Attestation exemplar

European Commodity Clearing AG
Leipzig

Annual Financial Statements for the Period Ending
December 31, 2022 and Management Report for Financial Year 2022

INDEPENDENT AUDITOR'S REPORT

(Translation - the German text is authoritative)

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part of eex group

ecc

European Commodity Clearing AG, Leipzig -

Management Report as of 31 December 2022

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1. Company basics

1.1 Company activities and company structure

European Commodity Clearing AG (ECC), with registered office 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 central counterparty pursuant to Section 1 (1) no. 12 of the German Banking Act (Kreditwesengesetz, KWG) in conjunction with section 1 (31) KWG. Moreover, since 2014 ECC has been licensed as central counterparty in accordance with Regulation (EU) No. 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR). As 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 when 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 aim of the company, 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 of the partner exchanges European Energy Exchange AG (EEX), EPEX SPOT SE (EPEX), Power Exchange Central Europe, a. s. (PXE) and EEX Asia Pte. Ltd. (EEX Asia). Moreover, since 2006 it has 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 Irish power exchange SEMOpx, Norway's NOREXECO and the South East European Power Exchange (SEEPEX). In December 2022, SEEPEX became part of the Alpine/Adriatic – Danube Exchange Group holding company Ltd. (ADEX), which will operate the power spot market in Serbia and Slovenia in future.

ECC is wholly owned by EEX. A profit transfer agreement has been concluded between ECC and EEX.[1]

1.2 Corporate governance

The main indicators 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 risk strategy are

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

also important management values for the clearing house. Furthermore, non-financial key performance indicators are used for control purposes (see section 2.6).

The main influencers for ECC on the earnings side are commission income (transaction fees), interest income and other operating income. On the expenses side, commission expense, general administrative expense, other operating expenses and depreciation are differentiated. While commission expense is variable, i.e. it correlates with the transaction fees charged, the other expense items are of a fixed-cost nature (for details, see section “Results of operations”).

About 80 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 has 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 similar manufacturing companies. New developments of products and services for 2022 are discussed in “Business development”, while future developments are covered in the “Risk and opportunities report”.

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 section “Risk of new or tightened regulation in the financial sector”, further details are provided on new legislative initiatives and political discourse in 2022 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.

The geopolitical situation and the Russian war of aggression in Ukraine had a major impact on ECC’s markets and customers in 2022. The war-related reduction and suspension of natural gas exports to Europe by Russia has resulted not only in very high prices on the natural gas markets, but also in very high volatility. Historic record prices were sometimes exceeded many times over. Since natural gas is also relevant as an energy source for the power generation sector, this effect has been transferred to the power market, triggering a dramatic increase in prices and volatility in this area as well.

The described effects on prices and volatility extend across all market segments and from bilateral to exchange trading. In the bilateral segment, these effects have led to an increased risk of counterparty default with limited credit lines, resulting in falling trading volumes on uncleared broker platforms, which cover a portion of bilateral trading. This could lead to a shift to clearing and thus intimately have a positive impact on ECC's clearing business. On the other hand, the collateral that needs to be deposited with the clearing house has risen sharply on the back of the high level of volatility and elevated energy prices, which in turn could severely limit trading on the exchanges or make it unprofitable for some market participants. While this was partially offset by financial support programmes set up in several European countries, high security deposits (margins) could have a significant liquidity effect on market participants and prompt a shift in trading away from the exchange, with a consequent negative effect on ECC’s clearing business. The net effect on trade shifts resulting from limited credit lines on the one hand, and increased margins on the other, is not fully known due to the non-transparent nature of bilateral trading (and the lack of data). However, it should be noted that EEX's market shares have increased compared to uncleared broker platforms. This is an indication that the higher margins in clearing tend to be less of an impediment than the limited credit lines of bilateral trading, not least because of the state support programmes mentioned.

Moreover, the geopolitical situation described resulted in further market risks and rising inflation, prompting many central banks to hike their key rates in response. The resulting uncertainties 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 inherent in renewable energies such as wind power or solar plants gives rise to volume risks, which in turn makes it comparatively difficult to estimate future electricity prices. One reason for this is the considerable uncertainty that exists regarding the regulatory framework for renewable energies and thus regarding the future power generation mix. These risks compounded by rising key rates increase the capital costs of these technologies and thus make the restructuring of the energy system more difficult. In addition, many companies have to deal with the dismantling of conventional generation plants.

At the same time, the exceptional situation that has prevailed since the beginning of the coronavirus pandemic, and which took on a new dimension with the outbreak of war in Ukraine, has shown that the EEX Group offers all market participants the possibility of hedging and flexible supply, even in the face of high price uncertainty Despite the challenging situation, the market as a whole has proven to be stable and liquid.

Economic environment

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

Transaction revenue is influenced by three key factors. In addition to the size of the overall market, the revenue depends on the market share achieved and the fee structure. Energy prices do not have a direct effect on ECC’s main business (clearing revenues). The market share and fee structure are monitored within the context of implementing the strategy and corporate governance by focusing on strengthening ECC's competitive position and positioning the company as a global trading venue for energy and commodity products. By contrast, the size of the overall market can only be influenced by the company to a limited extent and essentially depends on the following factors:

- End use of the traded commodity
- Volatility on the energy and commodity markets
- Regulatory framework
- Churn rate of the traded commodity

2.2 Business development

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 to new exchanges as part of the multi-exchange approach, and by extending its portfolio of services. The 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 2022

As already described in the report on economic position, the global energy markets were once again faced with major challenges in 2022. After the impact of the global Covid-19 pandemic on global economic performance began to subside, on 24 February Russia launched a war of aggression against Ukraine. A key driver of sales performance in 2022 was the need to procure gas volumes from alternative sources following the decline or suspension of deliveries by Russia. This primarily manifested itself in the trading and price increases on the gas spot market and consequently led to higher volatility. The increasing influence of global market mechanisms also had a marked effect in an extraordinarily hot summer with greatly reduced generation capacities by hydroelectric, nuclear and coal-fired power plants, the lead contract for European power, the German Power Base Load front-year contract, briefly rose to a record high of over €1,000/MWh. This corresponds to a roughly tenfold increase from the price levels seen in the previous year. The higher energy prices led, among other factors, to significantly increased inflationary pressure, which put an additional burden on the global markets.

ECC was able to achieve high rates of growth in the gas markets in this market environment overall, although the clearing volume on the power derivatives markets remained lower year on year despite a significantly higher market share. ECC's clearing volumes also decreased on the power spot markets, for environmentals and on the global freight market.

The higher prices and volatility also increased the annualised average collateral supplied by the clearing members in the form of cash and securities. This led to higher revenue in the short term, but it also meant that clearing members had to keep higher liquidity on hand for the collateral.

An increase in revenue from clearing services for partner exchanges that are not part of the EEX Group gave an additional boost to business performance.

Power Derivatives Europe & Japan

As a clearing house, ECC settles the trading business conducted on all of EEX's power derivatives markets.

On the power derivatives markets, the EEX Group was able to increase its market shares in a large number of market areas or stabilise them at an already high level. However, as in the previous year, the new price level, the higher volatility and the associated sharp increase in security deposits led to a significant decline in the overall market volume. Thus, the clearing volume for EEX in power contracts for Europe & Japan came in at 3,351 TWh in 2022, down 27 percent on the previous year.

German Power Futures, the reference product in European power derivatives trading, continued to account for the largest share of the diversified product portfolio of EEX. In Germany, EEX was able to expand its market share compared to the uncleared broker markets by an impressive 20 percentage points to 71 percent, consolidating its position as the preferred trading venue in the largest European market area. In addition, the advantages of EEX's broad product portfolio proved their worth and are reflected in the clearing volumes of smaller market areas such as the Netherlands and Belgium, which recorded dynamic development and bucked the general market trend.

Power Spot Europe

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.

In the Power Spot Europe business area, ECC's clearing volumes fell slightly in financial year 2022 compared to the previous year (-2 percent). Despite increased volumes in Great Britain, Poland and the Nordic countries, the day-ahead markets declined overall, mainly as a result of lower trading volumes in Germany and France. It was possible to increase trading volumes on the intraday markets in all market segments. As a result, the intraday markets gained in importance within the Power Spot Europe business area in 2022 and now account for 22 percent of volumes on the power spot markets (previous year: 20 percent). This increasing share is mainly due to the growing importance of digitisation and the fluctuating feed-in of renewable energies for power supply, which results in an increased need for flexibility and short-term compensation options within the energy balance group. In February 2022, the EEX Group expanded its offering in Central Europe with the launch of Polish intraday products, which achieved a clearing volume of 0.2 TWh in 2022.

