Attestation exemplar

European Commodity Clearing AG
Leipzig

Annual Financial Statements for the Period Ending December 31, 2023 and Management Report for Financial Year 2023

INDEPENDENT AUDITOR'S REPORT(Translation - the German text is authoritative)

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European Commodity Clearing AG, Leipzig

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1. Company basics

1.1 Company activities and structure

European Commodity Clearing AG (ECC), with its registered office is in Leipzig, Germany, was founded in 2006, when the clearing activities of European Energy Exchange AG (EEX) were spun off.

ECC is a credit institution and has a banking licence as a central counterparty within the meaning of section 1 (1) no. 12 of the German Banking Act (Kreditwesengesetz, KWG) in conjunction with section 1 (31) KWG. Since 2014, ECC has also been licensed as a central counterparty in accordance with Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR). As a central counterparty, ECC settles the transactions undertaken between trading participants in the associated markets or those registered for clearing, and guarantees their contractually compliant settlement even if a counterparty defaults. Settlement of physical deliveries of power and gas is undertaken by European Commodity Clearing Luxembourg S.à.r.l. (ECC Lux), a wholly owned subsidiary of ECC.

As a clearing house, the company's aim, in addition to enabling the stable and contractually compliant settlement of trading business, is to increase the efficiency of clearing and risk management by integrating various marketplaces, products and goods in a unified system. As part of the EEX Group, ECC provides clearing services for all markets on the European Energy Exchange AG (EEX), EPEX SPOT SE (EPEX), Power Exchange Central Europe, a. s. (PXE) and EEX Asia Pte. Ltd. (EEX Asia) partner exchanges. Since 2006, it has also entered into cooperation agreements with other trading platforms outside the EEX Group. In these, the focus is on creating overarching market and product clearing offerings in the area of commodity derivatives and spot trading. Currently, ECC is cooperating with both Hungarian energy exchanges – Hungarian Power Exchange (HUPX) and Hungarian Derivative Energy Exchange (HUDEX) – and with the Irish power exchange SEMOpx, the Serbian South East European Power Exchange (SEEPEX) and the Norwegian commodity futures exchange NOREXECO.

ECC is wholly owned by EEX. A profit and loss transfer agreement has been concluded between ECC and EEX.[1] Moreover, a control agreement was concluded between EEX and ECC in 2023.

1.2 Corporate governance

The main indicators that ECC uses to manage the company are net commission income, non-variable costs (comprising general administrative expenses, depreciation and valuation allowances, and other operating expenses) and earnings before taxes (EBT). In addition, the Executive Board receives a monthly performance report, and a quarterly report is submitted to the Supervisory Board. Reporting includes planned/actual and prior-year comparisons. The risk indicators defined within the risk strategy are also important management values for the clearing house. Non-financial key performance indicators are also used for control purposes (see section 2.6).

The main drivers for ECC on the earnings side are commission income (transaction fees), interest income and other operating income. On the expenses side, commission expense, general

[1] https://www.eex.com/de/eex-ag/part-of-eex-group

administrative expense, other operating expenses and depreciation are differentiated. While commission expense is variable, i.e. correlates with the transaction fees charged, the other expense items are of a fixed-cost nature (for details, see the "Results of operations" sub-chapter).

About 95 percent of ECC's expenses are independent of revenue. Due to scale and scope effects, ECC can thus achieve additional business volume without a significant increase in costs. Nevertheless, a reduction in business volume will have a direct impact on ECC's profitability.

1.3 Research and development

As a service provider, ECC does not engage in any research and development activities that are typical for manufacturing companies. New developments of products and services for 2023 are discussed in the “Business developments” sub-chapter, while future developments are covered in the "Risk and opportunities report" chapter.

2. Report on economic position

2.1 Operating environment

Regulatory framework

The markets for which ECC provides clearing services are influenced to a significant degree by financial market, energy and climate change legislation. Starting in the "Risks from developments in energy and climate policy" sub-chapter, further details are provided on new legislative initiatives and political discourse in 2023 that could have a potential impact on ECC's transaction revenue in future.

Sector-specific environment

ECC's main customer groups are energy and utility companies, industrial companies, clearing banks, grid operators, commodity traders and commodity hedge funds.

In 2023, ECC's markets and customers continued to be impacted by the Russian war of aggression against Ukraine that began in 2022. The reduction and then cessation of exports of natural gas from Russia as a result of the war, which led to record prices on the natural gas markets in 2022, continued to influence prices in 2023, albeit to a much lesser extent. However, partial replacement of Russian gas exports with liquefied natural gas (LNG) contributed to a significant reduction in natural gas prices and market volatility. Because natural gas is also a significant energy source for the power generation sector, this effect was also felt in the power market in 2022, and its prices and volatility also dropped in 2023.

The high prices and increased volatility affected all market segments, from bilateral OTC transactions to exchange trading, particularly in 2022. In the bilateral segment, these effects led to an increased risk of counterparty default in the case of counterparties with limited credit lines. This led, on the one hand, to falling trading volumes on uncleared broker platforms for derivatives, which account for a portion of bilateral trading, and a shift to regulated clearing houses like ECC to clear the transactions. On the other hand, the collateral required to be deposited with clearing houses had risen sharply in 2022 due to the high volatility and energy prices, and the price decline that began at the end of 2022 led in 2023 to the mobilisation of capital that had previously been tied up at the trading participants. The lower price level left scope for trading and this prompted rising volumes on the exchanges, particularly on the power and natural gas derivatives markets, in 2023.

The war in Ukraine had far-reaching macroeconomic effects in addition to its direct impact on the supply of natural gas in Europe and consequently on prices for natural gas and power. Driven by a sharp rise in energy and food prices, among other things, the inflation rate in the EU rose sharply and persistently in 2022 before returning at the end of 2023 to the annual inflation rate of 2021 (2.9 percent compared with 3.1 percent in November 2023). The geopolitical situation in Ukraine described above and the Middle East conflict also resulted in additional market risks and led to an increased need for trading and hedging in many market areas. In this difficult market environment, and faced with the energy transition, energy and utility companies are confronted by far-reaching strategic and financial challenges. The fluctuation of renewable energies such as wind and solar power gives rise to volume risks, which are accompanied by changes in consumption behaviour that are difficult to forecast and future power prices that are comparatively difficult to predict. One reason for this is the considerable uncertainty that exists regarding the regulatory framework for renewable energies and therefore regarding the future power generation mix. These risks, compounded by higher inflation and the indirect impact of increasing key interest rates, are driving up the capital costs of these technologies and making it more difficult to restructure the energy system. In addition, many companies are having to deal with dismantling conventional generation plants.

At the same time, the exceptional situation that has existed since the beginning of the coronavirus pandemic and was severely exacerbated by the outbreak of war in Ukraine has shown that the EEX Group offers market participants a means to hedge their risks and keep flexible supply lines, even in the face of high price uncertainty. It demonstrated that the markets function, thanks in particular to the risk-hedging mechanisms that are built into exchange-based – and consequently cleared – trading. The demands on the effectiveness of these risk-hedging mechanisms increased considerably in this context. ECC is exceptionally well positioned to meet these demands with its diversified product portfolio.

Economic environment

The general operating conditions for the associated exchanges have a direct impact on ECC's results.

ECC's transaction revenues are determined by three key factors: its market share, its fee structure and the size of the overall market. When implementing its strategy, it monitors its market share and fee structure within its framework of corporate management with a view to strengthening its competitive position and positioning itself as a global trading platform for energy and commodity products. However, it has little influence over the size of the overall market because this essentially depends on the following factors:

- the market's maturity and the participants available for trading
- the end use of the traded commodity
- volatility on the energy and commodity markets
- the regulatory framework
- the churn rate of the traded commodity

2.2 Business developments

ECC's business development as a service provider for clearing and settlement is linked to the success of the partner exchanges with which it is associated. ECC has a positive feedback effect on its partner exchanges by connecting new exchanges as part of its multi-exchange approach, and by expanding its portfolio of services. Its biggest partner exchange by trading volume is EEX, which operates power derivatives markets, gas markets, and markets for environmentals, agriculturals and global commodities.

Overview of business development in 2023

While the financial year 2022 was significantly impacted by the Russian war of aggression in the Ukraine and the resulting uncertainty regarding the security of European gas and other energy supplies, the financial year 2023 has witnessed an easing of the energy crisis. The extreme energy price volatility that marked the financial year 2022 abated considerably in the past financial year. Prices for the reference products for power, gas and emission allowances fell significantly from the record highs of 2022 seen in and, towards the end of 2023, reached the levels they were at immediately before the start of the war in the Ukraine. Nevertheless, energy prices remain at a significantly higher level than in the years leading up to and including 2020. With the fall in energy prices, lower price volatility and the associated reduction in the capital intensity within energy trading, trading activity on the energy markets recovered significantly over the course of the financial year 2023.

In this market environment, ECC achieved remarkable growth in its core markets in European Power Spot, European & Japanese Power Derivatives and European Natural Gas. Trading volumes in the Environmental and Global Commodities markets also increased throughout the financial year 2023. However, the trading volumes in Agricultural Products declined compared to the previous year.

Revenue from Clearing Services for partner exchanges that are not part of the EEX Group also increased. Net interest income declined slightly compared to the previous year.

European & Japanese Power Derivatives

As a regulated and transparent marketplace, EEX succeeded in increasing its market shares still further in almost all the power derivatives markets. At the same time, overall market volumes recovered significantly due to the significant decline in price volatility, the lower price levels and the resulting sharp fall in collateral deposits. The resulting clearing volume in ECC power contracts for Europe & Japan was 5,204 TWh in 2023, up 55 percent on the previous year.

German Power Futures, the reference product in European power derivatives trading, continued to account for the largest share of this total. In Germany, EEX succeeded in increasing its market share still further compared to the uncleared broker markets and its exchange competitors in 2023 by an impressive 10 percentage points to 81 percent, thereby consolidating its position as the preferred trading venue in the largest European market area. EEX also succeeded in significantly increasing its trading volumes in all other key European market segments and became market leader in another market – the Netherlands. These increased market shares have a directly positive influence on ECC's clearing volumes.

The product portfolio was further expanded in the financial year 2023. With the introduction of Croatian power futures in June 2023, products are now cleared for a total of 21 European markets. Swiss power futures with a peak load profile and short-dated maturities for Japanese power futures were also introduced in June 2023. With its expansion of the tradable maturities for Japanese and French power futures, the EEX Group is continuing to broaden the trading options for its customers and to drive its geographical expansion forward. This results in a potential increase in clearing volumes.

European Power Spot

The Paris-based European EPEX power exchange operates the EEX Group's power spot markets. In addition, Power Exchange Central Europe (PXE) operates a partial order book for the Czech power spot market. ECC provides clearing services for all the markets of these two trading platforms.

ECC's clearing volumes increased significantly (+17 percent) in the European Power Spot business area in the financial year 2023 compared to the previous year. On the day-ahead markets, clearing volumes in Germany in particular increased sharply (+36 percent). Increased clearing volumes in the Netherlands (+22 percent), Switzerland (+13 percent) and Denmark (+23 percent) also contributed to overall growth. Clearing volumes on the intraday markets increased sharply with double-digit growth rates in almost all markets. As a result, the intraday markets gained in importance within the European Power Spot business area in 2023 and now account for 24 percent of volumes on the power spot markets (previous year: 22 percent). This increasing share is mainly due to the growing importance of digitalisation and the fluctuating feed-in of renewable energies for power supply, which results in an increased need for flexibility and short-term compensation options for balancing group managers. In May 2023, EPEX also introduced in this context 15-minute ECC-cleared contracts for the markets in Denmark, Finland and Sweden, which enabled market participants to manage their portfolios even more flexibly.

In addition to the trading volumes listed for the day-ahead and intraday markets, 481,481 capacity guarantees were traded in 2023 on the French capacity market operated by EPEX, a decrease of 14 percent compared to the record volume of the previous year.

European Natural Gas

The European Natural Gas business area is the third important pillar of revenue alongside the power derivatives and spot markets, with trading being undertaken by EEX and clearing by ECC. The financial year 2023 was characterised by price declines and a slight easing on the gas market, while price volatility remained higher than in the previous decade. This was due to a fragile global and European gas balance and tight supply bases. The long-term increase in volatility also reflects the structural changes on the European market and indicates how pricing is increasingly influenced by global factors. Global stimuli, for example from the non-European LNG and commodity markets, are having a greater impact on the European indices than in the past. In this market environment, ECC succeeded in increasing its clearing volumes across all markets by a total of 10 percent compared to the previous year.

