

ABO Wind AG Annual Report 2023

Expected from May 2024







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Facts and figures

Financial Figures per Share

(in EUR)	2017	2018	2019	2020*	2021	2022	2023
EBITDA	4.94	4.24	3.58	3.77	3.31	6.18	6.44
Net profit	2.22	1.67	1.48	1.42	1.50	2.67	2.95
Dividend	0.40	0.42	0.42	0.45	0.49	0.54	0.60**
Book value (as of 31.12.)	10.4	11.6	12.8	15.2	16.2	18.4	20.91
Share price (as of 31.12.)	12	13.80	17.30	46.40	55.80	74.20	41.10
Price-earnings ratio	5.4	8.3	11.7	32.7	37.2	27.8	13.9

* Due to capital increases, the number of shares has increased by 1.15 million (around 14%) in 2020, which has had an impact on the key figures. ** Proposal of the administration to the general meeting

Key Statistics

Class of shares	no-par bearer shares
Capital stock	9,220,893 EUR
Shares outstanding	9,220,893
WKN / ISIN	576002 / DE0005760029
Stock exchange	Xetra, free trade Munich (m:access) and other German stock exchanges
Industry	Renewable Energy
Accounting regime	German Commercial Code (HGB)
Fiscal year-end	December 31st
Bloomberg-code	AB9:GR
Reuters-code	AB9.D





The shareholders within the free float include: Enkraft, GS&P, Capricorn, Value-Partnership, Aguja, KBC, Baring Asset, Murphy&Spitz, Spirit Asset Management and PFP Advisory

As of: March 2024

Realised wind, solar and battery projects

ABO Wind often sells wind farms, solar parks and battery storage systems after turnkey construction. In countries such as South Africa or Argentina, on the other hand, we sell project rights after development is completed. The investor then takes responsibility for construction, possibly with our support. In Europe too, depending on the market situation, a sale at this stage can sometimes be the best option. Projects sold at an early stage appear in the reference list under "Development" in the year of sale. If later ABO Wind is involved in the construction, the category is changed to "Development and Construction" and the date is replaced by the commissioning date.



Earnings Over Time

The company has always reported positive figures since it was founded in 1996. In the 2016 financial year, the net profit for the year exceeded the ten million euro threshold for the first time. In 2022, the threshold of 20 million euros was achieved for the first time. This level should also be reached in the coming financial years. This expectation is based on the fact that more and more renewable energy parks in the planning stage are reaching construction maturity and can therefore be exploited economically. An overview of the 23.1 gigawatt capacity portfolio of projects under development can be found on page 10 of this annual report.



396.3

299.7

308.1



Dear Shareholders,

The energy transition is gaining momentum worldwide Renewable energies have reached new dimensions last year. The International Energy Agency quantifies the capacity additions achieved in 2023 at 440 gigawatts. This record is expected to be surpassed in 2024. The expansion of photovoltaics and wind energy continues to accelerate.

Despite the acceleration, the transition away from fossil fuels is not happening fast enough. When it comes to reducing carbon dioxide emissions, the global community is not doing enough to protect the climate. A significant increase in the use of wind energy and photovoltaics is the key to achieving climate protection targets. In combination with batteries and green hydrogen, renewable energies have the potential to make a decisive contribution to preserving our livelihoods. These four technologies also form the foundation on which our business model as a developer and constructor of renewable energy projects is based.



The 50-megawatt Margariti solar park in Greece was connected to the grid in 2023.

Political leaders around the world are therefore called upon to further improve the conditions for renewable energies and support a faster expansion of capacities. As if the urgency confirmed almost daily by climate researchers were not enough. With the war of aggression against Ukraine, which began more than two years ago, Russia has provided another important reason to focus even more strongly on wind energy and photovoltaics. With this war, the aggressor is demonstrating all too clearly how dangerous it is for national economies to depend on the import of fossil fuels. Which, by the way, also speaks against the use of nuclear energy. After all, a significant proportion of the uranium required for nuclear power also comes from Russia and Kazakhstan.

New policies are improving conditions for renewable energies

Reduced requirements for species protection studies

In a geopolitical constellation shaped by climate crisis and war, renewable energies are increasingly proving to be part of the solution. Each wind turbine and each photovoltaic module connected to the grid contributes to climate protection and reduces the need for importing fossil fuels. This insight influences the actions of most politicians with a democratic mindset. In response to the energy crisis triggered by the war in Ukraine, the European Union (EU) has launched ground-breaking regulations. These speed up approval processes, particularly for wind farms. In previous years, procedures had become increasingly bureaucratic and lengthy, especially in Germany. Now this trend has been stopped and even reversed.

According to the regulation, European wind energy projects in "designated areas" no longer require a full species conservation assessment. Previously, to receive a permit, flight movements of red kites, for example, had to be recorded and mapped for a year, even in designated wind energy priority areas. The alleged conflict between wind energy and species protection often cited by opponents of wind energy has in fact proven to be an exaggerated fantasy. By contributing to the mitigation of climate change, wind energy in fact significantly contributes to species protection. It is therefore appropriate that the EU has now helped to limit the excessive number of required studies.

In some EU member states, we are already seeing wind farm permits being granted in greater numbers and within shorter time frames. There is room for further improvement and the demand for environmentally friendly and affordable electricity remains high. This has not only been recognised by politicians worldwide. It is true that Brussels, as the seat of the EU Commission, and the governments of the nation states shape the conditions. But the energy transition is being realised locally. For example, in the Hochsauerland district in North Rhine-Westphalia, Germany.

In 2015, ABO Wind began planning a wind farm there. At the urging of the municipality, the authorities rejected the permit application in 2018. We successfully appealed against the rejection. The municipality delayed the project with further appeals. Ultimately, the turbine model originally planned was no longer available. ABO Wind had to re-plan. And the municipality prepared to take legal action against the new planning as well. But then the local hospital intervened and made the local politicians realise how important electricity at calculable prices is. The city council refrained from taking further legal action, which would have delayed the project even further. As a result, we were able to start realising the wind farm last year and it will be connected to the grid this year. Nine years from the beginning of planning to commissioning is far too long. However, without the changes initiated by the war in Ukraine, the realisation of our wind farm would have taken even longer.

We now see this more and more: In addition to climate protection activists and committed local politicians, regional businesses are also increasingly in favour of wind and solar farms. Locally generated electricity strengthens the economic power and resilience of businesses. The opportunity to benefit directly from locally produced electricity through Power Purchase Agreements (PPA) creates acceptance for the expansion of renewable energies.

Acceptance has also been an important factor in our company in recent months. At an extraordinary General Meeting in October, the majority of our shareholders voted in favour of changing the form and name of ABO Wind AG to ABO Energy KGaA (partnership limited by shares). The 87 per cent approval rate is remarkable. After all, the proposal by the Managing Board and Supervisory Board had been strongly opposed in the media. Even if we were not able to convince all the critics: We are convinced that the path taken with the change of legal form will push the company forward. And all our shareholders will benefit from this in the medium and long term.

Wind and solar farms strengthen local economies

We do not want to repeat the controversial discussion in detail here. Just this much: with the legal form of a partnership limited by shares (KGaA), the future ABO Energy will retain the decision-making structures that have been tried and tested for three decades. This is relevant if we carry out one or two capital increases in the coming years. As shareholders of the general partner, the founders Matthias Bockholt and Dr Jochen Ahn will keep their formative influence, which has proven beneficial for the well-being of company so far. Business partners, employees and financing banks appreciate this structure. It gives us stability and, in our view, represents a competitive advantage that we do not want to give up in the future.

First, however, we must await the court's decision on the legal action. The judges will decide whether the resolutions of the General Meeting are valid. We are looking forward to the outcome with excitement and confidence. And what if – contrary to our expectations – the court concludes the resolutions of the Annual General Meeting to be invalid? That would be a shame, but it would not change our conviction that the new legal form offers the best prospects for the future. In the worst case, we would have to make another attempt.

The public perception of our share in the 2023 financial year was also characterised by the controversy surrounding the change in legal form. However, on the positive side, ABO Wind was also extremely successful in the past financial year. After breaking the €20 million mark in net profit for the first time in 2022, we even managed to do better in 2023.

At ABO Wind, records are not a one-day wonder. We are convinced that the record annual profit achieved in 2023 will soon be surpassed again. Parallel to the global development of the industry, we are on a long-term growth path as a project developer. This trend has been ongoing since the company was founded 28 years ago.

We are therefore confident that we will continue to make a growing contribution to climate protection and energy security in the coming financial years. In doing so, we are helping to fulfil the sustainability goals of the United Nations. At the same time, the number of projects in development has increased the basis for our future business success. The number of countries in which we contribute to the success of renewable energies and to the added value of our company has also increased – ranging from ready-to-build project development in South Africa to turnkey construction in Colombia, for example.

With this in mind, we have every reason to look forward to a continued successful future, in which we hope you will accompany us.

ABO Wind remains on track operationally despite controversy over form change

Best regards

Dr. Jochen Ahn

N.Sr.A

Dr. Karsten Schlageter

Jusan Muhur

Susanne von Mutius

A Oralli

Matthias Hollman

Alexander Reinicke

Development portfolio

Pipeline has grown significantly

ABO Wind has further expanded its project pipeline. In March 2024, around 900 solar, wind and battery projects with a total capacity of 23.1 gigawatts are under development or construction in 16 countries. This portfolio has grown by ten per cent within twelve months. More than 60 per cent of the pipeline consists of wind energy projects, a solid 30 per cent of solar projects and around five per cent of battery projects. An increasing number of hybrid (electricity production & storage) and combined projects (electricity production from wind & solar) also form part of the pipeline.

The pipeline is crucial for future business success. In countries such as Germany or France, ABO Wind usually sells the energy projects around commissioning. In other countries such as South Africa or Argentina, ABO Wind does not build the projects, but sells them at an earlier stage. Obtaining a permit, reserving grid access, and securing a tariff are among the milestones that increase the market value of the project rights and enable a sale.

When does a project begin?

Securing a site marks the transition from idea to project. We usually conclude lease agreements before the actual project development begins. As soon as the land has been secured, the planners begin to draw up the necessary documents. For example, wind measurements are initiated, and expert reports commissioned.

The time it takes from securing the site to commissioning depends on the technology and country. Wind energy projects are the most time-consuming. In Germany, it currently takes an average of six years from the signing of the land lease agreements to connecting a wind farm to the grid. It takes around two years to prepare the documents required for the permit application. The authorisation procedure takes around two years. A further two years are required for construction.



Projects Under Development in megawatts



In Niederkirchen, Rhineland-Palatinate, ABO Wind has connected the largest German solar project in the company's history to the grid.