Natural Gas Europe

The Natural Gas Europe business area is the third important pillar of revenue alongside the power derivatives and power spot markets. Financial year 2022 was characterised by sharp price increases for natural gas, mainly due to the tense situation on the gas market as a result of the reduced gas deliveries from Russia to the European Union and the historically low gas storage levels in the largest European consumption markets. The strong price fluctuations led to a sharp increase in trading activities in gas products on the exchange.

On the European gas spot market, the EEX Group was able to gain significant market shares in all market segments and thus consolidate its position as the leading gas spot exchange in Europe. ECC's clearing volume on the gas spot market rose by 85 percent year on year. One of the reasons for this was that many market participants shifted their trading activities from the off-exchange market to the exchange market in order to avoid delivery and payment defaults or to attain the gas storage levels specified by the regulator as quickly as possible. The EEX Group was also able to gain significant market shares on the European gas derivatives markets, particularly in Germany and France. The clearing volume increased by 164 percent compared to the previous year. In addition to the reasons already outlined as they pertain the gas spot market, another growth driver in the derivatives market was the increased use made by customers of the option to deposit significantly less financial collateral for gas trading when trading multiple products (gas, power) or market areas (THE, TTF) via an exchange at the same time.

Environmentals Europe & Asia

ECC undertakes clearing and settlement for all emission allowances tradeable on EEX.

In Environmentals Europe, ECC's clearing volumes for emission allowances decreased by 28 percent compared to the previous year, primarily on the back of the lower trading revenue on the EU ETS secondary market. Auction volumes on the primary market are fixed as part of the EU Emissions Trading Scheme (EU ETS) and cannot be influenced by EEX. However, they likewise saw a year-on-year decline due to the decreasing upper limit for emissions as a result of the method used in the EU ETS.

In the previous year, EEX was awarded the contract for the sale of emission certificates in national emissions trading (nEHS), where clearing is carried out by ECC. Up to and including 2025, these certificates will be sold via EEX at fixed prices, before transitioning to an auction process from 2026. During the fixed-price phase, the number of available nEHS certificates is unlimited. In 2022, 217 million nEHS certificates were sold via EEX.

Global Commodities

In the Global commodities area, ECC's clearing volumes fell by 21 percent compared to the record trading volume seen in the previous year. This was caused by a declining market share coupled with a declining market volume overall due to geopolitical factors.

On 9 May 2022, EEX expanded its product range for the freight market with the introduction of new Panamax freight futures. These supplement EEX's existing freight product offering, consisting of Capesize, Panamax and Supramax contracts, which are also cleared by ECC.

Agriculturals

In financial year 2022, ECC increased its clearing volume in agriculturals by 25 percent. The share of revenue that ECC achieves with the clearing of agriculturals constitutes 0.1 percent of its total clearing revenue.

As in the previous year, futures trading on European processing potatoes on the EEX was impacted in the first half of 2022 by market distortions as a result of the consequences of the Covid-19 pandemic. The second half of the year also saw low volatility for the underlying product.

By contrast, EEX achieved growth of 51 percent in futures trading on dairy products. This result was propped up by strong gains in skimmed milk powder futures, which rose 70 percent, and butter futures, which were up 24 percent. The strong growth reflects the increasing use of exchange price risk management instruments by the European dairy industry, on top of the already high price level for milk and dairy products.

Clearing cooperations outside the EEX Group

ECC continued to cooperate with partner exchanges in 2022, in the course of which it provided clearing services for trading platforms that are not part of the EEX Group. In financial year 2022, 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, declined year on year, while SEMOpx recorded a slight increase.

2.3 Results of operations

The performance of the individual markets within the partner exchanges plays an important role for ECC, since they determine the results of operations of the clearing house. For ECC, financial year 2022 was significantly influenced by the general geopolitical situation, which was intensified by the war in Ukraine and triggered tremendous uncertainty in trading and high volatility on the energy markets. The resulting growth in trading volumes of the partner exchanges was reflected in ECC's results of operations.

A major driver of ECC's earnings in the financial year just ended was net interest income, which amounted to €76,006 thousand and was thus significantly above the prior-year figure of €15,693 thousand. The higher net interest income is due to the sharp increase in cash collateral that needs to be deposited on account of higher market prices and greater volatility on the markets of ECC's partner exchanges. An administrative fee is charged by ECC for this cash collateral. The increased interest rate level also generated additional interest income for ECC. This interest income resulted from investing the cash collateral collected at Deutsche Bundesbank, the proceeds of which are partly passed on by ECC to the clearing members.

Commission income, comprising transaction fees and annual fees (proportion of annual fees in commission income: 0.79 percent) was €132,025 thousand, up €20,724 thousand or 19 percent on the prior-year figure of €111,301 thousand.

In 2022, the spot and derivatives market for natural gas replaced the derivatives market for power as the main source of revenue. Commission income earned from clearing on the gas markets increased sharply versus 2021, amounting in the year under review to €64,877 thousand. This represents a gain of 71 percent compared with the previous year, when income totalling €37,984 thousand was earned. As a proportion of ECC's commission income, it increased to 49 percent (previous year: 34 per cent)

The power derivatives market, representing 25 percent of ECC's commission income, was ECC's second-largest earnings segment. Revenue from the settlement of power derivatives transactions decreased by 24 percent year on year to €33,153 thousand (previous year: €43,704 thousand). Commission income from clearing on the power spot markets increased slightly compared with the previous year at €20,320 thousand (previous year: €19,871 thousand). At 15 percent of all clearing revenue, it represents ECC's third-largest earnings segment.

In the year under review, ECC achieved revenue of €2,127 thousand from clearing in EEX's Global Commodities segment, which was slightly below the prior-year level of €2,366 thousand. This decrease is attributable to the decline in the freight segment. Revenue from the clearing of emission allowances declined in financial year 2022 to €1,921 thousand, also significantly below the revenue generated in the previous year of €2,511 thousand. Clearing revenue in the agricultural market was €131 thousand, versus €128 thousand in the previous year.

In addition, ECC provides clearing services for exchanges outside the EEX Group. Revenue from the 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 €1,224 thousand (previous year: €1,131 thousand), an increase of 8 percent. Clearing revenue from cooperation with Irish power exchange SEMOpx was stable in 2022 compared with the previous year at €675 thousand (previous year: €673 thousand).

ECC generated further earnings from clearing services for the exchanges SEEPEX (€128 thousand) and NOREXECO (€4 thousand) as well as for the PXE power spot segment (€10 thousand), which covers part of order book trading.

Commission expenses increased compared with the previous year, from €10,060 thousand in 2021 to €17,826 thousand in 2022. These expenses relate in particular to liquidity support costs for the gas segment and so are proportionate to the commission income from clearing in these markets, which also increased.

ECC's net commission income (commission income minus commission expenses) was €114,199 thousand, a 13 percent increase over the previous year. ECC's earnings performance thus proved stable and resilient despite the persistently challenging environment.

Other operating income was €13,627 thousand, constituting an increase in the year under review of 38 percent compared with €9,887 thousand in the previous year. In 2022, this item also included income from internal cost allocation and project cost reimbursements of partner exchanges, together with realised and unrealised currency gains.

General administrative expenses rose compared with the previous year by 22 percent to €64,114 thousand (previous year: €52,380 thousand). Personnel expenditure increased sharply year on year from €22,040 to €26,696 thousand. This 21 percent rise reflects the substantial increase in ECC's headcount (31.12.2022: 286 employees; 31.12.2021: 242 employees), which in addition to organic growth also reflects the internalisation of consultancy services. Furthermore, other administrative expenses climbed by 23 percent to €37,418 thousand (previous year: €30,340 thousand). These include, in particular, costs for the supply of in-house services by other companies of the EEX Group, expenditure on external consultancy and IT services, and non-deductible input tax.

Depreciation in the year under review amounted to €2,070 thousand, down 4 percent on the prior-year figure of €2,152 thousand. ECC's other operating expenses, on the other hand, increased sharply to €5,572 thousand (previous year: €2,583 thousand), mainly attributable to expenses from exchange rate differences.

