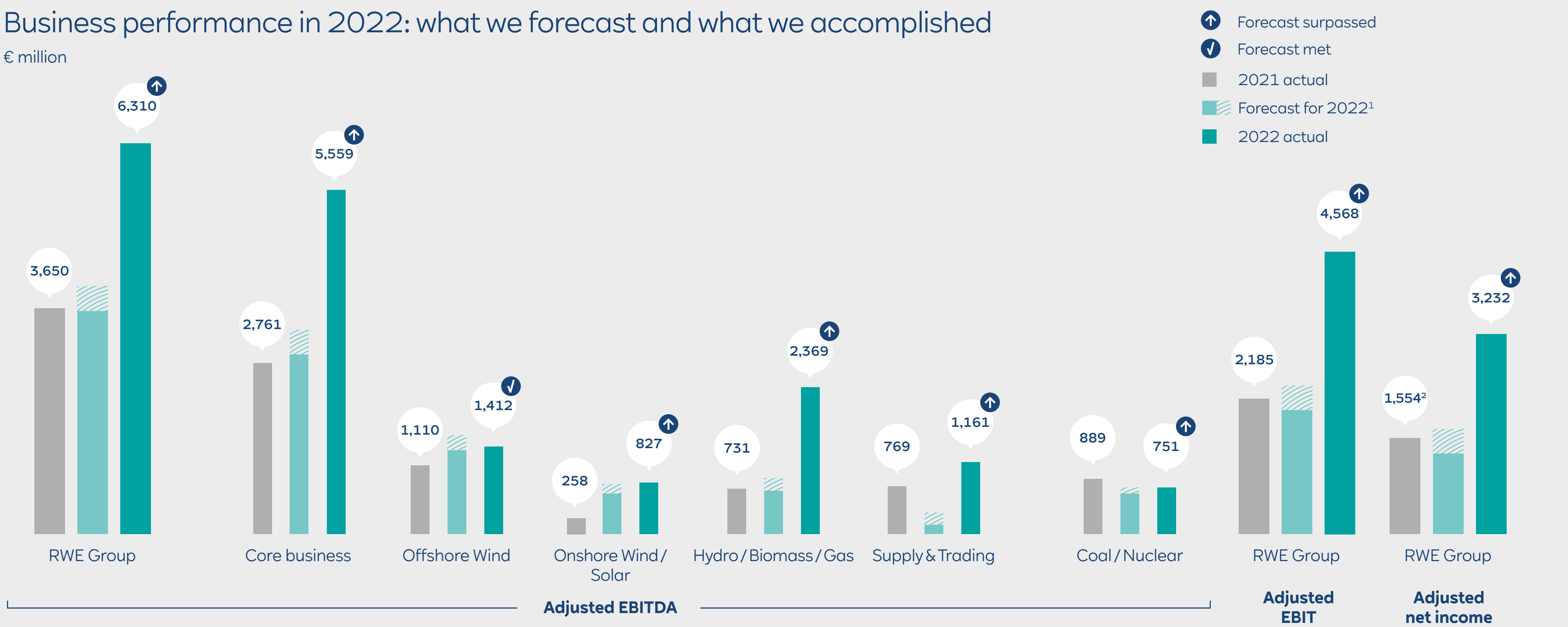
2.6 Business performance

Our business performed so well in 2022 that we comfortably beat the earnings forecast published at the beginning of the year. We achieved EBITDA of €6.3 billion. The projected figure was between €3.6 billion and €4.0 billion. We also posted a significant gain over the previous year. This growth was predominantly due to improved conditions on the power generation market and a very strong trading performance. Furthermore, we benefited from the expansion of renewables, as a large number of new wind and solar farms contributed to the Group's operating earnings for the first time in 2022.

Business performance in 2022: what we forecast and what we accomplished

€ million



1 See pages 67 et seq. of the 2021 Annual Report. The hatched portion reflects the forecast range.
2 Adjusted figure (see commentary on page 44).

Power generation[1]	Renewables		Pumped storage, batteries		Gas		Lignite		Hard coal		Nuclear		Total[2]	
GWh	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Offshore Wind	10,203	7,564	–	–	–	–	–	–	–	–	–	–	10,203	7,564
Onshore Wind / Solar	19,011	16,503	–	–	–	–	–	–	–	–	–	–	19,011	16,503
Hydro / Biomass / Gas	6,269	7,879	52	41	51,507	52,257	–	–	7,241	6,952	–	–	65,264	67,301
of which:														
Germany	1,450	1,645	52	41	5,708	5,988	–	–	–	–	–	–	7,405	7,846
United Kingdom	519	473	–	–	38,464	35,263	–	–	–	–	–	–	38,983	35,736
Netherlands	4,300	5,725	–	–	4,821	6,647	–	–	7,241	6,952	–	–	16,362	19,324
Türkiye	–	–	–	–	2,514	4,359	–	–	–	–	–	–	2,514	4,359
Coal / Nuclear	16	18	–	–	186	147	50,019	45,916	–	188	11,883	22,704	62,316	69,179
RWE Group	**35,499**	**31,964**	**52**	**41**	**51,693**	**52,404**	**50,019**	**45,916**	**7,241**	**7,140**	**11,883**	**22,704**	**156,794**	**160,547**

1 Some prior-year figures restated.
2 Including production volumes not attributable to any of the energy sources mentioned (e.g. electricity from waste-to-energy plants).

