- COD (expected): 2023
- RWE share: 100%
- Capacity: 150 MW + 137 MW battery storage system
- Location: Fresno County, CA

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Hydrogen

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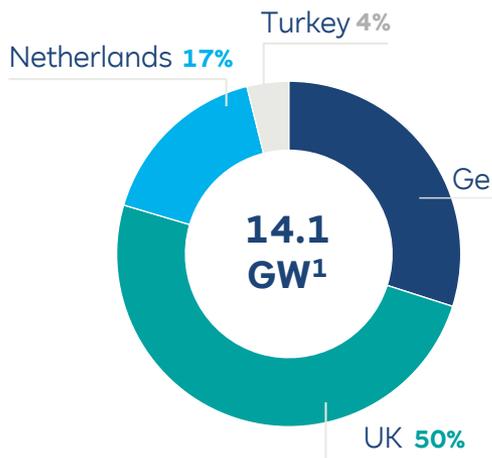
Commercial Solutions

Decarbonisation of industry drives demand for tailored solutions

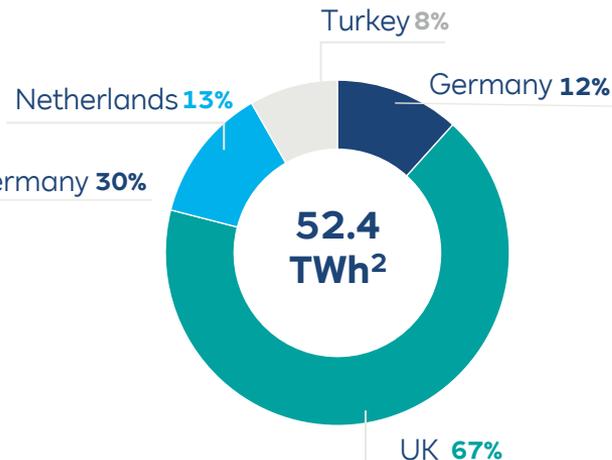


Gas: Highly efficient and flexible gas assets

Installed capacity per country



Power generation per country



#2 gas fleet in Europe



26 power plants

in Germany, UK, Netherlands and Turkey

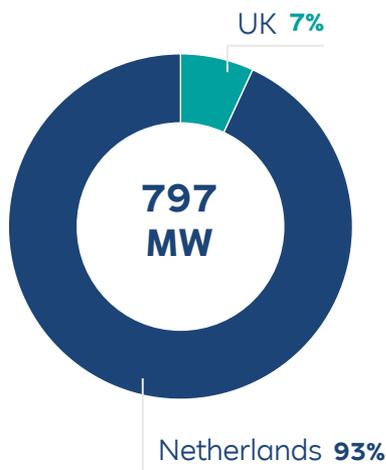


¹ Pro rata view as of 31 Dec 2021. | ² Accounting view. | Note: Rounding differences may occur.

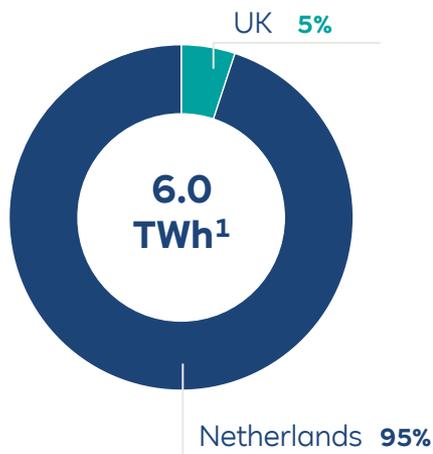


Biomass: Focused on biomass co-firing

Installed capacity per country



Power generation per country



3 power plants in UK and Netherlands



Biomass co-fired power plants

Biomass net capacity:

- Amer (505 MW)
- Eemshaven (237 MW)

Certificated biomass



Note: As of 31 Dec 2021; pro rata view; rounding differences may occur. | ¹ Accounting view.

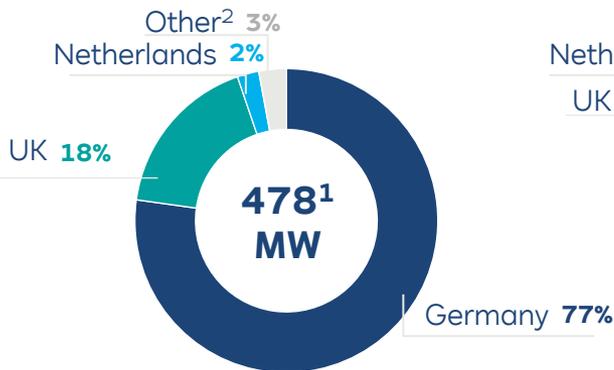


Hydro & pumped storage: Attractive portfolio with high flexibility

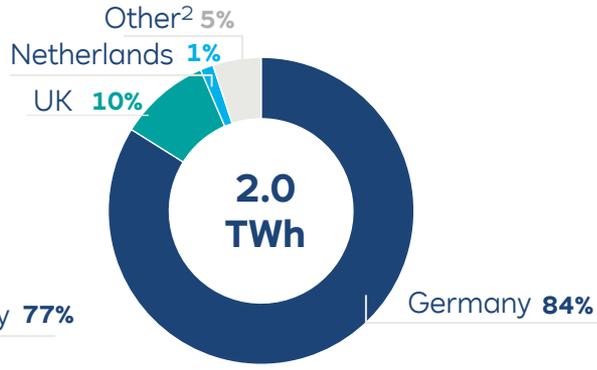


Hydro

Installed capacity



Power generation



Pumped storage



Own operated power plant

- Koepchenwerk (162 MW)

Contractually secured plants³

- SEO Vianden (521 MW)
- Schluchsee (870 MW)

Installed capacity in Germany⁴

1,553 MW

Note: As of 31 Dec 2021; ¹ pro rata view; rounding differences may occur. ² Including assets in Spain and Luxembourg. ³ Based on long-term use agreements. ⁴ Pro rata view.



Batteries: Balancing the system is a growth opportunity



Batteries

Own operated battery storage systems in

- **US, Germany and Ireland**

Growth focus in batteries on co-location

- in particular with wind and solar sites

Additionally **working on further innovative technologies**

- e.g. redox-flow storage systems
- second-life batteries

Capacity & development

>10 battery projects

~600 MW in operation or under construction

~4 GW sizeable development pipeline



RWE Group



Market Data



Regulations



RWE
Technologies

Battery storage assets - operational

illustrative

Texas Waves - Pyron (USA, Texas)



- COD: 2018
- RWE share: 100%
- Capacity: 2 x 9.9 MW / 5 MW
- A battery system co-located at the Pyron Wind Farm (265 MW)
- Location: near Sweetwater, TXS
- Subsidy scheme: ITC
- Offtake: merchant
- Q&M provided by RWE
- Energy storage participates in the frequency regulation market and helps to maintain frequency stability
- In case the frequency drops or increases below certainty threshold, the battery will discharge or charge to support the grid to maintain the grid frequency at 60 Hz

Lisdrum - County Monaghan (Ireland)



- COD: 2022
- RWE share: 100%
- Capacity: 60 MW
- Second battery storage facility that RWE has brought online in Ireland
- Location: Lisdrumdoagh, (3 km East of Monaghan town)
- Subsidy scheme: Other
- Site provides a short term back-up to help address power outages, and to maintain a more stable and secure electricity supply in Ireland

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Commercial Solutions

Decarbonisation of industry drives demand for tailored solutions



RWE has a good starting point along the value chain for green hydrogen

Competencies of the RWE companies along the green hydrogen value chain

Renewable Energy Production



Electrolyser



Logistic (Storage & Transport)



Use Case



Renewables

Renewable Energy Production: Development, construction, operation and structuring of renewable electricity generation

Flexible Generation

Hydrogen generation via electrolyser: Development, construction and operation

Establish **project partnerships** for the realization of the first projects

Reconversion to electricity e.g. via available gas power plants

Commercial solutions

Asset optimization: flexible use of electrolysers in the electricity market

Trading and storage: Overall optimization of (inter-) national trade and use of RWE gas storage facilities for hydrogen storage



Our engagement in hydrogen continues to take shape and we believe in the central role of H₂ in the energy transition

Together with partners, we are active in >30 projects and along the entire renewables and H₂ value chain

- **10 GW pipeline** with projects mostly in early-stage development
- **4** of our projects are currently in the **IPCEI¹** pre-notification process. Notification by the EU commission is expected by late 2022/early 2023
- **2 GW** of electrolyser capacity **by 2030**
- Green H₂ is key to the energy transition achieving national and European climate targets by 2050
- Demand for green H₂ will drive global growth of renewables

AquaVentus Family

📍 Heligoland **IPCEI - IPCEI**

South Wales Industrial Cluster

📍 Milford Haven

Eemshydrogen

📍 Eemshaven

NorthH₂

📍 North of the Netherlands

FUREC

📍 Prov. Limburg

GET H₂

📍 Lingen **IPCEI**

H₂ Brunsbüttel

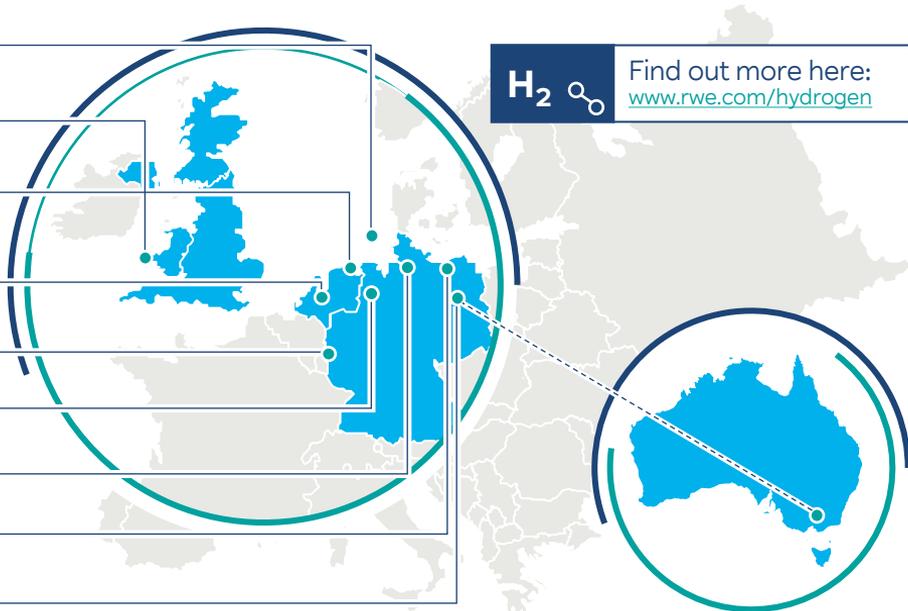
📍 Brunsbuettel

HyTech Hafen Rostock

📍 Rostock **IPCEI**

HySupply

📍 Berlin



¹ IPCEI = Important Projects of Common Interest.