EBT reflects the positive development compared with the previous year and increased by 89 percent to €132,076 (previous year: €69,705 thousand). Owing to the profit 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 central counterparty for trading on commodity exchanges.

Total assets at the reporting date of 31 December 2022 were €40,093,254 thousand, €7,505,016 thousand below the previous year's total assets of €47,598,269 thousand. The lower balance sheet total is mainly due to the reduced balances at central banks on the asset side and the decreased liabilities to banks on the liabilities side of ECC's balance sheet.

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 €34,750,045 thousand (previous year: €42,567,520 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 at 31 December 2022 was €35,002,197 thousand (previous year: €42,779,251 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 €4,914,443 thousand, below the prior-year level of €4,553,157 thousand. There is an item of the same value under liabilities held in trust.

Intangible assets at the reporting date amounted to €9,668 thousand, down on the previous year when they stood at €12,186 thousand. These principally comprise exchange licences and purchased software. Other assets as at the reporting date totalled €21,086 thousand (previous year: €134,834 thousand), consisting mainly of loans and receivables from affiliated companies.

Deferred expenses and accrued income as at the reporting date amounted to €1,582 thousand, slightly higher than the prior-year level of €1,057 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 €26,654,001 thousand (previous year: €35.797.499 thousand). The 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 €8,255,502 thousand (previous year: €6,870,054 thousand).

There is a letter of comfort for liabilities of the ECC Lux subsidiary. In addition, ECC guarantees that it will meet the liabilities of ECC Lux towards trading participants on the spot markets for which ECC Lux has taken on the delivery or acceptance of goods.

2.5 Financial position

At the end of the financial year, ECC had balance sheet equity of €218,000 thousand (previous year: €158,000 thousand). The increase is due to a payment by EEX of €60,000 thousand into ECC's capital reserve, of which €12,000 thousand were transferred to appropriated reserves. Issued capital was unchanged at €1,015 thousand. As there is a profit 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. At the reporting date of 31 December 2022, external loans totalling €52,296 thousand has been drawn on.

The cash flow from ECC's investing activities in the year under review include investments in intangible assets, primarily in ECC's IT infrastructure, and investments in property, plant and equipment. Investments totalled €31 thousand (previous year: €881 thousand).

Overall assessment

The company results attest to ECC's success. Against the backdrop of the effects described above, including the war in Ukraine a generally adverse market environment, the company was able to increase its sales revenue[2] by more than 60 percent compared to the previous year. The increase is significantly higher than the prior-year forecast, which assumed a stable development. This development can largely be ascribed to net interest income and to the strong growth in the natural gas business, which more than offset the decreased volumes and hence lower sales in the power derivatives market in 2022. On the power spot markets, clearing revenue remained stable despite increasing competitive pressure. With an increase of 19 percent, commission income was significantly above the prior-year forecast, which assumed a mid-single digit percentage increase. There was also a marked rise in the variable costs associated with the achieving the commission income (77 percent compared to the previous year). As a result, net commission income increased 13 year on year. The increase in costs (excluding interest and commission expenses) was 26 percent, far exceeding the previous year's forecast range. This was mainly due to increased personnel and general administrative expenses.

Thus, in terms of earnings before tax (EBT), ECC recorded its most successful business year to date and continued to strengthen its solid capital base. EBT significantly exceeded the 2021 forecast. A major driver of this outcome was the net interest income described in section 2.3. The company had a good liquidity position and was to meet its payment obligations at all times able during financial year 2022.

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 volume

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

Clearing volume			2022	2021	Change
Power Derivatives			**3,351**	**4,575**	-27%
	Germany Austria	*[TWh]*	2250	3.217	-30%
	Italy	*[TWh]*	306	374	-18%
	France	*[TWh]*	399	477	-16%
	Spain	*[TWh]*	91	192	-53%
	Other	*[TWh]*	305	315	-3%
Power Spot			**617**	**629**	-2%
	Day-ahead	*[TWh]*	482	506	-5%
	Intraday	*[TWh]*	135	123	10%
Gas			**6,561**	**3,033**	116%
	Spot	*[TWh]*	3,426	1,847	85%
	Derivatives	*[TWh]*	3,136	1,186	164%
Agriculturals		*[Contracts]*	**57,981**	**46,290**	25%
Environmentals			**1,199**	**1,660**	-28%
	Emission all.	*[million t]*	1,199	1,614	-26%
	nEHS	*[million t]*	217	287	-24%
	Primary auction (spot)	*[million t]*	486	587	-17%
	Sec. trading (spot)	*[million t]*	30	75	-60%
	Sec. trading (deriv.)	*[million t]*	467	665	-30%
	Options	*[million t]*	0	46	-100%
Global Commodities	Freight	*[Contracts]*	795,190	1,009,017	-21%
Clearing Cooperations	Power	*[TWh]*	96	96	0%
	Pulp & Paper	*[k T]*	22	26	-15%

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]

Employee matters

As at 31 December 2022, ECC had 286 employees (previous year: 242). Important indicators for determining employee satisfaction and employee matters at ECC include employee turnover,

[3] Rounding differences may occur in the “Change” column due to the presentation format.

employee training and length of service. The following table shows the individual parameters for these indicators:

ECC AG		
Number of employees	286	
	Male	**Female**
Length of service		
Under 5 years (%)	39.9	23.1
5 to 15 years (%)	16.1	16.1
Over 15 years (%)	2.8	2.1
Joiners	46	32
Leavers	26	12
Training days per FTE	5.7	7.5

In 2022, the HR work performed at ECC included, in particular, efforts to facilitate more flexible ways of working. Hybrid working – a mixed form where employees spend some of their time working from the office and some of their time working remotely from other locations – has become the new normal. While this provides greater scope for employees to reconcile their work, family and private lives, on the other hand it places sustainable demands on teamwork and management culture. ECC has helped shape this change in many ways and intends to continue along this path. Through workshops aimed equally at employees and managers, ECC is strengthening the common understanding of "hybrid work". The agreements negotiated between the works committee and management set the framework for the new working model. Last but not least, extensive further training is offered to support employees in their development with regard to future-oriented skills such as agile project management, mentoring and coaching.

Customer matters

ECC focuses in its activities on the needs of customers and the products and services required to meet these needs. Once a year, all trading participants registered on EEX are sent a comprehensive survey asking them about their satisfaction and needs with regard to the trading and clearing activities at EEX or ECC. The survey ranges from general satisfaction to detailed questions about products, services and suggested changes. A net promoter score (NPS) is used to facilitate better comparability between key areas within the Group. The NPS is a method for measuring satisfaction with a possible scale ranging from -100 to +100. Once the survey has been evaluated, the results are discussed with the Executive Board. This process results in a list of suggestions for improvement and priorities that are coordinated with the respective departments and included in the planning. This year's results show that clearing has gained in importance for trading participants and that margin levels have a bearing on how active members are.

Other important performance indicators for customer satisfaction include the market shares in the various markets and products. Their positive development has been described in the section "Business development", together with the number of clearing members. As at the reporting date of 31 December 2022, ECC had a total of 30 clearing members (27 general clearing members and three direct clearing members), compared to 31 clearing members as at the reporting date in 2021. In addition, 75 participants were admitted to the direct clearing participant (DCP) model (2021: 58) and 115 participants were admitted to the nEHS direct clearing participant (DCP) model (2021: 66). The number of ECC non-clearing members at the end of the year remained constant at 552.

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 and business risks. As regards financial risks, these are divided into counterparty risks, liquidity risks and market price risks.

ECC treats the following risks 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 has a quantitative dimension (requirements in terms of regulatory capital, economic capital and liquidity) and a qualitative dimension. Qualitative risk appetite is implicitly monitored by applying the (risk) guidelines and procedures defined by the Executive Board and the threshold values of the ECC risk indicators (early warning indicators). 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 2022, EMIR equity was €218,000 thousand (previous year: €158,000 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, to fulfil the requirement for dedicated own resources, an appropriated reserve, also described as "skin in the game". The size of this reserve is checked at least annually and adjusted as necessary. In financial year 2022, the "skin in the game" was increased by €12,000 thousand, representing an increase of 52 percent. It therefore amounted to €35,000 thousand as at 31 December 2022. No risk-bearing capacity has been established for this risk category over and above this appropriated 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 €3,438 thousand as defined by the requirements of Commission Delegated Regulation 152/2013 (previous year: €5,350 thousand). The capital requirement for the market risk of foreign currency risks, determined in accordance with the above regulation, was €633 thousand as at the reporting date (previous year: €470 thousand).