Electricity production slightly lower year on year – strong gains from renewables. Last year, RWE generated 156,794 GWh of electricity, 2 % less than in 2021. The decline was largely because Gundremmingen Unit C was taken offline with effect from 31 December 2021 as part of Germany's nuclear phaseout. This essentially halved the share of nuclear energy in power generation. Utilisation of our gas-fired power stations in the UK was above the prior-year level despite high fuel costs. Conversely, in both Germany and the Netherlands it was lower, in part as a result of gas shortages due to the war in Ukraine. An outage at Dutch unit Claus C from 3 January to 19 April due to steam turbine damage also came to bear. In addition, our gas-fired plant in Denizli, Türkiye was utilised less than in 2021, inter alia due to shortages in gas deliveries from network operator BOTAS.

A substantial gain was posted by renewables. The commissioning of new generation capacity and slightly improved wind conditions made a major contribution. Our German lignite-fired power plants also generated more electricity than in the previous year as they were utilised more due to the gas supply crisis. In addition, we put the Niederaussem E / F and Neurath C units back online in October 2022 in compliance with the German Substitute Power Station Act (see page 34). However, we also suffered volume shortfalls caused by power station closures: in line with the German lignite phaseout roadmap, Neurath B (294 MW), Niederaussem C (295 MW) and Weisweiler E (321 MW) were decommissioned at the end of December 2021. Neurath A (294 MW) followed suit as of 1 April 2022.

Power generation from renewables[1]	Offshore Wind		Onshore Wind		Solar		Hydro		Biomass		Total	
GWh	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Germany	2,202	1,811	1,081	939	8	3	1,450	1,645	–	–	4,741	4,398
United Kingdom	7,813	5,557	1,866	1,719	–	–	158	169	360	304	10,197	7,749
Netherlands	–	–	892	727	26	17	15	27	4,285	5,697	5,218	6,468
Poland	–	–	1,153	1,039	2	1	–	–	–	–	1,155	1,040
Spain	–	–	880	934	81	96	6	29	–	–	967	1,059
Italy	–	–	973	1,008	–	–	–	–	–	–	973	1,008
Sweden	188	196	305	293	–	–	–	–	–	–	493	489
USA	–	–	10,330	8,961	742	354	–	–	–	–	11,072	9,315
Australia	–	–	–	–	468	245	–	–	–	–	468	245
Rest of the world	–	–	137	41	78	81	–	71	–	–	215	193
RWE Group	**10,203**	**7,564**	**17,617**	**15,661**	**1,405**	**797**	**1,629**	**1,941**	**4,645**	**6,001**	**35,499**	**31,964**

1 Some prior-year figures restated.

Electricity production from renewables rose by 11 % to 35,499 GWh. Wind power generation was up 20 % on the previous year's level, driven above all by the progressive capacity expansion and more favourable weather conditions. Moreover, we increased our stake in the Rampion offshore wind farm (400 MW) in the UK from 30.1 % to 50.1 % with effect from 1 April 2021 and began to consolidate the shareholding fully as of that date. Solar power volumes also posted a strong rise. This growth was largely driven by the commissioning of new assets. By contrast, we produced 23 % less electricity from biomass, in part owing to difficulties in commodity sourcing. Generation volumes from our run-of-river power stations declined by 16 % due to dry weather, which resulted in lower river water levels.

In addition to our in-house generation, we procure electricity from suppliers outside of the Group. In 2022, these purchases amounted to 43,168 GWh (previous year: 48,151 GWh).

Higher installed capacity thanks to new wind and solar farms. As of 31 December 2022, we had an installed power generation capacity of 39.3 GW. This figure does not consider Con Edison Clean Energy Businesses, as the acquisition of this company only closed on 1 March 2023. Our generation capacity rose by 2.3 GW compared to 2021. The basis for this was the successful implementation of our growth strategy in the renewable energy business. Last year, we completed the Triton Knoll (857 MW) and Kaskasi (342 MW) North Sea wind farms, the El Algodon Alto (200 MW) and Blackjack Creek (240 MW) onshore wind farms in Texas as well as the Hickory Park ground-mounted PV array (196 MW) in the US state of Georgia (see pages 39 et seq.). However, some capacity was also taken offline: we decommissioned Unit A (294 MW) of the Neurath lignite-fired power station as part of the German coal phaseout.

In terms of generation capacity, gas is our No. 1 energy source, commanding a 36% share by the end of 2022. Renewables take second spot, with a share of 33%. Our biggest source of renewable energy is wind (11.0 GW), followed by solar and biomass (0.8 GW each), along with hydro (0.5 GW).

The geographic focus of our generation business is Germany, where 41% of our installed capacity was located at the end of 2022. The United Kingdom and the Netherlands follow, accounting for shares of 27% and 13%, respectively. Fourth spot is taken by the USA, with 11%. This share has since increased considerably as a result of the acquisition of Con Edison Clean Energy Businesses.