H₂ercules Hydrogen fast track for Germany

illustrative



H₂ercules
Hydrogen production, storage and import terminals in the north of Germany to be connected with consumers in the west and south



- Plans for up to 1 GW of new electrolyser capacity and 1,500 kilometers of pipeline
- Importing options through ports in Lower Saxony or grid connected neighboring countries
- Storage facility in Gronau-Epe (as part of GET H₂)
- Around 2/3 of predicted H₂ demand in 2030 could be connected
- New building of at least 2 GW H₂-ready power plants
- Further partners to be connected / big consumers signaled interest

Project partners (selection)



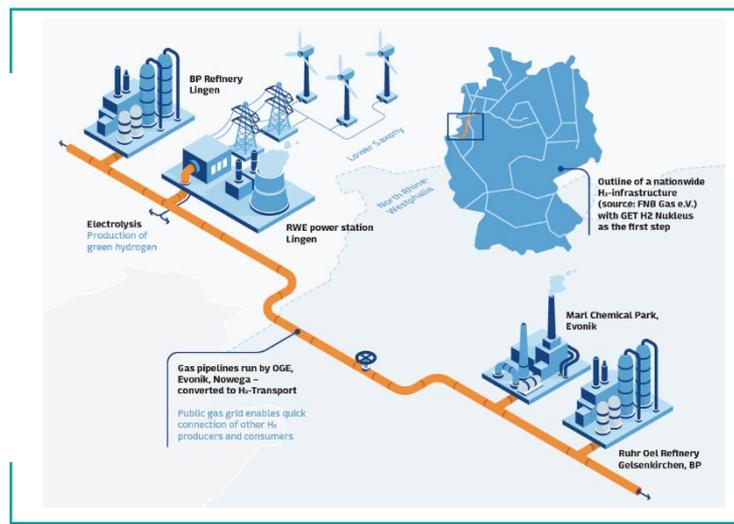


GET H₂ aims to kick-start the creation of nationwide infrastructure in Germany

illustrative



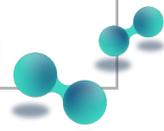
GET H₂
An initiative of > 40 industrial and gas companies. RWE is playing a key role in the production of green hydrogen at its Lingen site in the first GET H₂ Nukleus sub-project



- The initiative has spawned GET H₂ Nukleus, a pilot project for the construction of the first publicly accessible hydrogen infrastructure involving BP, Evonik, Nowega, OGE and RWE.
- RWE's part consists of building a 100 MW electrolyser and produce green hydrogen at the RWE Lingen power plant site. Scaling potential up to 2 GW.
- The objective is to connect Lingen to the existing hydrogen network in the Ruhr region via a repurposed natural gas pipeline, in order to supply the green hydrogen to refineries and chemical parks.

Project partners (selection)

Wir transportieren Gas.





In the UK, RWE is working with partners to develop a hydrogen economy for industries in South Wales

illustrative



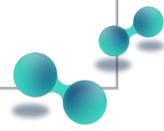
South Wales Industrial Cluster

RWE's Pembroke power station in Milford Haven is part of a large industrial park and can serve as a site for hydrogen production



- RWE's Pembroke gas-fired power station in Milford Haven is situated in one of six major industrial clusters in the UK. Thanks to its proximity to companies in the British steel, chemicals, oil and cement sectors, Pembroke is well suited to function as a future hydrogen production centre.
- The project encompasses the local production, distribution and usage of hydrogen.
- Further subjects of the project consortium's interest are carbon cycle options (e.g. carbon capture during cement production and synthetic fuel production).

Project partners (selection)





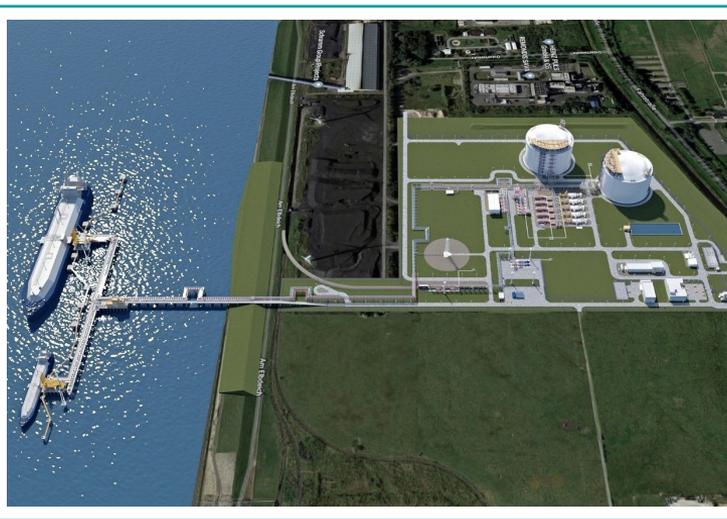
RWE is exploring ways to import hydrogen via the planned LNG¹ Terminal in Brunsbüttel

illustrative



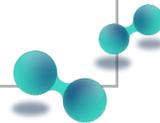
LH₂ Brunsbüttel

Germany's first LNG terminal is being set up in Brunsbüttel with RWE's support. In addition to LNG sourcing, RWE is paving the way to import hydrogen via the terminal as well.



- LNG import terminals such as Brunsbüttel can be combined with feed-in points for imported hydrogen.
- The natural gas pipeline connecting to the LNG terminal will be hydrogen-ready.
- Already today the port is an energy hub handling ammonia, LPG and crude. Significant local demand and the close proximity to Hamburg, Germany's biggest harbour and major economic powerhouse, is a key differentiator.
- Within the framework agreed with German LNG, RWE Supply & Trading is exploring technical and commercial feasibility of large-scale imports of hydrogen and its derivatives.

Project partners



¹ LNG - Liquefied Natural Gas.

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Supply & Trading:

Value creation through fundamental understanding of markets

Trading volumes in 2021



Leading energy trading house and **significant gas portfolio** player

Interface between the **Group and global wholesale markets** for energy and energy-related raw materials and services

Europe's largest energy trading floor at RWE's headquarters (Essen, Germany);

11 trading offices worldwide

Note: As of 31 Dec 2021.



Supply & Trading:

Energy experts organised in 3 core business areas

Trading & Origination

- Interface wholesale energy markets all over the world – physical and financial products
- Energy transition investments in commodity-driven assets and companies where we can deliver value from strong trading capability and deep understanding of energy commodity markets



Commercial Asset Optimisation

- Optimising physical and contractual power assets – from long-term hedging to dispatch decision
- Energy Transition Origination is responsible for the origination of hydrogen projects



Energy Supply & Services

- Management and optimisation of the Group's Pan-European gas portfolio, gas supply, storage and transport contracts as well as the global LNG portfolio
- Commodity Solutions as fully-fledged service provider for industrial customers and aggregators





Trading & Origination: Understanding of fundamentals drives trading approach & Energy Transition Investments

Fundamental analysis (examples)

- **Power:** demand, conventional power plants, renewable feed-in, cross border flows, weather
- **Gas:** demand, pipeline flows, LNG deliveries, storage levels

- Deep understanding of physical assets
- Fundamental modelling of supply/demand balances

Quantitative modelling

- Outright fundamental fair value
- Fuel spreads, time spreads, location spreads and product spreads

- Monitoring of misvaluations in markets
- Assessment of risk/reward of trading opportunities



Trading strategies

Fundamental: assessment of fundamental fair value

Relative value: detection of spread opportunities

Systematic: algorithmic trading, monitor money flows

Origination: negotiated contracts in illiquid markets

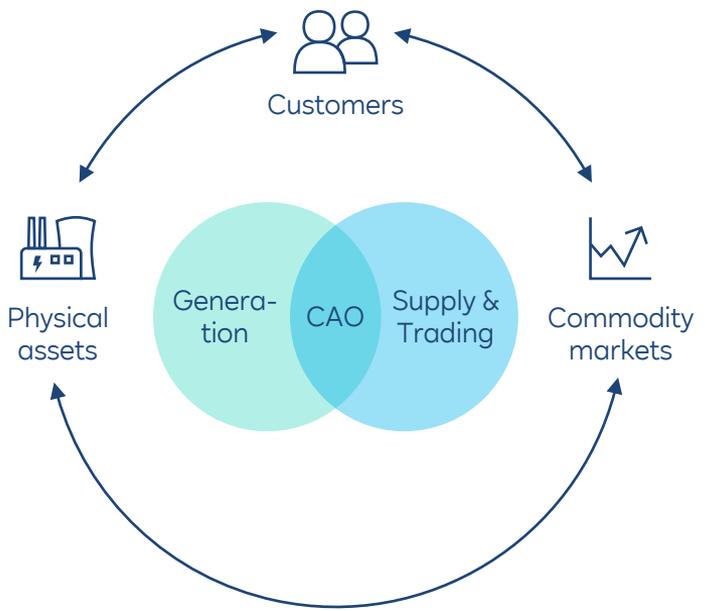
Energy Transition Investments

- Focus on private equity-like investments in assets and companies across the energy spectrum that are related to the global energy transition
- Typical equity investments of up to € 50m with regional focus on Europe and North America