More than Wind

PPAs are Gaining in Importance

In 2023, ABO Wind succeeded in concluding power purchase agreements (PPAs) with a large US technology company for a 50-megawatt solar farm in Spain and a 30-megawatt wind farm in Finland. Construction of the Valdezorita solar farm started in the province of Guadalajara in early 2024 and is due to be completed by mid-2025. The Illevaara wind farm in Finland was connected to the grid in February of 2024.

Green electricity for industrial electric furnace

ABO Wind has also concluded a 20-year power purchase agreement for a 22 MWp photovoltaic project in France with Groupe Pochet. The French company specialises in the production of packaging materials in the luxury sector and wants to use the green electricity to supply an innovative electric oven to produce perfume flacons and thus further decarbonise its industrial processes.

Alternative to state-guaranteed tariffs and the electricity market

In many countries such as Finland and Spain, PPAs over long terms of ten to twenty years are now standard to secure an economic basis for wind and solar projects. State-guaranteed tenders for remuneration no longer play an important role in these countries. Compared to marketing the generated electricity on the volatile electricity market, PPAs are easier to calculate, thus facilitating bank financing. PPAs are also becoming increasingly important in Germany, especially for hybrid and large-scale solar projects. ABO Wind is well equipped for this development: The in-house Energy Sales & Markets Department was established in 2021 and has so far concluded power purchase agreements for 14 projects in five countries with a total capacity of 275 megawatts – with an upward trend.



Construction of overhead pylons for transporting \neg electricity from the Spanish wind farm Cuevas de Velasco.



New laws by the dozen

The lawmakers of the German federal ministries have obviously worked hard in 2023, amending existing laws and drafting new ones by the dozen. These include laws regulating wind area requirements, onshore wind, energy security, as well as the German Federal Nature Conservation Act, the Construction Code, and the Renewable Energy Sources Act. These are just some of the new or revised laws that have mitigated the consequences of the war in Ukraine on the energy supply. Furthermore, the laws help to revitalise the energy transition, which had been slowed down by previous governments.

In any case, this is only the beginning. It still takes quite a long time to develop and commission a wind farm in Germany. On average, it takes six years from the initial planning phase until commissioning. But the first signs of simplification and acceleration can be noticed. The German Federal Network Agency reports that around eight gigawatts of onshore wind energy capacity were approved in 2023. This is an increase of 80 per cent compared to the previous year. ABO Wind has obtained permits for 164 megawatts of wind energy capacity in Germany in 2023. For the current year, we expect approvals totalling 250 megawatts.

Experts for high voltage

The German energy transition has gained momentum in recent months. This is extremely positive for the climate but brings new challenges in the development of renewable energy projects. In many places, the medium-voltage grids are heavily loaded or only designed for low outputs, while wind and solar projects are becoming increasingly powerful. As a result, substations must be built for many projects to transmit the green electricity directly into the high-voltage grid. This leads to a strong demand for substations and means that general contractors entrusted with the realisation are demanding horrendous prices and causing long implementation periods in the overheated market.

ABO Wind is therefore now increasingly using its own expertise and is realising a substation for the Herrscheid wind farm completely independently for the first time. This is possible because ABO Wind – unlike many of its competitors – not only has experienced project managers, but its in-house construction, electrical, financing, draughtsmen, and controlling departments have been successfully collaborating for many years. The independent realisation of the substations saves costs, significantly speeds up the implementation, and underlines ABO Wind's flexibility.







Wind-hydrogen project enters the next phase

2023 was a year of progress for the company's first hydrogen project: ABO Wind is developing a hybrid project consisting of a wind turbine, hydrogen production and a hydrogen refuelling station in Hünfeld near Fulda (Hesse, Germany). The project is being funded by the Federal Ministry of Digital Affairs and Transport as part of the National Hydrogen and Fuel Cell Technology Innovation Programme with a total of around 12 million euros. The funding directive is coordinated by NOW GmbH and implemented by Project Management Jülich (PtJ).

After the approval for the construction of the wind turbine was granted in June, the project reached the next milestone in autumn: all contracts for the delivery of the necessary components were signed in September. These include two electrolysis systems from the manufacturer FEST and a hydrogen refuelling station with filling system from Air Liquide Advanced Technologies (ALAT). The close cooperation with the town of Hünfeld is also contributing to the successful development of the project. The start of construction is planned for May 2024 and the plant is scheduled to be commissioned in the first quarter of 2025.

Five-gigawatt wind and hydrogen project in Newfoundland

Not only the German hydrogen project development was successful in 2023: International projects have also reached important milestones. The integrated wind and hydrogen project "Toqlukuti'k" in the Canadian province of Newfoundland and Labrador has attracted a lot of attention.

It comprises wind farms with a capacity of up to five gigawatts that are to be built in three phases. They will harness the very favourable local wind speeds to produce green hydrogen. The project is located in the immediate vicinity of the Come by Chance biofuel refinery, which is to be supplied with up to 35,000 tonnes of green hydrogen per year in the first phase. In a second and third phase, up to two million tonnes of green ammonia per year are to be produced and exported to the global market.

In August 2023, ABO Wind secured the exclusive rights to develop the project on state-owned Crown Land. ABO Wind is collaborating with the Miawpukek First Nation and Braya Renewable Fuels in the project development. This co-operation also gives the project its name: "Toqlukuti'k" has its origin in the traditional Mi'kmaq language and means "working together".

In repowering the Berglicht wind farm, ABO Wind is replacing nine older wind $\sqrt[-]{}$ turbines with three modern wind turbines, each with a rated output of six







More than one Country

Successes in established markets

Good progress was made in our established markets in 2023. In Spain, we sold a portfolio of five projects with a total capacity of 250 megawatts in the province of Palencia to Repsol Renovables. ABO Wind will continue to develop the projects until they are ready for construction.

In Germany, we began repowering two wind farms in Rosengarten and Berglicht in 2023. The new wind farms will each generate more than twice as much electricity as the old ones – with half respectively a third of the number of turbines. ABO Wind has also been busy with solar parks and batteries in Germany: ABO Wind built five solar parks, three of them with corresponding storage systems, as well as three additional stand-alone batteries last year.

In Finland, our pipeline of around 5.5 gigawatts has turned us into one of the country's leading project developers according to the Finnish Wind Energy Association. We have also built our largest turnkey wind farm to date in Pajuperänkangas with 86.8 megawatts.

In France, we commssioned the three wind farms Monterfil, Les Champarts and Croix de la Pile. In Ireland, we constructed the third phase of our multi-stage Clogheravaddy wind farm as well as Sheskin wind farm.

More countries contribute to positive result

The basis for ABO Wind's sustainable business success is increasingly broadening. There are positive developments happening in Colombia, Hungary, and South Africa, for example. The first two solar parks in Colombia constructed by ABO Wind on a turnkey basis will be commissioned in 2024 and have a combined capacity of 20 megawatts. In Hungary, the construction of five solar parks with a combined capacity of 90 megawatts is planned for this year. ABO Wind had already built two smaller solar projects there in 2019 and 2020 with a capacity of six megawatts each.

In South Africa, on the other hand, we concentrate purely on project development and do not build ourselves. Here, too, the business model customised to the market is increasingly bearing fruit. The country is blessed with land ideally suited for photovoltaics and wind energy. Electricity, on the other hand, is in short supply. For reasons of climate protection, the government aims to reduce the proportion of coal in electricity production. In this environment, ABO Wind has succeeded in building up a large development pipeline with a capacity of five gigawatts in just a few years. There is now an increasing number of opportunities for partners to participate in state tenders with these projects. This opens up options to sell project rights.



In 2023, ABO Wind built projects on the American continent for the first time. $\frac{-1}{2}$ The photo shows the Jeques solar park (9.9 MWp) in Colombia.



References

Wind

Development and Construction

Dünfus	Germany, Rhineland-Palatinate, 5,6 MW
Hohe Heide (Gande)	Germany, Lower Saxony, 17,6 MW
Wintersteinchen	Germany, Saarland, 14,4 MW
Monterfil	France, Bretagne, 11 MW
Les Champarts	France, Centre-Val-de-Loire, 15,2 MW
Croix de la Pile	France, Nouvelle-Aquitaine, 10,5 MW
Clogheravaddy III	Ireland, Donegal, 3,6 MW
Sheskin	Ireland, Mayo, 18 MW

Development

Portfolio Palencia I	Spain, Castile and León, 150 MW
Hartwood	Scotland, Central Lowlands, 24,6 MW

Solar

Development and Construction

Weichenried	Germany, Bavaria, 5,6 MW
Zerf	Germany, Rhineland-Palatinate, 5,1 MW
Niederkirchen	Germany, Rhineland-Palatinate 13,4 MW
Gumpen	Germany, Hesse, 3,8 MW
Leutershausen	Germany, Bavaria, 8,7 MW
Margariti	Greece, Epirus, 50 MW

Development

Lagos	Greece, Eastern Macedonia and Thrace, 11 MW
Portfolio Südafrika	South Africa, Northwest, 100 MW
Portfolio Palencia II	Spain, Castile and León, 100 MW

Storage

Development and Construction

Germany, Bavaria, 2 MW	
Germany, Hesse, 1,5 MW	
Germany, Bavaria, 2,9 MW	
Germany, Hesse, 12 MW	
Germany, Hesse, 16 MW	
Germany, Bavaria, 16 MW	
	Germany, Bavaria, 2 MW Germany, Hesse, 1,5 MW Germany, Bavaria, 2,9 MW Germany, Hesse, 12 MW Germany, Hesse, 16 MW Germany, Bavaria, 16 MW

The Bavarian PV battery hybrid project in Leutershausen was officially inaugurated in May. $\overrightarrow{\gamma}$





ABO Wind becomes ABO Energy

On the occasion of the planned change in legal form from AG to KGaA, ABO Wind has decided on a further change that has already been considered within the company in recent years. We have now outgrown the name ABO Wind and the new name ABO Energy fits much better with our current company.

New name, same values

Our name changes, but our values remain the same. Like ABO Wind, ABO Energy is characterised by prudent business practices, careful planning, and ethical and ecological responsibility. We strive to do business fairly and favourably for all parties involved and to make the greatest possible contribution to global climate protection.

The long-term development of ABO Wind and our contribution to the energy transition are the focus of the founders Dr Jochen Ahn and Matthias Bockholt. Thanks to the transformation of ABO Wind AG into ABO Energy KGaA, the founders retain significant influence as general partners. The company thus remains independent of short-term capital market considerations and can continue to develop optimally in the interests of all long-term orientated shareholders and other stakeholders.

More than wind

We started with wind, then we added solar and battery. Now we are also working on hydrogen projects. The name ABO Energy therefore describes the breadth of the business model. For business partners and employees, the diversity of expertise is an advantage that we want to emphasise.