On the European gas spot market, the EEX Group succeeded in increasing its already high market share by one percentage point and thereby consolidating its position as a leading gas spot exchange. ECC's clearing volumes fell by 7 percent compared to the record volumes of the previous year. The growth was mainly driven by the gas markets in the United Kingdom and Denmark. In 2023, ECC benefited for the first time from volumes in the Baltic markets and Finland.

The EEX Group made significant volume gains on the European gas derivatives markets, particularly in France, Germany and the Netherlands. The clearing volume increased by 28 percent compared to the previous year. Market participants benefited on the one hand from EEX's higher and still increasing liquidity in the corresponding markets and on the other hand from the means to significantly reduce the financial collateral that they had to deposit when trading multiple products (gas, power) and/or market areas (THE, TTF) simultaneously through one exchange, due to the positive cross-margin effects for them.

European Environmental Products

ECC undertakes clearing and settlement for all emission allowances that are tradable on EEX.

In European Environmental Products, ECC's clearing volumes for emission allowances increased compared to the previous year. This was largely due to the sale of national emission allowance certificates (nEHS certificates) in Germany. In addition to a significant increase in the trading of nEHS certificates, the auction volumes fixed within the framework of the EU Emissions Trading System (EU ETS) increased in the EUA primary market. However, clearing volumes in the EU ETS secondary market declined.

In EUA secondary trading, the product offering was expanded further in the financial year 2023 to include additional tradable maturities for futures and options.

EEX will continue to sell emissions certificates via the nEHS trading scheme until the end of 2025. It currently sells them at fixed prices but will switch to an auction process with variable pricing from 2026. During the fixed-price phase, the number of available nEHS certificates is unlimited. In 2023, 358 million nEHS certificates were sold via EEX and cleared by ECC.

Global Commodities

Following a decline in the previous year, ECC's clearing volume in Global Commodities increased by a total of 48 percent, setting a new record. This was due to the expansion of EEX's market share, as well as a significant increase in the total market volume due to geopolitical factors. While the clearing volume for freight futures increased, the volume for freight options increased significantly. Options trading now accounts for 25 percent of total derivatives trading in EEX's freight products. This development was also supported by the introduction of further tradable maturities for freight options, which are also cleared by ECC, in the financial year 2023.

Agricultural Products

The trading and consequently clearing of European processing potato futures on EEX/ECC continued to decline sharply in the financial year 2023. However, EEX achieved a growth of 7 percent in clearing of dairy product futures. This result was driven by strong growth in the clearing of whey powder and skimmed milk powder futures, which increased by 38 percent and 12 percent respectively. The clearing volume for butter futures fell slightly. The positive trend in dairy products reflects the increasing use of exchange price risk management instruments by the European dairy industry.

Clearing Cooperations outside the EEX Group

ECC continued to cooperate with partner exchanges in 2023, in the course of which it provided clearing services for trading platforms that are not part of the EEX Group. In the financial year 2023, these were HUPX/HUDEX in Hungary, NOREXECO in Norway and the SEMOpx in Ireland.

The volume from clearing and settling transactions for HUPX/HUDEX were stable in the reporting period compared to the previous year. The traded volumes for NOREXECO, on the other hand, increased significantly year on year, while SEMOpx recorded a slight increase.

2.3 Results of operations

The recovery in trading activities described in the previous section and the accompanying growth in clearing volumes at ECC had a corresponding impact on the results of operations.

A major driver of ECC's earnings in the financial year just ended was net interest income, which amounted to €64,388 thousand and was thus below the prior-year figure of €76,006 thousand. The lower interest income can primarily be explained by the significant reduction in the cash collateral required for deposit, due to decreased volatility on the markets of ECC and its partner exchanges compared with the previous year. ECC charges an administrative fee for this cash collateral. In addition, the cash collateral collected is invested at the Deutsche Bundesbank, and ECC passes part of the proceeds on to the clearing members. The increased interest-rate level also generated additional interest income for ECC, resulting from investing ECC's liquid funds on the capital market.

Commission income, comprising transaction fees and annual fees, totalled €153,642 thousand, up €21,617 thousand or 16 percent on the previous year's figure of €132,025 thousand. Annual fees accounted for less than one percent of commission income.

The spot and derivatives market for natural gas was once again ECC's main source of revenue in 2023. Commission income earned from clearing on the gas markets contracted slightly compared with 2022, amounting to €64,099 thousand in the year under review. This represents a decrease of one percent compared with the previous year, when income totalling €64,877 thousand was earned. The share of ECC's commission income fell to 42 percent (previous year: 49 percent).

The power derivatives market, representing 33 percent of commission income on the earnings side, was ECC's second-largest business area. Revenue from the settlement of power derivatives transactions rose by 54 percent year on year to €51,037 thousand (previous year: €33,153 thousand). Commission income from clearing on the power spot markets increased slightly compared with the previous year at €23,860 thousand (previous year: €20,320 thousand). At 16 percent of all clearing revenue, it represents ECC's third-largest business area on the earnings side, as in the year before.

In the 2023 reporting year, ECC achieved revenue of €3,052 thousand from clearing in EEX's Global Commodities business area, significantly exceeding the prior-year level of €2,127 thousand. This increase resulted from the positive development of the Freight business area. Revenue from the clearing of emission allowances rose in the financial year 2023 to €2,538 thousand, also up significantly on the revenue generated in the previous year of €1,921 thousand. Clearing revenue in the Agricultural Market shrank to €101 thousand (previous year: €131 thousand).

ECC also provides clearing services for exchanges outside the EEX Group. Revenue from clearing cooperation with Hungarian power exchanges HUPX and HUDEX was higher than in the previous year. In the year under review, total commission income was €1,356 thousand (previous year: €1,224 thousand), an increase of 11 percent. Revenue from clearing cooperation with Irish power exchange SEMOpx rose in 2023 to €707 thousand (previous year: €675 thousand).

ECC generated further earnings from clearing services for the NOREXECO exchange (€240 thousand) and SEEPEX exchange (€188 thousand) as well as for the PXE Power Spot business area (€10 thousand), which covers part of order book trading.

Commission income fell significantly in 2023 compared to the prior year, from €17,826 thousand to €3,993 thousand. The main reason for this was the termination of a cooperation agreement with EEX AG, under which ECC had participated financially in market development measures in the gas area.

ECC's net commission income (commission income minus commission expenses) was €149,649 thousand, a 32 percent increase over the previous year. ECC's earnings performance thus proved stable and resilient despite the persistently challenging environment.

Other operating income was €20,951 thousand, representing an increase of 54 percent compared with the previous year's figure of €13,627 thousand. In 2023, this item included income from the internal cost allocation and project cost reimbursements by partner exchanges, as well as realised and unrealised currency gains.

General administrative expenses rose by 14 percent to €73,383 thousand (previous year: €64,114 thousand). Personnel expenditure increased significantly to €33,085 thousand (previous year: €26,696 thousand). This 24 percent rise reflects the substantial increase in ECC's headcount (31.12.2023: 339 employees; 31.12.2022: 286 employees), which in turn reflects (in addition to organic growth) the internalisation of consultancy services. Other administrative expenses increased by eight percent to €40,297 thousand (previous year: €37,418 thousand). These include, in particular, costs for the supply of in-house services by other members of the EEX Group, expenditure on external consultancy and IT services, and non-deductible input tax.

Depreciation in the year under review amounted to €1,767 thousand, down 15 percent on the prior-year figure of €2,070 thousand. ECC's other operating expenses, on the other hand, increased to €6,166 thousand (previous year: €5,572 thousand), mainly due to expenses from exchange rate differences.

EBT reflects the positive development compared with the previous year and increased by 16 percent to €153,673 (previous year: €132,076 thousand). Owing to the profit and loss transfer agreement between ECC and EEX, ECC has no net profit.

2.4 Net assets

ECC's net assets are shaped by its business activity as a central counterparty for trading on commodity exchanges.

Total assets at the reporting date of 31 December 2023 were €18,591,657 thousand, €21,501,597 thousand below the previous year's total assets of €40,093,254 thousand. The lower balance sheet total is mainly due to the reduced balances at central banks on the asset side of ECC's balance sheet and the decreased liabilities to banks on the liabilities side.

The assets side of the balance sheet principally comprises balances at central banks and banks. These mainly result from the investment of deposited cash collateral of €14,023,162 thousand (previous year: €34,750,045 thousand) to secure trades, which are offset by an identical amount of liabilities to the clearing members. The decrease is due to lower margin requirements, which were below those of the previous year as a result of changes in market prices, particularly in the last quarter of the year. The total cash reserve as of 31 December 2023 was €14,165,530 thousand (previous year: €35,002,197 thousand).

Assets held in trust comprise the CO_2 certificates administered as fiduciary assets by ECC since 2017. As at the reporting date, the item stood at €4,069,189 thousand (previous year: €4,914,443 thousand). There is an item of the same value under liabilities held in trust.

Intangible assets amounted to €7,913 thousand (previous year: €9,668 thousand) as at the reporting date. These principally comprise exchange licences and purchased software. Other assets totalled €18,997 thousand (previous year: €21,086 thousand) as at the reporting date, consisting mainly of loans and receivables from affiliated companies.

Deferred expenses and accrued income as at the reporting date amounted to €1,357 thousand, slightly higher than the previous year's level of €1,582 thousand. These largely related to software and systems upgrades and other services from the Deutsche Börse Group.

The liabilities side of the balance sheet is characterised to a significant extent by liabilities to banks, comprising cash collateral received from those clearing members that are banks. These totalled €11,241,398 thousand (previous year: €26,654,001 thousand). The marked decrease in this item is in direct proportion to the reduced balance at central banks on the assets side.

Liabilities towards customers, on the other hand, comprise the cash collateral provided to ECC by clearing members that are not banks. At the reporting date, these stood at €2,912,030 thousand (previous year: €8,255,502 thousand).

ECC AG has provided a binding letter of comfort for all liabilities of its subsidiary ECC LUX, under which ECC AG assumes the unlimited risk of fulfilling all obligations that ECC LUX has towards its creditors as they fall due.

2.5 Financial position

At the end of the financial year, ECC had balance sheet equity of €240,000 thousand (previous year: €218,000 thousand). The increase was due to a payment by EEX of €22,000 thousand into ECC's capital reserve, of which €15,000 thousand were transferred to appropriated reserves. Issued capital was unchanged at €1,015 thousand. As there is a profit and loss transfer agreement with EEX, the company has no accumulated profit. External credit lines are in place that can cover additional liquidity requirements that may arise at short notice. As at the reporting date of 31 December 2023, external loans totalling €4,108 thousand had been drawn on.

The cash flow from ECC's investing activities in the year under review includes investments in ECC's IT infrastructure. Investments totalled €9 thousand (previous year: €31 thousand).

Overall assessment

The company results attest to ECC's success. Against the backdrop of the persisting adverse effects of the war in Ukraine and a generally adverse market environment, impacted by factors such as the Middle East crisis and the USA/China conflict, the company succeeded in increasing its sales revenue[2] by more than 8 percent compared to the previous year. The increase is significantly higher than the prior-year forecast, which assumed significantly diminishing business prospects. This development

[2] Sales revenue represents all ECC's net revenue. It includes commission income, net interest income and other operating income.

was driven mainly by significantly improved net commission income (+31 percent compared with the previous year). This is largely attributable to higher clearing volumes in ECC's main markets, including an increase of 55 percent in the power derivatives markets and revenue growth of 54 percent. Volumes on the gas spot and derivatives markets increased by 10 percent but resulted in a decline in revenue of one percentage point. There was also a marked decrease in the variable costs associated with achieving the commission income (-78 percent compared to the previous year). The increase in costs (excluding interest and commission expenses) was 13 percent, in sharp contrast to the reduction in costs that was forecast in the previous year. This was mainly due to increased personnel and general administrative expenses.

Thus, in terms of EBT, ECC recorded its most successful business year to date and continued to strengthen its solid capital base. EBT significantly exceeded the 2022 forecast. The company had a good liquidity position and was to meet its payment obligations at all times able during financial year 2023.

2.6 Financial and non-financial performance indicators

Financial performance indicators

As described in section 1.2, ECC's management mainly uses the indicators of net commission income, costs and EBT for the purposes of corporate governance. A detailed description of their development was set out in the sections dealing with net assets, financial position and results of operations.