Commercial Asset Optimisation: The interface between generation & markets

Business interaction



Commercial Asset Optimisation

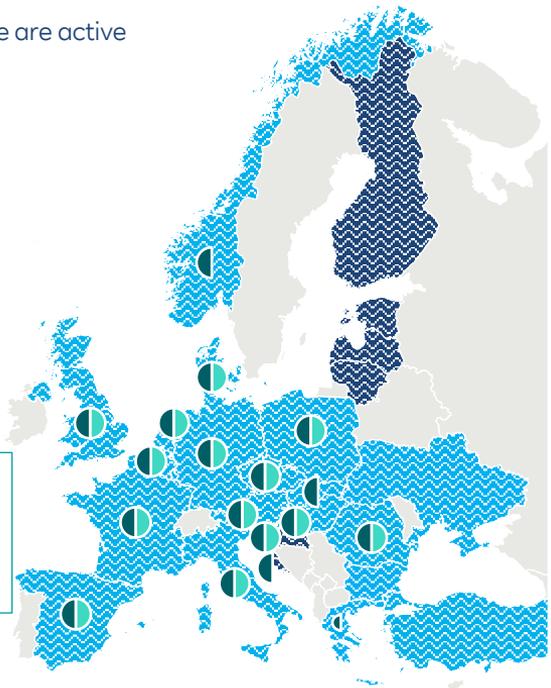
-  Commercial asset management
-  Hedging
-  Dispatch and Intraday trading
-  Flexibility and Capacity markets
-  Asset Partner
-  Sales portfolio management



Gas & LNG Supply: Major asset backed gas player in Europe

- Countries where we are active
- Not active
- Target markets
- OTC
- Exchanges

225 TWh/a
Total Gas Sales Portfolio



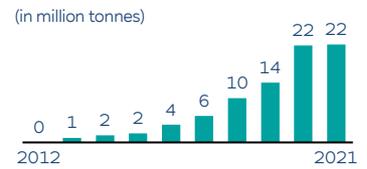
Large gas portfolio across Europe

- Diversified **physical European gas portfolio of ~ 225 TWh/a** across 20+ countries centred around North Western and Central European markets
- Sourced from major international producers, smaller independents and from traded markets
- Booked working gas volume in **gas storages** of about 60 TWh
- ~ 55 GW gas **transportation capacity** at more than 70 European border points and storage connections

Global LNG activities

Global LNG portfolio

- Sizeable global LNG portfolio with a strong customer base in Europe, Asia and the Middle East
- Tailor-made solutions for LNG customers & Supply across all major markets



2021 in figures¹

- **22.1** mt of **physical LNG** traded
- **9.3** mt **physical delivery to customers**²

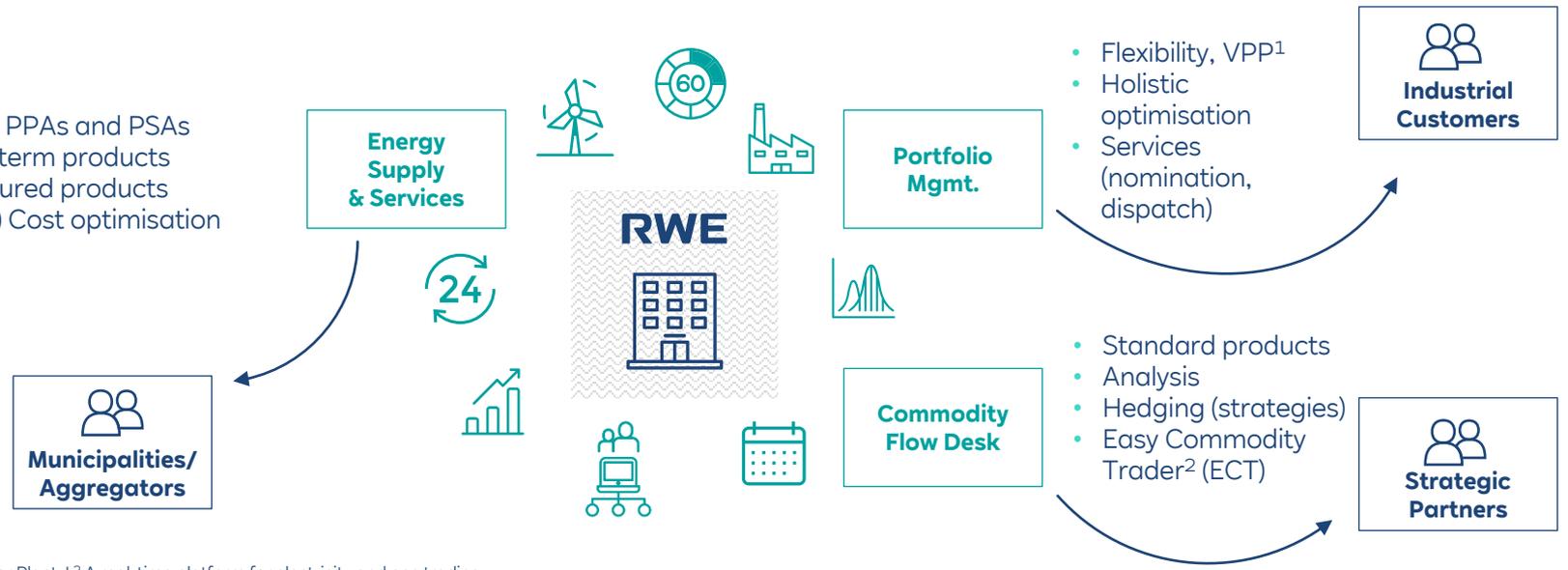
¹ LNG trading volumes excl. financial trading. | ² The entire physical volume is sold on downstream by these customers to end users.



Commodity Solutions: Reliable partner

- **Commodity Solutions** supplies large industrial customers and municipalities/aggregators in Europe with energy and energy-related services. The portfolio comprises standard as well as structured products and individual solutions by creating win-wins based on our best in class asset and portfolio management.

- Green PPAs and PSAs
- Long-term products
- Structured products
- (Grid-) Cost optimisation



¹ Virtual Power Plant. | ² A real-time platform for electricity and gas trading.

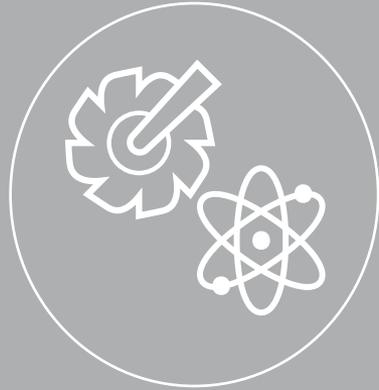


Gas Storage: Operation and Marketing of underground natural gas storages

RWE's Storage System Operators (SSO)

	 Germany	 Czech Republic
Legal entity	RWE Gas Storage West GmbH	RWE Gas Storage CZ, s.r.o.
Locations		
# of facilities	5 (operating volume of 1.6 bcm ¹)	6 (operating volume of 2.7bcm ¹)
Type of storages and details	salt caverns	4 depleted gas fields 1 aquifer storage 1 rock cavern
Regulatory	Regulated business according to Directive 2009/73/EC ("Unbundling requirements")	

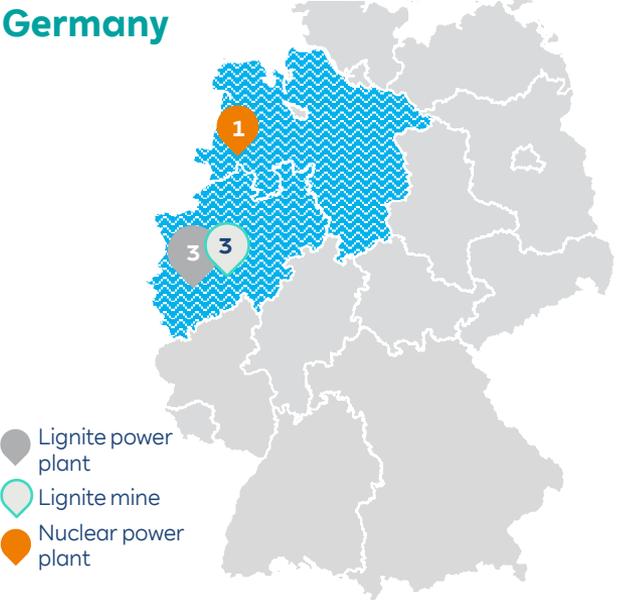
¹ Billion cubic metres.



COAL/NUCLEAR

Overview of coal and nuclear portfolio

Major power plant sites in Germany



Installed capacity by technology



Businesses with closure plans in Germany

Experience in technologies



Note: As of 31 Dec 2021. Pro rata view. ¹ Including installed capacity (pro rata) of nuclear power plant EPZ (146 MW) in the Netherlands.