Pursuant to the requirements of Commission Delegated Regulation 152/2013, a capital requirement of €33,281 thousand has been scheduled (previous year: €29,297).

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. At the reporting date, the capital outlay for business risks was €33,588 thousand (previous year: €29,249 thousand) and the capital requirement for wind-down was €33,588 thousand (previous year: €29,249 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. It is ECC's objective 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 2022, with a confidence level of 99.9 percent and a risk horizon of one year.

Overall risk position, based on economic capital requirement

in %	**31.12.2022**	**31.12.2021**
Counterparty risk	1.1	20.0
Market risk	0.7	0.3
Operational risk	98.2	79.7
Business risk	0.0	0.0
Total	**100**	**100**
Utilisation of risk-bearing capacity	**31**	**52**

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 own resources to capital requirements at the monthly reporting dates (01/2022 to 12/2022) were between 123 percent and 175 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 1.51 and 2.40, 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 the own resources allocated by ECC ("skin in the game").

ECC's risk strategy is to secure the counterparty risk in full within the relevant confidence level by building up risk coverage potential (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.

- **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 2 days. The collateral received after collateral haircuts as at 31 December 2022 was €34,083.1 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. As at 31 December 2022, 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. At 31 December 2022, the volume of ECC's clearing fund after security margins stood at €3,372 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.

- **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.

- **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:** In the context of a profit-and-loss transfer agreement, the parent company of ECC, European Energy Exchange AG, has to compensate 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 EMIR, Article 44 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), and
- 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 Deutsche Bundesbank.

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 rolling 12-month 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 and market risks are 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. 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. They are documented in checklists to reduce the probability 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 whistle-blower 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 whistle-blower system by text. The principle of whistle-blower 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 Money Laundering Act and internal security measures in accordance with section 6 of the Anti- Money Laundering Act (Geldwäschegesetz, GwG). ECC has a central unit for instituting measures to combat money laundering, terrorism financing and other criminal acts.

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 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.

Short-term political measures and market interventions in response to the energy crisis and resulting risks

2022 was shaped in particular by the Russian war of aggression against Ukraine and the economic effects ensuing from this. States and communities of states quickly implemented a wide of range sanctions, which in turn affected factors such as commodity price trends and aggravated trading conditions and the redistribution of investments. This stoked uncertainty overall and thus increased the hedging requirement on the part of trading participants.

2022 saw numerous political reactions and interventions in the energy markets in response to the high energy prices. As early as the end of 2021, the EU Commission and the EU member states agreed on compensation measures as part of the so-called energy toolbox. Despite assurances from the European Energy Regulatory Agency ACER and the European Financial Market Authority ESMA in spring 2022 that the energy markets and the CO_2 market in Europe are working as they should be, and that the design of the energy market is not the reason for the high energy prices, the measures described below were introduced during the course of 2022.

With the RePowerEU plan, measures to diversify energy supply, reduce energy consumption and accelerate the expansion of renewable energies were agreed in spring 2022 with a view to guaranteeing the EU's security of supply and ending dependence on Russia for energy imports as quickly as possible.

Furthermore, individual players such as Spain and Portugal as well as Greece implemented further measures to contain energy prices and volatility in order to reduce the impact of the high gas price on electricity prices. In Spain and Portugal, for example, a price cap has been applied to the gas used to generate power since 14 June 2022, as part of the so-called Iberian mechanism. The Greek model, on the other hand, envisages dividing the power market into segments. According to this model, generation capacities subject to volatile generation and those with lower marginal costs but high investment costs – essentially renewables and nuclear power – will be priced at a regulated rate, while the remaining technologies will continue to receive their revenue through a market mechanism. Any additional proceeds are paid to the state within the scope of a contract for difference (CfD).

In addition to national measures in individual EU countries, political resolutions were also passed at the EU level on revenue caps, solidarity contributions on windfall profits and the use of these funds to finance state subsidies for energy consumer prices. EU emergency regulation (EU) 2022/1854, which came into force on 6 October, provides for a temporary limit on the exceptional market revenue of generators with lower marginal costs by applying a cap on the market revenue of electricity sold in the EU. Furthermore, a so-called solidarity contribution was enacted for the gas, oil and coal sectors, which places an additional tax on profits from companies in these sectors.

Other emergency measures include the mechanism proposed by the EU Commission to control intraday volatility on the derivatives markets for power and gas, the determination and publication of one or more LNG reference values by ACER, and measures to support liquidity in the case of margining. The latter include a credit line from KfW, backed by a federal guarantee, to provide liquidity to enable companies to service increased margin requirements and thus counteract financial bottlenecks. In addition, on 18 October 2022 the European Commission decided on a package of measures aimed at adjusting clearing thresholds and expanding the safety catalogue.

The market interventions conducted in 2022 culminated in a price cap for the wholesale market for natural gas agreed by the EU member states on 19 December. The so-called market correction mechanism is limited to one year and only applies subject to certain conditions. The mechanism does not apply to bilateral transactions in OTC trading.

All of these measures harbour certain risks for ECC. Now that the state is able to intervene in the energy markets if necessary, the market could lose significance in relation to state measures. The power wielded by the state is increasing as a result, and this newly empowered role could continue even after the current energy crisis is over. Furthermore, the situation could give rise to distortions on the electricity and gas markets and thus have an impact on the trading volumes of the other market segments of the EEX Group, or also lead to a restricted market price signal or even hinder price formation. In addition, some measures could cause a shift in trading away from transparent, regulated and secure exchange markets to the bilateral OTC area. This could diminish the relevance of organised marketplaces overall.

Risks from long-term changes in market design, regulation and other legislation for the energy and commodity markets

Alongside the emergency measures already taken, discussions are underway at the European and national level regarding a fundamental redesign of the EU electricity market. Concrete legislative proposals from the EU Commission have already been announced for the end of the first quarter of 2023. The Climate Neutral Electricity System platform planned for Germany is of particular importance for the EEX Group. The following energy policy priorities can already be surmised:

- Financing of secured power plant capacity and thus the need for a capacity mechanism
- Financing of renewable energies, either market-based, e.g. via long-term supply agreements (PPAs), or continued funding via state-backed contracts for difference (CfD)
- Increased capacity for flexibility, especially on the demand side

- Need for local controls

In the area of financial markets and clearing, against the backdrop of Brexit, the European Commission published a proposal on 7 December 2022 to reduce the risk posed by British CCPs, to make EU clearing more attractive and to update the supervisory architecture for EU CCPs. In order to achieve these goals, the plan is to update the EMIR regulation (EMIR 3.0), which is relevant for CCPs, and to simplify the supervisory requirements for launching new products or making changes to clearing models. At the same time, the proposal contains targeted changes concerning the clearing of energy and commodity products, for example in terms of access criteria for clearing participants or the permanent expansion of the catalogue of collateral to be accepted.

The process for revising the EU Capacity Allocation and Congestion Management Regulation (CACM 2.0) was suspended by the EU Commission in mid-September 2022 due to the ongoing crisis on the European energy markets and is scheduled to be resumed in the second quarter of 2023.

Furthermore, the review of the European electricity bidding zone configuration provided for in the internal electricity market directive could call into question the unified German-Luxembourg electricity bidding zone. Moreover, the regulatory framework for the gas sector is undergoing a comprehensive transformation, and the importance of biomethane and biogas as well as synthetic gases and hydrogen can be expected to increase going forward.

A final point worth mentioning is the influence of climate change legislation and the implementation of the European Green Deal with ambitious climate protection goals for 2030 and 2050. This deal is centred around the expansion and reform of the European emissions trading system (EU ETS), according to which, in addition to a revision of the EU ETS in line with more ambitious greenhouse gas reduction targets, the plan is to introduce a second European ETS for the transport and heat sectors (ETS II) from 2027.

For ECC, there is a risk that additional requirements for participants, for example with regard to liquidity or reporting obligations, will increase barriers to market entry. In addition, the tradability of EEX Group products could be restricted if legislation and regulations are not based to a sufficient degree on established market principles. There is also the possibility that the climate policy steering effect of some instruments will be lost owing to the interventions, and that investments will not be made on the basis of the price signal, but rather on the basis of state subsidies.