Non-financial performance indicators trading and clearing volumes

As non-financial performance indicators, ECC makes particular use of the trading volumes of the partner exchanges that are cleared by ECC. These are set out in the table below.[3]

[3] Rounding differences may occur due to the presentation format.

Clearing volumes			**2023**	**2022**	**Change**
Power Derivatives			**5,204**	**3,351**	55%
	Germany Austria	*[TWh]*	3,661	2,250	63%
	Italy	*[TWh]*	503	306	64%
	France	*[TWh]*	587	399	47%
	Spain	*[TWh]*	104	91	14%
	Others	*[TWh]*	349	305	14%
Power Spot			**724**	**617**	17%
	Day-ahead	*[TWh]*	549	482	14%
	Intraday	*[TWh]*	176	135	30%
Natural Gas			**7,206**	**6,561**	10%
	Spot	*[TWh]*	3,191	3,426	-7%
	Derivatives	*[TWh]*	4,015	3,136	28%
Agricultural Products		*[Contracts]*	**49,299**	**57,981**	-15%
Environmental Products			**1,290**	**1,199**	8%
	Emission all.	*[million t]*	1,290	1,199	8%
	nEHS	*[million t]*	358	217	65%
	Primary auction (spot)	*[million t]*	523	486	8%
	Sec. trading (spot)	*[million t]*	40	30	33%
	Sec. trading (deriv.)	*[million t]*	369	467	-21%
Global Commodities	Freight	*[Contracts]*	1,180,094	795,190	48%
Clearing Cooperations	Power	*[TWh]*	100	96	4%
	Pulp & paper	*[k T]*	48	22	118%

Employees matter

As at 31 December 2023, ECC had 339 employees (previous year: 286). Important indicators for evaluating employee satisfaction and concerns at ECC include employee turnover, employee training and length of service. The following table shows individual parameters for these indicators:

ECC AG		
Number of employees	339	
	Men **196**	**Women** **143**
Length of service		
Under 5 years (%)	36.9	23.9
5 to 15 years (%)	17.7	15.3
Over 15 years (%)	3.2	2.9
Joiners	38	31
Leavers	12	6
Training days per FTE	4.9	6.4

In 2023, ECC's HR work was focused on measures that promote diversity and inclusion – always to the aim of enhancing the attraction, integration and retention of employees who will fit in with ECC as an internationally operating company. Its activities in the financial year 2023 included:

- inter-cultural management training based on our group-wide corporate values
- increasing the flexibility of our working time models, not least to allow the optimum work/life balance
- expanding our range of activities for working students and student interns so that talented individuals who are interested in our company can gather professional experience early on in their careers
- strengthening our onboarding processes to help new employees to familiarise themselves quickly with our corporate culture and build networks
- extensive staff training programmes to continuously develop future skills (e.g. agile project work, coaching and mentoring);
- employee surveys to accompany changes, bring about improvements and evaluate the measures taken.

Customer matters

The activities of the EEX Group are guided by the needs of customers and the products and services required to meet these needs. The EEX Group's primary objective in implementing its strategy is to become the "exchange of choice" for its customers on the global energy and commodity markets.

Annual customer surveys give all ECC members and EEX trading participants the opportunity to submit valuable feedback. These surveys include questions on general satisfaction with ECC as well as detailed questions on products, services and processes. They also provide a conduit for concrete suggestions for improvement. The findings are discussed with the Executive Board and are fed into measures to improve the service offering on a continual basis.

Other important performance indicators for customer satisfaction in the EEX Group include the market shares and number of trading participants in the various markets and products. Their development has been described in the "Business development" sub-chapter, together with the number of clearing members. As at the reporting date of 31 December 2023, ECC had a total of 29 clearing members (24 general clearing members and five direct clearing members), compared to 30 clearing members as at the reporting date in 2022 (27 general clearing members and 3 direct clearing members). In addition, 99 participants were admitted to the direct clearing participant (DCP) model (2022: 75) and 137 participants were admitted to the nEHS DCP model (2022: 115). The number of ECC non-clearing members had risen to 615 at the end of the year (previous year: 522).

3. Risk and opportunities report

3.1 Risk management

Risk management is anchored in the organisational structure and workflows. ECC's Executive Board has overall responsibility for formulating and implementing the risk strategy. It establishes the framework for designing ECC's risk management system. Its detailed design is based on the requirements of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR) and on the supplementary technical standards according to Commission Delegated Regulation 153/2013.

The risk management system is integrated in all planning, controlling and reporting systems. Second-line departments (e.g., Compliance and Risk Controlling) and the third line (Internal Audit) are also important components of the risk management system. The basis of the risk management system is the systematic identification, assessment, mitigation, documentation and communication of risks. Corresponding principles, processes and responsibilities are set out in the established internal written rules.

ECC has a risk committee in accordance with Article 28 of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR). The risk committee comprises representatives of the clearing members, non-clearing members and independent representatives. This committee advises the Executive Board of ECC on matters of risk management.

Risk culture

Dealing with risks and observing relevant compliance requirements are among the central duties of a clearing house. The central values of ECC, such as customer focus, respect, trustworthiness and forward-thinking, also require that employees and managers as a whole are conscious of risk and act with integrity. Against this backdrop, ECC's Executive Board has enacted a code of conduct and introduced dedicated training courses on the topics of security, compliance and risk. Furthermore, agreed targets must not create any incentive to take uncontrolled risks. In areas such as Internal Audit and control functions such as Risk Controlling, Information Security and Compliance, incentives and compensation are not based on the company's performance.

ECC follows the guidelines of the Financial Stability Board on risk culture.

Risk management system and operation

ECC carries out an annual risk inventory to identify risks and assess their importance. This risk inventory also encompasses all the risk-related matters of ECC Lux. ECC makes a distinction between financial risks, operational risks, business risks and pension risks. As regards financial risks, these are divided into counterparty risks, liquidity risks and market price risks.

ECC treats the following as material risks:

- counterparty risk (as a component of financial risk)
- liquidity risk (as a component of financial risk)
- market price risk (as a component of financial risk)

- operational risk
- business risk

The material risks arise out of ECC's special activity as a central counterparty. In risk management, ECC makes a distinction between risks that arise directly out of the clearing business (risks that are covered by ECC's multi-step risk cascade) and other risks.

Risks are managed within the defined risk appetite by applying various management strategies, as part of the ongoing risk management process, in accordance with the decision of the Executive Board or within allocated responsibilities:

- risk reduction, i.e. introducing measures to reduce the number of occurrences or probability of the risk
- risk transfer, i.e. transferring risks to insurance companies or third parties in the context of liability regulations
- risk avoidance, e.g. by adjusting the business strategy
- risk acceptance, i.e. consciously taking risks and permanently monitoring and managing these risks

In general, ECC tries as far as possible to mitigate higher-level risks; while lower-level risks, which cannot be reduced in economic terms, tend to be accepted. Details on managing material risks can be found below in the explanations on the sub-risk strategies.

The Executive Board ensures that it stays continuously informed on the risk situation and the appropriateness of the measures taken. In addition to this, the Supervisory Board receives a quarterly report. There is also a duty to report any significant changes in the risk situation on an ad hoc basis.

Risk appetite

Risk appetite is the level of risk that an organisation is willing to accept in the pursuit of its objectives before measures are considered necessary to reduce the risk. Risk appetite should safeguard maintenance of the company's operations. Appropriate measures (controls, damage-limitation measures, etc.) should be taken to guarantee this.

The risk appetite framework encompasses the instruments and master plans that are used to manage risks. The aim is to be able to monitor risks on a continuous basis and thus to manage them in line with the defined risk tolerance. ECC's risk appetite includes both a risk-specific and a cross-risk perspective. Extreme conditions, events and outcomes are taken into account and supplemented by qualitative factors. The risk appetite reflects potential impacts on the results of operations, the capital resources and the liquidity/refinancing position. The impact of environmental, social and governance (ESG) risks is also taken into explicit consideration when determining the risk appetite.

The risk appetite is defined on the basis of the (risk) guidelines and procedures specified by the Executive Board. Risk management and monitoring encompasses both aggregated risk indicators (across risk types) and additional early warning indicators (for specific risk types). The aim of the early warning indicators is to continuously assess ECC's risk profile. They are determined using the risks defined as significant in the risk strategy and monitored on a regular basis. They are reported at least quarterly to the Executive Board and the Supervisory Board.

Compliance with economic capital requirements

The economic capital requirement is based on a confidence level of 99.9 percent, taking into account a one-year risk horizon. Diversification effects between the individual risk types are disregarded for the purposes of economic risk quantification.

ECC strives to achieve a maximum rate of 85 percent for the ratio of risk-bearing capacity to total economic risk. The risk-bearing capacity thus corresponds to the risk coverage potential (ECC's equity) minus the funds available to cover the cleared business to absorb losses, in the form of "skin in the game".

Compliance with regulatory capital requirements

The risk indicators pursuant to EMIR are also important management values for the clearing house. ECC must at all times adhere to the capital requirements pursuant to EMIR Regulation (EU) 648/2012, Article 16, in conjunction with Commission Delegated Regulation 153/2013 for settlement risk, operational risk, counterparty risk, market price risk and business risk.

The equity available for risk coverage is determined on the basis of ECC's balance sheet equity. As at 31 December 2023, EMIR equity was €240,000 thousand (previous year: €218,000 thousand).

Potential losses from the default of ECC clearing members are covered by ECC's multi-step risk management system. To fulfil the requirement of Article 45 (4) of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR) in conjunction with Article 35 of Commission Delegated Regulation 153/2013, ECC has formed a dedicated revenue reserve, which is also referred to as "skin in the game" or "dedicated own resources", to satisfy the requirement for dedicated own resources. These requirements were supplemented in the financial year 2023 in accordance with Regulation (EU) No 2021/23 on a framework for the recovery and resolution of central counterparties (CCPRRR) with additional requirements for dedicated own resources. The size of this entire reserve is checked at least annually and adjusted as necessary. In the financial year 2023, a sum of €15,000 thousand was added to the additional dedicated reserve (2nd skin in the game), taking total dedicated own resources as at 31 December 2023 to €50,000 thousand overall. No risk-bearing capacity has been established for this risk category over and above this dedicated reserve.

As at the reporting date, the required regulatory capital requirement for credit risk (i.e. the risks not covered by the margining system) stood at €3,073 thousand as defined by the requirements of Commission Delegated Regulation 152/2013 (previous year: €3,438 thousand). The capital requirement for the market risk of foreign currency risks, determined in accordance with the above regulation, was €524 thousand as at the reporting date (previous year: €633 thousand).

Pursuant to the requirements of Commission Delegated Regulation 152/2013, a capital requirement of €43,604 thousand has been scheduled (previous year: €33,281).

The capital requirement for business risks and settlement risks (wind-down costs) is calculated in accordance with the requirements of Commission Delegated Regulation 152/2013. As at the reporting date, the capital outlay for business risks was €44,791 thousand (previous year: €33,588 thousand) and the capital requirement for wind-down was €44,791 thousand (previous year: €33,588 thousand). The risk-bearing capacity for risk cover is in all cases seen as sufficient to cover the expected risks and remained above the target value of 120 percent throughout the year.

Compliance with liquidity requirements

Concerning liquidity risk, a distinction is made between the risk from the clearing business and other risks. Due to the risk measurement method used, the clearing business is subject to separate management and is not covered by regulatory or economic capital requirements. ECC's objective is to meet its payment obligations in the event of default even under stress conditions. ECC carries out various stress tests for this purpose.

Risk profile

Economic capital requirement

The following table shows ECC's overall risk position, measured in terms of economic capital requirement and calculated for default, market, operational and business risks, for year-end 2023, with a confidence level of 99.9 percent and a risk horizon of one year.

Overall risk position, based on economic capital requirement

in %	**31.12.2023**	**31.12.2022**
Counterparty risk	0.7	1.1
Market risk	0.6	0.7
Operational risk	98.7	98.2
Business risk	0.0	0.0
Total	**100**	**100**
Utilisation of risk-bearing capacity	**44**	**31**

Regulatory capital requirement

According to the provisions of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR), ECC is required to maintain sufficient liquid own funds at all times to ensure compliance with the capital requirements pursuant to Article 16 of the European Regulation. If the ratio of own funds to required capital falls below the threshold of 110 percent, this must be reported immediately to the responsible supervisory authority. The ratio of equity to capital requirements at the monthly reporting dates (01/2023 to 12/2023) were between 128 percent and 174 percent and as such always above the reporting threshold of 110 percent.