More green energy

The new name also reflects our vision of a future in which the term "energy" will only be associated with renewables and no longer with fossil fuels. Our pipeline with 23 gigawatts of wind, solar and storage and an additional 20 gigawatts for green hydrogen will secure our place in this future

More than one country

For the first five years, ABO Wind was active only in Germany. We now have offices in 16 countries around the world. We need a name that works globally. In French and Spanish, for example, the root word 'wind' (éolien, eólica) is different, whereas the root word 'energy' is similar in most languages.

The new logo

The new company logo contains a figurative mark which, reduced to the essentials, represents the essence of ABO Energy. The lettering ABO Energy reflects the strength of the company. The colour green associates the name with renewable energies.





Preliminary note

This group management report contains forward-looking statements. Please note that the actual results may differ from the anticipated development.

1. 2023 Overview

The ABO Wind Group ("ABO Wind") closed the 2023 financial year with a net profit of EUR 27.2 million after tax (previous year: EUR 24.6 million). Gross performance (sales revenue plus change in inventories and work performed by the entity and capitalised) amounted to EUR 396.3 million (previous year: EUR 308.1 million).

The consolidated figures include for the first time the business activities of the Colombian subsidiary. As of 1 January 2023, ABO Wind Service GmbH was merged with ABO Wind Technik GmbH and renamed to ABO Energy Services GmbH. A total of 17 companies are now consolidated within the group.

In the 2023 financial year, ABO Wind again generated more than half of the Group's sales outside Germany. Essentially, ten countries contributed to the economic success: Canada, Colombia, Finland, France, Germany, Greece, Hungary, Poland, South Africa, and Spain. The internationalisation strategy that has been successfully implemented over the past years is therefore again clearly reflected in the business figures.

Broken down by technology, in 2023, ABO Wind generated 68 per cent of the sales in the project management business with wind projects and 26 per cent with solar projects. Hybrid projects generated 6 per cent. More and more storage and hybrid projects are being developed.

The net profit for 2023 exceeds the previous year's forecast of achieving a consolidated net profit of EUR 22-26 million by EUR 1 million. The increase is attributable to several project successes achieved at year-end at home and abroad.

2. Basic facts about the company

ABO Wind plans and builds wind farms, solar farms and storage systems in Germany, France, Spain, Ireland, Argentina, Finland, Greece, Hungary, Poland, Tunisia, the Netherlands, Canada, Columbia, South Africa, Tanzania, and the UK.

ABO Wind initiates projects, acquires sites, carries out all technical and commercial planning, arranges international bank funding, and installs the farms and system so that they are ready to use for its own account and in cooperation with energy suppliers. ABO Wind has so far connected wind energy, solar energy and storage facilities with a nominal output of around 2,400 megawatt to the grid. In addition to the turnkey plants and systems built, project rights for wind farms and solar parks with a capacity of around 2,900 megawatts were sold. ABO Wind is also developing repowering and storage concepts in order to exploit proven sites more effectively.

ABO Wind is at an early stage of working on the development of large-scale projects in the gigawatt range that combine production of electricity from renewable sources with electrolysis. The company plans to convert the obtained hydrogen into derivatives such as ammonia and export it by ship. The hydrogen projects are located in Canada, South Africa, Argentina, Tunisia, and Spain. The wind levels, the solar radiation and the availability of land in these countries favour the generation of green electricity.

After commissioning, ABO Wind's Technical and Commercial Operational Management is responsible for the operational phase of the wind energy, biogas and solar energy plants. It has so far optimised the energy yield from facilities in Germany, Finland, France, Greece, Poland, Hungary, and the UK by using modern monitoring systems and forward-looking services.

ABO Wind service engineers provide maintenance, repairs, inspections, a fault clearance service, and replacement parts throughout the entire operating phase.

ABO Wind also works on products to optimise renewable energy systems. The ABO Lock access control system and ABO Bat Link – a data interface for bat monitoring – are currently being marketed.

3. Economic report

3.1.1. Europe

3.1. Global developments in renewable energies

According to the International Energy Agency (IEA), 2023 has set a new record for the addition of renewable energy capacity. Analysts expect a further increase in 2024. Ongoing political support and high competitiveness are factors that drive the accelerated capacity addition, especially for photovoltaics and wind power. Analysts estimate that 440 gigawatts were added in 2023. Photovoltaics accounted for the largest share of this at 65 per cent. Onshore wind power also reached a new peak in 2023. While the IEA expects even stronger growth for photovoltaics in 2024, the expected growth for wind power is not quite as high.

According to the Global Wind Energy Council (GWEC), a tripling of globally installed wind power capacity by the end of the decade would be necessary to achieve the 1.5°C target. This contribution of the wind industry to climate protection is currently at risk because of inadequate supply chains, warns the GWEC in a report published in December 2023 . Due to bottlenecks in the global supply chains only three quarters of the wind turbines required for a 1.5°C pathway may be installed by 2030. The GWEC estimates the looming gap in wind power capacity at 650 gigawatts. The supply chains in the wind sector for minerals, components, and infrastructure facilities, such as harbours and platforms, are currently inadequate. Solutions are available, but require greater cooperation between governments and industry as well as between supply chain participants.

Global order intake for wind turbines rose to a record 69.5 gigawatts in the first half of 2023, according to a report by Wood Mackenzie, an investment consultancy firm. This represents an increase of 12 per cent compared to the first half of 2022 and sets a new record for wind turbine orders. Orders for 25 gigawatts came from outside China, an increase of 47 per cent compared to the same period last year. Onshore wind turbines continued to account for the majority of sales. Chinese dominance is also reflected in the fact that two Chinese manufacturers claimed the top two places for the highest order capacities: Envision (9.7 gigawatt) and Windey (8.7 gigawatt).

In its current forecast, the Global Wind Energy Council (GWEC) anticipates global onshore capacity addition of around 105 gigawatts for 2024. Global onshore capacity addition of 465 gigawatts is forecast for the period from 2024 to 2027. According to the GWEC, China (241 gigawatts), Europe (87 gigawatts), and the USA (50 gigawatts) will be the largest growth markets for onshore wind energy during this period. According to the IEA, Russia's invasion of Ukraine has accelerated the expansion of renewable energies in the European Union. The key driver for this has been the need to become less dependent on Russian natural gas imports. Accordingly, in the study published in July 2023, the IEA revised its forecast for the expansion of renewable energies for 2023 and 2024 upwards by 38 per cent compared to expectations before the Ukraine war.

According to the IEA, permitting challenges and auction undersubscription, as well as long development timelines stand in the way of an even faster expansion of wind power and photovoltaics in Europe. The European countries and the European Commission are working on simplifying the permitting procedures. However, these improvements will only be reflected in higher deployment figures in the medium term. Developers face multiple challenges such as rising equipment costs and supply chain constraints. Some governments have taken steps to modify auction designs and better reflect the changing pricing environment: for instance, Germany has raised its auction ceiling prices and Portugal has adjusted contract prices for inflation. The growth of the Spanish market for private power purchase agreements (PPAs) is also increasing the expansion potential for renewable energy parks. However, the addition of capacity of onshore wind farms is negatively affected by bottlenecks in the supply chains.

Many European countries make efforts to speed up the development and permitting of renewable energy parks. According to the IEA, more regulatory changes have been implemented in the last 18 months (calculated from the publication of the report in July 2023) to facilitate and accelerate permitting procedures than over the entire previous decade.

The time required to obtain permits varies within the European Union. For solar parks, the IEA reports periods ranging from one to five years in the member states. For onshore wind farms, the periods range between three and nine years. Protracted procedures increase the risks and costs of projects and thus weaken their bankability.

In its latest status report on the renewable energy sector, the IEA looks at the phenomenon of an increased level of undersubscription in public auctions in several EU member states. According to the analysis, the reason for this are the higher investment costs of wind and photovoltaics. In addition, some developers were able to conclude more private power purchase agreements (PPAs) on more attractive terms and conditions. Overall, price volatility on the commodity markets, rising interest rates, and inflation have all added to uncertainty over project economics. The contract prices offered in most European competitive auctions are not automatically adjusted to rising costs, for example, through indexation to address inflation. This explains the developers' reluctance in times like these.

In its political review of 2023, the trade magazine "Windpower Monthly" expresses recognition of the European Commission's plans to support the wind industry as part of the Net Zero Industry Act (NZIA). The final version of the NZIA adopted in November aims to limit the dominance of individual countries in the supply chains for renewable energies and obliges the members of the European Union to include inflation adjustment mechanisms in tenders in order to protect themselves against cost increases. In 2023, several countries removed obstacles that stood in the way of even better utilisation of onshore wind power.

On 19 December 2023, the energy ministers of most EU member states signed a European Wind Charter to strengthen the competitiveness of the European wind power value chain. "The actions on permitting, finance and auctions will help boost the expansion of wind energy and strengthen Europe's wind industry. This is good for jobs and growth and for Europe's energy security. And it shows Europe as a whole understands the urgent need to strengthen its wind industry", Giles Dickson, CEO of the WindEurope association, commented on the agreement.

By signing the European Wind Charter, the countries have undertaken to digitalise and accelerate permitting procedures. The states are committed to investing in the European value chain and the infrastructure required for the expansion of wind energy. The focus is on harbours, roads and power grids.

The Solar Power Europe association sees 2023 as another record year for the solar industry. The newly installed solar capacity of 55.9 gigawatts in the 27 EU member states exceeded the previous year's expansion by 40 per cent. Growth rates of this magnitude had also been achieved in the two previous years. In 2023, 20 of the 27 member states recorded their best solar year to date in terms of the expansion volume. The total installed solar capacity in the European Union currently amounts to 263 gigawatts.

For the next four years, the European solar association expects further annual growth in installed solar capacity. However, growth rates will not be as high as in the recent past. The association points out that the prices for solar systems fell sharply in 2023. On the one hand, this is advantageous for the implementation of projects. On the other, however, the current conditions have made it more difficult for manufacturers in Europe.

17 gigawatts of wind power capacity were installed in the European Union in 2023. 14 gigawatts onshore and 3 gigawatts offshore. This represents a slight increase on the previous year and a new record expansion. However, according to the WindEurope association, the expansion is not sufficient to achieve the Community's targets. For this, an annual expansion of 30 gigawatts would be required. Germany has built the most new wind capacity, followed by the Netherlands and Sweden. The Netherlands has built the most new offshore wind turbines, including the 1.5 gigawatt "Hollandse Kust Zuid" wind farm, currently the largest wind farm in the world.

The share of renewable energies in electricity generation in the European Union totalled 44 per cent in 2023. Wind energy accounted for 19 per cent, hydropower for 13 per cent, solar energy for 8 per cent, and biomass for 3 per cent.

In 2023, the European Commission included green hydrogen projects in the list of "projects of common interest" for the first time . These "projects of common interest" (PCI) benefit from faster permitting procedures and have access to state aid. The list contains a total of 166 projects. Over a third of them relate to the production, distribution and storage of hydrogen.