Lignite:

Integrated system including mining, refining and power plants

46 TWh power generation¹ 

7.6 GW installed capacity¹ 

3 power units from lignite security reserve to operate in wholesale market (total: 0.9 GW)² 

Closures by 2038

Responsible and socially acceptable phaseout of coal 

3 major power plant sites in Germany³ 

3 lignite opencast mines 

3 refining sites 

Recultivation

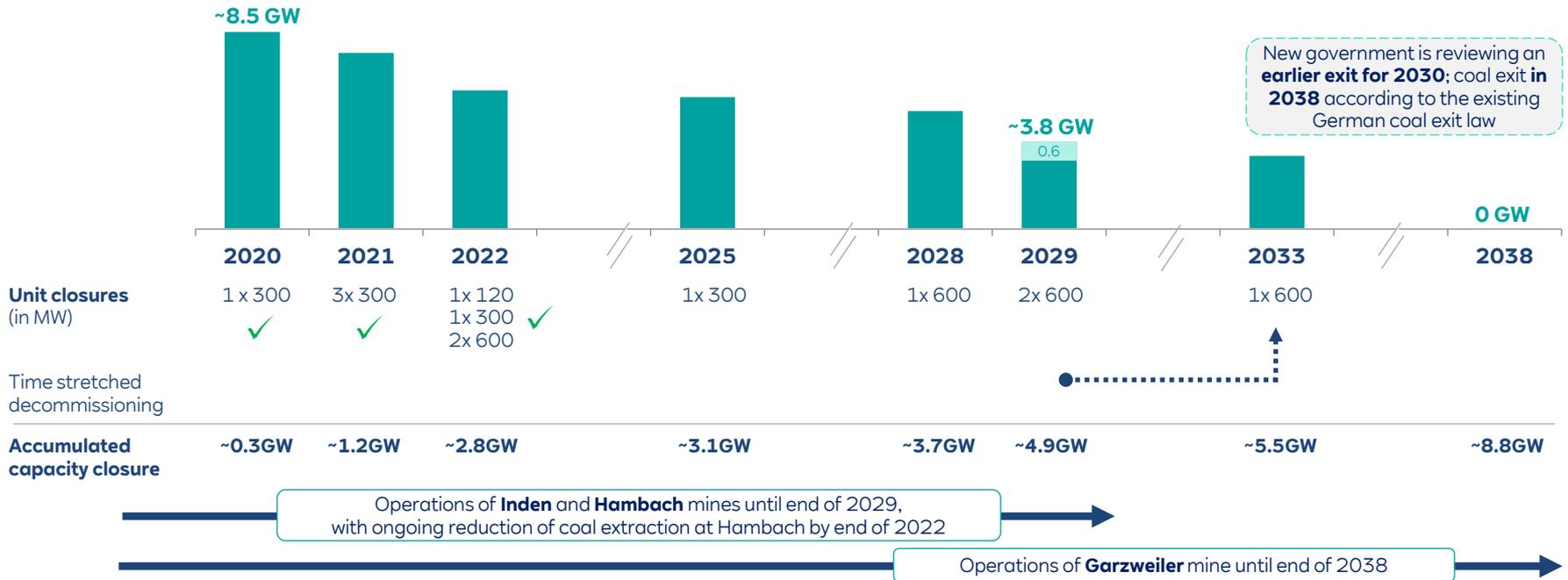
Concept for lignite mines 

Note: As of 31 Dec 2021. | ¹ Including refining plants and excluding power plants in time stretched decommissioning. | ² Under the German Maintenance of Substitute Power Stations Act entered into force in July, additional non-gas power stations will be called upon to cut down on gas-fired power generation incl. three RWE lignite power stations which will be activated on 1 Oct 2022. The law expires in March 2024. | ³ Excluding power plants in time stretched decommissioning and refining power plants.



Lignite: Agreed closure plan for RWE's lignite operations

Year-end installed capacity¹



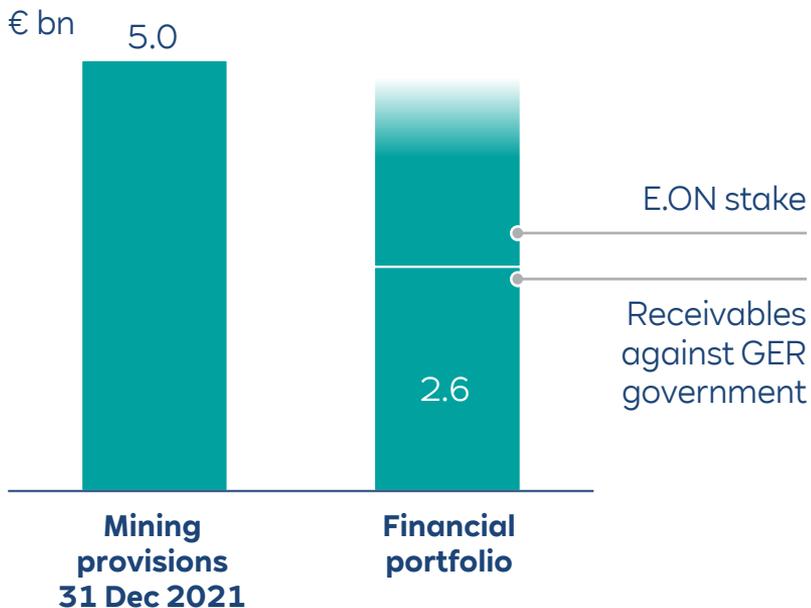
¹ Excludes plants already placed in time stretched decommissioning, includes refining plants.



Lignite:

Financially ring-fenced coal phaseout liabilities with financial portfolio

Funding of coal phaseout liabilities



- Provisions for coal phaseout liabilities reflecting accelerated coal phaseout total €5.0bn
- Agreement with German government includes compensation payment of €2.6bn¹ payable over 15 annual instalments
- Commitment to back amount with adequate financial portfolio. Financial portfolio currently consists of
 - Receivables against German government
 - 15% stake in E.ON (income from financial portfolio recognised in 'financial result')

¹ EU state aid approval pending.



Lignite: Longstanding experience in recultivation & Structural change

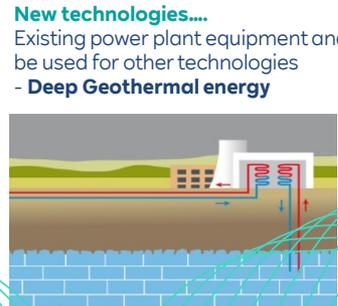


Biodiversity
Diversity of species comparable to high value reference habitat with >3,100 animal species and >1,500 plant species

Forestry recultivation
Near-natural forest management
By mid of the century 1,900 more hectares of forest reforested than cleared



Renewable energy
Wind farm on recultivated former opencast mining sites



New technologies...
Existing power plant equipment and infrastructure can be used for other technologies
- **Deep Geothermal energy**

Recultivation



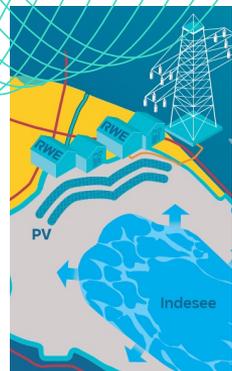
Agricultural recultivation
7 years biological activation of fields by RWE
Afterwards farmer take over the fields for planting
Quality of land guaranteed by RWE for 25 years

Structural change



Site development
Perspektive.Struktur.Wandel GmbH (PSW) is a newly established company entrusted with the qualification and development of strategically important sites

Plant repurposing



... and opportunities
Economical use of fallow land for open-space PV systems including battery storage in the opencast mining landscape



Nuclear:

Experience across entire nuclear plant lifecycle

22.8 TWh
gross power generation¹



1.5 GW
installed capacity²



Phaseout of nuclear
by end of 2022



Secure and efficient
decommissioning



RWE Nuclear units in Germany	Net capacity (GW)	End of operations	Status			
			Spent fuel removal	Decomm. licence	Decommissioning progress	
Emsland	1.3	2022	2027	Pending	Preparation	Operational
Gundremmingen C	1.3	2021	2026	✓	In Progress	In decommissioning
Gundremmingen B	1.3	2017	2022	✓	In Progress	
Biblis A	1.2	2011	✓	✓	Advanced	
Biblis B	1.2	2011	✓	✓	Advanced	
Mülheim-Kärlich	1.2	1988	✓	✓	Far advanced	
Lingen KWL	0.3	1979	✓	✓	Far advanced	
Gundremmingen A	0.2	1977	✓	✓	Far advanced	
Kahl	0.01	1985	✓	✓	Finished	Decommissioned

¹ As of 31 Dec 2021. ² Including 30% EPZ share (NPP Borssele).