Installed capacity[1]	Renewables		Pumped storage, batteries		Gas		Lignite		Hard coal		Nuclear		Total[2]	
As of 31 December, MW	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Offshore Wind	3,517	2,318	–	–	–	–	–	–	–	–	–	–	3,517	2,318
Onshore Wind / Solar	8,247	7,082	128	28	–	–	–	–	–	–	–	–	8,375	7,110
Hydro / Biomass / Gas	1,263	1,285	296	168	13,869	13,901	–	–	1,469	1,469	–	–	17,200	17,115
of which:														
Germany	377	393	296	168	3,830	3,807	–	–	–	–	–	–	4,553	4,407
United Kingdom	133	139	–	–	6,929	6,984	–	–	–	–	–	–	7,315	7,376
Netherlands / Belgium	753	753	–	–	2,323	2,323	–	–	1,469	1,469	–	–	4,545	4,545
Türkiye	–	–	–	–	787	787	–	–	–	–	–	–	787	787
Coal / Nuclear	12	12	–	–	400	400	8,250	8,524[3]	–	–	1,482	1,482	10,171	10,445[3]
RWE Group[4]	**13,039**	**10,697**	**426**	**199**	**14,269**	**14,301**	**8,250**	**8,524**[3]	**1,469**	**1,469**	**1,482**	**1,482**	**39,265**	**36,990**[3]

1 Figures reported in accordance with IFRS accounting, i.e. fully consolidated activities are recognised in full, whereas activities in which we own minority shareholdings are generally not recognised.
2 Including production capacity not attributable to any of the energy sources mentioned (e.g. electricity from waste-to-energy plants).
3 Adjusted figure: now includes our Niederaussem E and F as well as Neurath C lignite units again, which were put back online in compliance with the German Substitute Power Station Act in October 2022.
4 Including insignificant capacity at RWE Supply & Trading.

Installed capacity based on renewables[1]	Offshore Wind		Onshore Wind		Solar		Hydro		Biomass		Total	
As of 31 December, MW	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Germany	940	598	689	637	19	3	376	393	1	–	2,024	1,630
United Kingdom	2,529	1,672	803	803	–	–	78	84	55	55	3,466	2,615
Netherlands	–	–	383	331	21	17	11	11	742	742	1,157	1,100
Poland	–	–	497	425	17	1	–	–	–	–	514	426
Spain	–	–	488	447	89	45	–	12	–	–	577	504
Italy	–	–	514	488	–	–	–	–	–	–	514	488
Sweden	48	48	116	116	–	–	–	–	–	–	164	164
USA	–	–	3,874	3,313	321	125	–	–	–	–	4,195	3,438
Australia	–	–	–	–	249	249	–	–	–	–	249	249
Rest of the world	–	–	92	36	88	47	–	–	–	–	180	83
RWE Group	**3,517**	**2,318**	**7,455**	**6,596**	**804**	**486**	**465**	**500**	**798**	**797**	**13,039**	**10,697**

1 Figures reported in accordance with IFRS accounting, i.e. fully consolidated activities are recognised in full, whereas activities in which we own minority shareholdings are generally not recognised. Commercial rounding can result in inaccurate sum totals.

Marginal increase in carbon dioxide emissions. Last year, our power stations emitted 83 million metric tons of carbon dioxide. This is 2.1 million metric tons more than in 2021. The utilisation of our lignite-fired power stations was up considerably on 2021 due to the scarcity of gas. Our specific emissions, i.e. the amount of carbon dioxide emitted per megawatt hour of electricity generated, rose from 0.50 metric tons to 0.53 metric tons. In addition to higher generation volumes from coal, the significant reduction in production from zero-carbon nuclear energy came to bear here. The increase in our power generation from the climate-friendly energy sources wind and solar had a counteracting impact.

CO_2 emissions of our power stations Million metric tons	2022	2021	+/–
Hydro / Biomass / Gas	24.2	25.0	-0.8
of which:			
Germany	2.4	2.6	-0.2
United Kingdom	13.9	12.8	1.1
Netherlands	7.0	8.0	-1.0
Türkiye	0.9	1.6	-0.7
Coal / Nuclear	58.8	55.9	2.9
RWE Group	**83.0**	**80.9**	**2.1**

65.3 million metric tons of lignite produced. We procure most of the fuel we need to generate electricity on international trading markets. By contrast, lignite is sourced from proprietary opencast mines. In our Rhenish mining area west of Cologne, we produced 65.3 million metric tons of lignite last year. This was 2.7 million metric tons more than in 2021, owing to the increased power generation of our lignite power plants in response to the gas supply crisis. We used the lion's share, or 56.6 million metric tons, of the mined lignite to generate electricity. The remainder was dedicated to manufacturing refined products (e.g. lignite powder, hearth furnace coke and briquettes) and, to a limited extent, to generating process steam and district heat.

Electricity and gas sales down on previous year. In fiscal 2022, we sold 193,930 GWh of electricity and 39,479 GWh of gas. Most of these volumes are attributable to the company RWE Supply & Trading, which markets the electricity generated by our power stations externally and is in charge of the key account business: the company is assigned to the Supply & Trading segment. We sold 4% less of our main product, electricity, than in 2021, in part owing to the slight decline in generation volumes. In addition, some companies we supply reduced energy consumption due to high prices. This was also the main reason why our gas sales were 14% down on the year-earlier level.

Revenue reflects substantial increase in energy prices. Our external revenue amounted to €38,366 million as opposed to €24,571 million in the preceding year. These figures do not include natural gas tax or electricity tax. Despite marginally lower generation volumes, electricity revenue jumped by 51% to €31,027 million. Gas revenue was more than twice as high as in 2021, totalling €4,633 million. Both of these developments can be traced back to price effects.

One key performance indicator that is of particular interest to ESG investors is the portion of our revenue accounted for by coal-fired generation and other coal products. In the fiscal year that just ended, this share was 17% (previous year: 22%).