Impact of information security and cyber security initiatives

The growing relevance of cyber-attacks for operational risk, exacerbated further by the war of aggression against Ukraine, is driving the implementation of more and more regulatory cyber security initiatives. Moreover, it can be assumed that additional requirements will be developed in the years ahead and that ECC as a processing infrastructure will also be subject to regulation in future.

Also of relevance is the Digital Operational Resilience Act (DORA), which came into force on 16 January 2023, and aims to define requirements and standards for the financial sector in order to prevent and limit the effects of incidents in connection with information communication technologies (ICT). The regulation includes a supervisory framework for critical ICT providers offering services to financial firms. With an implementation period of two years, companies affected by the regulation are expected to ensure compliance from the beginning of 2025.

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 as part of the discussion on institutional strategy and planning process, among other factors. 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 for structural growth. However, 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 some regional markets and asset classes, this development has already occurred, while in others the lion’s share of the trading volume is still traded uncleared OTC.

Current developments on the European power and gas markets (high volatility, limited credit lines, risk of supplier default) are encouraging trade participants to use clearing through a central counterparty. The continuing uncertainties on the energy markets suggest that the proportion of cleared business on the power and gas trading market overall will remain high or continue to increase In times of high risk, trading participants are acutely aware of the advantage of a CCP as a safe haven, and these experiences may serve to reinforce the long-term transformation towards cleared markets, even when the markets have returned to normal.

Political and social efforts to decarbonise the economy likewise give rise to opportunities for ECC. The European "Fit for 55" programme, as the central package of measures of the European Green Deal, for example, strengthens the European emissions trading system (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 particular focus here is on measures to reduce barriers to market entry for smaller and medium-sized trading participants. The ongoing further development of direct clearing participant models will support this process.

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 2023

This report describes the expected development of ECC AG in financial year 2023. 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 2023:
- The military invasion of Ukraine by Russia will continue to weigh on the macro environment in the form of high prices and high volatility. These will have a particularly negative impact on the power and gas segments.
- Potential changes in the regulatory environment will not be to the detriment of ECC. There will be no adverse effects from regulatory changes for financial markets (e.g. no introduction of a financial transaction tax).
- Market design will be shaped by changed market mechanisms, such as the gas price cap. The consequences for ECC's business cannot yet be predicted overall.
- Aggressive pricing campaigns by competitors have failed to achieve any notable successes.

As already described, ECC was able to generate extraordinarily high sales revenue in financial year 2022 thanks to the dynamic market environment. For the upcoming financial year 2023, the economic situation is expected to ease and market activity should cool off, resulting in a significant drop in net sales of 15 percent compared to the previous year. This can primarily be explained by the slightly lower trading and clearing volumes on the power derivatives and spot markets in Europe, as well as a significant decline in the volumes for natural gas in Europe. In addition, it is assumed that cash collateral and the associated net interest income will decrease significantly compared to the previous year. In terms of commission income, we are anticipating a decrease of 20 percent. Furthermore, due to the expanded range of products and services and increased technical availability for customers, slight growth is expected in the number of trading and clearing participants, hovering in the single-digit percentage range. A slight improvement is also forecast in employee satisfaction as a result of the ongoing successful HR work.

Concerning costs, the ECC anticipates a percentage decrease in the low double digits during the forecast period, with both variable and non-variable costs expected to decline. The downward trend in non-variable costs is mainly attributable to extraordinary effects in personnel expenses in 2022. The percentage decrease in non-variable costs is forecast to be in the mid-single digit range. Taking into account the planned developments in revenue and costs, 2023 is expected to see a decline in earnings before interest and taxes (EBIT) by 34 percent compared to the reporting period However, these indicators continue to exhibit a positive trend for the extended observation period from 2021 to 2023, disregarding the exceptionally good year 2022.

Annual Financial Statements 2022

Balance sheet as of 31st December 2022
European Commodity Clearing AG, Leipzig

Assets

	31.12.2022 €	31.12.2022 €	31.12.2021 €	31.12.2021 €
1. Cash and Central Bank balances				
Central bank balances		35,002,197,321		42,779,250,648
(thereof at Deutsche Bundesbank 35,002,197,321 €; previous year: 42,779,250,648 €)				
2. Accounts receivable from credit institutions				
a) Due on a daily basis	100,524,477		48,435,562	
b) Other accounts receivable	5,860,366	106,384,843	18,911,107	67,346,669
3. Accounts receivable from customers	37,868,626	37,868,626	50,410,521	50,410,521
4. Shares in affiliated companies		18,500		18,500
5. Trust assets		4,914,443,256		4,553,156,851
6. Intangible assets				
a) Acquired concessions, commercial trademarks and similar rights and values, licenses to such rights and values	9,657,025		11,700,973	
b) Advance payments	10,834	9,667,859	485,444	12,186,417
7. Property, plant and equipment		5,637		8,978
8. Other assets		21,085,944		134,833,750
9. Prepaid expenses		1,581,926		1,057,092
Total Assets		**40,093,253,912**		**47,598,269,425**

Liabilities & Equity

	31.12.2022 €	31.12.2022 €	31.12.2021 €	31.12.2021 €
1. Liabilities to credit institutions				
a) Due on a daily basis	26,654,000,969	26,654,000,969	35,797,498,849	35,797,498,849
2. Liabilities to customers				
a) Other liabilities				
aa) Due on a daily basis	8,223,210,358	8,223,210,358	6,870,053,733	6,870,053,733
ab) With agreed term or termination period	32,291,949	32,291,949	0	0
3. Trust liabilities		4,914,443,256		4,553,156,851
4. Other liabilities		33,451,396		194,858,927
5. Deferred income		0		3,828,223
6. Provisions				
a) Provisions for pensions and similar commitments	23,216		26,323	
b) Other provisions	17,832,767	17,855,983	20,846,520	20,872,843
7. Equity				
a) Subscribed capital	1,015,227		1,015,227	
b) Capital reserve	171,365,644		123,365,644	
c) Retained earnings				
Other retained earnings	45,619,129	218,000,000	33,619,129	158,000,000
Total Liabilities & Equity		**40,093,253,912**		**47,598,269,425**
1. Contingent liabilities				
Liabilities from guarantees and guarantee contracts	3,668,538,939	3,668,538,939	2,764,511,994	2,764,511,994

European Commodity Clearing AG, Leipzig
Profit and Loss Statement
for the Period from 1st January 2022 to 31st December 2022

		2022 €	2022 €	2022 €	2021 €	2021 €	2021 €
1.	Interest income from						
	a) Lending and money market transactions						
	aa) Thereof from transactions with positive interest rates		158,928,468			691,599	
	ab) Thereof from transactions with negative interest rates		183,586,776	342,515,244		79,674,658	80,366,257
2.	Interest expenses						
	a) Thereof from transactions with positive interest rates		149,049,154			523,697	
	b) Thereof from transactions with negative interest rates		117,460,085	266,509,240		64,149,528	64,673,225
3.	Fee and commission income			132,025,292			111,301,289
4.	Fee and commission expenses			17,825,915			10,059,847
5.	Other operating income			13,626,508			9,886,637
	(thereof from currency translation 2,465,102 €; previous year 179,212 €)						
6.	General administrative expenses						
	a) Personnel expenses						
	aa) Wages and salaries	22,745,550			17,835,645		
	ab) Social security contributions and expenses for pensions and other benefits	3,950,644	26,696,194		4,204,429	22,040,073	
	(thereof for pensions 2,250,320 €; previous year 1,943,922 €)						
	b) Other administrative expenses		37,417,956	64,114,151		30,340,359	52,380,433
7.	Depreciation, amortization and impairment losses on intangible assets and property, plant and equipment			2,069,660			2,152,237
8.	Other operating expenses			5,572,243			2,583,336
	(thereof from currency translation 4,955,483 €; previous year: 1,308,753 €)						
9.	**Result of ordinary operations**			**132,075,835**			**69,705,105**
10.	Taxes on income and profit			0			140,475
11.	Profit transfer			-132,075,835			-69,845,581
12.	**Profit**			**0**			**0**
13.	Withdrawals from the capital reserve						
14.	Allocation to revenue reserves						
15.	**Balance sheet profit**			**0**			**0**

part of eex group

ecc

European Commodity Clearing AG,
Leipzig -

Notes as of 31 December 2022

ecc

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1. General information about the company

The European Commodity Clearing AG (hereinafter referred to as “ECC”) based in Leipzig is registered in the Commercial Register of the Leipzig Local Court in section B under the number 22362.