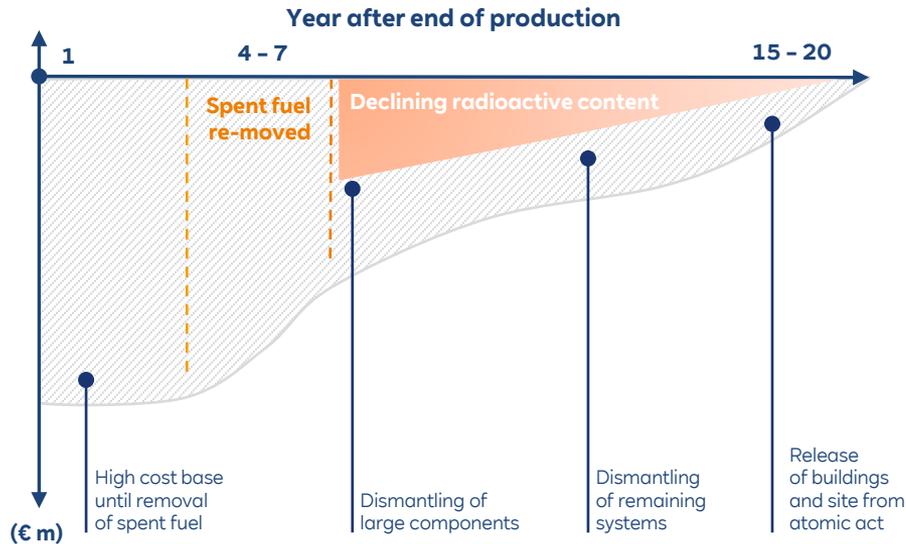


Nuclear:

Cash flow profile of provisions driven by timing of individual shutdowns

Example: Decommissioning cash flow profile (one unit)

illustrative



Accounting of provisions

Nuclear provisions (31.12.2021)	€6.0bn
Discount rate	0.0%
Escalation rate	1.5%
Sensitivity (+/-10 bps change in real discount rate)	c. -/+€40m

Utilisation of provisions

- Increased utilisation of provisions due to further shutdowns (€300m – €600m p.a.) from 2022 onwards
- Clear reduction in utilisation of provisions from ~2030 onwards



Nuclear: Decommissioning steps

illustrative

Basic site management

Periodic inspection, ongoing supervision and maintenance of systems and buildings

Operation and maintenance of adjusted infrastructure systems

Downsizing/replacement of infrastructure

Final shutdown of systems

Dismantling

Dismantling of systems and components

Decontamination of buildings

Release of buildings and site

Materials & waste treatment

Sorting of materials

Decontamination of materials

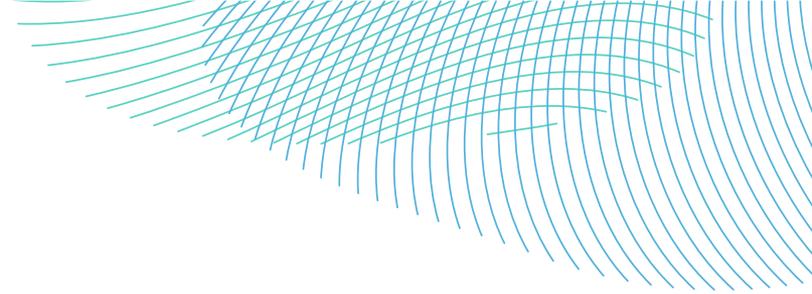
Release of materials

Treatment¹ of radioactive waste

Responsibility of State

Interim storage & final disposal

¹ For example melting, incineration, compaction, packaging and documentation.



Appendix

Accounting treatment¹ of renewable assets

	Model 1	Model 2	Model 3a	Model 3b	Model 4
	Included in the consolidated financial statements		Equity method	Joint operations	Other investments
RWE share of project ²	100%	>50%, <100%	>20%, =<50%	>20%, =<50%	>0% - 20%
Capacity view					
Pro rata MW	100%	pro rata	pro rata	pro rata	pro rata
Accounting MW	100%	100%	n/a	pro rata	n/a
Profit and loss statement					
Contribution to EBITDA	100%	100%	0%	pro rata	0%
Contribution to depreciation	100%	100%	0%	pro rata	0%
Contribution to EBIT	100%	100%	0%	pro rata	0%
Contribution to at equity income in EBIT/DA	n/a	n/a	pro rata	n/a	n/a
Contribution to income other investments in EBIT/DA	n/a	n/a	n/a	n/a	pro rata
Minorities	n/a	(100% - RWE share)	n/a	n/a	n/a
Cash flow statement					
Consideration in operating cash flow	100%	100%	pro rata ³	pro rata	pro rata ³
Consideration in investing cash flow	100%	100%	pro rata ⁴	pro rata	pro rata ⁴
Consideration in financing cash flow ⁵	n/a	(100% - RWE share)	n/a	n/a	n/a
Balance sheet assets					
Consolidated assets	100%	100%	n/a	pro rata	n/a
Equity investments	n/a	n/a	pro rata	n/a	n/a
Other investments	n/a	n/a	n/a	n/a	pro rata

¹ Accounting treatment refers to list of shareholding tables in RWE's annual report. | ² RWE's share of project corresponds to the voting rights and no adverse provisions in shareholders agreement are agreed, which would influence RWE's ability to control that company. | ³ Dividend. | ⁴ Capital and shareholder loan increase/decrease. | ⁵ Disregarding any financing structure (e.g. tax equity, project financing etc.).

RWE generation asset list (I/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Offshore wind												
Alpha Ventus 1	Germany	2010	30	26%	0	26%	8	3a	29%	FiT ¹	2030	
Alpha Ventus 2	Germany	2009	30	26%	0	26%	8	3a	26%	FiT ¹	2029	
Amrumbank West	Germany	2015	302	100%	302	100%	302	1	37%	FiT ²	2035	
Arkona-Becken Südost	Germany	2018	385	50%	0	50%	193	3a	42%	FiT ³	2039	
Nordsee One	Germany	2017	332	15%	0	15%	50	4	n/a	FiT ²	2037	
Nordsee Ost	Germany	2015	295	100%	295	100%	295	1	33%	FiT ²	2034	
Galloper	UK	2018	353	25%	0	25%	88	3a	47%	1.8 ROC	2037	
Greater Gabbard	UK	2012	504	50%	252	50%	252	3b	n/a	2 ROC	2032	
Gwynt y Mor	UK	2015	576	50%	288	50%	288	3b	30%	2 ROC	2035	
Humber 1	UK	2015	108	51%	108	51%	55	2	40%	2 ROC	2035	
Humber 2	UK	2015	111	51%	111	51%	57	2	39%	2 ROC	2035	
London Array LARYW-1	UK	2013	155	30%	46	30%	46	3b	39%	2 ROC	2032	
London Array LARYW-2	UK	2013	158	30%	48	30%	48	3b	38%	2 ROC	2032	
London Array LARYW-3	UK	2013	158	30%	48	30%	48	3b	40%	2 ROC	2032	
London Array LARYW-4	UK	2013	158	30%	48	30%	48	3b	40%	2 ROC	2032	
Rampion 1	UK	2018	200	50%	200	50%	100	2	39%	1.8 ROC	2037	
Rampion 2	UK	2018	200	50%	200	50%	100	2	38%	1.8 ROC	2037	
Rhyl Flats	UK	2009	90	50%	90	50%	45	2	32%	1.5 ROC	2029	
Robin Rigg East	UK	2010	84	100%	84	100%	84	1	30%	2 ROC	2030	

¹ EEG compression model: €154/MWh for first 12 years + 1.5 year on average (by turbine) depending on water depth and distance to shore, thereafter €39/MWh. | ² EEG compression model: €194/MWh for first 8 years, then €154/MWh for 1 to 2 years on average depending on water depth and distance to shore, thereafter €39/MWh. | ³ EEG compression model: €184/MWh for first 8 years, then €149/MWh for further 2 years, thereafter €39/MWh. | Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (II/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Offshore wind continued												
Robin Rigg West	UK	2009	90	100%	90	100%	90	1	32%	1.5 ROC	2029	
Scroby Sands	UK	2004	60	100%	60	100%	60	1	30%	1 ROC	2027	
Thornton Bank 1	Belgium	2009	30	27%	0	27%	8	3a	n/a	Other	2029	
Thornton Bank 2	Belgium	2012	148	27%	0	27%	39	3a	n/a	Other	2032	
Thornton Bank 3	Belgium	2013	148	27%	0	27%	39	3a	n/a	Other	2033	
Rødsand 2	Denmark	2010	207	20%	0	20%	41	3a	40%	CfD	2022	
Karehamn	Sweden	2013	48	100%	48	100%	48	1	47%	Green Certificate	2028	
Total offshore wind			4,961		2,318		2,440					
 Onshore wind												
Lasbek	Germany	2004	11	100%	11	100%	11	1	12%	FiT	2024	
Twistringén	Germany	2008	12	100%	12	100%	12	1	11%	FiT	2029	
Eschweiler-Nord A	Germany	2017	13	51%	13	51%	6	2	26%	FiT	2037	
Wiedenfelder Höhe A+B	Germany	2017	13	100%	13	100%	13	1	22%	FiT	2037	
Barbecke	Germany	2002	14	100%	14	100%	14	1	13%	FiT	2022	
Lesse A	Germany	2002	20	100%	20	100%	20	1	15%	FiT	2023	
Titz-Nord	Germany	2012	21	51%	21	51%	10	2	24%	FiT	2032	
Lesse B	Germany	2002	21	100%	21	100%	21	1	18%	FiT	2023-2032	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (III/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW		%		
 Onshore wind continued											
Dargelütz	Germany	2006	22	100%	22	100%	22	1	15%	FiT	2026
Düshorner Heide	Germany	2014	26	51%	26	51%	13	2	16%	FiT	2034
Schmarloh	Germany	2008	28	100%	28	100%	28	1	18%	FiT	2030
Bedburg Königshovener Höhe A	Germany	2014	29	51%	29	51%	15	2	26%	FiT	2034/2035
Eschweiler-Fronhoven A	Germany	2017	29	51%	29	51%	15	2	24%	FiT	2037
Malterhausen	Germany	2002	29	100%	29	100%	29	1	7%	FiT	2021-2024
Bartelsdorf	Germany	2009	32	100%	32	100%	32	1	18%	FiT	2029
Bedburg Königshovener Höhe A	Germany	2014	38	51%	38	51%	19	2	26%	FiT	2034/2035
Putlitz	Germany	2004	62	100%	62	100%	62	1	19%	FiT	2024
Various (RWE Economic Stake < 10 MW)	Germany	various	219	various	219	various	210	various	various	FiT	various
Munnsville	US	2007	35	100%	35	100%	35	1	25%	REC	n/a
Stony Creek	US	2009	53	50%	0	50%	26	3a	28%	REC/ITC	2034
Sand Bluff	US	2008	90	100%	90	100%	90	1	8%	REC/PTC	2032
Anacacho	US	2012	100	100%	100	100%	100	1	37%	REC/PTC	2022
Panther Creek - Phase II	US	2008	116	100%	116	100%	116	1	38%	REC/PTC	2029
Forest Creek	US	2007	124	100%	124	100%	124	1	25%	REC	n/a
Cassadaga	US	2021	125	100%	125	100%	125	1	15%	REC/ITC	2026
Champion	US	2008	127	100%	127	100%	127	1	28%	REC	n/a
Panther Creek - Phase I	US	2008	143	100%	143	100%	143	1	40%	REC/PTC	2029
Boiling Springs	US	2020	148	100%	148	100%	148	1	37%	REC/PTC	2030