Liquidity requirement

Furthermore, pursuant to Article 43 of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR), ECC must maintain sufficient liquid financial resources to cover the liquidity risk arising from default of the two clearing members to which it has the largest exposures. In accordance with Article 44 of this regulation, ECC has sufficient liquid resources to cover the liquidity requirement on a daily basis. If the ratio of liquid resources to required liquidity falls below the internal reporting threshold that has been set, the Executive Board must be informed immediately and measures taken to strengthen liquid resources in accordance with the liquidity plan. The daily ratio figures were between 1.63 and 3.34, and as such above the supervisory required minimum value of 1 at all times.

3.2 Sub-risk strategies to manage individual risk types

In the year under review, ECC identified the risk types described below as the material risks with the greatest potential to have an adverse effect on ECC and its net assets, financial position and results of operations, were they to occur. They are listed in descending order of significance.

Counterparty risks

As ECC acts as central counterparty between buyers and sellers, it bears the risk of default of either party. Counterparty risk is therefore ECC's most material risk, and hedging this risk is its main duty.

In respect of counterparty risks in the clearing business, ECC strives to ensure that the pre-funded resources of the default cascade cover at all times the default of the two largest clearing members under extreme but plausible market conditions (with a confidence level of at least 99.9 percent).

If a clearing member defaults, ECC will transfer or close out the open positions of the clearing member concerned and settle open liabilities using the financial resources of the various steps of the default cascade. ECC itself retains the risk that the pre-funded and previously approved financial resources of the default cascade are insufficient. Part of the pre-funded resources are ECC's dedicated own resources.

ECC's risk strategy is to secure the counterparty risk in full within the relevant confidence level by establishing risk coverage lines of defence. The lines of defence consist of the following key components:

- **Admission conditions:**
    - ECC only accepts as general and direct clearing members those institutions which have registered offices in jurisdictions accepted by ECC and which have sufficient financial strength and the operational facilities to settle clearing transactions. This is checked as part of the approval process and is monitored on an ongoing basis.
    - Companies from accepted jurisdictions which do not have an institutional licence are approved as "direct clearing participant" clearing members (DCP clearing members). This type of clearing member must always trade within pre-trade limits, which ensure that the collateral provided is not exceeded by the potential default of the DCP clearing member.
    - ECC does not accept any natural persons as clearing members.
- **Guarantee by clearing members:** Clearing members guarantee all the obligations of customers they service (i.e. trading participants which are not clearing members). The guarantee encompasses the obligations of customers to provide collateral, daily payments for goods deliveries, or the daily profit and loss statement.
- **Daily profit and loss settlement:** Accrued profits and losses from derivative positions and amounts due for payment from spot market transactions are offset daily and debited from or credited to the clearing member.

- **Intraday margin calls:** ECC monitors the risks during business hours near to real time and carries out intraday margin calls whenever the risk exceeds previously specified internal threshold values.
- **Procedure in the event of default of a clearing member:** In order to close open positions if a clearing member defaults, ECC has implemented effective procedures to transfer or close out the default portfolio within two days following default, while maintaining all regular clearing and settlement processes. In order to minimise legal risks associated with default events, ECC follows international standards and best practices in its default procedure and instruments. In so doing, ECC takes into account the specific characteristics of its business areas. In particular, transfer and close-out procedures must:
    - offer specially segregated customers the possibility to transfer positions and assets to previously specified replacement clearing members
    - offer clearing members strong incentives to support ECC in carrying out its default procedure
    - aim to close out the positions at a fair assessment of the current market price, taking into account concentrated positions
    - take into account the risk management capacity of the clearing members and auction participants.
- **Pre-funded resources of the default cascade according to EMIR:**
- **Initial margins**: Initial margins cover the potential losses from an open position with a safety level of 99 percent and a given holding period of at least two days. The collateral received after collateral haircuts as at 31 December 2023 was €14,159.3 million.
- **ECC's dedicated own funds:** At all times, ECC holds dedicated own funds in at least the amount required by the supervisory authority, as part of the default cascade. The dedicated own funds will be used before using the clearing funds of clearing members which are not in default. As at 31 December 2023, ECC's dedicated own funds amounted to €35 million.
- **Clearing fund:** The clearing fund is a joint form of security provided by all clearing members. As at 31 December 2023, the volume of ECC's clearing fund after security margins stood at €1,243.5 million. The clearing fund covers potential losses that are not covered by the initial margins of a potentially defaulting clearing member. The size of the clearing fund is calculated on the basis of daily executed stress tests according to EMIR requirements.
- **ECC's additional dedicated own funds:** At all times, ECC holds dedicated own funds in at least the amount required by the supervisory authority. These will be used before ECC applies the restructuring instruments of call for restructuring cash, position allocation or participation in investment losses. As at 31 December 2023, ECC's additional dedicated own funds amounted to €15 million.
- **Collateral requirements and collateral haircuts:** To cover the initial margin and clearing fund requirements, ECC accepts as collateral cash as well as highly liquid securities of issuers with low credit risk and emission allowances. Market price fluctuations are covered by adequate

collateral haircuts. Collateral is reassessed at market value, at a minimum on a daily basis. Guarantees from specific issuers with a low credit risk are also accepted in order to cover collateral requirements on spot markets. Concentration risks are managed by assigning concentration limits. To avoid wrong-way risks, ECC does not accept any instruments that it itself settles (with the exception of European emission allowances) or any securities of companies that are affiliated with the collateral provider.

- **Restructuring instruments:**
    - **Call for restructuring cash for clearing fund:** ECC may call upon clearing members, in the event of the default of one or more other clearing members, to make available additional cash up to the level of their original contribution. Within a cool-down period of a maximum of 3 months, the amount is limited to 3 times the original amount.
    - **Voluntary additionally allocated ECC funds:** If ECC calls for additional cash from clearing members, ECC shall make available funds additional to the allocated resources pro rata with the additional cash of the clearing members up to €50 million.
    - **Position allocation:** In the context of default management, ECC can, if positions cannot be closed out after default auctions, allocate these remaining positions to the trading participants or close the offsetting positions and thereby close the remaining ECC positions.
- **Assumption of losses by the parent company:** Under a profit-and-loss transfer agreement, European Energy Exchange AG, ECC's parent company, has to compensate it for any annual losses incurred.

Own funds are only invested in investments with minimum credit risk (e.g. as a secured investment) and the highest possible liquidity. Cash collateral which accrues to ECC in euros is predominantly kept in the central bank account of Deutsche Bundesbank. The clearing members, in particular the DCP clearing members, can also provide cash collateral in foreign currency. Investment losses in currencies for which ECC has no access to the respective central banks will be provided, on a pro rata basis, by ECC and by those clearing members that operate in the currency in which the losses were incurred. The maximum amount to be provided by each clearing member in this way is the total amount deposited by the clearing member in cash in that currency as collateral with ECC. The maximum amount to be provided by ECC is €5 million. Moreover, if ECC needs to undertake restructuring due to an investment loss, it is entitled to require of the clearing members a pro-rata amount to cover this investment loss in accordance with established principles. Counterparty risks that are not covered by cleared trading must be included in the quantification of the economic capital.

In respect of counterparty risks from other trading, ECC sets the risk appetite in relation to investment risks by means of a limit tableau. The limit tableau is connected with the risk-bearing capacity.

Liquidity risks

Liquidity risks can arise both from the clearing business and from ongoing business operations.

ECC manages the material liquidity risk from the clearing business in accordance with the requirements of Article 44 EMIR in conjunction with Commission Delegated Regulation 153/2013 by:

- maintaining liquid resources which at least cover the need for liquidity in the event of the simultaneous default of the two clearing members that generate the greatest liquidity requirements in extreme but plausible market conditions (stress test),
- high requirements on the liquidity of the collateral to be provided,
- appropriate security markdowns on collateral provided,
- maintaining lines at various institutions together with access to intraday credit from the Deutsche Bundesbank, and
- the right to require a minimum proportion of cash collateral out of the total collateral to be provided.

In accordance with Article 44 of the European Regulation on OTC derivatives, central counterparties and trade repositories (Regulation (EU) 648/2012, EMIR), ECC holds the available liquid resources matching the liquidity requirement on a daily basis. If the ratio of liquid resources to required liquidity falls below the internal reporting threshold that has been set, the Executive Board must be informed immediately and measures taken to strengthen liquid resources in accordance with the liquidity plan.

In addition, the potential sources of liquidity risks are noted in the liquidity plan, which is updated quarterly and submitted to the Executive Board.

For the settlement of ongoing business, the aim of ECC's risk strategy is to avoid maturity mismatches in the balance sheet through its investment policy. The financing requirements for current expenses (including distributions) and investments are planned and covered within the framework of medium-term planning. Any unplanned financing gaps – mainly due to tax issues – are closed by maintaining liquidity reserves.

The liquidity risk is monitored and reported based on a 12-month rolling liquidity forecast,

- the analysis of business risks based on various business development scenarios (which have an effect on liquidity due to the assumed absence of cash inflows in the form of transaction fees), and
- the expected wind-down period (survival period of ECC in months if all inflows of funds cease, which constitutes a reverse stress test).

In the management of liquidity risks from non-cleared business, stress risk is assessed using scenarios for future income and costs.

Based on the risk management methods described, the remaining net risk from liquidity risks in current business is estimated to be very low for ECC.

Market price risks

Market price risks do not occur due to the generally closed positions in the clearing business.

Due to ECC's business activities and the conservative investment policy, interest-rate risk is not substantial.

ECC holds only a limited number of open currency positions and endeavours to hedge all major open currency positions.

Operational risk

Operational risks may result from insufficient or defective systems and internal processes, from human error or technical failure, from insufficient or defective external processes, from damage to tangible assets, and from legal risks that may arise due to non-adherence or inappropriate adherence to new or existing laws, regulations and contractual obligations.

ECC has implemented various instruments to manage operational risks. Internal damage and significant incidents are recorded and analysed in a structured manner and regularly reported to the Executive Board. Potential risks are assessed in the context of the annual review process of operational risk scenarios. The aim of this assessment is to determine all significant future risks for ECC. This is done by consulting experts, using relevant external and additional data, and through the structured transfer of all identified issues into an operational risk scenario. For each scenario, the likelihood of the potential operational risk event occurring is analysed and its possible financial impact is assessed. Relevant operational risk indicators are calculated with the aid of scenarios to quantify economic capital.

ECC takes specific measures to reduce its operational risks. It is an essential aim of ECC's risk strategy that operational risks should be minimised by means of far-reaching automation in combination with approved methods of systems development, test procedures and the internal control system. The IT strategy establishes ECC's key principles for the security and availability of its IT systems, among other aspects. ECC's information security management system is based on targets derived from the ISO/IEC 27001 standard. The information security management system serves to implement measures to prevent damage resulting from information security risks.

The internal controls and risk management processes are part of the internal control system and are regularly checked by the internal auditing department and external auditors.

Internal processes are described in ECC's established internal written rules. These contain procedural descriptions and control measures for all major processes. When any control measures are implemented, these are documented to reduce the likelihood of human error. In addition, ECC has comprehensive insurance protection.

ECC is exposed to compliance risks, such as non-adherence to regulatory requirements, fraud risks (e.g. payment and VAT fraud), data protection and money laundering. Against this backdrop, ECC has established a comprehensive compliance management system.

ECC's whistleblower system is used to report potential or actual violations of supervisory or regulatory regulations and ethical standards. Employees can submit reports by telephone or directly using the whistleblower system by text. The principle of whistleblower anonymity is guaranteed.

To prevent money laundering and terrorism financing, ECC has established effective risk management, comprising risk analysis in accordance with section 5 of the German Money Laundering Act (Geldwäschegesetz, GwG) and internal security measures in accordance with section 6 GwG. ECC has a central unit for instituting measures to combat money laundering, terrorism financing and other criminal acts. In addition, all of ECC's business partners are compared against known sanction lists on a regular basis, and also ad hoc if necessary.

Sensitive and vulnerable information is subject to specific protection at ECC. Moreover, ECC has implemented rules to combat fraud and corruption.

As a member of the Deutsche Börse Group, ECC is integrated in the Group-wide data protection organisation. ECC therefore has access to wide-ranging expertise and benefits from economies of scale. Activity required at the local level is initiated and managed by the Compliance department's Head of Data Protection.