ECC is a subsidiary of the European Energy Exchange AG (hereinafter referred to as "EEX"), headquartered in Leipzig. ECC is included in the consolidated financial statement of EEX (smallest scope of consolidation) and Deutsche Börse AG, Frankfurt am Main (largest scope of consolidation). The annual and consolidated financial statements of both companies for the financial year from 1st of January to 31st of December 2022 are published in the Company Register (www.unternehmensregister.de). The consolidated financial statements are prepared in line with International Financial Reporting Standards (IFRS) as adopted by the European Union.

ECC is the sole shareholder of European Commodity Clearing Luxembourg S.à.r.l. (hereinafter referred to as "ECC Luxembourg"). ECC Luxembourg is included in the commodity delivery chain (electricity and gas). In compliance with Art. 291 Paragraph 1 of the German Commercial Code (Handelsgesetzbuch, “HGB”), the preparation of subgroup financial statements is waived.

A profit and loss transfer agreement exists between ECC and EEX. Under this profit and loss transfer agreement, ECC is obliged to transfer its complete annual profit to EEX. At the same time, EEX is obliged to fully compensate for any loss occurring during the term of the agreement.

Due to commercial rounding, actual amounts may differ slightly from the non-rounded amounts.

2. Accounting and valuation principles

The financial statement of ECC for the financial year 2022 was prepared in compliance with the HGB and the German Stock Corporation Act (Aktiengesetz, "AktG") as well as the Regulation on the Accounting of Credit Institutions (RechKredV, Kreditinstituts-Rechnungslegungsverordnung). Form 1 is used for the structure of the balance sheet and Form 3 (graduated form) of the RechKredV, for the structure of the income statement. The development of the non-current assets is shown as part of the annex to these notes. Artt. 242 et seq. of the HGB were used for the recognition of assets and liabilities, the general valuation requirements of Artt. 252 et seq. of the HGB were used for the valuation of assets and liabilities, considering the requirements of Artt. 340 et seq. of the HGB applicable to credit institutions.

The financial statement was prepared on the assumption of the going concern principle following Art. 252 Paragraph 1 No. 2 HGB.

Cash and Central Bank balances

Central bank balances were assessed at nominal value.

Expenses incurred due to negative interests on credit balances were reported in the Profit and Loss Statement in interest expenses. Income from recharging of negative interest is reported in interest income.

Accounts receivable from credit institutions

Accounts receivable from credit institutions were assessed at nominal value. In case of doubts about the recoverability of the receivables, specific valuation allowances are recognized and deducted from the receivables.

Accounts receivable from customers

Receivables from customers are also accounted for in line with the principle of prudence. They are generally measured at nominal value. If there are doubts about the recoverability of the receivables, specific valuation allowances are recognized and deducted from the receivables.

Trade accounts receivables from and payables to ECC Luxembourg as of the reporting data were netted, as the conditions for a set-off pursuant to Artt. 387 et seq. BGB are given. The net position towards ECC Luxembourg corresponds to the clearing conditions of the ECC at the time of fulfillment and settlement of the corresponding transaction against the respective trading participants. The net disclosure serves the clarity and transparency of the financial statement.

Shares in affiliated companies

Investments in affiliated companies are accounted for at acquisition costs. In case of expected, permanent impairments of value, impairment losses are recognized.

Trust assets and liabilities

ECC holds an account for the inventory management of emission allowances at the Union registry. In accordance with the Clearing Conditions, participants trading with European Allowances (EUA) or Certified Emission Reductions (CER) submit emission allowances to the ECC account at the Union registry. The inventories of these emission allowances are booked in the registry account kept by ECC and held in custody. As the fulfilling company, ECC holds all allowances for the trading participants involved.

By holding the rights in its own name for the account of a third party, these are deemed to be a trust relationship pursuant to Art. 6 Paragraph 1 RechKredV (Trust Assets and Trust Liabilities), they are reported at nominal value.

Intangible assets and property, plant and equipment

Intangible assets and property, plant and equipment were valued at acquisition costs less scheduled depreciation. No use was made of the capitalization option for internally generated intangible assets.

Property, plant and equipment are recognized at acquisition or production costs. Depreciable property, plant and equipment is depreciated on a straight-line basis over the normal useful live or at the lower fair value in the event of an expected permanent impairment.

Low-value assets with acquisition or production costs of up to € 800 (net) are fully depreciated in the year of acquisition in accordance with Art. 6 Paragraph 2 German Income Tax Law, Einkommensteuergesetz, “EstG”).

Other assets

Other assets include assets which cannot be allocated to any of the aforementioned assets and are valued at the strict lowest value principle.

Prepaid expenses and deferred income

Prepaid expenses include expenses incurred before the balance sheet date to the extent that they relate to expenses for a certain period after this date. Deferred income is income recognized before the balance sheet date which represents income for a certain period after that date.

Prepaid expenses and deferred income are recognized at nominal value.

Liabilities to credit institutions, customers, and other liabilities

Liabilities were shown at their respective settlement amounts in accordance with Art. 253 Paragraph 1 Sentence 2 of the HGB.

Provisions

Provisions are recognized in accordance with prudent business judgment at the necessary amount required to settle the obligation.

The provisions for pensions and similar obligations were recognized in accordance with actuarial principles at the present value of the defined benefit obligation using the "© Richttafeln 2018 G" mortality tables (generation tables) developed by Prof. Dr. Klaus Heubeck. An actuarial interest rate of 1.45% and a remaining term of 15 years were assumed; the average market interest rate from the past 10 financial years was used for discounting. Wage and salary increases are not taken into account, as the obligation exists exclusively towards employees who have already left the company.

Provisions with a remaining term of more than one year are discounted at the average market interest rate corresponding to their remaining term in accordance with Art. 253 Paragraph 2 Sentence 1 HGB.

For the calculation of the provision relating to the obligation to retain business records interest rates of 1.07% (6-year retention) and 1.47% (10-year retention) are used.

Equity

The subscribed capital is recognized at nominal value.

Contingent liabilities

ECC has issued a hard patronage declaration in favor of ECC Luxembourg. In accordance with Act. 26 Paragraph 2 RechKredV, this is stated in full as contingent liabilities.

Deferred taxes

In accordance with Art. 274 HGB, deferred taxes are generally recognized for temporary differences between the commercial and tax valuations of assets, liabilities and prepaid expenses.

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

Foreign currency translation

Receivables and payables denominated in foreign currencies are translated at the spot exchange rate on the reporting date in accordance with Art. 256a HGB. Gains and losses resulting from the settlement of these transactions or from foreign currency translation at the balance sheet date are recognized in profit or loss in accordance with Art 277 Paragraph 5 HGB. Income from currency translation for specially covered items is netted in the income statement pursuant to Art. 340h of the HGB.

Pending transactions

Pending transactions, including derivative positions from open interest, are not recognized in the balance sheet as a result of the realisation principle pursuant to Art. 252 Paragraph 1 No. 4 HGB, as performance and consideration regularly offset each other.

3. Notes and explanations regarding the balance sheet

Cash and Central Bank balances

ECC's cash reserve amounted to K€ 35,002,197 as of the balance sheet date (previous year: K€ 42,779,251) and consists exclusively of balances at the Deutsche Bundesbank, of which K€ 764,830 (previous year: K€ 342,447) is held in the bank's own name and for the account of third parties. Compared to the previous year's reporting date, the decrease is mainly due to lower cash collateral deposited by trading participants as of 31st of December 2022.

Accounts receivable from credit institutions

The balance sheet item of accounts receivable from credit institutions breaks down as follows:

Accounts receivable from credit institutions	**31.12.2022**	**31.12.2021**
	K€	**K€**
Due on a daily basis		
Bank accounts in Euro	2,461	3,107
Bank accounts in foreign currencies	97,974	45,328
Other receivables	90	-
Other accounts receivable		
Receivables from clearing and other fees	5,860	18,911
Total	**106,385**	**67,346**

Receivables from customers

As of 31st of December 2022, receivables from customers amounted to K€ 37,869 (previous year: K€ 50,411) and were mainly related to receivables from nominated and not yet cleared transactions of K€ 17,156 (previous year: K€ 34,311) as well as receivables from non-banks from stock exchange clearing and settlement in the amount of K€ 16,894 (previous year: K€ 16,097).