The PCIs include a number of hydrogen pipelines between member states, including undersea pipelines across the Baltic Sea. Hydrogen pipelines are proposed between Italy, Austria and Germany, between Portugal, Spain, France, and Germany, between Germany and France, and from Ukraine to Slovakia, the Czech Republic, Austria, and Germany. Several electrolyser projects are also included: five in Spain, five in France, three in the Netherlands and two each in Denmark and Germany. The list also includes six hydrogen storage sites – three in Germany, one in France and two in Spain – and ammonia reception facilities in France, Germany, Belgium and the Netherlands.

Announcing the list, Kadri Simson, commissioner for energy, said the hydrogen and electrolyser projects "will enable the export and transit flows of renewable hydrogen to neighbouring member states and allow major industries to decarbonise and stay in the EU."

3.1.1.1. Germany

According to data from the market master data register (as of 5/01/2024), around 3,800 megawatts of wind power and 14,200 megawatts of solar power were commissioned in 2023. At 55 per cent, the share of electricity from renewable sources in the grid load in Germany in 2023 was higher than ever before. In 2022, it was 48.4 per cent. The high share of renewable energies was also due to lower consumption, particularly in industry, which reduced the grid load by 5.3 per cent. The Federal Minister for Economic Affairs Robert Habeck (the Greens) said that the figures were an important milestone in the German energy transition: "For the first time, more than half of our electricity is visibly coming from renewable energies." He referred to the efforts of the 'traffic light' coalition to accelerate grid expansion and the addition of PV and wind power plants. "The current success is a good incentive to continue our efforts," said Habeck.

Unlike gross electricity consumption, grid load does not include power plant own consumption and industrial grids. It is calculated as net electricity generation minus export transmission capacity, plus import transmission capacity and minus the pumping work of pumped-storage power plants. By contrast, the targets for the expansion of renewable energies (RE) defined by the German government are calculated based on gross electricity consumption. Renewable energies accounted for 52 per cent of this figure in 2023.

This was mostly attributable to wind turbines, especially onshore. The joint share of onshore and offshore installations was 31.1 per cent. Photovoltaics covered 12.1 per cent and biomass 8.4 per cent. Hydropower and other renewables represented the remaining 3.4 per cent. The overall electricity generation from renewable energies amounted to 251.2 billion kilowatt hours, around 7.5 per cent above the previous year's figure. Onshore wind generation was around 18 per cent higher, while offshore wind generation was 4.9 per cent lower than in the previous year. The feed-in from photovoltaics remained at the previous year's level, with the less sunny weather after the record year of 2022 having been compensated for by the strong capacity addition. This stood in contrast with a fall in generation from conventional energy sources, which totalled 197.2 billion kilowatt hours. That was 24 per cent less than in 2022.

The average day-ahead wholesale electricity price was EUR 95.2/ megawatt hour in 2023 and EUR 235.5/megawatt hour in 2022. It was therefore lower than half the previous year's price and fell again to the 2021 level. The German day-ahead wholesale electricity price was negative in 301 of the 8,760 hours traded. In 2022, this was the case for only 69 hours.

31 per cent of the newly installed solar power capacity in 2023 (around 4.3 gigawatts) was realised in ground-mounted solar parks (40 per cent more than in 2022). The German Solar Industry Association (Bundesverband Solarwirtschaft e.V.) expects further growth in this market segment in 2024. This applies particularly if further market barriers hindering access to suitable sites are removed and access to the electricity grid is facilitated, as envisaged by the Federal Cabinet in the legislative bill on Solar Package I.

Germany was once again the largest European solar market in 2023 in terms of newly installed capacity. With 82 gigawatts, Germany is also Europe's leader in terms of total installed solar capacity. The installed solar power per capita in Germany is 985 watts. Here, the Netherlands is the European leader.

In 2023, 745 wind turbines with an installed capacity of 3 ,567 megawatts (MW) were erected. This follows from an analysis carried out by Deutsche WindGuard on behalf of BWE and VDMA Power Systems. Gross capacity addition was 48.3 per cent higher than in the previous year (2,405 megawatts). The total number of wind turbines increases to 28,677 with a total capacity of around 61,000 megawatts.

Despite significant increases, the expansion of wind power fell short of the federal government's targets. As a result, only around half of the auction volume of 12.8 gigawatts was actually awarded. The industry is calling for the reduction of the growing wind capacity gap through faster permitting procedures, more available land and the removal of implementation barriers.

Sluggish permitting procedures and increasing auction volumes meant that auctions for contracts for onshore wind power have been structurally undersubscribed in recent years. According to an analysis by the IEA, only two-thirds of the auctioned capacities were awarded for the feed-in premium. In response, Germany raised the maximum price in 2022 (with effect from 2023) for the first time since 2020.

In order to make more land available for wind power use, the most populous federal state of North Rhine-Westphalia has abolished the previous minimum distance of 1,000 metres between wind turbines and residential areas.

3.1.1.2. France

The draft of the French multi-year energy programme for the periods 2024 to 2028 and 2029 to 2035 updates the policy for the

development of onshore and offshore wind energy. Onshore wind power capacity of 40 to 45 gigawatts is forecast for 2035, which is double the currently installed capacity of around 21 gigawatts. In his election programme published in 2022, President Emanuel Macron set a target of just 37 gigawatts for the expansion of onshore wind power by 2050.

France's demand for energy, especially electricity, will rise sharply in the coming years. In view of the upcoming electrification of industry and mobility, the grid operator Réseau de Transport d'Electricité (RTE) is forecasting an annual electricity demand of 580 to 640 terawatt hours for 2035, a 25 to 40 per cent increase compared to 2022. Nuclear power will continue to make a significant contribution in this process. However, in view of the ageing nuclear parks, the large power plants will be able to supply a maximum of 400 terawatt hours. RTE is therefore, first of all, calling for efforts in the areas of energy saving and energy efficiency. Moreover, further nuclear capacity is to be built up and renewable energies should be expanded more quickly. RTE recommends increasing in particular the output of wind and solar power to at least 270 terawatt hours by 2035.

The French government bets on the expansion of nuclear parks as well. After lengthy construction delays, the country's first EPR2 reactor in Flamanville is now scheduled to be connected to the grid in mid-2024. President Macron has announced another six new EPR2 nuclear reactors. The total investment is estimated at EUR 52 billion. However, the new power plants are not expected to be commissioned until 2035 at the earliest.

France is lagging behind both its own plans and European targets when it comes to expanding wind and solar energy. A law on renewable energies of 2023 is intended to facilitate the approval of wind and solar power projects. However, it remains to be seen whether this law will actually simplify the implementation of relevant large-scale projects.

The European Commission criticises France's insufficient planning of the expansion of renewable energies . The energy and climate plan presented by Paris envisages a 46.4 per cent reduction in CO2 emissions by 2030 compared to 2005 levels, which, as the Commission found, falls short of the 47.5 per cent target set in the EU Effort Sharing Regulation. The French plan also only "partially refers to the revised energy and climate targets recently agreed as part of the Fit for 55 legislative package and the REPowerEU plan," the Commission added. When submitting the updated plan by 30 June 2024 at the latest, France would have to demonstrate "how the existing and planned policies will deliver on the target," the Commission continued.

In its report, the Commission pays particular attention to France's approach to renewable energies. "The draft of the updated plan does not put forward a contribution towards the EU 2030 renewable energy target," the Commission notes. According to Brussels' calculations, France would have to achieve a share of at least 44 per cent of renewable energies in its gross final energy consumption in 2030 in order to sufficiently contribute to the European Union's target. Paris sees it differently. In its draft plan, the French government has opted to present a target for "decarbonised" energy for 2030 that combines nuclear power and renewable energies. According to the European industry association WindEurope, France had a total capacity of 22 gigawatts in onshore wind turbines connected to the grid at the end of 2023. The aim is to achieve an increase to 35 gigawatts by 2030. While an average of 1.4 gigawatts of wind power capacity was installed in each of the past five years, WindEurope expects an average of 1.8 gigawatts to be connected to the grid in each of the next five years. In 2029 and 2030 each, a further two gigawatts would then have to be commissioned. WindEurope estimates the probability that this expansion path will actually be achieved at just over 50 per cent ("Quite Likely").

3.1.1.3. United Kingdom

The Scottish Government has promised to halve the permitting timelines for onshore wind farms to twelve months. The resources required to process applications are to be increased and the procedures for processing environmental impact assessments are to be simplified through the use of standardised formats and guidelines. According to the agreement between industry and government signed at a conference in Edinburgh on 21 September 2023, this new deadline would double to 24 months if the wind farm requires public inquiry.

The new deadlines apply to permission decisions which the Scottish Government's energy department issues for wind farms with a capacity of over 50 megawatts. Measures were also adopted to strengthen the involvement of municipalities and to promote the recycling of wind turbine components. The agreement's intention is to help achieve the Scottish expansion

target for onshore wind power utilisation. Currently, around 9.4 gigawatts of wind power are connected to the grid. By 2030, the installed capacity is expected to increase to 20 gigawatts.

Scotland has more onshore wind turbines in operation, under construction, with permissions issued or with pending permission procedures, than any other country in the UK. According to the industry association RenewableUK, the Scottish agreement could serve as a blueprint for the entire United Kingdom to accelerate the expansion of wind power.

Meanwhile, it is becoming apparent that the nuclear power that will flow from the British Hinkley Point C nuclear power plant currently under construction will be significantly more expensive than planned. The government had agreed with the French manufacturer and builder, EDF, a guaranteed minimum strike price of GBP 89.50 per megawatt hour (10.3 euro cents per kilowatt hour). The remuneration increases with the inflation rate. The current strike price is 14.8 euro cents per kilowatt hour. This is a cost jump of over 43 per cent, but an end to the dynamic cost spiral is not in sight. The first nuclear power plant unit (C 1) is scheduled to start up in June 2027, followed by unit C2 in June 2028. Assuming an inflation rate of 3 per cent and no further construction delays, the price of nuclear power would have risen to the equivalent of 16.7 euro cents per kilowatt hour by 2027.

With the upcoming 2024 election, the opposition Labour Party is promising to increase the UK's wind power targets and enable faster grid connections.

15 gigawatts of onshore wind power capacity were installed in the UK at the end of 2023, according to figures from the European industry association WindEurope. The aim is to double this to 30 gigawatts by 2030. While an average of only 0.4 gigawatts of wind power capacity were added in each of the past five years, WindEurope expects an average of 1.4 gigawatts to be connected to the grid in each of the next five years. In 2029 and 2030 each, a further 4.3 gigawatts would then have to be commissioned. WindEurope estimates the probability that this expansion path will actually be achieved at just over 50 per cent.

3.1.1.4. Spain

The third Spanish auction for renewable energy projects with a volume of 3.3 gigawatts was undersubscribed in 2022 due to several factors. Rising costs, low ceiling prices and long-term contracts without inflation indexing were mentioned as the main reasons why only 5 per cent of the offered capacity was awarded. Developers may also have found that private Power Purchase Agreements (PPAs) offer more suitable business and contractual terms for companies and merchant projects.