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (IV/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW		%		
 Onshore wind continued											
Settlers Trail	US	2011	150	100%	150	100%	150	1	29%	REC/PTC	2021
Pioneer Trail	US	2012	150	100%	150	100%	150	1	28%	REC/PTC	2021
Payton Creek	US	2020	151	100%	151	100%	151	1	28%	REC/PTC	2030
Papalote Creek I	US	2009	180	50%	0	50%	90	3a	29%	REC/ITC	2034
Inadale	US	2009	197	100%	197	100%	197	1	27%	REC	n/a
Papalote Creek II	US	2010	200	50%	0	50%	100	3a	24%	REC/ITC	2035
East Raymond	US	2020	200	25%	0	25%	50	3a	38%	REC/PTC	2030
Colbeck's Corner	US	2016	200	100%	200	100%	200	1	48%	REC/PTC	2026
Stella	US	2018	201	25%	0	25%	50	3a	32%	REC/PTC	2028
Wildcat I	US	2012	203	20%	0	20%	41	3a	35%	REC/PTC	2022
Magic Valley I	US	2012	203	20%	0	20%	41	3a	29%	REC/PTC	2022
Roscoe	US	2008	209	100%	209	100%	209	1	26%	REC	n/a
Grand View I	US	2014	211	50%	0	50%	106	3a	46%	REC/PTC	2024
Panther Creek - Phase III	US	2009	216	100%	216	100%	216	1	28%	REC/PTC	2031
Cranell	US	2020	220	25%	0	25%	55	3a	30%	REC/PTC	2030
Bruenning's Breeze	US	2017	228	100%	228	100%	228	1	29%	REC/PTC	2027
Raymond West	US	2021	240	25%	0	25%	60	3a	30%	REC/PTC	2031
Pyron	US	2009	249	100%	249	100%	249	1	30%	REC	n/a
Scioto Ridge	US	2021	250	100%	250	100%	250	1	19%	REC/PTC	2031
Radford's Run	US	2017	306	100%	306	100%	306	1	41%	REC/PTC	2027

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (V/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Onshore wind continued												
Les Pierrots	France	2021	26	100%	26	100%	26	1	19%	CfD	2041	
Dromadda Beg	Ireland	2018	10	100%	10	100%	10	1	27%	FiT	2032	
Knäred	Sweden	2012	20	100%	20	100%	20	1	26%	Green Certificate	2027	
Nybro	Sweden	2011	20	90%	20	90%	18	2	33%	Green Certificate	2026	
Örken	Sweden	2012	18	100%	18	100%	18	1	26%	Green Certificate	2027	
Villköl	Sweden	2013	21	100%	21	100%	21	1	31%	Green Certificate	2027	
Various (RWE Economic Stake < 10 MW)	Sweden	various	37	various	37	various	31	various	various	FiT	various	
Barzowice	Poland	2011	21	100%	21	100%	21	1	29%	Green Certificate	2026	
Krzęcin	Poland	2012	14	100%	14	100%	14	1	29%	Green Certificate	2027	
Nowy Staw I	Poland	2013	45	100%	45	100%	45	1	32%	Green Certificate	2028	
Nowy Staw II	Poland	2015	28	100%	28	100%	28	1	32%	Green Certificate	2030	
Opalenica	Poland	2015	17	100%	17	100%	17	1	28%	Green Certificate	2030	
Piecki	Poland	2010	32	51%	32	51%	16	2	22%	Green Certificate	2025	
Suwalki	Poland	2009	41	100%	41	100%	41	1	24%	Green Certificate	2024	
Taciewo	Poland	2012	30	100%	30	100%	30	1	23%	Green Certificate	2026	
Tychowo	Poland	2011	35	100%	35	100%	35	1	22%	Green Certificate	2025	
Wielkopolska	Poland	2010	53	100%	53	100%	53	1	25%	Green Certificate	2028	
Wielkopolska 2a	Poland	2014	15	100%	15	100%	15	1	24%	Green Certificate	2029	
Wysoka I	Poland	2013	8	100%	8	100%	8	1	19%	Green Certificate	2025	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (VI/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Onshore wind continued												
Wysoka II	Poland	2014	48	100%	48	100%	48	1	20%	Green Certificate	2029	
Zukowice	Poland	2021	33	100%	33	100%	33	1	36%	CfD	2035	
Nawrocko	Poland	2021	7	100%	7	100%	7,2	1	35%	CfD	2035	
Alcamo	Italy	2011	32	100%	32	100%	32	1	20%	FiT	2026	
Deliceto	Italy	2012	23	100%	23	100%	23	1	22%	FiT	2027	
Florinas	Italy	2004	20	100%	20	100%	20	1	12%	Merchant	n/a	
Iardino	Italy	2005	14	100%	14	100%	14	1	17%	Merchant	n/a	
Marco A. Severino	Italy	2007	32	100%	32	100%	32	1	20%	Merchant	n/a	
Marco A. Severino II	Italy	2007	12	100%	12	100%	12	1	22%	Merchant	n/a	
Montecute	Italy	2006	42	100%	42	100%	42	1	21%	Merchant	n/a	
Morcone	Italy	2019	57	100%	57	100%	57	1	37%	CfD	2039	
Piano di Corda I	Italy	2007	38	100%	38	100%	38	1	22%	FiT	2021	
Poggi Alti	Italy	2006	20	100%	20	100%	20	1	19%	Merchant	n/a	
San Basilio	Italy	2010	25	51%	25	51%	13	2	19%	FiT	2025	
Santa Ninfa (Trapani) (G58 part)	Italy	2007	24	100%	24	100%	24	1	25%	Merchant	n/a	
Serra Pelata I	Italy	2007	42	100%	42	100%	42	1	28%	Merchant	n/a	
Serra Pelata II	Italy	2010	12	100%	12	100%	12	1	29%	Merchant	n/a	
Ururi	Italy	2011	26	51%	26	51%	13	2	22%	FiT	2025	
Vizzini	Italy	2006	24	100%	24	100%	24	1	20%	Merchant	n/a	
Alcamo II	Italy	2021	14	100%	14	100%	14	1	25%	PPA	2029	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (VII/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW		%		
 Onshore wind continued											
Anzi	Italy	2011	16	51%	16	51%	8	2	24%	FiT	2026
Various (RWE Economic Stake < 10 MW)	Italy	various	17	100%	17	100%	17	various	various	Merchant	various
Westereems I / Westereems	Netherlands	2009	123	100%	123	100%	123	1	24%	Merchant	n/a
Westereems II / Eemshaven	Netherlands	2012	12	100%	12	100%	12	1	27%	CfD	2027
Zuidwester	Netherlands	2016	90	100%	90	100%	90	1	27%	CfD	2030/2031
Eekerpolder	Netherlands	2021	63	100%	63	100%	63	1	n/a	CfD	2035
Various (RWE Economic Stake < 10 MW)	Netherlands	various	59	various	42	various	42	various	various	FiT	various
Kiln Pit Hill	UK	2012	14	100%	14	100%	14	1	19%	1 ROC	2032
Bowbeat (Emly Bank)	UK	2002	16	100%	16	100%	16	1	20%	1 ROC	2027
Bowbeat (Roughside)	UK	2002	16	100%	16	100%	16	1	20%	1 ROC	2027
Deucheran Hill	UK	2002	16	100%	16	100%	16	1	17%	1 ROC	2026
Knabs Ridge	UK	2007	16	100%	16	100%	16	1	17%	1 ROC	2027
An Suidhe	UK	2010	19	51%	19	51%	10	2	14%	1 ROC	2030
Stags Holt	UK	2007	20	100%	20	100%	20	1	20%	1 ROC	2027
Bradwell	UK	2013	21	100%	21	100%	21	1	26%	1 ROC	2033
Rosehall	UK	2013	25	100%	25	100%	25	1	22%	1 ROC	2032
Bad A Cheo	UK	2019	27	100%	27	100%	27	1	25%	CfD	2034
Goole Fields A	UK	2013	33	100%	33	100%	33	1	24%	0.9 ROC	2033
Mynydd Y Gwair	UK	2019	33	100%	33	100%	33	1	33%	CfD	2034
Goole Fields B	UK	2016	35	100%	35	100%	35	1	26%	0.9 ROC	2036