External revenue[1] € million	2022	2021	+/–
Offshore Wind	1,401	727	674
Onshore Wind / Solar	2,232	2,330	-98
Hydro / Biomass / Gas	1,830	1,315	515
Supply & Trading	31,959	19,296	12,663
Other	–	4	-4
Core business	**37,422**	**23,672**	**13,750**
Coal / Nuclear	944	899	45
RWE Group (excl. natural gas tax / electricity tax)	**38,366**	**24,571**	**13,795**
Natural gas tax / electricity tax	203	235	-32
RWE Group	**38,569**	**24,806**	**13,763**

1 Some prior-year figures restated.

External revenue by product[1] € million	2022	2021	+/–
Electricity revenue	**31,027**	**20,521**	**10,506**
of which:			
Offshore Wind	1,377	727	650
Onshore Wind / Solar	2,165	2,113	52
Hydro / Biomass / Gas	1,323	877	446
Supply & Trading	25,958	16,540	9,418
Core business	**30,823**	**20,257**	**10,566**
Coal / Nuclear	204	264	-60
Gas revenue	**4,633**	**2,142**	**2,491**
Other revenue	**2,706**	**1,908**	**798**
RWE Group (excl. natural gas tax / electricity tax)	**38,366**	**24,571**	**13,795**

1 Some prior-year figures restated.

Adjusted EBITDA € million	2022	2021	+/−
Offshore Wind	1,412	1,110	302
Onshore Wind / Solar	827	258	569
Hydro / Biomass / Gas	2,369	731	1,638
Supply & Trading	1,161	769	392
Other, consolidation	−210	−107	−103
Core business	**5,559**	**2,761**	**2,798**
Coal / Nuclear	751	889	−138
RWE Group	**6,310**	**3,650**	**2,660**

At €6.3 billion, adjusted EBITDA clearly exceeds expectations. Our adjusted earnings before interest, taxes, depreciation and amortisation (adjusted EBITDA) amounted to €6,310 million. This is more than we had forecast. The outlook which was drawn up in February 2022 and published on pages 67 et seq. of the 2021 Annual Report envisaged a range of €3.6 billion to €4.0 billion. We raised this forecast in July 2022 to between €5.0 billion and €5.5 billion. This new range was, again, exceeded. The fact that we have performed better than expected is primarily due to the very good trading performance, favourable conditions on the electricity generation market and strong income from the short-term optimisation of power plant dispatch. Adjusted EBITDA posted by our core business amounted to €5,559 million. Our forecast in February envisaged this figure being between €2.9 billion and €3.3 billion. In the Coal / Nuclear segment, which does not form part of our core business, we recorded €751 million. We had forecast €650 million to €750 million.

Adjusted EBITDA at the Group level improved by 73 % over the previous year. Besides the aforementioned factors, the substantial hit taken by the Onshore Wind / Solar segment in 2021 came to bear: an ice storm in Texas in February 2021 resulted in unscheduled outages, forcing us to fulfil existing electricity supply commitments through expensive purchases on the market. More information on this can be found on page 43 of the 2021 Annual Report.

The following developments were observed in the segments:

- **Offshore Wind:** At €1,412 million, adjusted EBITDA was within the forecast range of €1,350 million to €1,600 million. It recorded a 27 % gain compared to 2021 (€1,110 million), in particular driven by new generation capacity being commissioned. Wind levels were below average at our offshore sites, but higher than in the prior year. Another contributing factor was that we took a majority stake in the Rampion wind farm in the UK as of 1 April 2021, which has been fully consolidated since then.

- **Onshore Wind / Solar:** In this segment, adjusted EBITDA totalled €827 million. On the back of improved margins, we were slightly above the range of €650 million to €800 million which we had forecast in February 2022. Compared to the previous year's figure, which was exceptionally low (€258 million) due to the ice storm in Texas, adjusted EBITDA more than tripled. In addition to the non-recurrence of this charge, the commissioning of new generation assets, more favourable wind conditions and margin improvements contributed to the positive development. A counteracting effect was felt from the fact that the year-earlier result contained book gains on the sale of majority interests in the Stella, Cranell, as well as East and West Raymond wind farms in Texas.

- **Hydro / Biomass / Gas:** Here, we registered adjusted EBITDA of €2,369 million, clearly exceeding the projected range of €700 million to €900 million. Due to the volatility of the market, we realised unusually high gains from the short-term optimisation of our power plant dispatch in the year under review. Generation margins also exceeded expectations. The aforementioned factors were the main reason why adjusted EBITDA more than tripled compared to 2021 (€731 million). Earnings shortfalls stemmed from the outage at the Dutch Claus C gas-fired power plant caused by steam turbine damage. Moreover, we received lower payments from the British capacity market.

- **Supply & Trading:** RWE Supply & Trading posted another very good performance in international energy trading. Adjusted EBITDA recorded by this segment totalled €1,161 million, easily surpassing the forecast range of €150 million to €350 million. This figure also clearly exceeded the year-earlier figure (€769 million). We also achieved unexpectedly strong income in the gas business. Charges resulted from an impairment of €748 million recognised for contracts relating to hard coal purchases from Russia (see page 38). We had considered this effect in the non-operating result in our reporting during the year. Now we recognise it in adjusted EBITDA.

- **Coal / Nuclear:** At €751 million, adjusted EBITDA was at the upper end of our forecast, which was attributable to unexpectedly good power plant utilisation. In spite of this, we closed the year down on the previous one (€889 million). This was largely due to the power station closures in line with Germany's coal and nuclear phaseouts (see page 44 of the 2021 Annual Report). The decommissioning of the Gundremmingen C nuclear power plant as of 31 December 2021 weighed particularly heavily on earnings. Cost savings and the short-term optimisation of our power plant dispatch had a positive impact.