ECC has a tax compliance function. This is firmly integrated into the decision-making process, so that major changes in the company can be assessed from a tax perspective at an early stage and tax risks identified on an independent basis. The overriding goal here is to ensure systematic and secure compliance with any applicable tax obligations.

ECC has instituted a business continuity management system to minimise any disruption to critical business processes and services. Within this framework, clear procedures have been defined as to how critical services, processes and resources can be returned to a pre-defined level within pre-defined time limits following an incident or crisis. Emergency plans are regularly checked for effectiveness. At the operational level, ECC's core processes and systems are designed as high-availability systems with parallel operational structures and corresponding failover mechanisms between business sites (e.g. offices) and processing sites (e.g. computer centres).

Business risk

ECC's revenue essentially depends on clearing volume. ECC's greatest business risks are therefore sales losses due to lower clearing volumes with broadly unchanged costs. The aim of ECC's risk strategy is to minimise this risk by anticipating overall costs while taking into consideration fixed and variable cost components. The quantitative planning targets are established in medium-term planning, revised annually and adjusted if necessary. Revenues are stress tested against budget or the forecast.

In addition, there is a profit and loss transfer agreement between ECC and EEX which commits EEX to covering any annual loss.

Concentration risks

In addition to the management of individual risks, monitoring and controlling concentration risks plays a key role in ensuring the stability of the clearing house. Concentration of business activities in clearing arises out of the business model and the resulting high proportion of European banks among ECC's clearing members.

Risks from developments in energy and climate policy

With the situation on the energy markets easing considerably in 2023 compared with the previous year, there were no new short-term market interventions. Some of the crisis measures introduced in 2022 to ensure energy security and contain energy prices and volatility, for example the levies on windfall profits in the power market, have now expired. Other emergency measures such as the price cap for the wholesale market for natural gas (the market correction mechanism) and the EU platform for the joint purchasing of natural gas (AggregateEU), however, have been extended. Added to this, the AggregateEU platform has been extended to include hydrogen imports. This has confirmed the risk that, once implemented, institutional structures may remain in place beyond the crisis situation for which they were originally intended and end up competing with private sector and market-based initiatives. Alongside the emergency measures, political initiatives were initiated regarding a fundamental redesign of the EU electricity market. In early 2023, the EU Commission presented its legislative proposal for reforming the EU's electricity market design (EMD), which worked its way through the EU legislative process by the end of the year. The EMD reform does not call mechanisms such as the marginal cost pricing of production (the merit order principle) into question. However, it does harbour the risk of a "silent revolution" with regard to the future role of energy exchanges in the energy market.

On the spot market, this relates to the intended implementation of a single legal entity (SLE) for operating European market coupling and the proposed complete prohibition of local power spot markets outside the regulated regime for European day-ahead and intraday market couplings. While all references to this were removed from the draft text during the final political negotiations in December 2023, the topic is likely to be revisited as part of the upcoming revision of the Capacity Allocation and Congestion Management guidelines for the power market (CACM 2.0).

The European Commission and the European Union Agency for the Cooperation of Energy Regulators (ACER) would like to exert a still stronger influence on how the power derivatives market is structured. The EMD proposal thus includes the introduction of so-called virtual hubs for pooling the liquidity of smaller power markets in particular. The problematic thing about this is the way it combines derivatives trading with the regulated area of long-term cross-border capacity allocation by the transmission system operators. On top of this, cross-border hedging transactions are already conducted via spread products on EEX's derivatives markets, but this practice could be called into question in future. As with spot market coupling, this would give rise to the risk that the derivatives market becomes increasingly centralised and is starved of initiatives from the market that foster competition and innovation.

Two final regulations worth noting concern the promotion of renewable energies through contracts for difference (CfDs) and a new framework for long-term power purchase agreements (PPAs). The way these are designed and used will have an impact on the extent to which market players execute their risk management via the EEX Group's derivatives markets in future.

At the national level, the issues of greatest relevance for the EEX Group are the discussions underway in Germany relating to the Climate Neutral Electricity System platform (Plattform klimaneutrales Stromsystem, PKNS) and the market design reform (Review of Electricity Market Arrangements, REMA) in the United Kingdom. In Germany, an open dialogue platform was launched to discuss various pressing issues and potential solutions, but so far no specific decisions have been made on the direction the policies will take. The process in the UK is further advanced and its government has already consulted on concrete proposals to amend the market framework. The main areas of interest are the possible departure from the zonal market model towards a power market featuring locational marginal pricing (LMP), and an amendment of dispatch agreements away from decentralised decisions by market participants on power plant scheduling to centralised scheduling decisions by the grid operator. Such changes could lead to a fundamental shake-up in market design, with risks for market liquidity and ultimately also for the role and functioning of energy exchanges, if the UK market design reform is implemented and is then used a blueprint for the EU power markets as well.

Energy policy was also set for the gas market in 2023 with political agreement on the EU package for decarbonising the gas and hydrogen markets. The regulations provide for changes with regard to planning gas and hydrogen grid infrastructure and supplement the certification requirements for renewable gasses and hydrogen pursuant to the EU Renewable Energy Directive. For Europe, a redesign is envisioned for the hydrogen market that – in combination with the certification requirements and support schemes – is intended to lay the groundwork for a European hydrogen economy. But it harbours at the same time the risk of over-regulation and could hinder an internationally competitive hydrogen market.

The EU Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) also underwent review in 2023 as part of the EMD reform. The aim is to take an even more proactive approach to preventing market manipulation on the European energy wholesale markets and thereby boost confidence in the energy markets. The political agreement reached contains multiple new powers for ACER, including supervision of energy derivatives that are classified as financial instruments and until now have fallen under the Market Abuse Regulation (MAR), which is specifically for financial services. This means that going forward trading in energy derivatives will be subject to two market abuse frameworks, MAR and REMIT, and thus to supervision by both the financial and energy regulators. The planned third-country regulation will also play an important role. Trading participants from a non-EU country will not be required to establish a place of business within the EU and will only need to have a representative in the EU. Nonetheless, these regulations will pose a trading barrier for non-EU players and will make European trading venues less attractive by international comparison. Additional risks arise from the requirement for exchange market surveillance authorities also to supervise compliance by market participants with the disclosure requirements for inside information. Shortened notification periods for suspected cases will further increase the workload.

In the area of climate protection in Germany, the ruling by the German Federal Constitutional Court in November 2023 that the financing of the Economic Stabilisation Fund (Wirtschaftsstabilisierungsfonds, WSF) and the Climate and Transformation Fund (Klima- und Transformationsfonds, KTF) was unconstitutional has called the funding of some climate protection measures into question. The political decision in December 2023 to increase the pricing of CO_2 (German Fuel Emissions Trading Act (Brennstoffemissionshandelsgesetz, BEHG)) will generate higher state revenue. However, the rising costs involved risk jeopardising the acceptance among companies and consumers of CO_2 pricing in general and of emissions trading in particular.

Risks from financial market policy developments

Against the backdrop of the energy crisis, the ongoing review of the EU MiFID II financial market legislation has been the subject of much political discussion in the European Parliament, resulting in proposals regarding the trading of commodity derivatives. These proposals range from giving the European Securities and Markets Authority (ESMA) the power to suspend trading, to reintroducing position limits for each individual commodity derivative and a 30-day holding period for commodity derivatives. The legislative EU bodies ultimately decided to refrain from making any direct amendments for the time being, instead earmarking commodity derivatives regulation for further consultation during 2024-2025. The upcoming 2024 European elections and the new EU Commission resulting from this will gain even more importance in this regard, the focus being on expectations for future reviews.

In the clearing area, 2023 saw intense discussions in the European Parliament and the European Council on the legislative proposal made by the European Commission to update EMIR (EMIR 3.0). It remains to be seen how far the planned simplifications to supervisory requirements governing the introduction of new products or changes to clearing models will go, when a final agreement is reached, in order to remain competitive – especially vis-à-vis non-European central counterparties. Foreseeable changes to the supervisory practice of these counterparties and to the access criteria for clearing participants will create additional work for ECC in terms of implementation. The planned expansion of the catalogue of acceptable collateral raises the risk that its operational implementation in ECC's clearing model with clearing and non-clearing members will become more complex – and therefore more time-consuming compared with other CCP models.

Other risks from political developments

The legislators and supervisory authorities focused once more in 2023 on the resilience of critical infrastructure against external attacks, for example cyber attacks and unauthorised physical intrusions. ECC is now subject to the German critical infrastructure regulation (Verordnung zu Kritischen Infrastrukturen, KRITIS), and the so-called KRITIS Umbrella Act (KRITIS-Dachgesetz) implements within Germany EU Directive 2022/2557 on the resilience of critical entities. The requirement to draw up resilience plans and provisions for critical systems will apply from 1 January 2026 at the latest, following the expiry of the implementation period.

The EU Digital Operational Resilience Act (DORA), which came into force in 2023, defined requirements and standards in connection with information and communication technologies (ICTs) for the financial sector. The work that was begun in 2023 on standards for reporting incidents, on harmonising supervision and on outsourcing critical or important functions will lead to corresponding implementation work in order to ensure compliance with the regulation from 2025. EEX and ECC introduced a cyber resilience strategy for this purpose in 2023 aimed at making continual improvements in the area of cyber security and resilience.

In addition, EEX Group falls within the scope of the global minimum tax by virtue of its membership of the Deutsche Börse Group. Financial year 2024 is the first assessment year for the minimum tax. As a result, no tax payments or provisions are reported in the 2023 annual financial statements. For 2024, the Deutsche Börse Group will determine the minimum tax due on the basis of the temporary safe harbour rules. This means that in 2024 the Deutsche Börse Group will likely only be assessed for the minimum tax in Switzerland – resulting in a negligible tax expense for the EEX Group.

3.3 Significant opportunities

Opportunities are managed as part of strategic management, corporate development and the continuous improvement process. In this context, prospects for further technological development, new pricing strategies or potential partnerships are identified. Projects are prioritised mainly during the institutional strategy discussion and as part of the planning process. The added value from a customer's perspective is taken into account, as are the strategic goals and the available resources. Significant opportunities are characterised by a significant impact on net assets, financial position and results of operations and are therefore subjected to a regular profitability analysis during the prioritisation phase.

Major opportunities with a long-term influence on ECC's business success are mainly leveraged through investments in structural growth. ECC also benefits from exogenous (macro-) economic, political and societal factors, which have a positive effect on existing business activities. Accordingly, ECC expects the trend on the European power and gas markets away from the bilateral OTC market towards the cleared exchange-traded market to continue. In lots of regional markets and asset classes, this development has already occurred, while in some markets a significant portion of the trading volume is still traded OTC and therefore uncleared.

Developments in recent years on the European power and gas markets (high volatility, limited credit lines, risk of supplier default) have prompted many trading participants to switch to clearing through central counterparties. The associated sustained increase in participant numbers on partner exchanges will result in growth potential for ECC in the years ahead. Trading participants with automated trading solutions (so-called algo traders) will make an increasingly important contribution to tangible market growth. To ensure that this trend continues into the future, it is important to set up an efficient collateral management system for customers.

Political and social efforts to decarbonise the economy will also create opportunities for ECC. The European "Fit for 55" programme, the central package of measures of the European Green Deal, for example, strengthens the EU ETS and confirms this as a market-based leading instrument of EU climate policy. The current trend towards sustainability is also fuelled by the voluntary imposition of sustainability goals by economic players and by mutually reinforcing pressure from social movements and investor requirements. Due to the position it has achieved over recent years in the environmental markets, ECC anticipates growing revenue from clearing in both European and national certificate trading (e.g. nEHS in Germany for the transport and heat sectors).

The extension of current clearing services to other countries and/or the adaptation of operational processes to local business hours could provide much easier access to new clearing members and trading participants, and put ECC in a better position in the global clearing business. In addition, opportunities present themselves from the expanded range of collateral accepted by ECC and the greater number of currencies for margining or cash settlement, together with the broadening – and where possible simplification – of the conditions governing access to clearing. A key focus here is to reduce the barriers to market entry for smaller and medium-sized trading participants as part of the ongoing development of the DCP model.

The positioning of ECC as a leading clearing house for commodities with an integrated business model (integrated clearing) opens up the opportunity to strike up new cooperation partnerships with exchanges that are not yet associated with ECC. To do so, it is crucial to continuously improve the scalability and efficiency of ECC's risk management and settlement systems. ECC's clearing model offers a significant advantage here, especially for trading participants that are active on several trading venues and can achieve significant cost savings if opposing positions are taken into account when calculating the collateral to be deposited (cross-margining), if payment flows are synchronised (payment netting) and if operational costs are reduced. Clearing cooperations also lay the groundwork for in-depth cooperation models at the EEX Group level, whether by expanding the services offered to third parties (e.g. reporting, trading, technology) or through further integration at the company level.