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (VIII/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Onshore wind continued												
Novar 2	UK	2012	37	100%	37	100%	37	1	18%	1 ROC	2033	
Tween Bridge	UK	2012	44	100%	44	100%	44	1	22%	1 ROC	2032	
Camster	UK	2013	50	100%	50	100%	50	1	32%	1 ROC	2033	
Middlemoor	UK	2013	54	51%	54	51%	28	2	23%	1 ROC	2033	
Brechfa Forest West	UK	2018	57	100%	57	100%	57	1	32%	0.9 ROC	2038	
Little Cheyne Court	UK	2008	60	59%	60	59%	35	2	24%	1 ROC	2028	
Clocaenog Forest	UK	2021	96	100%	96	100%	96	1	25%	CfD	2035	
Various (RWE Economic Stake < 10 MW)	UK	various	124	various	117	various	116	various	various	FiT	various	
Grisel I	Spain	2001	14	100%	14	100%	14	1	18%	Merchant (82%)	n/a	
Muel	Spain	1998	16	100%	16	100%	16	1	24%	Merchant	n/a	
Acampo Armijo	Spain	2002	18	100%	18	100%	18	1	30%	Merchant	n/a	
Siglos	Spain	2007	18	100%	18	100%	18	1	19%	Other	2027	
Bancal	Spain	2007	21	100%	21	100%	21	1	17%	Other	2027	
Bosque Alto	Spain	2002	22	100%	22	100%	22	1	25%	Merchant	n/a	
Los Labrados	Spain	2002	24	100%	24	100%	24	1	22%	Merchant	n/a	
Plana de la Balsa	Spain	2002	24	100%	24	100%	24	1	19%	Merchant	n/a	
Plana de Zaragoza	Spain	2002	24	100%	24	100%	24	1	25%	Merchant	n/a	
Plana de Maria	Spain	2002	24	100%	24	100%	24	1	20%	Merchant	n/a	
Lanternoso	Spain	2004	24	100%	24	100%	24	1	32%	Other	2024	
Urano	Spain	2004	30	99%	30	100%	30	2	22%	Other	2024	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (IX/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW		%		
 Onshore wind continued											
Rio Gallego I	Spain	2003	36	100%	36	100%	36	1	24%	Merchant (93%)	n/a
Aldehuelas	Spain	2005	47	95%	47	95%	45	2	30%	Other	2024
Luna	Spain	2004	50	99%	50	99%	49	2	27%	Other	2024
Juno	Spain	2004	50	99%	50	99%	49	2	25%	Other	2024
Various (RWE Economic Stake < 10 MW)	Spain	various	6	100%	6	100%	6	various	various	Other	various
Total onshore wind			8,530		6,596		7,008				

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (X/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Accounting treatment	Load factor 2021	Support regime	Support expiry
			MW	%	MW	%	MW	%				
 Solar												
West of the Pecos	US	2019	100	100%	100	100%	100	1	n/a	ITC	2024	
Various (RWE Economic Stake < 10 MW)	US	various	27	various	25	100%	27	various	various	various	various	
Hull	Canada	2020	25	100%	25	100%	25	1	n/a	PPA	2030	
Vauxhall	Canada	2020	22	100%	22	100%	22	1	n/a	PPA	2030	
Stawiec	Poland	2019	1	100%	1	100%	1	1	14%	CfD	2034	
Various (RWE Economic Stake < 10 MW)	Germany	various	3	various	3	various	3	various	various	FiT	various	
Alarcos	Spain	2020	45	100%	45	100%	45	1	19%	PPA	2029	
Various (RWE Economic Stake < 10 MW)	Spain	various	51	various	0	various	7	4	various	various	various	
Limondale	Australia	2021	249	100%	249	100%	249	1	n/a	n/a	n/a	
Kerkrade	Netherlands	2021	10	100%	10	100%	10	1	15%	CfD	2036	
AmerCentrale Ground Mounted	Netherlands	2021	2	100%	2	100%	2	1	5%	CfD	2034	
EPZ-Solar	Netherlands	2021	17	30%	5	30%	5	3b	n/a	n/a	n/a	
Total solar			551		486		495					
 Storage (as per Onshore/Offshore/Solar)												
Iron Horse (ES)	US	2017	10	100%	0	100%	10	4	n/a	ITC	2047	
Texas Waves - Inadale	US	2018	10	100%	10	100%	10	1	n/a	ITC	2033	
Texas Waves - Pylon	US	2018	10	100%	10	100%	10	1	n/a	ITC	2033	
Stephenstown	Ireland	2021	9	100%	9	100%	9	1	n/a	n/a	n/a	
Total storage			38		28		38					

RWE generation asset list (XI/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW	
 Hydro								
Serrig (Freudenburg)	Germany	1962	12	100%	12	100%	12	
Zeltingen	Germany	1966	14	100%	14	100%	14	
Schwammenauel	Germany	1963	14	100%	14	100%	14	
Heimbach	Germany	1905	16	100%	16	100%	16	
Koblenz	Germany	1951	16	100%	16	100%	16	
Fankel (Ellenz-Poltersdorf)	Germany	1962	16	100%	16	100%	16	
Müden	Germany	1965	16	100%	16	100%	16	
Neef	Germany	1966	16	100%	16	100%	16	
Enkirch	Germany	1933	18	100%	18	100%	18	
Trier	Germany	2009	19	100%	19	100%	19	
Lehmen	Germany	1938	20	100%	20	100%	20	
Wintrich	Germany	1985	20	100%	20	100%	20	
RADAG Wehrkraftwerk	Germany	1962	28	77%	28	77%	22	
Detzem	Germany	1965	24	100%	24	100%	24	
RADAG Kanalkraftwerk	Germany	1964	84	77%	84	77%	65	
Various (RWE Economic Stake < 10 MW)	Germany	various	101	various	58	various	60	
Linne HH 1-4	Netherlands	1989	11	100%	11	100%	11	
Grevenmacher	Luxembourg		8	50%	0	50%	4	Deploy at our discretion on basis of long-term agreements.
Dolgarrog High Head	UK	1907	18	100%	18	100%	18	
Dolgarrog Low Head	UK	1907	15	100%	15	100%	15	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (XII/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW	
 Hydro continued								
Various (RWE Economic Stake < 10 MW)	UK	various	51	100%	51	100%	51	
Various (RWE Economic Stake < 10 MW)	Spain	various	12	100%	12	various	10	
Total hydro			551		500		478	
 Biomass								
Amercentrale ST 9	Netherlands	1993	505	100%	505	100%	505	
Eemshaven A	Netherlands	2014	119	100%	119	100%	119	
Eemshaven B	Netherlands	2014	119	100%	119	100%	119	
Markinch	UK	2014	55	100%	55	100%	55	
Total biomass			797		797		797	
 Gas								
Grimsby	UK	2018	20	100%	20	100%	20	
Dortmund	Germany	2004	26	100%	26	100%	26	
Cheshire	UK	2000	40	100%	40	100%	40	
Phillips Petroleum	UK	1999	55	100%	55	100%	55	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (XIII/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW	
 Gas continued								
Hythe	UK	2005	56	100%	56	100%	56	
Gersteinwerk K1	Germany	1984	112	100%	112	100%	112	
Swentibold CC	Netherlands	1999	245	100%	245	100%	245	
GuD Dormagen	Germany	2000	260	100%	260	100%	260	
GuD Dormagen	Germany	2000	302	100%	302	100%	302	
Moerdijk	Netherlands	1996	348	100%	348	100%	348	
King's Lynn	UK	1997	382	100%	382	100%	382	
Gersteinwerk G	Germany	1973	410	100%	410	100%	410	
Gersteinwerk F	Germany	1973	410	100%	410	100%	410	
Gersteinwerk I	Germany	1973	410	100%	410	100%	410	
Great Yarmouth	UK	2001	411	100%	411	100%	411	
Moerdijk 2	Netherlands	2012	426	100%	426	100%	426	
Emsland B	Germany	1973	475	100%	475	100%	475	
Emsland C	Germany	1974	475	100%	475	100%	475	
Little Barford	UK	1994	698	100%	698	100%	698	
Denizli	Turkey	2013	787	100%	787	70%	551	
Emsland D	Germany	2010	927	100%	927	100%	927	
Clauscentrale C	Netherlands	2012	1.304	100%	1.304	100%	1.304	
Didcot B	UK	1996-1997	1.440	100%	1.440	100%	1.440	
Staythorpe	UK	2010	1.701	100%	1.701	100%	1.701	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (XIV/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW	
 Gas continued								
Pembroke	UK	2012	2.181	100%	2.181	100%	2.181	
Weisweiler VGT G, H	Germany	2006	400	100%	400	100%	400	
Total gas			14,301		14,301		14,065	
 Pumped storage and batteries								
Koepchenwerk	Germany	1989	162	100%	162	100%	162	
Schluchsee AG	Germany		1.740	50%	0	50%	870	Deploy at our discretion on basis of long-term agreements.
Vianden, SEO (Pumpenleistung 836 MW)	Germany		1.294	40%	0	40%	521	Deploy at our discretion on basis of long-term agreements.
Battery storage Herdecke	Germany	2018	6	100%	6	100%	6	
Various (RWE Economic Stake < 10 MW)	UK	various	0	100%	0	100%	0	
Various (RWE Economic Stake < 10 MW)	Germany	various	2	100%	2	100%	2	
Total pumped storage and batteries			3,204		170		1,562	

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (XV/XVII)

Power plant	Country	Commissioned	Net capacity	RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW	
 Oil								
Cowes OCGT	UK	1982	140	100%	140	100%	140	
Didcot OCGT	UK	1972-1975	96	100%	96	100%	96	
Little Barford OCGT	UK	2006	17	100%	17	100%	17	
Total oil			253		253		253	
 Hard coal								
GKM	Germany		1,978	40%	0	40%	621	Deploy at our discretion on basis of long-term agreements.
Amercentrale ST 9	Netherlands	1993	126	100%	126	100%	126	
Eemshaven A	Netherlands	2014	672	100%	672	100%	672	
Eemshaven B	Netherlands	2014	672	100%	672	100%	672	
Total hard coal			3,447		1,469		2,090	
 Lignite								
Goldenberg F	Germany	1993	40	100%	40	100%	40	
Neurath A	Germany	1972	294	100%	294	100%	294	Decommissioning 1 Apr 2022 according to coal phaseout act.
Neurath E	Germany	1976	604	100%	604	100%	604	Decommissioning 31 Dec 2022 according to coal phaseout act.