Adjusted EBIT € million	2022	2021	+/–
Offshore Wind	836	636	200
Onshore Wind / Solar	370	-145	515
Hydro / Biomass / Gas	2,005	418	1,587
Supply & Trading	1,111	721	390
Other, consolidation	-210	-106	-104
Core business	**4,112**	**1,524**	**2,588**
Coal / Nuclear	456	661	-205
RWE Group	**4,568**	**2,185**	**2,383**

Adjusted EBIT more than twice as high as a year earlier. The RWE Group's adjusted EBIT advanced by €2,383 million to €4,568 million, clearly exceeding the range of €2.0 billion to €2.4 billion projected in February 2022. This increase was driven by the same factors benefiting adjusted EBITDA. The difference between these two key figures is that operating depreciation and amortisation, which totalled €1,742 million as opposed to €1,465 million in the previous year, is included in adjusted EBIT, but not in adjusted EBITDA.

Reconciliation to net income € million	2022	2021	+/–
Adjusted EBIT	**4,568**	**2,185**	**2,383**
Non-operating result[1]	-442	-226	-216
Financial result[1]	-3,411	-437	-2,974
Income before tax	**715**	**1,522**	**-807**
Taxes on income	2,277	-690	2,967
Income	**2,992**	**832**	**2,160**
of which:			
Non-controlling interests	275	111	164
Net income / income attributable to RWE AG shareholders	**2,717**	**721**	**1,996**

1 Newly defined key figures and adjusted prior-year figures (see commentary on page 44).

Reconciliation to net income dominated by exceptional effects. The reconciliation from adjusted EBIT to net income is characterised by extraordinary effects in the non-operating result and in relation to taxes on income, which – compared to the previous year – almost netted each other out. We present the development of the reconciliation items below.

Financial result[1] € million	2022	2021	+/–
Interest income	356	260	96
Interest expenses	-581	-317	-264
Net interest	**-225**	**-57**	**-168**
Interest accretion to non-current provisions	-149	-131	-18
Other financial result	-68	-38	-30
Financial result	**-442**	**-226**	**-216**

1 New indicator and some prior-year figures adjusted (see commentary on page 44); except for interest income in the prior year, all items in the table contain adjustments.

Our financial result amounted to -€442 million. This represents a €216 million deterioration compared to the previous year and is essentially attributable to adjusted net interest, which dropped by €168 million to -€225 million. The reasons were additional costs incurred to take out new lines of credit, the increase in bond volume and greater project financing needs. Furthermore, additional costs were incurred to pledge collateral in the energy trading business. The dividend on our 15% stake in E.ON, which is included in net interest, amounted to €194 million, which was slightly higher than in 2021 (€186 million).

Non-operating result[1] € million	2022	2021	+/–
Adjustment items in EBIT	**-4,680**	**-650**	**-4,030**
of which:			
Disposal result	–	21	-21
Effects on income from the valuation of derivatives	-4,195	-503	-3,692
Other	-485	-168	-317
Adjustment items in the financial result	**1,269**	**213**	**1,056**
Non-operating result	**-3,411**	**-437**	**-2,974**

1 New definition – therefore, some prior-year figures have been adjusted (see commentary on page 44).

The non-operating result, in which we recognise certain items which are not related to operations or the period being reviewed, came to –€3,411 million (previous year: –€437 million). Material effects were recorded with regard to the following items:

- Effects on income from the valuation of derivatives totalled –€4,195 million (previous year: –€503 million). Such impacts are only temporary and are primarily due to the fact that, pursuant to IFRS, financial instruments used to hedge price risks are accounted for at fair value at the corresponding balance-sheet date, whereas the hedged underlying transactions are only recognised as a profit or loss when they are realised.

- In the 'other' line item, we reported a result of –€485 million (previous year: –€168 million). We took charges of €1,157 million and €239 million from additions to mining and restructuring provisions caused by the accelerated lignite phaseout. Moreover, inflation-driven cost increases led to accruals to mining and nuclear provisions. A positive effect was felt from the write-backs we performed on lignite power plants and opencast mines (€962 million) and on power stations in the Hydro / Biomass / Gas segment (€952 million) reflecting the more favourable earnings prospects in the generation business.

- Adjustments to the financial result totalled €1,269 million (previous year: €213 million). This high figure is due to the increase in the real discount rates used to calculate our nuclear and mining provisions. This coincides with the associated almost complete recognition in profit or loss of the reduction in the net present value of the obligations.

Income before tax amounted to €715 million (previous year: €1,522 million). In the year being reviewed, we recorded a tax gain of €2,277 million. This was due to write-backs on deferred tax assets for which valuation allowances had previously been made. The allowances were made because no profits are foreseeable in Germany or the Netherlands, with which we could have offset the deferred tax assets. Earnings prospects in these countries have since improved again.

At €275 million, non-controlling interests in income were much higher than in the preceding year (€111 million), above all due to a rise in income from offshore wind farms in which third parties hold minority interests. This mainly related to Rampion (400 MW), Humber Gateway (219 MW) and Triton Knoll (857 MW) in the United Kingdom. In addition, we have been fully consolidating Rampion since 1 April 2021 and thus stated the share in income attributable to the co-owners that hold a 49.9 % stake for the full reporting period in 2022.

The RWE Group's net income amounted to €2,717 million (previous year: €721 million). This corresponds to earnings per share of €3.93 (previous year: €1.07) which was calculated based on 691.2 million shares. The new shares from the conversion of the mandatory convertible bond issued to Qatar Holding LLC on 10 October 2022 are taken into account on a prorated basis as per IFRS. Earnings per share for 2021 had been calculated based on 676.2 million RWE shares.