3.4 Overall statement on the risk and opportunities situation

Overall, given its partner exchange setup and diversified revenue structure, as well as its profitability and financial stability, ECC sees itself in a good position to achieve its goals and further strengthen its competitive position. The Executive Board is confident that the company's established risk and opportunities management system will continue to enable it to recognise its risks and opportunities well in advance, so allowing it to successfully meet the current risk situation and make the most of its potential opportunities.

4. Report on expected developments

4.1 Forecast for financial year 2024

This report describes the expected development of ECC AG in the financial year 2024. It contains statements and information on events in the future and is based on the Executive Board's current expectations, assumptions and forecasts as well as on information that was available to it at the time of publication. The forward-looking statements are not to be understood as guarantees regarding the future developments and results mentioned therein. Rather, future developments and results depend on a large number of factors. They involve various risks and uncertainties and are based on assumptions that may prove to be inaccurate. No obligation is assumed to update the forward-looking statements made in this report. The forecasts below are essentially based on the following assumptions about the economic, regulatory and competitive environment in 2024:

- The macroeconomic impact of Russia's military invasion of Ukraine has largely already been absorbed, as evidenced in particular by the stabilising energy prices. However, price volatility will remain at a higher level in the medium term than before 2022.
- Geopolitical tensions in the Middle East and the USA/China conflict are adding to the challenging market environment. The knock-on effects on ECC AG's business will be limited.
- Potential changes in the regulatory environment will not be to the detriment of ECC AG. There will be no adverse effects from regulatory changes for financial markets.
- The market design shaped by changed market mechanisms (such as the gas price cap) will not have any material negative consequences for ECC AG's business. However, an adverse impact on market liquidity is expected in the medium term.
- Aggressive pricing campaigns by competitors have failed to achieve any notable successes.

As described above, ECC succeeded once again in generating extraordinarily high sales revenue in 2023. Based on the assumptions made during the 2023 planning phase, the economic situation is expected to stagnate in the financial year 2024, causing sales revenue to decline by 6 percent year on year. This can primarily be explained by the slightly lower trading and clearing volumes on the power derivatives markets in Europe, as well as for European natural gas. Net interest income is also forecast to decline compared with the previous year. In terms of commission income, a decrease of 2 percent is anticipated. Furthermore, due to the expanded range of products and services and increased technical availability for customers, continued growth is expected in the number of trading and clearing participants. A slight improvement is also forecast in employee satisfaction as a result of the ongoing successful HR work.

ECC expects that its cost base will remain constant during the forecast period. Taking into account the planned developments in revenue and costs, 2024 is expected to see a decline in earnings before taxes (EBT) by 8 percent compared to the reporting period. However, these indicators continue to exhibit a positive trend for the extended observation period from 2021 to 2024, disregarding the exceptionally good years of 2022 and 2023.

Leipzig, 27 February 2024

Dr. Dr. Tobias Paulun	Dr. Götz Dittrich
Chair of the Executive Board (CEO)	Member of the Executive Board (COO)

Dr Clemens Völkert	Jens Rick
Member of the Executive Board (CRO)	Member of the Executive Board (CIO)

Annual Financial Statements 2023

Balance sheet as of 31st December 2023
European Commodity Clearing AG, Leipzig

Assets

	31.12.2023 €	31.12.2023 €	31.12.2022 €	31.12.2022 €
1. Cash and Central Bank balances				
Central bank balances		14,165,530,463		35,002,197,321
(thereof at Deutschen Bundesbank 14,165,530,463 €				
previous year: 35,002,197,321 €)				
2. Accounts receivable from credit institutions				
a) Due on a daily basis	275,934,669		100,524,477	
b) Other accounts receivable	2,968,335	278,903,004	5,860,366	106,384,843
3. Accounts receivable from customers		49,746,545		37,868,626
4. Shares in affiliated companies		18,500		18,500
5. Trust assets		4,069,189,315		4,914,443,256
6. Intangible assets				
a) Acquired concessions, commercial trademarks				
and similar rights and values, licenses				
to such rights and values	7,892,916		9,657,025	
b) Advance payments	19,929	7,912,845	10,834	9,667,859
7. Property, plant and equipment		2,325		5,637
8. Other assets		18,997,022		21,085,944
9. Prepaid expenses		1,357,092		1,581,926
Total Assets		**18,591,657,110**		**40,093,253,912**

Liabilities & Equity

	31.12.2023 €	31.12.2023 €	31.12.2023 €	31.12.2022 €	31.12.2022 €	31.12.2022 €
1. Liabilities to credit institutions						
a) Due on a daily basis		11,241,397,773	11,241,397,773		26,654,000,969	26,654,000,969
2. Liabilities to customers						
a) Other liabilities						
aa) Due on a daily basis	2,892,796,285			8,223,210,358		
ab) With agreed term or termination period	19,233,669	2,912,029,954	2,912,029,954	32,291,949	8,255,502,307	8,255,502,307
3. Trust liabilities			4,069,189,315			4,914,443,256
4. Other liabilities			108,310,257			33,451,396
5. Provisions						
a) Provisions for pensions and similar commitments		27,062			23,216	
b) Other provisions		20,702,750	20,729,812		17,832,767	17,855,983
6. Equity						
a) Subscribed capital		1,015,227			1,015,227	
b) Capital reserve		178,365,644			171,365,644	
c) Retained earnings						
other retained earnings		60,619,129	240,000,000	45,619,129	45,619,129	218,000,000
Total Liabilities & Equity			**18,591,657,110**			**40,093,253,912**

	31.12.2023	31.12.2022
1. Contingent liabilities		
Liabilities from guarantees and guarantee contracts	1,626,870,297	3,668,538,939
2. Other obligations		
Irrevocable lending commitments	4,001,852	2,728,211

European Commodity Clearing AG, Leipzig
Profit and Loss Statement
for the Period from 1st January 2023 to 31st December 2023

		2023 €	2023 €	2023 €	2022 €	2022 €	2022 €
1.	Interest income from						
	a) Lending and money market transactions						
	aa) Thereof from transactions with positive interest rates	524,025,481			158,928,468		
	ab) Thereof from transactions with negative interest rates	0	524,025,481	524,025,481	183,586,776	342,515,244	342,515,244
2.	Interest expenses						
	a) Thereof from transactions with positive interest rates		459,637,452			149,049,154	
	b) Thereof from transactions with negative interest rates		0	459,637,452		117,460,085	266,509,239
3.	Fee and commission income			153,642,076			132,025,292
4.	Fee and commission expenses			3,993,032			17,825,915
5.	Other operating income			20,951,289			13,626,508
	(therof from currency translation 5,250,579 €; previous year: 2,465,102 €)						
6.	General administrative expenses						
	a) Personnel expenses						
	aa) Wages and salaries	28,179,053			22,745,550		
	ab) Social security contributions and expenses for pensions and other benefits	4,906,365	33,085,418		3,950,644	26,696,194	
	(therof for pensions 2,740,458 €; previous year: 2,250,320 €)						
	b) Other administrative expenses		40,297,281	73,382,699		37,417,956	64,114,151
7.	Depreciation, amortization and impairment losses on intangible assets and property, plant and equipment			1,767,421			2,069,660
8.	Other operating expenses			6,165,542			5,572,243
	(therof from currency translation 5,984,761 €; previous year: 4,955,483 €)						
9.	Income from write-ups on loans and advances and certain securities and from the reversal of provisions for possible loan losses			707			
10.	**Result of ordinary operations**			**153,673,407**			**132,075,835**
11.	Taxes on income and profit			0			0
12.	Profit transfer			-153,673,407			-132,075,835
13.	**Pofit**			**0**			**0**
14.	Withdrawals from the capital reserve						
15.	Allocation to revenue reserves						
16.	**Balance sheet profit**			**0**			**0**

part of eex group

ecc

European Commodity Clearing AG, Leipzig

Notes as of 31 December 2023

Contents

1. General information about the Company

European Commodity Clearing AG (ECC), whose registered office is in Leipzig, is registered in Section B of the Commercial Register of Leipzig District Court under No. 22362.

ECC's annual financial statements for financial year 2023 have been prepared in accordance with the German Commercial Code (*Handelsgesetzbuch*, HGB) and the German Accounting Ordinance for Banks and Financial Services Institutions (*Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute*, RechKredV), and in compliance with the German Stock Corporation Act (*Aktiengesetz*, AktG). Under RechKredV, Form 1 governs the structure of the balance sheet and Form 3 (the tiered format) governs the structure of the income statement.

ECC is a subsidiary of European Energy Exchange AG (EEX), Leipzig. It is included in the consolidated financial statements of EEX (smallest scope of consolidation) and Deutsche Börse AG, Frankfurt/Main (largest scope of consolidation). The annual consolidated financial statements of both companies for the financial year from 1 January to 31 December 2023 have been published in the German Company Register (www.unternehmensregister.de). The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), as applied in the European Union.

ECC is the sole shareholder of European Commodity Clearing Luxembourg S.à.r.l., Luxembourg (ECC Luxembourg). ECC Luxembourg undertakes the settlement of physical deliveries (power and gas). As permitted by section 291 (1) HGB, no sub-group financial statements have been prepared.

A profit and loss transfer agreement has been concluded between ECC and EEX. Under this profit and loss transfer agreement, ECC is required to transfer its complete profit for the year under commercial law to EEX. EEX is obliged in return to compensate ECC through loss absorption for any net annual loss that ECC incurs during the term of the agreement.

Commercial rounding may result in minor discrepancies for individual items compared with the figures before rounding.

2. Accounting and valuation policies

The accounts have been prepared on the basis of the going concern assumption (section 252 (1) no. 2 HGB). The changes to individual items in non-current assets are presented in the notes to the Statement of changes in non-current assets. Assets and liabilities have been reported in accordance with sections 242 ff. HGB and valued in accordance with the general valuation provisions set out in sections 252 ff. HGB, taking into account in both cases the regulations applicable to banks under sections 340 ff. HGB.

Cash reserve

Demand deposits at central banks are recognised at nominal value.

Receivables from banks

Receivables from banks are recognised at nominal value. In case of doubt concerning the future recoverability of receivables, individual impairments are recognised and deducted from the receivables.

Receivables from customers

Receivables from customers are recognised according to the principle of prudence (*Vorsichtsprinzip*) and are generally stated at nominal value. In case of doubt concerning the future recoverability of receivables, individual impairments are recognised and deducted from the receivables. Latent risks are considered on a portfolio basis.

The receivables from and liabilities to ECC Luxembourg as of the reporting date were netted, because the conditions for a set-off pursuant to sections 387 ff. of the German Civil Code (*Bürgerliches Gesetzbuch*, BGB) were met. The net position towards ECC Luxembourg corresponded to ECC's clearing conditions at the time of performance and settlement of the corresponding transactions with the respective trading participants. This net disclosure makes the annual financial statements clearer and more transparent.

Investments in affiliated companies

Investments in affiliated companies are carried at acquisition cost. If an impairment is expected to be permanent, a write-down is recorded, and the investment is carried at the lower fair value. If an impairment is no longer expected to be permanent, the write-down is reversed accordingly.

Assets and liabilities held in trust

ECC has an account with the Union Registry for managing its holdings of emission rights. Participants trading on the stock exchange in EU allowances (EUAs) or certified emission reductions (CERs) deliver emission rights to the ECC's account with the Union Registry, subject to applicable clearing conditions. These holdings of emission rights are booked to ECC's registry account and managed on a fiduciary basis. Acting as the settlement entity, ECC holds all authorisations for the trading participants involved and is required to deliver at any time and unconditionally the emission rights that it manages on a fiduciary basis.

Since ECC holds the rights in its own name but for the account of third parties, this constitutes a fiduciary relationship, and the holdings are to be reported according to section 6 (1) RechKredV (trust assets and liabilities). They are recognised at fair value.

Intangible assets and property, plant and equipment

Purchased intangible assets are carried at cost and amortised using the straight-line method or valued at the lower fair value if an impairment is expected to be permanent. If the reasons for a non-scheduled write-down cease to apply, the impairment will be reversed to the amortised cost. No use is made of the option to capitalise internally generated intangible non-current assets.