With 8.2 gigawatts, Spain achieved the second-largest solar capacity addition in Europe in 2023. Spain also ranks second in Europe boasting a total installed solar capacity of 36 gigawatts.

The latest draft of the National Energy and Climate Plan outlines ambitious targets for photovoltaics and aims to achieve an installed capacity of 76 gigawatts by 2030 . The draft also sets targets for energy storage and hydrogen production of 22 and 11 gigawatts respectively. Economies of scale, favourable terrain and abundant solar irradiation contribute to the competitiveness of the Spanish solar sector. The irradiation levels enable an average annual electricity yield of 1,600-1,800 kilowatt hours per installed kilowatt of capacity. Regulatory stability since 2018 has also contributed to the creation of a favourable environment. This is reflected in the number of market participants, which include national and European utilities, oil and gas companies, independent power producers, solar developers, and investment funds.

In 2023, Spain successfully completed the environmental impact assessment for renewable energy projects with a capacity of around 28 gigawatts. The majority of these are solar projects. However, permits were also issued for 20 onshore wind farms with a total capacity of 2.9 gigawatts. Before taking this measure, Spain had a permission backlog of up to 60 gigawatts.

According to the European industry association WindEurope, 31 gigawatts of wind power were fed into the Spanish electricity grids at the end of 2023. The aim is to achieve an increase to 59 gigawatts by 2030. While an average of 1.5 gigawatts of wind power capacity was newly installed in each of the past five years, WindEurope expects an average of 2.3 gigawatts to be connected to the grid in each of the next five years. In 2029 and 2030 each, a further 10.9 gigawatts would then have to be commissioned. WindEurope estimates the probability that this expansion path will actually be achieved at just over 50 per cent ("Quite Likely").

3.1.1.5. Republic of Ireland

Around 275 megawatts of wind power capacity were connected to the grid in the Republic of Ireland in 2023. Wind power covered around 35 per cent of the electricity demand on the green island in 2023. This figure even stood at 50 per cent in December. Thanks to wind power production, Irish consumers saved almost EUR 1.3 billion in gas costs last year.

Only three onshore wind farms with a total capacity of 148.4 megawatts were awarded contracts in the latest round of the Ireland's renewable electricity support scheme (RESS 3), compared to 414 megawatts in RESS 2 last year. The Wind Energy Ireland association described the outcome as "extremely disappointing." The way in which wind energy is developed in Ireland needs urgent reforms. The Irish planning and permitting system does not meet its own deadlines for processing applications. Applications should actually be decided within 18 weeks. In fact, the average decision-making time exceeds 90 weeks.

3.1.1.6. Finland

Finland was one of the few EU Member States to submit a draft update of the National Energy and Climate Plan by 30 June 2023. The update includes an increase in the 2030 wind energy production plan from 18 to 23 terawatt hours. A climate and energy strategy sets out measures that Finland will take to fulfil its EU climate commitments for 2030. Accordingly, greenhouse gas emissions must be significantly reduced: by 60 per cent until 2030, by 80 per cent until 2040, and by 90-95 per cent until 2050. Finland's goal is to be carbon neutral by 2035.

Europe's largest nuclear reactor went into operation in Finland in 2023 after a delay of 14 years. The construction of the Olkiluoto 3 reactor (1.6 gigawatts) began in 2005 and was planned to be completed four years later. Technical problems delayed the project. This also led to costs almost three times higher (EUR 11 billion) than originally estimated. Finland currently has five nuclear reactors. Together, they cover more than 40 per cent of the electricity demand.

According to the European industry association WindEurope, seven gigawatts of wind power capacity were connected to the grid in Finland at the end of 2023. Finland's goal is to increase this capacity to 20 gigawatts by 2030. While an average of one gigawatt of wind power capacity has been installed in each of the past five years, WindEurope expects an average of 1.4 gigawatts to be connected to the grid in each of the next five years. In 2029 and 2030 each, a further three gigawatts would then have to be commissioned. WindEurope estimates the probability that this expansion path will actually be achieved at just over 50 per cent ("Quite Likely").

3.1.1.7. Greece

The Greek solar PV market has experienced a tremendous upturn, which the Solar Power Europe association expects to continue over

the next few years. In 2022, 1.4 gigawatts of new PV projects were connected to the grid, increasing the cumulative capacity to 5.5 gigawatts. This was the best result ever for the Greek solar sector. In 2023, a further increase was achieved as around 1.6 gigawatts of solar capacity were added. In that year, photovoltaics already covered around 18 per cent of Greece's electricity demand. The government's current draft solar target for 2030 is 13.4 gigawatts. The major expansion bottleneck is the availability of grid capacity. Most of the medium-voltage grids are already overloaded. The same is expected to happen soon with the high and ultra-high voltage grids. The government presented a priority list for the grid connection in August 2022 and then again in January 2023, which led to numerous complaints from interested investors. To address these complaints, a roadmap for grid enforcement and expansion was drawn up for the coming years.

Taking into account the support schemes, around 4.1 gigawatts of renewable energy projects will be auctioned in Greece between 2023 and 2025, of which around 3 gigawatts are likely to be allocated to PV projects. In 2022, the Greek Parliament also adopted a comprehensive regulatory framework for storage projects. Large storage facilities are selected by auction.

3.1.1.8. Hungary

Wind power plays a subordinate role in Hungary. It is not politically desirable. As regards the expansion of photovoltaics, the record of 1.1 gigawatts set in 2022 was significantly exceeded in 2023. According to the Solar Power Europe association, more than 1.4 gigawatts of new capacity had already been connected to the grid by the end of October.

This means that the installed solar capacity now totals 5.5 gigawatts. The target for 2030 was almost doubled from 6.5 gigawatts to 12 gigawatts. In the category of plants with a capacity of more than 50 kilowatts - which mainly includes ground-mounted systems – a good 760 megawatts of new capacity were added by the end of October 2023. The majority of these plants were built under the old feed-in tariff system (KÁT), which ended in 2016. Following the expiry of the KÁT regulation, Hungary launched a new, auction-based subsidy scheme called METÁR (Contract for Difference) in 2019. In five rounds, 933 megawatts were allocated under the scheme. By the end of 2022, however, only 60 megawatts were in operation as part of the METÁR scheme. The main reason for this were the record-high electricity market prices. The project developers were reluctant to participate in the METÁR scheme. Many operators have also abandoned the old KÁT system or have temporarily left the system in order to sell electricity on the Hungarian electricity exchange. Operators of PV parks also see good opportunities in longer-term power purchase agreements (PPAs) with consumers.

Grid connection is the greatest challenge for the development of photovoltaics in Hungary. The Hungarian grid has almost reached its limits. The expansion of the grids will therefore determine in particular the extent to which further expansion of solar capacity will be possible in the coming years.

3.1.1.9. Poland

Poland's solar power installed capacity totalled 4.6 gigawatts in 2023. Poland thus achieved the fourth-largest solar expansion of the 27 EU member states. At the end of August 2023, over 26.4 gigawatts of renewable energies were installed in Poland, 14.7 gigawatts of which were from solar systems.

The significant rise in energy prices and the shortage of raw materials as a result of Russia's aggression against Ukraine have strengthened the goal of greater energy self-sufficiency among companies and politicians. This led to new investments in photovoltaics. In August 2023, Parliament passed legislative changes to support the long-term development of the sector and increase the share of renewable energies in national consumption. Limited grid capacity is the biggest obstacle to speeding up expansion. Nevertheless, the Solar Power Europe industry association expects solar capacity in Poland to continue to grow, albeit at a slower rate than in previous years.

According to the European industry association WindEurope, nine gigawatts of wind power capacity were connected to the grid in Poland at the end of 2023. Poland's goal is to increase this capacity to 14 gigawatts by 2030. While an average of 0.7 gigawatts of wind power capacity was installed in each of the past five years, WindEurope expects an average of 1.2 gigawatts to be connected to the grid in each of the next five years. WindEurope estimates the probability that this expansion path will actually be achieved is high ("very likely").

Demand for auctions for contracts in Poland in 2022 was very low. The record-level undersubscription rate was 75 per cent. In the previous years, it was less than 10 per cent.

3.1.2. Latin America

"Latin America offers excellent conditions for renewable energies and the production of green hydrogen," writes "Germany Trade & Invest," the Federal Republic of Germany's international economic promotion agency. The subcontinent is blessed with huge potential for the production of renewable energy. In August 2022, 15 Latin American countries committed to sourcing at least 70 per cent of their electricity from renewable sources starting from 2030. The International Energy Agency (IEA) estimates that the installed capacity of renewable energies in Latin America will grow by one-third between 2021 and 2026. This means that a new capacity of 96 gigawatts would be installed. It is the photovoltaics in particular that should drive this expansion. According to studies, the technology is now more competitive than onshore wind power on the continent due to the low production costs. The lowest cost level is achieved in Mexico, followed by Chile.

The subcontinent has excellent natural conditions for the production of green hydrogen and has the potential to become one of the world's most important suppliers. According to the International Renewable Energy Agency (IRENA), Chile and Colombia could be among the five countries with the world's lowest production costs by 2050. In order to utilise the potential, some countries in the region have already launched national hydrogen strategies or are working on building hydrogen hubs worth billions that integrate energy and hydrogen production as well as port infrastructure.

3.1.2.1. Argentinien

Under the headline "More hydrogen for Argentina's energy mix", Hzwei magazine reports on Argentina's national hydrogen strategy announced in September 2023. By 2050, 5 to 7.5 million tonnes of hydrogen are said to be produced annually with low emissions. Out of this amount, around 20 per cent is expected to be used for the decarbonisation of the domestic industry and the production of synthetic fuels in Argentina. The remaining hydrogen is intended for export. The production facilities will be built in such a way that they will be able to be easily connected to global trade through appropriate logistics. Particularly suitable for this are port areas, as they could make use of access to natural gas infrastructure and LNG terminals in the future.

To achieve these production targets, Argentina plans to install at least 30 gigawatts of electrolysis capacity and to produce 55 gigawatts of electricity from renewable sources. This ambitious project represents a 12-fold increase in current renewable energy generation capacity and more than doubles the country's total electricity generation capacity. This switch to renewable energies will be crucial for the efficient production of green hydrogen. The increased combustion of fossil fuels is making it more difficult for Argentina to fulfil its obligations to reduce carbon emissions. Political pressure from the international community is increasing. The extensive shale gas extraction that is highly water-consuming also poses difficulties.

Although the national hydrogen strategy envisages an addition of 55 gigawatts of electricity generation from renewable energies, the expansion has so far fallen short of expectations. "There is great potential for expansion in renewable energies (RE) – such as wind and solar, biomass, or the production of green hydrogen – but also in the oil and gas industry," summarises Carl Moses in a report for German Trade and Invest (GTAI).