Reconciliation to adjusted net income[1] € million	2022	2021	+/–
Income before financial result and taxes	-112	1,535	-1,647
Adjustment to EBIT	4,680	650	4,030
Adjusted EBIT	**4,568**	**2,185**	**2,383**
Financial result	827	-13	840
Adjustment items in the financial result	-1,269	-213	-1,056
Taxes on income	2,277	-690	2,967
Adjustments to taxes on income to a tax rate of 15 %	-2,896	396	-3,292
Non-controlling interests	-275	-111	-164
Adjusted net income	**3,232**	**1,554**	**1,678**

1 Some prior-year figures restated (see commentary on page 44).

Adjusted net income higher than expected. Adjusted net income came to €3,232 million. Due to the unexpectedly positive earnings of our operating activities, it was above the guided range of €1.3 billion to €1.7 billion. The prior-year figure of €1,554 million was also exceeded. To calculate adjusted net income, first we deducted the non-operating result on the reconciliation statement. Then, instead of applying the actual tax rate we used a budgeted rate of 15 % which was not impacted by exceptional effects (see page 26).

Capital expenditure on property, plant and equipment and on intangible assets[1] € million	2022	2021	+/–
Offshore Wind	1,029	1,683	-654
Onshore Wind / Solar	1,580	1,404	176
Hydro / Biomass / Gas	424	294	130
Supply & Trading	42	47	-5
Other, consolidation	–	2	-2
Core business	**3,075**	**3,430**	**-355**
Coal / Nuclear	228	259	-31
RWE Group	**3,303**	**3,689**	**-386**

1 Table only shows cash investments.

Capital expenditure on financial assets[1] € million	2022	2021	+/–
Offshore Wind	847	27	820
Onshore Wind / Solar	256	27	229
Hydro / Biomass / Gas	68	6	62
Supply & Trading	9	20	-11
Other, consolidation	1	–	1
Core business	**1,181**	**80**	**1,101**
Coal / Nuclear	–	–	–
RWE Group	**1,181**	**80**	**1,101**

1 Table only shows cash investments.

Marked increase in capital expenditure on renewable energy. In the past fiscal year, our capital spending totalled €4,484 million (previous year: €3,769 million). The funds were mostly used for our Offshore Wind (42 %) and Onshore Wind / Solar (41 %) segments.

At €3,303 million (previous year: €3,689 million), capital expenditure on property, plant and equipment and intangible assets was significant. Due to delays resulting from supply chain disruptions, however, it was lower than planned. The single-largest expenditure item was the construction of the Kaskasi offshore wind farm (342 MW) near Heligoland, Germany, all turbines of which have been online since the end of 2022. Substantial funds were also dedicated to the Sofia wind farm (1,400 MW) in the UK North Sea, which is scheduled for completion in 2026. Further major investment recipients were wind and solar projects in the USA as well as the construction of the gas-fired power plant in Biblis, which will contribute to stabilising the German power grid from 2023 onwards.

We spent €1,181 million on financial assets (previous year: €80 million). Of this sum, €743 million was used to make a capital contribution to our US joint venture with National Grid Ventures. The funds were used to pay a one-off lease fee for a site in the New York Bight where we intend to build offshore wind assets. Further major spending items were the acquisition of Polish project developer Alpha Solar and a capital contribution to the joint venture with Greece's leading energy utility Public Power Corporation (PPC) established at the end of 2021.

In the year under review, 83 % of our capital expenditure was taxonomy-aligned. This means that these funds were spent on activities classified as sustainable according to the EU Taxonomy Regulation. This percentage is based on total investments of €4,231 million. The difference to the amount stated above (€4,484 million) results from the fact that non-cash transactions are also taxonomy-relevant whereas capital expenditure on financial assets is not considered.

Workforce[1]	31 Dec 2022	31 Dec 2021	+/–
Offshore Wind	1,663	1,277	386
Onshore Wind / Solar	2,509	2,146	363
Hydro / Biomass / Gas	2,691	2,606	85
Supply & Trading	1,965	1,804	161
Other[2]	499	467	32
Core business	**9,327**	**8,300**	**1,027**
Coal / Nuclear	8,983	9,946	– 963
RWE Group	**18,310**	**18,246**	**64**

1 Converted to full-time positions.
2 This item exclusively comprises employees of the holding company RWE AG.

Personnel increase in renewables – job cuts in lignite. As of 31 December 2022, the RWE Group had 18,310 people on its payroll, of which 12,992 were employed in Germany and 5,318 worked abroad. Part-time positions were considered in these figures on a pro-rata basis. Headcount was essentially unchanged compared to the end of the prior year. We recorded a significant decline (– 963) in the Coal / Nuclear segment where many employees accepted early retirement offers as part of the German coal phaseout. Conversely, we increased the workforce in our core business in order to accelerate our growth, adding 1,027 new positions last year. Large-scale projects involving the construction of new wind and solar farms played an important role in this context.

Personnel figures do not include apprentices or trainees. At the end of 2022, 742 young adults were learning a profession at RWE, compared to 785 in the previous year.

2.7 Financial position and net worth

Our financial position and net worth is fundamentally solid. Despite once again investing billions in the expansion of renewables in 2022, our net debt remained below zero. As of the balance-sheet date, RWE posted net cash in the amount of €1.6 billion. We cover most of our financing needs with earnings from our operating activities. In addition, we have a wide range of tools to procure debt capital. This past year, we managed to increase our debt financing headroom by upping our credit line volume and adding a second Commercial Paper Programme. The Group is thus much better positioned to provide for greater short-term liquidity coverage in the event of turbulence on the energy markets.