Property, plant and equipment are recognised at the depreciated costs of acquisition or manufacture. Depreciable property, plant and equipment are depreciated using the straight-line method over their useful lives or valued at the lower fair value if an impairment is expected to be permanent. If the reasons for a non-scheduled write-down cease to apply, the impairment will be reversed to the depreciated cost.

Depreciation is calculated based on the depreciation rate according to the forecast useful life, which is aligned in principle to the depreciation table published by the tax authority.

Low-value assets (with net costs of acquisition or manufacture of less than €800) are depreciated in full pursuant to section 6 (2) of the German Income Tax Act (*Einkommensteuergesetz*, EStG) in the year in which they are acquired or manufactured.

Other assets

Other assets contain positions that do not fall under any of the other items specified above. They are generally recognised at nominal value or cost of acquisition or manufacture, subject to the strict lower of cost or market value principle (*Niederstwertprinzip*).

Accrued and deferred items

Expenses incurred before the reporting date are shown under assets insofar as they represent expenditure for a certain period of time after that date.

Accrued and deferred items are recognised at nominal value.

Liabilities to banks or customers and other liabilities

In accordance with section 253 (1) sentence 2 HGB, liabilities are recognised at their respective settlement amounts.

Provisions

Provisions for pensions and similar obligations are stated on the basis of actuarial tables using the projected unit credit method, based on the 2018 G mortality tables (generation tables) developed by Dr Klaus Heubeck. An interest rate of 1.83 per cent and a remaining term of 15 years are assumed. The provisions are discounted by the average market interest rate over the last ten financial years. Salary and wage increases are not taken into account, since the obligation exists only towards employees who have already left.

Other provisions are recognised at the amount required to settle the obligation, based on a reasonable commercial assessment, and incorporate all identifiable risks from uncertain liabilities and anticipated losses from uncompleted transactions.

Provisions with a residual term of more than one year are discounted in accordance with section 253 (2) sentence 1 HGB using the market interest rate corresponding to their remaining term, averaged over the last seven years.

Provisions for the obligation to retain business documents are calculated using interest rates of 1.07 per cent (six-year retention) and 1.47 per cent (ten-year retention).

Equity

Subscribed capital is carried at nominal value.

Contingent liabilities

ECC has issued a binding letter of comfort in favour of ECC Luxembourg. This has been stated in full as a below-the-line item in accordance with section 26 (2) RechKredV.

Deferred taxes

Deferred taxes are generally calculated in accordance with section 274 HGB for temporary differences between the values of assets, debts and accrued and deferred items under commercial law and tax law. Concerning the recognition of deferred taxes pursuant to section 274 (1) HGB, ECC generally makes use of the option to offset deferred tax assets and liabilities. Any excess of deferred tax assets over deferred tax liabilities is not recognised.

Due to the existing fiscal unity with EEX for tax purposes, deferred taxes are taken into account at the level of EEX, the controlling company.

Deferred tax liabilities are reported insofar as they exceed deferred tax assets.

Expected impact of the German Minimum Tax Act (*Mindeststeuergesetz*, MinStG)

ECC will be subject to global minimum taxation by virtue of its membership of the Deutsche Börse Group. 2024 is the first assessment period for the minimum tax. Consequently, no provisions for deferred taxes have been recognised for the 2023 annual financial statements. No tax expense will arise for ECC AG in 2024 by virtue of applying the temporary safe harbour rules on the basis of its legal status as at 31 December 2023. No provisions will be made for deferred taxes resulting from any minimum taxes until further notice.

Currency translation

Assets and liabilities denominated in foreign currencies with a residual term of less than one year are valued pursuant to section 256a HGB at the average spot exchange rate on the reporting date. Assets denominated in foreign currencies with a residual term of more than one year are generally valued at the prevailing exchange rate on the date on which they were initially recognised or, if lower, at the mean spot exchange rate on the reporting date. Liabilities denominated in foreign currencies with a residual term of more than one year are generally valued at the prevailing exchange rate on the date on which they were initially recognised or, if higher, at the mean spot exchange rate on the reporting date.

Gains and losses realised on settling these transactions or from translating them on the reporting date are recognised in the income statement in accordance with section 277 (5) HGB. Gains from currency translations for separately hedged positions are offset in the income statement in accordance with section 340h HGB.

Pending transactions

In accordance with the realisation principle (*Realisationsprinzip*) stated in section 252 (1) no. 4 HGB, pending transactions, including open interest derivative positions, are not recognised since the performance and consideration are required to offset each other.

3. Balance sheet information and disclosures

Cash reserve

As of the reporting date, ECC's cash reserve amounted to €14,165,530 thousand (previous year: €35,002,197 thousand) and consisted exclusively of demand deposits at the Deutsche Bundesbank. These did not include any demand deposits (previous year: €764,830 thousand) held in its own name for the account of third parties. The year-on-year decrease is primarily due to less cash collateral being deposited by clearing members as at 31 December 2023.

Receivables from banks

The receivables from banks item breaks down as follows:

Receivables from banks	**31.12.2023**	**31.12.2022**
	€ thousand	**€ thousand**
Payable on demand		
Bank accounts in euros	2,551	2,461
Bank accounts in foreign currencies	42,895	97,974
From reverse repo transactions	200,061[1)]	0
Other receivables	30,428	90
Other		
Receivables from clearing fees and other charges	2,968	5,860
Total	**278,903**	**106,385**

1) Reverse repo transactions were executed in 2023 to generate interest income

Receivables from customers

Receivables from customers as at 31 December 2023 totalled €49,747 thousand (previous year: €37,869 thousand) and mainly included trade receivables in the amount of €39,940 thousand (previous year: €16,894 thousand).

Investments in affiliated companies

As at 31 December 2023, ECC had the following investments in affiliated companies:

Name	Domicile	Equity € thousand	2023 net profit € thousand	Share %
European Commodity Clearing Luxembourg S.à.r.l.	Luxembourg (Luxembourg)	320	50	100.00

Assets held in trust

As at 31 December 2023, there were 52,675,757 emission certificates held in trust with a market value of €4,069,189 thousand (previous year: €4,914,443 thousand).

Intangible assets and property, plant and equipment

The composition of intangible assets and property, plant and equipment and any changes thereto are described in the statement of changes in non-current assets as an annex to the notes.

The useful life for intangible assets is between five and 15 years; and for property, plant and equipment, it is between three and 13 years.

Other assets

The other assets item breaks down as follows:

Other assets	**31.12.2023 € thousand**	**31.12.2022 € thousand**
Receivables from affiliated companies	16,238	20,003
European Commodity Clearing Luxembourg S.à.r.l.	*9,961*	*16,805*
European Energy Exchange AG	*4,552*	*1,825*
EPEX Spot SE	*838*	*768*
Clearstream Banking AG	*12*	*0*
Foreign currency valuations	*0*	*-1*
Deferred receivables	*876*	*607*
Miscellaneous other assets	2,759	1,083
Total	**18,997**	**21,086**

Prepaid expenses

As at 31 December 2023, there were prepaid expenses amounting to €1,357 thousand (previous year: €1,582 thousand) for invoices relating to the 2024 financial year.

Liabilities to banks

Existing liabilities to banks amounting to €11,241,398 thousand (previous year: €26,654,001 thousand) are payable on demand and mainly comprise cash collateral deposited by banks at ECC in the amount of €11,170,560 thousand (previous year: €26,601,705 thousand). The year-on-year decrease is primarily due to less cash collateral being deposited by clearing members as at 31 December 2023.

Liabilities to customers

Other liabilities to customers as at 31 December 2023 totalled €2,912,030 thousand (previous year: €8,255,502 thousand). They mainly comprise cash collateral deposited by customers at ECC in the amount of €2,853,150 thousand (previous year: €8,175,360 thousand).

Liabilities held in trust

Liabilities held in trust consist of obligations to surrender emissions rights managed on a fiduciary basis to the entrusters. As at 31 December 2023, there were liabilities held in trust totalling €4,069,189 thousand (previous year: €4,914,443 thousand), the same amount as the assets held in trust.

Other liabilities

The other liabilities item breaks down as follows:

Other liabilities	**31.12.2023** **€ thousand**	**31.12.2022** **€ thousand**
Liabilities to affiliated companies (including profit transfer not yet paid)	99,164	15,558
Liabilities to public authorities	8,367[2)]	0
Miscellaneous other liabilities	779	17,894
Total	**108,310**	**33,451**

2) As at 31 December 2022, liabilities to public authorities were included under miscellaneous other liabilities.

Provisions for pensions and similar obligations

ECC had made legally binding pension commitments in the past.

The fair value of the reinsurance cover was compounded by €3 thousand in the 2023 financial year and amounted to €155 thousand as of the reporting date (previous year: €152 thousand). The cover assets are carried at fair value.

The settlement amount under commercial law of the underlying pension provision was €182 thousand as at 31 December 2023 (previous year: €175 thousand). This resulted in a tax expense of €4 thousand for financial year 2023 (previous year: €3 thousand). As in the previous year, no payments were made. Assuming the average market interest rate over the last seven financial years, this would result in a settlement amount of €183 thousand.

The balance of the settlement amount and the fair value is recognised as a provision in the balance sheet, and it totalled €27 thousand (previous year: €23 thousand).

The difference between the amount recognised for provisions discounted using the average market interest rate of the last ten years, namely 1.83 per cent (previous year: 1.79 per cent), and the amount recognised for provisions discounted using the average market interest rate of the last seven years, namely 1.76 per cent (previous year: 1.45 per cent), was €124 thousand. In accordance with section 253 (6) HGB, this amount is blocked from distribution.

<u>Other provisions</u>

The other provisions item breaks down as follows:

Other provisions	**31.12.2023** **€ thousand**	**31.12.2022** **€ thousand**
Outstanding invoices	13,575	11,872
Personnel obligations	6,274	5,143
Remuneration of the Supervisory Board	68	46
Audit fees	210	228
Other provisions	576	545
Total	**20,703**	**17,833**

The provisions for personnel obligations mainly relate to bonus payments for employees.

<u>Equity</u>

ECC'S share capital remained unchanged as of the reporting date at €1,015,227 and is divided into 1,015,227 no-par-value registered shares.

Capital reserves as at 31 December 2023 were €178,366 thousand (previous year: €171,366 thousand). In 2023, a total of €15,000 thousand was reclassified from capital reserves to reserves in accordance with Art. 9 of Regulation (EU) 2021/23 (CCPRRR). Furthermore, additions totalling €22,000 thousand were made to capital reserves.

Other retained earnings as at 31 December 2023 were €60,619 thousand (previous year: €45,619 thousand). These included reserves of €35,000 thousand (previous year: €35,000 thousand) in accordance with EMIR and reserves of €15,000 thousand (previous year: €0 thousand) in accordance with Art. 9 CCPRRR.

Breakdown of remaining terms

Balance sheet items/€ thousand	Payable on demand	Up to 3 months	> 3 months to 1 year	> 1 year to 5 years	> 5 years
Receivables from banks	275,935	2,968	0	0	0
Receivables from customers	248	49,498	0	0	0
Other liabilities to customers	2,892,796	19,234	0	0	0

Items in foreign currencies

The balance sheet contained assets denominated in foreign currencies of €83,070 thousand (previous year: €99,593 thousand) and liabilities of €83,754 thousand (previous year: €103,212 thousand).

Contingent liabilities

ECC guarantees ECC Luxembourg's liabilities pursuant to a binding letter of comfort, and these amounted to €1,626,870 thousand (previous year: €3,668,539 thousand) as of the reporting date. These liabilities mainly relate to obligations existing as of the reporting date from power and gas deliveries and are covered by security deposits. Based on historical data, the risks of non-settlement have a low probability of occurrence.

Other obligations

A credit facility (concluded in August 2022) with a credit line of €6,000 thousand is in place between ECC as lender and ECC Luxembourg as borrower. As at 31 December 2023, €1,998 thousand of the credit line had been drawn by ECC Luxembourg. An irrevocable credit commitment from ECC in the amount of €4,002 thousand was recognised for the first time as at 31 December 2023. In the previous year, there was also a credit line of €6,000 thousand, of which €3,272 thousand had been utilised as at 31 December 2022. Accordingly, as at 31 December 2022 there was also an irrevocable credit commitment totalling €2,728 thousand. There is therefore limited scope for comparison with the previous year's annual financial statements.