Mauricio Macri's presidency from 2015 to 2019 was supposed to bring a real breakthrough for the wind and solar power industry. The plans were ambitious: the share of renewable energies in total electricity consumption was to increase from two to 20 per cent in 2025 and to 25 per cent by 2030. However, as the Argentinian economy plunged into a deep crisis in 2018, these plans could not be financed.

3.1.2.2. Colombia

Colombia's fossil fuel reserves will only last for around seven years. Production and new explorations are stagnating. Because Colombia's electricity generation is heavily dependent on hydropower, rainfall and water levels in the reservoirs have an impact on the country's electricity prices. Due to the El Niño weather phenomenon, less water was available in 2023 and energy demand increased. Substitute sources such as thermal energy are expensive. As a result, energy prices rose. According to the draft of the National Energy Plan, the share of renewables (excluding hydropower) in the electricity supply could rise to around 70 per cent by 2052 in the best-case scenario. Instruments such as tax incentives and public auctions for strategic energy sources are intended to help achieve these goals. The government led by Gustavo Petro wants to make the country less dependent on fossil fuels.

3.1.3. North America

In North America, investment in wind and solar power will increase 12-fold by 2050. This follows from a new DNV report on the energy transition. Wind energy investments expected to be made on the continent by 2050 therefore total USD 1.6 trillion. The figure for solar energy is USD 2.3 trillion. However, the pace of the energy transition will not be by far fast enough to achieve a net-zero energy balance by 2050. The "Energy Transition Outlook North America" report predicts that 1.3 gigatonnes of CO2 emissions will still be produced per year by the middle of the century. DNV forecasts that 1,000 terawatt hours, or 17 per cent of the region's electricity, will come from wind power by the early 2030s. By 2050, wind energy is expected to supply 3,100 terawatt hours and generate 35 per cent of North America's electricity.

The Inflation Reduction Act of 2022 in the USA and the Canadian Clean Energy Plan of 2023 are aimed at supporting this trend. Both provide for tax credits for the development of wind energy. DNV predicts that 16 gigawatts of onshore wind capacity will be added annually between 2020 and 2030, rising to 22 gigawatts/ year and 33 gigawatts/year in the 2030s and 2040s respectively. The trend in offshore wind capacities is similar, albeit they are developing with a certain delay. In comparison, an average of 8 gigawatts of new wind capacity was connected to the grid each year between 2010 and 2020.

The increase in demand for wind energy is being driven primarily by the electrification of important sectors being the sources of demand and growth in grid-connected electrolysis. By 2050, around 19 gigawatts of onshore wind power and 9 gigawatts of offshore wind power will be required for electrolysis to produce hydrogen.

3.1.3.1. Canada

Canada is facing major challenges when it comes to energy supply. The electricity mix is set to be carbon-neutral by 2035. In this process, the country's electricity demand could double by 2050. In addition, Canada, like the EU, wants to become completely carbon-neutral by 2050. This objective was already enshrined in law in the 2021 Climate Act. According to the Canadian budget plan for 2023, generation and grid capacity would have to increase 2.2 to 3.4 times to meet demand sustainably, safely and affordably. According to studies by the Canadian Renewable Energy Association, this would require adding a capacity of around 4 to 5 gigawatts per year. As natural gas continues to be used to generate electricity in Canada, the country plans to capture CO2 and store it in order to achieve net zero emissions.

Canada wants to phase out coal-fired power generation by 2030 and expand renewable energies instead. At the end of 2022, Canada had an installed alternative energy capacity of just over 19 gigawatts. With a share of around 60 per cent of the electricity mix, hydropower is well ahead of other technologies. In Manitoba, Québec, Yukon, as well as Newfoundland and Labrador, hydropower each time has a share of over 90 per cent in the energy mix. In British Columbia, the share is only just below it.

According to model calculations by the Canadian Energy Regulatory Commission (CER), wind and solar energy capacities in particular are set to increase by 100 to 150 gigawatts by 2050. However, as the technical potential of new hydropower plants is significantly greater than the capacity already installed, further investment in hydropower can also be expected. Public utilities as well as private and indigenous electricity providers are offered the "Clean Electricity Investment Tax Credit" as an incentive to produce emission-free electricity.

3.1.4. Africa

The Covid-19 pandemic and subsequent energy crisis contributed to a worsening economic outlook. As a consequence, energy investment necessary to give more people access to electricity and clean cooking remains at a low level. Today, more than 40 per cent of people living in Africa lack access to electricity and 70 per cent lack access to clean cooking.

In order to cover Africa's growing energy demand and achieve the climate targets, energy investments must be more than doubled in this decade. This will require more than 200 billion US dollars per year from 2026 to 2030, two thirds of which should be channelled into clean energy. In order to give all Africans access to electricity and clean cooking facilities, investments totalling 25 billion US dollars a year are required. This corresponds to one per cent of global energy investments.

Energy investments in Africa have fallen by almost 45 per cent compared to the record highs of 2014. Finding secure financing for renewable energy projects is also a challenge in some cases. Potential investors fear the risks arising from a weak regulatory environment or the poor financial situation of utility companies. These risks can affect the economic viability of projects, especially in countries where the clean energy sector is fledgeling. They can also increase the costs of loans for similar projects to at least two to three times the level in advanced economies.

As a result, many projects in Africa need support, either to serve as demonstration projects or to facilitate the mobilisation of private capital. In a communiqué published by African governments at the climate summit in Nairobi in September 2023, advanced economies were called upon to honour their climate finance commitments and reform the multilateral financial system to address the current lack of energy investment on the continent.

3.1.4.1. South Africa

In South Africa, which accounts for 27% of Africa's current electricity demand, disruptions have worsened due to unplanned outages at numerous coal-fired power plants. This has led to a significant increase in investment in renewable energies. Despite the supply bottlenecks, no new coal-fired power plants are being commissioned, which is in line with international commitments to stop investing in new coal-fired power plants. By 2030, the share of low-emissions electricity generation will increase to over 40 per cent from 12 per cent today.

In South Africa, grid access challenges in areas of high wind potential resulted in 3 GW of wind projects remaining unallocated in recent auctions, according to the IEA's study published in June 2023.

At the 2021 UN Climate Change Conference in Glasgow, South Africa agreed with Germany, France, the United Kingdom, the United States of America, and the European Commission on the Just Energy Transition Partnership (JETP), which aims to help South Africa accelerate the phase-out of coal and expand renewable energies. In addition to EUR 1.76 billion, South Africa will get access to funding for the JETP. Among other things, the state-owned energy company Eskom will be unbundled, and an independent transmission system operator established. The long-term goal is to increase the share of renewable energies in the electricity supply. At around 80 per cent, coal continues to dominate electricity generation. Renewable energies, including hydropower plants, represent 13.7 per cent, while nuclear power 4.6 per cent. Funding from the Federal Republic of Germany is intended to help reform the energy sector, build up a renewable energy industry, and thus strengthen South Africa's position as a business location.

3.1.4.2. Tunisia

The conditions are ideal: In Tunisia, the sun shines for 3,000 hours a year (in Germany it is around 1,000 hours less). Also, the wind power potential is huge. However, electricity in Tunisia has so far been generated almost exclusively from natural gas. The country only produces a good third of this itself. The rest comes mainly from neighbouring Algeria.

The energy mix in Tunisia will become significantly greener by 2030. The government envisages that 35 per cent of electricity will come from renewable energies (RE) by then. Originally, the solar plan drawn up in 2015 envisaged 30 per cent by 2030; in 2022, the government increased the target by five percentage points. The installed renewable energy capacity is expected to reach more than 3,800 megawatts in 2030 – compared to 275 megawatts in 2015. In 2020, renewable energies accounted for just three per cent of the electricity generated. The expansion is still making

little progress: The government had planned to install 1,225 megawatts of renewable energy by 2020; at the end of June 2023, only 565 megawatts were installed. The delay is due to financing. Government coffers are empty. This makes Tunisia all the more dependent on private investments.

The first prequalification round relating to concessions for larger renewable energy plants was launched in 2018. This framework provided for constructing plants with a total capacity of 1,000 megawatts, half of which would be powered by solar energy and the other half by wind power. In December 2019, three bidders were awarded a contract for the expansion and operation of five photovoltaic projects. So far, none has been connected to the grid. It is now questionable whether the projects can still be implemented under the agreed conditions.

The German government is also supporting the energy transition in Tunisia. Deutsche Gesellschaft für Internationale Zusammenarbeit alone manages energy and environmental projects with a total budget of almost EUR 60 million. The topic of green hydrogen is also on the agenda for bilateral cooperation.

3.2. Business performance

3.2.1. General information on the business performance

ABO Wind covers the entire value chain for developing wind farms, solar farms and storage systems – from site acquisition to turnkey construction. Its own specialist staff perform the majority of the planning, monitoring and organisational work.

In addition to the financial performance indicators such as sales, gross performance, and annual results, ABO Wind uses major milestones to be achieved in project work, and portfolios of projects and service agreements as non-financial performance indicators for measuring economic success.

Relevant non-financial performance indicators include the number of new projects, the portfolio of projects under development and construction – the so-called project pipeline – as well as the project developments and constructions successfully completed in the financial year.

The volume of agreed project funding and project sales, the extent of any service activities, and changes in employee figures also provide additional information about the business performance.

As the Group's parent company, ABO Wind AG is responsible for the planning activities of the entire Group. The parent company provides ongoing support for the project implementation and service delivery processes within the Group. To make the indicators more meaningful, this section therefore refers to the activities of the whole Group, where appropriate.

In the 2023 financial year, these indicators developed as follows:

3.2.2. New projects

In the previous year's group management report, annual new business to the tune of at least two gigawatts was anticipated across the Group and the various technologies for the years 2023 to 2025. It was noted that more significant periodic fluctuations in new business were to be expected in connection with cyclical developments in new business, particularly in non-European markets, and due to the impact of individual large-scale projects.

In the 2023 financial year, ABO Wind acquired new projects with 3.1 gigawatts in Europe alone. Outside Europe, projects totalling approximately 1.2 gigawatts were secured. Both in terms of megawatts and number, wind energy projects account for around half of new business, with solar and hybrid projects accounting for the other half. Overall, new business is far outstripping expectations, as in the previous year.

3.2.3. Projects in development

As of 31 December 2023, ABO Wind worked on the development of wind energy, solar energy and storage projects with an output of around 23 gigawatts. Finland and South Africa are each working on projects with more than five gigawatts. Almost four gigawatts are in the pipeline in Germany.

Projects with a total output of one to two gigawatts each are in the development phase in France, Spain, Canada, and Argentina. In seven other countries, work is underway on at least three-digit megawatt figures and around four gigawatts in total: Canada, Colombia, Greece, Hungary, Ireland, Poland, and the United Kingdom. The project pipeline is the lowest in Tanzania and Tunisia, totalling 100 megawatts across these country markets.