How we procure funds. Our ambitious growth strategy means that we require significant financial resources to be available long term. However at times, we will also require substantial liquidity at short notice, for example as collateral for commodity futures. RWE's most important source of financing are our cash flows from operating activities. Debt capital procurement is also an integral component and we have a range of tools at our disposal to this end:

- Our Debt Issuance Programme (DIP) gives us latitude in raising debt capital for the long term. It allows us to issue senior bonds with a total face value of up to €10 billion. The mandatory convertible bond issued to Qatar Holding LLC and our two hybrid bonds are not part of the programme. In late 2022 and early 2023, we issued bonds in the amount of €4.25 billion within the framework of our DIP. By the end of February 2023, we had used €6.1 billion of the programme's headroom. We plan to bolster our DIP to ensure long-term access to the necessary debt capital to fund our growth investments.

- For short-term refinancing, we have two Commercial Paper Programmes, a European programme (ECP) and – since late 2022 – an American one (USCP). The ECP allows us to raise funds equivalent to up to €5 billion on the European money market. We largely exhausted this funding volume during the past fiscal year. The volume of commercial paper outstanding fluctuated between €2.4 billion and €3.8 billion in 2022. The USCP allows us to issue commercial paper to American investors with a total value of up to US$3 billion. We have been utilising this programme since February 2023.

- To secure our liquidity, we also have access to three syndicated credit lines totalling €8 billion, which are extended by a consortium of 27 international banks. We secured the first credit line in the amount of €3 billion back in April 2019. It is due to expire in April 2026. The second has a volume of €2 billion and replaced a credit line which expired in April 2022; it will also remain at our disposal until April 2026. In light of increased volatility in energy prices and the related rise in liquidity requirements to hedge forward contracts, we secured a third credit line in March 2022, which increases our financing headroom by another €3 billion. It was initially going to expire after a year, however, we exercised the option to extend it for six months and reserve the right to do so for a second time. At our request, the conditions of all three credit lines are linked to sustainability criteria. Among other things, the conditions depend on the development of the following three indicators: the share of renewables in RWE's generation portfolio, the CO_2 intensity of our plants and the percentage of our capex that is classified as sustainable in accordance with the EU taxonomy regulation. We have set goals for all three of these criteria. If we do not achieve them, we would have to pay higher interest and commitment fees. Half of the additional expenses would be directed to non-profit organisations.

Cash flow statement € million	2022	2021	+/–
Funds from operations	5,306	7,103	–1,797
Change in working capital	–2,900	171	–3,071
Cash flows from operating activities	**2,406**	**7,274**	**–4,868**
Cash flows from investing activities	**–9,892**	**–7,738**	**–2,154**
Cash flows from financing activities	**8,615**	**1,457**	**7,158**
Effects of changes in foreign exchange rates and other changes in value on cash and cash equivalents	34	58	–24
Total net changes in cash and cash equivalents	**1,163**	**1,051**	**112**
Cash flows from operating activities	2,406	7,274	–4,868
Minus capital expenditure	–4,484	–3,769	–715
Plus proceeds from divestitures / asset disposals	110	1,057	–947
Free cash flow	**–1,968**	**4,562**	**–6,530**

Operating cash flow significantly below the previous year at €2.4 billion. Cash flows from operating activities, the RWE Group's most important source of finance, amounted to €2,406 million in 2022. Despite significantly improving our operating income, we fell far short of the previous year's high level (€7,274 million). This was largely due to the fact that we paid more variation margins for commodity derivatives than we received, following a high positive net figure in 2021. These margins are sureties for exchange-traded futures contracts pledged during the term of the contracts. We recognise the resulting change in liquidity in operating cash flow, which was also burdened by the fact that we purchased and stored gas at extremely high market prices. The cash outflow was associated with an increase in working capital. Another reason for the decline in cash flow was that last year's figure contained a one-off payment of €880 million, which the government issued as compensation for the German nuclear phaseout.

Investing activities led to a cash outflow of €9,892 million (previous year: €7,738 million). We made significant investments in securities in the year under review. Added to this was capital expenditure on property, plant and equipment and financial assets, which came to €4,484 million (see page 56).

Our financing activities brought in a cash inflow of €8,615 million (previous year: €1,457 million). The significant increase is, inter alia, attributable to substantially boosted proceeds on the issuance of bonds. Taking the mandatory convertible bond issued to Qatar Holding LLC into account, the issuance volume in 2022 amounted to €5.7 billion. On balance, we also reported revenue generated from initial margins and collaterals. Unlike variation margins, these sureties are reported in cash flows from financing activities. In 2021, they had been associated with significant cash outflows. The redemption of commercial paper and short-term bank loans in the fiscal year led to cash outflows. Dividend payments to RWE shareholders and minority shareholders totalled €913 million, compared to €730 million in the previous year.

On balance, the aforementioned cash flows from operating, investing and financing activities increased our cash and cash equivalents by €1,163 million.

Cash flows from operating activities, less capital expenditure, plus proceeds from divestments and asset disposals, results in free cash flow. In the year under review, this figure amounted to –€1,968 million, down on the high prior-year figure (€4,562 million).