Shares in affiliated companies

As of 31st of December 2022, ECC holds the following shares in affiliated companies:

Name	Registered office	Equity K€	Net income 2022 K€	Share in %
European Commodity Clearing Luxembourg S.à.r.l.	Luxembourg (Luxembourg)	270	55	100.00

Trust assets

As of 31st of December 2022, the trust assets of emission certificates amount to 60,852,443 shares with a market value of K€ 4,914,443 (previous year: K€ 4,553,157).

Intangible assets and Property, plant and equipment

The composition and development of intangible assets and property, plant and equipment is shown in the Fixed Assets Schedule as part of the Notes.

The normal useful life of intangible assets lies in between of 5 and 15 years, that of property, plant, and equipment between 3 and 13 years.

Other assets

The balance sheet item of other assets is structured as follows:

Other Assets	**31.12.2022 K€**	**31.12.2021 K€**
Receivables from affiliated companies	20,003	15,275
European Commodity Clearing Luxembourg S.à.r.l.	*16,805*	*10,299*
European Energy Exchange AG	*1,825*	*3,960*
EPEX Spot SE	*768*	*417*
Currency translation	*-1*	*5*
Accrued receivables	*607*	*594*
Receivables from public authorities	0	13,979
Receivables of unpaid security deposits	0[1)]	79,888
Remaining other assets	1,083	25,692
Total	**21,086**	**134,834**

1) As of 31st of December 2022, receivables and payables from cash collaterals are reported under Accounts receivable from credit institutions / customers or liabilities to credit institutions / customers.

Prepaid expenses

As of 31st of December 2022 prepaid expenses were reported for received invoices from deliveries and services amounting to € K1,582 (previous year: K€ 1,057).

Liabilities to credit institutions

The existing liabilities to credit institutions amounting to K€ 26,654,001 (previous year: K€ 35,797,499) are due on demand. They mainly comprise cash collateral deposited by credit institutions with ECC in the amount of K€ 26,601,705 (previous year: K€ 35,759,438). Compared to the previous year's reporting date, the decrease is mainly due to lower cash collateral deposited by trading participants as of December 31, 2022.

Liabilities to customers

Other liabilities to customers amounted to K€ 8,255,502 as of December 31, 2022 (previous year: K€ 6,870,054). They mainly comprise of cash collateral deposited by customers in the amount of K€ 8,175,360 (previous year: K€ 6,806,026).

Trust liabilities

The trust liabilities are obligations to surrender fiduciarily managed emission rights to the trustor. As of 31st of December 2022, trust liabilities amount to K€ 4,914,443 (previous year: K€ 4,553,157).

Other liabilities

The breakdown of other liabilities is as follows:

Other liabilities	**31.12.2022**	**31.12.2021**
	K€	**K€**
Liabilities of unpaid collateral	0[2)]	79,888
Liabilities to affiliated companies (including profit transfer not paid yet)	15,558	39,541
Liabilities to other trading participants for which ECC holds federal bank accounts	0	65,586
Miscellaneous other liabilities	17,894	9,844
Total	**33,451**	**194,859**

1) As of 31st of December 2022, receivables and payables from cash collaterals are reported under Accounts receivable from credit institutions / customers or liabilities to credit institutions / customers.

As of 31st of December 2022, there were no liabilities to trading participants held in the bank's own name and for the account of third parties.

Deferred income

As of 31st of December 2022, there was no deferred income recognized (previous year: K€ 3,828).

Provisions for pensions and similar commitments

The ECC has granted legally binding pension commitments in the past.

The asset value of the reinsurance policy was compounded by K€ 3 in the 2022 financial year and amounted to K€ 152 as of the reporting date (previous year: K€ 149); the cover assets are measured at fair value.

The settlement amount of the underlying pension obligation under commercial law amounted to K€ 175 as of 31st of December 2022 (previous year: K€ 175). This resulted in interest expenses of K€ 3 for the 2022 financial year. As in the previous year, no payments were made. Assuming the average market interest rate of the past seven financial years, this would result in a settlement amount of K€ 180.

The balance of the settlement amount and the asset value is recognized in the balance sheet as a provision of K€ 23 (previous year: K€ 26).

The difference, which is calculated as the difference between the recognition of provisions discounted at the average market interest rate of the past ten years, and the recognition of provisions discounted at the average market interest rate of the past seven years, amounts to K€ 5. In accordance with Art. 253 Paragraph 6 HGB, this is blocked from distribution.

Other Provisions

The other provisions break down as follows:

Other provisions	**31.12.2022** **K€**	**31.12.2021** **K€**
Outstanding invoices	11,872	16,201
Obligations to personnel	5,143	4,377
Supervisory Board remuneration	46	71
Audit fees	228	170
Other provisions	545	28
Total	**17,833**	**20,847**

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

Equity

On the balance sheet date, the share capital of ECC remains unchanged at € 1,015,227. It is divided into 1,015,227 registered share certificates.

As of 31st of December 2022, the capital reserves amount to K€ 171,366 (previous year: K€ 123,366). In December 2022, an allocation to the capital reserve of K€ 60,000 and a reclassification to the reserve in accordance with EMIR Article 45 of € 12,000 thousand took place.

Other retained earnings amount to K€ 45,619 (previous year: K€ 33,619). In this the reserve according to Article 45 EMIR in the amount of K€ 35,000 (previous year: K€ 23,000) is included.

Breakdown remaining maturity:

Balance position/ K€	Due on a daily basis	up to 3 months	> 3 months up to 1 year	> 1 year up to 5 years	> 5 years
Receivables from credit institutions	100,524	5,860	-	-	-
Receivables from customers	2,355	35,514	-	-	-
Other liabilities to customers	8,223,210	32,292	-	-	-

1) As of 31st of December 2022, liabilities from nominated but not invoiced transactions and liabilities to the Spanish gas network operator will be reported as other liabilities to customers with a residual maturity of three months. In the previous year, the remaining term of other liabilities to customers amounted to K€ 6,827,041 (due on demand) and K€ 43,012 (up to three months).

Items in foreign currency

Assets managed in foreign currencies amount to K€ 99,593 (previous year: K€ 60,058), liabilities to K€ 103,212 (previous year: K€ 57,501).

Contingent liabilities

On the basis of a hard letter of patronage, ECC guarantees liabilities of ECC Luxembourg amounting to K€ 3,668,539 as of the balance sheet date (previous year: K€ 2,764,512).

These liabilities relate to obligations from electricity and gas supplies existing as of the reporting date, they are covered by security deposits, The risks of non-fulfillment are subject to a low probability of occurrence on the basis of historical data.

4. Notes and explanations regarding the Profit and Loss Statement

The interest income as well as commission income and other operating income are generated exclusively in Germany, so that a breakdown by geographical markets in accordance with Art. 34 Paragraph 2 No. 1 RechKredV is waived.

Interest income and expenses

In 2022, interest income of K€ 342,515 (previous year: K€ 80,366) was generated. These consist of an administrative fee of K€ 183,587 (previous year: K€ 79,675) for cash collateral deposited with ECC in the amount of K€ 183,587 (previous year: K€ 79,675), interest income for this cash collateral (so-called "positive interest") of K€ 158,059 (previous year: K€ 0) and other interest income of K€ 869 (previous year K€ 692). The increase in interest income can be explained by the increased volume of collateral deposited by trading participants during the financial year and by the positive interest rates that ECC has received from the Bundesbank since 14th of September 2022 for the collateral deposited.

The interest expense of K€ 266,509 (previous year: K€ 64,673) is mainly due to negative interest incurred up to the 26th of July 2022 on the deposited cash collateral of trading participants in the total amount of K€ 117,460 (previous year: K€ 64,154) and passing on of interest income for deposited cash collateral (positive interest) to trading participants in the amount of K€ 148,184 (previous year: K€ 0).

Income from commission fees

Commission income of K€ 132,025 (previous year: K€ 111,301) includes fees for clearing services provided by ECC. Commission income breaks down as follows:

Income from commission fees	**2022**	**2021**
	K€	**K€**
Derivatives Market clearing fees	49,549	53,352
Spot Market clearing fees	75,021	55,172
Other	7,455	2,777
Total	**132,025**	**111,301**

<u>Expenses from commission fees</u>

Commission expenses of K€ 17,826 (previous year: K€ 10,060) mainly comprised volume-related costs for the spot market in the amount of K€ 14,152 (previous year: K€ 7,860) and for the derivatives market in the amount of K€ 1,878 (previous year: K€ 1,923) in connection with clearing services.