3.2.4. Project implementations

The periods assigned to project implementations are based on the transfer of risk for the services provided in each instance in accordance with the commercial law realisation principle. Planning or technical milestones, such as the feeding in of the first kilowatt hour (technical commissioning) for example, may occur in a different period.

3.2.4.1. Sale of portfolios and individual project rights

In the 2022 group management report, sales of portfolios and individual project rights to the tune of at least 150 to 350 megawatts on average were expected across the Group and the various technologies for 2023 to 2025.

Typically, such agreements with the buyers provide for further collaboration with ABO Wind to get the projects ready for construction and then to build and operate them.

In addition to the rights to two Spanish wind projects totalling 84 megawatts, a Spanish portfolio consisting of three wind and two solar projects with a capacity of 247 MW was sold in the 2023 financial year. Furthermore, a South African solar project with 100 megawatts and a Colombian solar project with ten megawatts were sold.

3.2.4.2. Completed project developments

In the 2022 group management report, completed project developments with an average volume of 150 to 350 megawatts per year were anticipated across the Group and the various technologies for the years 2023 to 2025.

In the 2023 financial year, project development was successfully completed for six wind power projects with 74 megawatts and nine solar and battery projects with 121 megawatts.

3.2.4.3. Completed Project Builds

In the 2022 group management report, completed turnkey project builds with up to 250 megawatts annually were anticipated across the Group and the various technologies for the years 2023 to 2025.

In fact, turnkey wind projects totalling 76 megawatts and solar and battery parks totalling 43 megawatts were built and billed for in the 2023 financial year. The farms were installed as part of seven projects in Germany, France, Finland, and Greece.

3.2.5. Project funding and turnkey plant sales

In the 2023 financial year, 16 project funding deals were concluded for a total of 281 megawatts with a loan volume of EUR 324 million. At the same time as obtaining the project funding, turnkey projects with 281 megawatts were sold to investors in the 2023 financial year.

3.2.6. Service activities

3.2.6.1. Wind and Batteries Operational Management

As at 31 December 2023, ABO Wind was managing 158 projects with 624 wind turbines and a total of 1,702 megawatts distributed across Germany (837 megawatts), France (269 megawatts), Finland (444 megawatts), Ireland (131 megawatts), and Poland (21 megawatts). These figures also include the management of substations and similar systems. Furthermore, the Company manages nine battery projects in Germany and one in Northern Ireland.

3.2.6.2. Wind and Batteries division

This division manages around 391 wind turbines – from simple maintenance to troubleshooting, repair and replacement of large components to full-service contracts. In addition, the division provides maintenance services for six battery projects.

3.2.6.3. Solar division and operational management

22 plants are managed in the solar business segment, 13 in Germany, six in Greece, two in Hungary, and one in France.

3.2.6.4. Construction supervision

In the case of construction supervision, construction is not carried out as a turnkey project but rather as a service. No significant construction supervision services were provided in the 2023 financial year.

3.2.7. Personnel changes

The number of employees increased from an average of 1,036 to 1,221 in the calendar year.

3.2.8. Information on the proportion of women at ABO Wind AG¹

As of 31 December 2023, the Supervisory Board of ABO Wind AG consisted of three members. The proportion of women on the Supervisory Board was two-thirds as of 31 December 2023. The Company intends to have six members on the Supervisory Board in future. The target is a women's quota of 50 per cent. The Company has set itself a target of achieving this quota until 31/12/2028.

The Managing Board of ABO Wind AG currently consists of five persons, including one woman. Taking into account any temporary changes in the number and composition of the Managing Board, the Supervisory Board has set itself the goal of having at least one woman on the Managing Board in the future. The Company has set itself a target of achieving this quota until 31/12/2028.

In 2023, the proportion of women among all managers below the Managing Board level was 24 per cent in the first and 26 per cent in the second management level below the Managing Board level. The Company's management intends to increase the proportion of women at these management levels over the next five years. During that period, the aim is to double the current quota at the first management level below the Managing Board and to increase it to 30 per cent at the second management level below the Managing Board. The Company has set itself a target of achieving these quotas until 31 December 2028.

The proportion of women in the overall staff was 36 per cent as of 31 December 2023.

In order to further increase the women's quota in the Company, ABO Wind AG places a special focus on suitable female candidates in the internal and external recruitment process. In job advertisements, attention is paid to gender-neutral selection criteria in order to attract more female applicants. Recruitment consulting firms are also strongly advised to present suitable female candidates. We also make sure to offer management positions on a part-time basis and to indicate this in our internal and external job advertisements where possible.

3.2.9. Information on company organisation

An Extraordinary General Meeting on 27 October 2023 resolved to change the Company's legal form to a partnership limited by shares (KGaA). In addition to a change of the legal form, this resolution also includes a change of the company name to ABO Energy. An action to rescind this resolution was filed and the company filed a court application to initiate proceedings for the release for entry in the register ('release procedure'). Both legal steps essentially have the following content:

Action for rescission

In the 2023 financial year, companies Enalco Capital GmbH & Co. KG, ENKRAFT SQUARE.partners GmbH, and ENKRAFT CAPITAL GmbH filed with the Frankfurt am Main Regional Court an action against the Company to rescind resolutions.

The plaintiffs are challenging all resolutions passed at the Extraordinary General Meeting of the Company held on 27 October 2023 and file an application with the court to declare them null and void. These are:

AGENDA ITEM 1: The resolution on the change of the Company's legal form to partnership limited by shares (KGaA) along with the accession of Ahn & Bockholt Management GmbH as the general partner and the adoption of the Articles of Association;

AGENDA ITEM 2: The resolution on the amendment to the Articles of Association (increasing the number of the Supervisory Board members); and

AGENDA ITEM 3: Elections to the Supervisory Board.

The Company has indicated that it will defend itself against the action for rescission and will respond to the action for rescission in due time. The court has initially scheduled the date for the first hearing for March 2024.

Release procedure

Accompanying the action for rescission, in December 2023 the Company filed an application for the release of the entry in the company register regarding the change of the legal form of the Company to GmbH & Co. KGaA in accordance with §§ 198, 16 (3) of the German Transformation Act (UmwG) at the Higher Regional Court of Frankfurt am Main. The defendants are the companies Enalco Capital GmbH & Co. KG, ENKRAFT SQUARE.partners GmbH, and ENKRAFT Capital GmbH as plaintiffs in the action for rescission.

The Company seeks assurance that the action for rescission brought by the defendants against the validity of the resolution of the Extraordinary General Meeting of the applicant on 27 October 2023, which is pending before the Regional Court of Frankfurt a.M., referring to the agenda item 1 - in the form of countermotion A by shareholder Alexander Koffka - regarding the change of the legal form of a KGaA with the accession of Ahn & Bockholt Management GmbH and the adoption of the Articles of Association does not preclude the entry of the new legal form in the company register of the Wiesbaden District Court -Registry Court - pursuant to § 198 (1) UmwG.

As part of the release procedure, the Higher Regional Court will decide on the application for release by way of a non-appealable order. A decision by the court is expected in spring 2024. If the release is granted, the intended change of the legal form to GmbH & Co. KGaA can be promptly filed to be entered in the company register, otherwise, the so-called register ban continues to apply.

The Higher Regional Court of Frankfurt am Main approved the release procedure by resolution dated 29 February 2024 served on 1 March 2024, meaning that the new legal form can be entered in the Wiesbaden company register in accordance with § 198 (1) UmwG.

3.3. Results of operations

The gross performance of EUR 396.3 million (previous year: EUR 308.1 million) for the 2023 financial year is the result of EUR 299.7 million in sales revenue (previous year: 231.7 million) and a EUR 96.6 million increase in inventory of finished products and work in progress (previous year: EUR 76.4 million). The sales revenue in the project management business comprises EUR 127.3 million from planning services and sales of rights (previous year: EUR 119.6 million) and EUR 154.6 million from the building of projects (previous year: EUR 96.2 million). ABO Wind earned EUR 17.8 million from service activities (previous year: EUR 15.9 million).

The cost-of-materials ratio of 53.1 per cent (previous year: 48.3 per cent) increased compared to the previous year due to the higher share of material-intensive building services (51.6 per cent of sales revenue compared to 41.5 per cent in the previous year).

Personnel costs of EUR 98.2 million (previous year: EUR 77.7 million) include a special bonus for employees and a provision for future anniversary payments. In addition, regular salary adjustments and staff growth contributed to the increase in personnel costs.

The depreciation of EUR 16.7 million (previous year: EUR 13.8 million) is broken down into EUR 4.3 million (previous year: EUR 3.0 million) of scheduled depreciation on fixed assets and EUR 12.4 million (previous year: EUR 10.8 million) in individual value adjustment write-downs on projects under development for which there is no longer any realistic likelihood of implementation or for which the economic situation has changed drastically.

The write-downs relate to projects in France (EUR 3.2 million), Germany (EUR 2.7 million), Greece (EUR 1.8 million), Spain (EUR 1.5 million), Argentina (EUR 1.1 million), and a total of EUR 2.1 million for projects in Tunisia, Colombia, Ireland, Poland, Finland, and the UK.

Write-downs for country risks were not made (previous year: EUR 0.5 million).

¹ The information presented in this section is typically presented in the management report but has not been audited.

Other operating expenses increased by EUR 9.3 million from EUR 29.7 million in the previous year to EUR 39.0 million. The main reason for this is the increase in individual value adjustment write-downs on receivables totalling EUR 1.8 million, higher IT costs of EUR 1.2 million, and foreign exchange losses of EUR 1.0 million.

The interest result shows an interest expense of EUR 1.4 million (previous year: EUR 3.1 million). Interest and similar expenses totalled EUR 7.3 million (previous year: EUR 5.6 million). Other interest and similar income of EUR 5.9 million (previous year: EUR 2.6 million) includes interest income of EUR 4.2 million (previous year: EUR 0.3 million) from loans for project companies in the construction phase. These are mainly projects in Finland, Hungary, and France.

The result from ordinary business activities is EUR 41.8 million in the 2023 financial year (previous year: EUR 38.2 million). The net profit for the year totalled EUR 27.2 million (previous year: 24.6 million).

In summary, in the 2023 financial year, the ABO Wind Group managed to improve the gross performance and also gross profit compared with the previous year. The expansion of the project pipeline in Germany and abroad makes a significant contribution to this inventory increase. This, in turn, entails further increases in human resource capacities, in terms of both numbers and technical expertise. All in all, the Company is pleased to report a good result and a significant increase compared to the previous year.

3.4. Financial position and net assets

Fixed assets totalled EUR 14.0 million (previous year: EUR 13.6 million). Property, plant and equipment, and financial assets formed a significant part of this.