4. Income statement disclosures

Since interest income, commission income and other operating income are generated exclusively in Germany, a breakdown by geographical markets in accordance with section 34 (2) no. 1 RechKredV has not been carried out.

Interest income and expense

In 2023, interest income of €524,025 thousand (previous year: €158,928 thousand) resulted from positive interest rates and €0 thousand (previous year: €183,587 thousand) from negative interest rates. This is made up of administrative fees of €23,637 thousand (previous year: €183,587 thousand) charged for cash collateral deposited with ECC, interest income of €493,038 thousand (previous year: €158,059 thousand) earned from this cash collateral, interest income of €4,939 thousand (previous year: €0 thousand) earned from reverse repo transactions, and other interest income of €2,411 thousand (previous year: €869 thousand).

The interest expense totalling €459,637 thousand (previous year: €149,049 thousand) resulted mainly from passing on interest income for deposited cash collateral (positive interest) to clearing members. No interest expense was generated from transactions with negative interest rates in 2023 (previous year: €117,460 thousand).

Commission income

Commission income of €153,642 thousand (previous year: €132,025 thousand) included fees for clearing services provided by ECC. The commission income item breaks down as follows:

Commission income	**2023** **€ thousand**	**2022** **€ thousand**
Derivatives market clearing fees	72,270	49,549
Spot market clearing fees	75,449	75,021
Other	5,923	7,455
Total	**153,642**	**132,025**

Commission expenses

Commission expenses of €3,993 thousand (previous year: €17,826 thousand) primarily comprises volume-related costs of €2,778 thousand (previous year: €14,152 thousand) in connection with spot market clearing services. The main reason for the lower commission expenses in financial year 2023 was the termination of a cooperation agreement with EEX.

Other operating income

Other operating income of €20,951 thousand (previous year: €13,627 thousand) comprised the following:

Other operating income	2023 € thousand	2022 € thousand
from		
agency services	12,725	9,753
foreign currency valuation	5,251	2,465
release of provisions	2,211	847
other items	765	561
Total	**20,951**	**13,627**

General administration expenses

General administration expenses of €73,383 thousand (previous year: €64,114 thousand) are broken down as follows:

General administration expenses	2023 € thousand	2022 € thousand
Personnel expenses	33,085	26,696
Wages and salaries	*28,179*	*22,745*
Social security contributions	*4,906*	*3,951*
Other administration expenses	40,297	37,418
Agency services expenses	*10,601*	*11,312*
Overhead, marketing and system expenses	*22,552*	*19,494*
Consulting expenses	*7,144*	*6,612*
Total	**73,383**	**64,114**

The rise was mainly due to a planned increase in headcount as well as higher performance-related remuneration components and payment of an inflation adjustment.

Depreciation and impairments

Depreciation and impairments of €1,767 thousand (previous year: €2,070 thousand) chiefly comprise scheduled depreciation on purchased software and exchange licences.

Other operating expenses

Other operating expenses of €6,166 thousand (previous year: €5,572 thousand) mainly include foreign exchange losses of €5,985 thousand (previous year: €4,955 thousand).

Transfer of profit

The €153,673 thousand (previous year: €132,076 thousand) profit under commercial law for financial year 2023 will be transferred in full, in accordance with the profit and loss transfer agreement with EEX.

5. Other information and disclosures

Composition of collateral

As at 31 December 2023, market participants had netting-eligible gross payment obligations with a total value of €45,290 thousand (previous year: €198,503 thousand) from open positions that resulted from transactions traded via the central counterparty. From ECC's point of view, the receivables and liabilities from these open positions always fully offset each other. A risk-oriented net approach would lead to a significantly lower value.

To hedge ECC's risk in the event of the default of a clearing member, the clearing conditions require clearing members to deposit margins in the form of cash or securities on a daily or intraday basis in the amounts stipulated by ECC. As of the reporting date, they comprised the following:

Collateral	**31.12.2023**	**31.12.2022**
	€ thousand	**€ thousand**
Margin called	14,200,455	30,290,181
Margin actually deposited	15,329,339	37,392,680
of which:		
cash	14,023,710	34,749,957
securities and book-entry securities (after haircut)	1,305,629	2,642,724

Cash is recognised in the amount of €13,984,931 thousand under the cash reserve balance sheet item and in the amount of €38,779 thousand under receivables from banks.

As at 31 December 2023, ECC's clearing fund held €1,243,523 thousand (previous year: €3,372,242 thousand).

Other financial obligations

The other financial obligations listed below existed as of the reporting date:

Financial obligation	**Total** **€ thousand**	**2024** **€ thousand**	**2025-2028** **€ thousand**	**2029-2033** **€ thousand**
Agency services*	18,236	18,236	0	0
System expenses/ maintenance	2,503	2,502	1	0
Buildings (rent)*	280	280	0	0
Vehicles	59	59	0	0
Other	718	660	58	0
Total	**21,796**	**21,737**	**59**	**0**

*These financial obligations exist towards affiliated companies.

Amounts blocked from distribution

As of the reporting date, no sums were blocked from distribution by section 268 (8) HGB. As of the reporting date, a sum of €124 was blocked from distribution by section 253 (6) HGB, resulting from the difference in determining the amount required to settle the relevant obligation assuming an average market interest rate over the last ten financial years versus an average market interest rate over the last seven financial years.

Headcount trend

The average number of staff employed in the financial year was 316 (previous year: 264). The breakdown by groups is shown in the following table:

	Male	Female	Total
Executives	31	15	46
Experts	22	13	35
Employees	130	105	235
Entire workforce	183	133	316

Executive Board

The members of the Executive Board are:

Peter Reitz, Leipzig	Chief Executive Officer (until 31.3.2023)
Dr Dr Tobias Paulun, Leipzig	Chief Executive Officer (since 1.4.2023)
Dr Götz Dittrich, Leipzig	Chief Operating Officer
Jens Rick, Oberreifenberg	Chief Information Officer
Dr Clemens Völkert, Königstein im Taunus	Chief Risk Officer

In financial year 2023, the total remuneration of the Executive Board, consisting of basic remuneration and performance-related remuneration, amounted to €2,498 thousand (previous year: €2,708 thousand). Of this, €168 thousand was attributable to pension expenses (previous year: €156 thousand). Partial amounts were paid out in 2023 from performance-related remuneration for previous years. In addition, subscription rights for a total of 563 shares in Deutsche Börse AG were granted in 2023 (previous year: 765 shares). The fair value of these subscription rights was €23 thousand (previous year: €28 thousand) as at 31 December 2023.

Former members of the Executive Board or their surviving dependants received total remuneration of €931 thousand in the reporting year.

Appointments to supervisory boards and other supervisory bodies

The persons listed below hold mandates on legally required supervisory bodies of large corporations alongside their roles at ECC in accordance with section 340a (4) no. 1 HGB in conjunction with section 267 (3) HGB:

Peter Reitz	CEO of European Energy Exchange AG
	Managing Director of Deutsche Börse AG
	Member of the supervisory board of EPEX SPOT SE
	Member of the supervisory board of IncubEx Ltd
	Member of the supervisory board of IncubEx North America, LLC
	Member of the supervisory board of Nodal Exchange Holdings, LLC
	Member of the supervisory board of Nodal Clear, LLC
	Member of the supervisory board of Nodal Exchange, LLC
	Member of the supervisory board of Grexel Systems Oy (since 1.10.2023)
Dr Dr Tobias Paulun	Member of the supervisory board of Nodal Exchange Holdings, LLC

	Member of the supervisory board of Nodal Clear, LLC Member of the supervisory board of Nodal Exchange, LLC Member of the supervisory board of EPEX SPOT SE Member of the supervisory board of 360 Treasury Systems AG Member of the supervisory board of Grexel Systems Oy (until 30.09.2023) Member of the supervisory board of KB Tech Limited Member of the supervisory board of Global Dairy Trade Holdings Limited
Jens Rick	Member of the executive board of European Energy Exchange AG Member of the supervisory board of KB Tech Limited

Disclosure in accordance with section 285 no. 21 HGB of transactions with related undertakings or persons

No transactions were concluded with related persons or undertakings during the financial year except on standard market terms.

Disclosure in accordance with section 285 no. 17 HGB of the auditor's fees

The Company is included in EEX AG's consolidated financial statements. Disclosure regarding the auditor's fees is made in the notes to EEX AG's consolidated financial statements in accordance with section 285 no. 17 HGB.

Supervisory Board

The members of the Supervisory Board are:

Heike Eckert (Chair)	Member of the executive board, Deutsche Börse AG, Eschborn
Jürg Spillmann (Deputy Chair)	Member of the supervisory board, Eurex Global Derivatives AG, Zug (Switzerland)
Hans E. Schweickardt (Deputy Chair) until 29.6.2023	Deputy Chair of the supervisory board, Polenergia SA, Warsaw (Poland)
Dr Karin Labitzke	Retired (previously: Divisional Head at UniCredit Bank AG), Gauting
Prof. Harald R. Pfab	Managing Director, HHP Beratung GmbH, Fronreute

Vincent van Lith	European Head of Energy, ABN AMRO Bank N.V. Frankfurt Branch, Frankfurt am Main
Thomas Laux since 29.6.2023	Risk Advisory Coach, Bad Camberg

As of the reporting date, ECC's Supervisory Board had an Audit Committee composed of all members of the Supervisory Board and a Personnel and Remuneration Committee composed of the following: Heike Eckert, Thomas Laux, Jürg Spillmann.

The members of the Supervisory Board received payments for the past financial year amounting to €68 thousand (previous year: €46 thousand).

Report on events after the reporting date

No major, reportable events occurred for ECC after the end of financial year 2023.

Leipzig, 27 February 2024

Dr Dr Tobias Paulun

Chair of the Executive Board (CEO)

Dr Götz Dittrich

Member of the Executive Board (COO)

Dr Clemens Völkert

Member of the Executive Board (CRO)

Jens Rick

Member of the Executive Board (CIO)

European Commodity Clearing AG, Leipzig

Changes in fixed assets in fiscal year 2023

		Aquisition and production cost				Depreciation				Residual value	
		01.01.2023	Additions	Disposals	31.12.2023	01.01.2023	Additions	Disposals	31.12.2023	31.12.2023	31.12.2022
		€	€	€	€	€	€	€	€	€	€
I.	**Intangible assets**										
	1. Concessions, industrial property rights and similar rights and values, as well as licenses to such rights and assets	27,649,824	0,00	-112,699	27,537,125	17,992,798	1,764,110	-112,699	19,644,209	7,892,916	9,657,025
	2. Godwill	7,099,182	0,00	0,00	7,099,182	7,099,182	0,00	0,00	7,099,182	0,00	0,00
	3. Prepaymens for intangible assets	10,834	9,095	0,00	19,929	0,00	0,00	0,00	0,00	19,929	10,834
II.	**Property, plant and equipment**										
	1. Other equipment, plant and office equipment	88,330	0,00	-7,312	81,018	82,693	3,312	-7,312	78,693	2,325	5,637
III.	**Financial Assets**										
	1. Shares in affiliated companies	18,500	0,00	0,00	18,500	0,00	0,00	0,00	0,00	18,500	18,500
		34,866,670	**9,095**	**-120,011**	**34,755,754**	**25,174,674**	**1,767,421**	**-120,011**	**26,822,084**	**7,933,670**	**9,691,996**

INDEPENDENT AUDITOR'S REPORT

To European Commodity Clearing AG, Leipzig

Audit Opinions

We have audited the annual financial statements of European Commodity Clearing AG, Leipzig, which comprise the balance sheet as at 31 December 2023, and the statement of profit and loss for the financial year from 1 January to 31 December 2023 and notes to the financial statements, including the presentation of the recognition and measurement policies. In addition, we have audited the management report of European Commodity Clearing AG for the financial year from 1 January to 31 December 2023.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2023 and of its financial performance for the financial year from 1 January to 31 December 2023 in compliance with German Legally Required Accounting Principles and

- the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to § [Article] 322 Abs. [paragraph] 3 Satz [sentence] 1 HGB [Handelsgesetzbuch: German Commercial Code], we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Audit Opinions

We conducted our audit of the annual financial statements and of the management report in accordance with § 317 HGB in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report" section of our auditor's report. We are independent of the Company in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements and on the management report.

Responsibilities of the Executive Directors and the Supervisory Board for the Annual Financial Statements and the Management Report

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles.

- Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Berlin, March 4, 2024

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

(sgd. Michael Quade)	(sgd. ppa. Andi Holland)
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)