<u>Other operating income</u>

Other operating income of K€ 13,627 (previous year: K€ 9,887) is as follows:

Other operating income	**2022**	**2021**
	K€	**K€**
from		
Agency services	9,753	8,365
Foreign currency valuation	2,465	179
Release of provisions	847	1,051
EMIR Trade Reporting	141	195
Other Items	420	97
Total	**13,627**	**9,887**

General administrative expenses

General administrative expenses of K€ 64,114 (previous year: K€ 52,380) break down as follows:

General administrative expenses	2022	2021
	K€	K€
Personnel expenses	26,696	22,040
Wages and salaries	*22,745*	*17,836*
Social security contributions	*3,951*	*4,204*
Other administrative expenses	37,418	30,340
Agency expenses	*11,312*	*10,989*
Overhead, marketing and system effort	*19,494*	*13,355*
Consulting effort	*6,612*	*5,996*
Total	**64,114**	**52,380**

The increase is mainly due to a planned increase in personnel as well as increased performance-related remuneration components and an inflation compensation premium paid out.

Depreciation and impairments

Depreciation and impairments amounting to K€ 2,070 (previous year: K€ 2,152) mainly include scheduled depreciation on acquired software and stock exchange licenses.

Other operating expenses

Other operating expenses of K€ 5,572 (previous year: K€ 2,583) mainly comprise exchange rate losses of K€ 4,955 (previous year: K€ 1,309).

Profit transfer

Due to the profit and loss transfer agreement with EEX, the net income under German Commercial Code (Handelsgesetzbuch, “HGB”) for the financial year 2022 in the amount of K€ 132,076 (previous year: K€ 69,846) will be transferred completely.

5. Other Notes

Structure of collaterals

As of 31st of December 2022 market participants had gross payment obligations from offsetting open positions of transactions traded via the central counterparty with a total value of K€ 198,503 (previous year: K€ 317,206). From ECC's point of view, receivables and liabilities from these open positions are always offsetting each other. A risk-oriented net approach would lead to a significantly lower value.

In order to hedge the risk of the ECC in the event of the default of a clearing member, the clearing members undertake to provide daily or intraday collateral in cash or securities in the amount specified by the ECC in accordance with the clearing conditions. As of the balance sheet date, these are composed as follows:

Collateral	**31.12.2022**	**31.12.2021**
	K€	**K€**
Margins called	30,290,181	41,321,198
Actual margin deposited:	37,392,680	44,163,788
thereof:		
Cash	34,749,957	42,593,014
Securities and book-entry securities (after haircut)	2,642,724	1,570,774

As of 31st of December 2022, ECC's clearing fund was endowed with K€ 3,372,242 (previous year: K€ 2,122,033).

<u>Other financial obligations</u>

As of the balance sheet date, the following other financial obligations exist:

Financial obligations	Total K€	2023 K€	2024 to 2028 K€	2029 to 2032 K€
Agency services*	18,416	16,999	1,417	0
System effort/maintenance	2,365	2,081	284	0
Building (rent)*	164	33	131	0
Automobiles	138	65	73	0
Other	281	281	0	0
Total	**21,363**	**19,459**	**1,904**	**0**

* These financial liabilities were liabilities to affiliated companies.

<u>Amounts excluded from distribution</u>

According to Art. 268 Paragraph 8 HGB, there are no amounts excluded from distribution as of the reporting date. According to Art. 253 Paragraph 6 HGB there were amounts excluded from distribution at the reporting date of K€ 5 resulting from the difference in the determination of the settlement amount assuming an average market interest rate of the past 10 or 7 financial years.

<u>Staff development</u>

The average number of employees in the financial year was 264 (previous year: 225), the breakdown by groups is shown in the following table:

	Male	Female	Total
Managers	26	10	36
Experts	20	10	30
Non-managers	111	87	198
Total employees	157	107	264

Management Board

The board of directors include:

Peter Reitz, Leipzig	Chief Executive Officer
Dr. Götz Dittrich, Leipzig	Chief Operating Officer
Jens Rick, Oberreifenberg	Chief Information Officer
Dr. Clemens Völkert, Königstein im Taunus	Chief Risk Officer

In the financial year 2022, the total remuneration of the Management Board, consisting of basic remuneration and performance-related remuneration, amounting to K€ 2,708 in the 2022 financial year (previous year: K€ 2,370). In addition K€ 156 was attributed to pensions expenses (previous year: K€ 184). The performance-related remuneration was paid out in 2022. Pension expenses include payments to former members of the Board of Management in the amount of K€ 228.

Seats held on supervisory boards and other supervisory bodies

In addition to their function in the ECC, the persons listed below hold mandates in statutory supervisory bodies of large corporations in accordance with Art. 340a Paragraph 4 No. 1 HGB in conjunction with Art. 267 Paragraph 3 HGB:

Peter Reitz	Chairman European Energy Exchange AG
	Managing Director 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
Jens Rick	Member of the Management Board of European Energy Exchange AG
	Member of the Supervisory Board of KB Tech Limited

Transactions with related parties in accordance with Art. 285 Fig. 21 HGB

During the financial year under review, no transactions with related parties which were concluded subject to conditions that are not common on the market were concluded.

Fee for the auditor of the annual accounts according to Art. 285 Fig. 17 HGB

The company is included in the consolidated financial statements of EEX AG. The information on the auditor's fee is part of the notes to the consolidated financial statements of EEX AG in accordance with Art. 285 Fig. 17 HGB.

Supervisory board

The Supervisory Board includes:

Heike Eckert (Chairman)	Member of the Executive Board, Deutsche Börse AG, Eschborn
Jürg Spillmann (Vice-Chairman)	Member of the Board of Directors, Eurex Global Derivatives AG, Zug (Schweiz)
Hans E. Schweickardt (Vice-Chairman)	Deputy Chairman of the Supervisory Board, Polenergia SA, Warsaw (Poland)
Dr. Karin Labitzke	Retired (formerly: Head of Division 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/Main

On the balance sheet date, the ECC Supervisory Board had an audit committee comprising all Supervisory Board members and a human resources and compensation committee consisting of the following members: Heike Eckert, Hans E. Schweickardt, Jürg Spillmann.

Subsequent Events

No further events which have an impact on the annual financial statement have occurred after the reporting date.

European Commodity Clearing AG, Leipzig

Fixed Asset Schedule 2022

		Aquisition and production cost					Depreciation				Residual value	
		01.01.2022	**Inflows**	**Outflows**	**Transfer**	**31.12.2022**	**01.01.2022**	**Inflows**	**Outflows**	**31.12.2022**	**31.12.2022**	**31.12.2021**
		€	**€**	**€**	**€**	**€**	**€**	**€**	**€**	**€**	**€**	**€**
I.	**Intangible Assets**											
	1. Acquired concessions, industrial property rights and similar rights and values, as well as licenses to such rights and assets	27,634,175.02	15,648.74	0.00	0.00	27,649,823.76	15,933,202.16	2,059,596.31	0.00	17,992,798.47	9,657,025.29	11,700,972.86
	2. Goodwill	7,099,182.40	0.00	0.00	0.00	7,099,182.40	7,099,182.40	0.00	0.00	7,099,182.40	0.00	0.00
	3. Prepayments for intangible assets	485,443.81	10,833.75	485,443.81	0.00	10,833.75	0.00	0.00	0.00	0.00	10,833.75	485,443.81
II.	**Property, plant and equipment**											
	1. Other equipment, plant and office equipment	85,297.95	6,722.39	3,690.46	0.00	88,329.88	76,319.88	10,063.49	3,690.46	82,692.91	5,636.97	8,978.07
III.	**Financial Assets**											
	1. Shares in affiliated companies	18,500.00	0.00	0.00	0.00	18,500.00	0.00	0.00	0.00	0.00	18,500.00	18,500.00
		35,322,599.18	**33,204.88**	**489,134.27**	**0.00**	**34,866,669.79**	**23,108,704.44**	**2,069,659.80**	**3,690.46**	**25,174,673.78**	**9,691,996.01**	**12,213,894.74**

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 2022, and the statement of profit and loss for the financial year from 1 January to 31 December 2022 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 2022.

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 2022 and of its financial performance for the financial year from 1 January to 31 December 2022 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 3, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

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

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