Net cash / net debt[1] € million	31 Dec 2022	31 Dec 2021	+/-
Cash and cash equivalents	6,988	5,825	1,163
Marketable securities	13,730	8,347	5,383
Other financial assets	8,543	12,403	-3,860
Financial assets	**29,261**	**26,575**	**2,686**
Bonds, other notes payable, bank debt, commercial paper	-15,621	-10,704	-4,917
Hedging of bond currency risk	8	-9	17
Other financial liabilities	-5,382	-7,090	1,708
Financial liabilities	**-20,995**	**-17,803**	**-3,192**
Plus 50% of the hybrid capital stated as debt	299	290	9
Net financial assets	**8,565**	**9,062**	**-497**
Provisions for pensions and similar obligations	-900	-1,934	1,034
Surplus of plan assets over benefit obligations	680	459	221
Provisions for nuclear waste management	-5,704	-6,029	325
Provisions for dismantling wind farms	-1,011	-1,198	187
Net cash (+) / net debt (–)	**1,630**	**360**	**1,270**

1 Mining provisions are not included in net debt. The same holds true for the assets which we attribute to them. At present, this includes our 15% stake in E.ON and our claim for state compensation for the German lignite phaseout in the amount of €2.6 billion.

€1,630 million in net cash. On the balance-sheet date, the net cash (+) / net debt (–) item was once again positive. At €1,630 million it was in fact higher than last year (€360 million). This rise was largely attributable to the issuance of a mandatory convertible bond to Qatar Holding LLC, which caused equity to rise in accordance with IFRS, despite the fact that it had not yet been converted into RWE shares at the balance-sheet date. In addition, provisions declined, particularly for pensions and similar obligations. This was due to the fact that the discount rates we use to calculate the present value of obligations increased as a result of market developments. The interest rates used to calculate pension provisions amounted to 4.2% for Germany and 4.9% for the UK, compared to 1.1% and 1.8% last year. A market-induced decrease in the plan assets we use to cover major portions of our pension obligations triggered an increase in provisions. Conversely, negative free cash flow and the dividend payments to RWE shareholders weighed on net financial assets.

Leverage factor below zero. One of our key management parameters is the ratio of net debt to the adjusted EBITDA of the core business, also referred to as the leverage factor. We set the upper limit for the leverage factor at 3.0 in order to secure our financial flexibility. On the balance-sheet date, this indicator was below zero. However, it should increase in the medium term, above all due to growth investments in our green core business, which we will also finance using debt capital.

Significantly reduced off-balance-sheet obligations from fuel purchases. Net debt does not include our off-balance-sheet obligations, which largely stem from long-term purchase agreements for commodities. As of the balance-sheet date, our payment obligations from material fuel procurement contracts amounted to €4.5 billion (previous year: €22.3 billion). In relation to electricity procurement, they amounted to €7.2 billion (previous year: €7.1 billion). The figures are based on assumptions regarding the prospective development of commodity prices. Our contractual commitments for the acquisition of property, plant and equipment remained largely constant at €5.7 billion versus last year. Further off-balance-sheet obligations result, inter alia, from liabilities for pension commitments that employees of our former subsidiary innogy had earned up to its IPO in 2016.

Group balance sheet structure	31 Dec 2022		31 Dec 2021	
	€ million	%	€ million	%
Assets				
Non-current assets	42,286	30.5	38,863	27.3
of which:				
Intangible assets	5,668	4.1	5,884	4.1
Property, plant and equipment	23,749	17.1	19,984	14.0
Current assets	96,262	69.5	103,446	72.7
of which:				
Trade accounts receivable	9,946	7.2	6,470	4.5
Derivatives, other receivables and other assets	61,035	44.1	79,626	56.0
Marketable securities	13,468	9.7	8,040	5.6
Assets held for sale	619	0.4	657	0.5
Total	**138,548**	**100.0**	**142,309**	**100.0**

	31 Dec 2022		31 Dec 2021	
	€ million	%	€ million	%
Equity and liabilities				
Equity	29,279	21.1	16,996	11.9
Non-current liabilities	29,584	21.4	28,306	19.9
of which:				
Provisions	15,595	11.3	16,943	11.9
Financial liabilities	9,789	7.1	6,798	4.8
Current liabilities	79,685	57.5	97,007	68.2
of which:				
Provisions	6,489	4.7	4,268	3.0
Financial liabilities	11,214	8.1	10,996	7.7
Trade accounts payable	7,464	5.4	4,428	3.1
Derivatives and other liabilities	54,518	39.3	77,315	54.4
Liabilities held for sale	–	–	–	–
Total	**138,548**	**100.0**	**142,309**	**100.0**

Equity ratio up by 9.2 percentage points to 21.1 %. In our consolidated financial statements dated 31 December 2022, we reported a balance-sheet total of €138.5 billion. This was slightly lower than last year (€142.3 billion). The ongoing bullish sentiment on the electricity and fuel markets is reflected in our elevated commodity derivative positions. However, they failed to reach the level achieved in 2021: they dropped by €15.7 billion to €48.7 billion on the assets side and by €23.5 billion to €52.7 billion on the equity and liabilities side of the balance sheet. Other significant changes versus 2021 concerned our marketable securities portfolio, which increased by €5.4 billion. Property, plant and equipment rose by €3.8 billion. One reason for this was that we recognised €1.9 billion in write-backs in relation to power plants and opencast mines. The equity and liabilities side of the balance sheet increased by €12.3 billion to €29.3 billion. In addition to the changes to the derivative positions and the write-backs, the issuance of a mandatory convertible bond to Qatar Holding LLC in the amount of €2.4 billion also came to bear. The share of equity in total assets (equity ratio) increased by 9.2 percentage points to 21.1 %.