Note: As of 31 Dec 2021; Rounding differences may occur.

RWE generation asset list (XVI/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW		
 Lignite continued									
Neurath D	Germany	1975	607	100%	607	100%	607	Decommissioning 31 Dec 2022 according to coal phaseout act.	
Niederaussem G	Germany	1974	628	100%	628	100%	628	Decommissioning 31 Dec 2029/2033 according to coal phaseout act.	
Niederaussem H	Germany	1974	648	100%	648	100%	648	Decommissioning 31 Dec 2029/2033 according to coal phaseout act.	
Weisweiler H	Germany	1975	656	100%	656	100%	656	Decommissioning 1 Apr 2028/2029 according to coal phaseout act.	
Weisweiler G	Germany	1974	663	100%	663	100%	663	Decommissioning 1 Apr 2028/2029 according to coal phaseout act.	
Niederaussem K (BoA1)	Germany	2002	944	100%	944	100%	944	Decommissioning 31 Dec 2038 according to coal phaseout act.	
Neurath F (BoA 3)	Germany	2012	1.060	100%	1.060	100%	1.060	Decommissioning 31 Dec 2038 according to coal phaseout act.	
Neurath G (BoA 2)	Germany	2012	1.060	100%	1.060	100%	1.060	Decommissioning 31 Dec 2038 according to coal phaseout act.	
Weisweiler F	Germany	1967	321	100%	321	100%	321	Decommissioning 1 Jan 2025 according to coal phaseout act.	
Total lignite¹			7,638		7,638		7,638		
 Nuclear									
KKW Emsland	Germany	1988	1.336	100%	1.336	100%	1.336		
EPZ	Netherlands	1973	485	30%	146	30%	146		
Total nuclear			1,821		1,482		1,482		

Note: As of 31 Dec 2021; Rounding differences may occur. | ¹ Including refining plants.

RWE generation asset list (XVII/XVII)

Power plant	Country	Commissioned	Net capacity		RWE's legal consolidation stake		Pro rata view		Comment
			MW	%	MW	%	MW		
Other									
MHKW Karnap (waste)	Germany	1987	38	100%	38	100%	38		
MVA Weisweiler (waste)	Germany	1996	27	100%	27	100%	27		
SRS Ecotherm (waste)	Germany	2003	1	100%	1	100%	1		
Total other			66		66		66		



Total generation capacity

46,158

36,104

38,412

Power plants in security reserve

Lignite

Neurath C	Germany	1973	292	100%	292	100%	292		
Niederaussem E	Germany	1970	295	100%	295	100%	295		
Niederaussem F	Germany	1971	299	100%	299	100%	299		

Note: As of 31 Dec 2021; Rounding differences may occur.

Portfolio changes H1 2022 versus FY 2021 (1/2)

	Project name	Country	Transaction		Net capacity		RWE's legal consolidation stake		pro rata view				Accounting treatment	Support regime	Support expiry	
			Type	Date	MW	%	MW	%	MW	%	MW	Change %				MW
Offshore																
	Triton Knoll	UK	commissioned	Apr 22	857	59%	857	59%	506	59%	506	2				
Onshore																
	Elisenhof	GER	disposal	Jan 22	1	100%	1	100%	1	-100%	-1	2	FIT	n/a		
	Krusemark B	GER	decommissioned	Jan 22	7	100%	7	100%	7	-100%	-7	1	FIT	n/a		
	Martinpuich	FR	commissioned	Feb 22	15	100%	15	100%	15	100%	15	1	CfD	2042		
	El Algodon Alto (EAA)	USA	commissioned	Mar 22	200	100%	200	100%	200	100%	200	1	REC/PTC	2032		
	Nysäter	SWE	commissioned	Jun 22	473	0%	0	20%	95	20%	95	3a	PPA			
	Oostpolder	NL	commissioned	Jun 22	36	100%	36	100%	36	100%	36	1	CfD	2036/2037		
	Oostpolderdijk	NL	commissioned	Jun 22	8	100%	8	100%	8	100%	8	1	CfD	2036		
	Westereems III (GSP)	NL	commissioned	Jun 22	9	100%	9	100%	9	100%	9	1	CfD	2037		
	Krusemark-Ellingen	GER	commissioned	Apr 22	20	100%	20	100%	20	100%	20	1	FIT	2042		
	Les Hauts Bouleaux	FR	commissioned	Apr 22	18	100%	18	100%	18	100%	18	1	CfD	2042		
	Rozdrzew	PL	commissioned	Apr 22	17	100%	17	100%	17	100%	17	1	CfD	2038		
Hydro																
	Chomba	ES	Disposal	Jun 22	1	100%	1	100%	1	100%	-1	1	Other	2023		
	Villalgordo	ES	Disposal	Jun 22	6	100%	6	60%	3	60%	-3	2	Merchant	n/a		
	La Mora	ES	Disposal	Jun 22	2	100%	2	100%	2	100%	-2	1	Other	2025		
	Cepeda	ES	Disposal	Jun 22	4	100%	4	100%	4	100%	-4	1	Other	2023		

Portfolio changes H1 2022 versus FY 2021 (2/2)

	Project name	Country	Transaction		Net capacity	RWE's legal consolidation stake		pro rata view				Accounting treatment	Support regime	Support expiry	
			Type	Date	MW	%	MW	%	MW	%	MW				
Solar															
	Amer Floating	NL	commissioned	May 22	4	100%	4	100%	4	100%	4	1	CfD	2037	
	Seesbach	GER	commissioned	May 21	3	100%	3	100%	3	100%	3	1	FIT	2042	
	Hickory Park	USA	commissioned	Jun 22	196	100%	196	100%	196	100%	196	1	PPA/ITC	2026	
Storage															
	Lisdrumdoagh	IRE	commissioned	Apr 22	60	100%	60	100%	60	100%	60	1	Other		
	Hickory Park	USA	commissioned	Jun 22	40	100%	40	100%	40	100%	40	1	PPA/ITC	2026	

Total commissioned/acquired 1,226 MW

Total decommissioned/disposal -18 MW

Total net growth 1,208 MW

Glossary

A

APAC Asia Pacific

B

bcm Billion cubic metre
bcma Billion cubic metres per annum
bps basis points
BREF-LCP Best Available Techniques Reference – Large Combustion Plants

C

C&I Customers Commercial and Industrial Customers
CAO Commercial Asset Optimisation
CCGT Combined Cycle Gas Turbine
CCS Carbon Capture and Storage
CfD Contract for Difference
CHO Chief Human Resource Officer
CHP Combined Heat and Power
CO₂e Carbon dioxide equivalent
COD Commercial Operation Date
CPI Consumer Price Index

E

ECT Easy Commodity Trader
EMR Energy Market Reform
ETS Emission Trading System

F

FIT Feed-in tariff
FIP Feed-in premium

G

GHG Greenhouse gas

I

IED Industrial Emissions Directive
IRR Internal Rate of Return
ITC Investment Tax Credit

L

LCOE Levelised Cost of Electricity
LGC Large Scale Generation Certificate
LOLE Loss of load expectation
LSE Load serving entity

M

MACRS Modified Accelerated Cost Recovery System
MWh_{el} Megawatt hour electrical energy
MWp Megawatt peak
MSR Market Stability Reserve

Mt

N

NECP National Energy and Climate Plan
NOx Nitrogen oxide

O

OCGT Open Cycle Gas Turbine
OFTO Offshore Transmission Owner
OREC Offshore Renewable Energy Certificate
OTC Over-the-counter

P

PPA Power Purchase Agreement
PSA Power Supply Agreement
PTC Production Tax Credit

R

REA Renewable Energy Act
RED Renewable Energy Directive
RES Renewables
REC Renewable Energy Certificate
ROC Renewable Obligation Certificate
RoE Rest of Europe
PRS Renewable Portfolio Standard

S

SDE Stimulation Renewable Energy
SDGs Sustainable Development Goals

T

tCO₂ Total carbon dioxide
TSO Transmission System Operator

U

UC Unit Contingent
UCTE Union for the Coordination of the Transmission of Electricity

V

VaR Value at Risk
VPP Virtual Power Plant

Country Codes

AL	Albania	BG	Bulgaria	DE	Germany	FR	France	IE	Ireland	LT	Lithuania	MX	Mexico	RO	Romania	TR	Turkey
AT	Austria	CA	Canada	DK	Denmark	GB	Great Britain	IN	India	LU	Luxembourg	NL	Netherlands	RS	Serbia	TW	Taiwan
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Financial Calendar

- **10 November 2022**
Interim statement on the first three quarters of 2022
- **21 March 2023**
Annual report for fiscal 2022
- **04 May 2023**
Annual General Meeting
- **11 May 2023**
Interim statement on the first quarter of 2023
- **10 August 2023**
Interim report on the first half of 2023

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