Of the total EUR 313.5 million (previous year: EUR 229.1 million) in work in progress recorded on the balance sheet, as at the balance sheet date, around EUR 117.3 million (previous year: EUR 80.6 million) related to projects under construction.

The advance payments received and deducted from the inventories of EUR 150.1 million (previous year: EUR 125.6 million) on the face of the balance sheet do not include any down payments. These are payments on account only that are offset against services provided or deliveries supplied, and for which no repayment obligation exists or is likely.

Of the receivables from affiliated companies in the amount of EUR 158.1 million (previous year: EUR 172.7 million), as at 31 December 2023, a total of EUR 147.7 million (previous year: EUR 165.3 million) related to as yet unsold project companies. This total includes project companies in Germany (EUR 102.7 million), Hungary (EUR 17.0 million), France (EUR 9.8 million), Spain (EUR 8.2 million), Colombia (EUR 6.0 million), Poland (EUR 2.5 million), and in other countries (EUR 1.6 million).

The remaining receivables from affiliated companies of EUR 10.5 million (previous year: EUR 7.4 million) relate mainly to

non-consolidated foreign subsidiaries of ABO Wind AG, which have used these funds as interim financing for project costs.

Shares in affiliated companies recognised in current assets decreased from EUR 4.0 million in the previous year to EUR 2.7 million in 2023, mainly due to the sale of a German and a Hungarian project.

Securities in the amount of EUR 6.8 million (previous year: EUR 4.8 million) recognised in current assets relate exclusively to shares in ABO Kraft und Wärme AG. The increase is due to a capital increase in the financial year.

The equity ratio, excluding mezzanine funds and economic equity capital, is around 39.0 per cent (previous year: 37.7 per cent).

Liabilities include economic equity capital from a subordinated debt bond issued in 2021 and 2022.

As at 31 December 2023, this amount was EUR 42.6 million (previous year: EUR 42.6 million).

The equity ratio, including subordinated capital consisting of mezzanine funds and the subordinated debt bond, amounts to 50.4 per cent (previous year: 50.1 per cent).

The previous year's liabilities to banks in the amount of EUR 137.9 million increased to EUR 157.4 million due to redemptions of EUR 22.0 million (previous year EUR 27.7 million) and the newly taken-out loans of EUR 41.5 million (previous year: EUR 120 million). The newly taken-out loans include redeemable loans of EUR 31.5 million with a maturity of up to five years and of EUR 10 million with a maturity of over five years.

The guarantee facilities increased by EUR 172.5 million from EUR 305.2 million to a total of EUR 477.7 million. The unused credit and guarantee facilities amounted to EUR 293.0 million (previous year: EUR 147.0 million) as at 31 December 2023.

Cash and cash equivalents, defined as cash on hand and bank balances, were EUR 37.1 million (previous year: EUR 87.1 million) as at 31 December 2023.

The cash flow statement shows a negative cash flow from operating activities of EUR -63.0 million (previous year: EUR -13.8 million) in the 2023 financial year. In particular, the strong decrease is attributable to the expansion of the project pipeline in general and a higher number of projects in the cost-intensive construction phase. The general price increase on the purchasing side led to higher material costs, which had a negative impact on the operating cash flow. Due to the increase in personnel, salary payments increased, which had a corresponding negative impact on the operating cash flow.

The cash flow from investment activities includes investments in wind measurement equipment. This is offset by interest income, which mainly results from loans granted to project companies. On balance, the cash flow from investment activities shows inflows totalling EUR 1.8 million (previous year: EUR -2.1 million).

The cash flow from financing activities amounted to EUR 10.1 million (previous year: EUR 84.2 million). The high cash flow in the previous year was mainly due to the issue of a bonded loan of EUR 70.0 million. In the current financial year, usual financing measures were taken.

The limits agreed with the credit institutions for redeemable loans and overdraft facilities, which relate to selected financial figures– so-called covenants – were all complied with in the reporting period. The covenants relate to the net debt ratio and the equity ratio.

The positive business development is also reflected in the balance sheet. The expansion of the project pipeline is reflected in particular in an increase in work in progress. This increase was financed through equity and loans. The debt-to-equity ratio remained constant compared to the previous year.

4. Remuneration of the Managing Board and the Supervisory Board²

4.1. Remuneration of the Managing Board

The total remuneration of the Managing Board consists of fixed remuneration and variable remuneration. The fixed remuneration comprises the fixed salary and fringe benefits in the form of benefits in kind. The fixed salary is paid monthly as a nonperformance-related component of total remuneration.

The variable remuneration consists of annual variable remuneration and multi-year variable remuneration. The annual variable remuneration is based on the Group's KPIs for the respective financial year and is paid out after the annual financial statements of ABO Wind AG have been approved. The multi-year variable remuneration is based on the Group's KPIs over several periods. Payment is made after the last annual financial statements of ABO Wind AG within the multi-year period have been approved.

Both the annual and the multi-year variable remuneration are capped at a maximum amount. A negative business performance can result in a complete loss of the variable remuneration entitlement.

The remuneration system is regularly discussed and reviewed by the Supervisory Board.

The table below shows the granted benefits recognised as expenses in the respective financial year. In the case of the variable remuneration components, the table presents the portion that was allocated to provisions. The actual payments in the financial year therefore deviate from the payments shown.

In the consolidated financial statements as at 31/12/2022, remuneration that affected cash flows was reported. Therefore, the information on the 2022 remuneration presented in the table below can deviate from the remuneration reported in the previous year.

Dr. Jochen Ahn, Managing Board member since 2000			
in k€	2023	2022	
Fixed remuneration	195	170	
Fringe benefits	5	5	
Total fixed remuneration	200	175	
Annual variable remuneration	80	70	
Multi-year variable remuneration	11	0	
Total variable remuneration	91	70	
Total remuneration	291	245	

Matthias Bockholt, Managing Board member until 3/07/2023			
in k€	2023	2022	
Fixed remuneration	99	170	
Fringe benefits	2	3	
Total fixed remuneration	101	173	
Annual variable remuneration	35	70	
Multi-year variable remuneration	0	0	
Total variable remuneration	35	70	
Total remuneration	136	243	

Dr. Karsten Schlageter, Managing Board member since 1/10/2018			
in k€	2023	2022	
Fixed remuneration	240	203	
Fringe benefits	3	6	
Total fixed remuneration	243	209	
Annual variable remuneration	74	74	
Multi-year variable remuneration	17	0	
Total variable remuneration	91	74	
Total remuneration	334	283	

Alexander Reinicke, Managing Board member since 1/08/2022			
in k€	2023	2022	
Fixed remuneration	240	100	
Fringe benefits	1	0	
Total fixed remuneration	241	100	
Annual variable remuneration	80	80	
Multi-year variable remuneration	27	0	
Total variable remuneration	107	80	
Total remuneration	348	180	

Susanne von Mutius, Managing Board member since 1/08/2022				
in k€	2023	2022		
Fixed remuneration	240	100		
Fringe benefits	9	2		
Total fixed remuneration	249	102		
Annual variable remuneration	80	80		
Multi-year variable remuneration	27	0		
Total variable remuneration	107	80		
Total remuneration	356	182		

Matthias Hollmann, Managing Board member since 1/08/2022				
in k€	2022			
Fixed remuneration	240	100		
Fringe benefits	14	6		
Total fixed remuneration	254	106		
Annual variable remuneration	80	80		
Multi-year variable remuneration	27	0		
Total variable remuneration	107	80		
Total remuneration	361	186		

4.2. Remuneration of the Supervisory Board

The Supervisory Board's remuneration is set by the general meeting and is governed by the company's Articles of Association. The remuneration is based on the duties and responsibilities of the Supervisory Board members. If Supervisory Board members only serve on the Board for part of the financial year, they will be compensated in proportion to their term of office.

The remuneration of the Supervisory Board consists of fixed remuneration. There are no variable remuneration components or payments for committee activities or attendance fees.

Festvergütung

2023	2022
13	39
26	0
0	7
13	13
11	13
11	13
11	7
1	0
86	91
	2023 13 26 0 13 11 11 11 11 11 86

5. Opportunities and threats

5.1. Liquidity risks

Project development in renewable energies is characterised by high upfront costs for small quantities. Inflows from project funding and sales therefore need to be carefully matched against the outflows for planning and construction. The short- to mediumterm liquidity is continually planned and controlled throughout the Group. The consolidation of incoming payments and approval of outgoing payments is done across the Group by means of manual cash pooling within ABO Wind AG. Long-term needs are regularly reviewed based on a multi-year business plan. Appropriate capital measures may be initiated and monitored centrally by ABO Wind AG.

5.2. Currency risks

ABO Wind AG faces currency risks within the framework of its international business expansion due to its operational activities in South America, the United Kingdom, and other countries. In particular, in countries where the energy tariff is in a local currency not linked to a strong currency, appropriate hedging transactions should be ensured. In purchasing, currency risks can arise from supply contracts based on a foreign currency. In the solar business in particular, components are often sourced from Asia. The resulting currency risks can be countered with appropriate hedging transactions. On the whole, currency risks currently play a minor role at ABO Wind. The main activities are handled within the eurozone.

5.3 Interest rate risk

Rising interest rates generally represent a risk to the profitability of projects. Interest rate hedges can counteract this in the short to medium term. In the medium to long term, rising interest rates may need to be counterbalanced with lower investment and operating costs and adjusted remuneration rates. Agreed interest rate hedges are reported in the notes to the financial statements, if any.

5.4. Regulatory risks

Wind energy and solar plants cannot, by their very nature, generate income on demand during operation. On the other hand, the main running costs are determined on a firm basis from the initial investment costs and long-term loan and lease agreements. Given the weather-dependent, and hence volatile, electricity yields and long-term fixed costs, the economic viability of projects largely depends on stable framework conditions for the sale of the energy generated: Clarity and reliability regarding the remuneration regulations are crucial. This is true in terms of protecting confidence for the investment period and in terms of protecting existing works for their economic useful life. In addition to the formerly standard, statutory feed-in tariffs, conditions have now been created in many markets for new forms of remuneration. Increasingly, wind and solar plants can also be developed and operated economically on the basis of private-law power purchase agreements as well, or with electricity marketed directly.

Other regulatory risks for renewable energy projects lie in the authorisation procedures and the grid connection and energy feed-in conditions. Delays and the conditions for obtaining authorisation to operate the plants and connect them to the grid can significantly affect economic viability.

5.5. Other risks

The recent high inflation in many countries has largely been priced into project calculations and budget figures. Thus, assuming that inflation continues to normalise, the short to medium-term risks to results of operations from this are limited.

Logistic or regulatory difficulties can cause delays in project implementation. In addition to shifts in earnings within a financial year, shifts are possible also in subsequent years. A long-term strategic risk for the procurement of materials is not anticipated, even if price and deadline risks may arise in the short to medium term, particularly from compliance with the German Supply Chain Sustainability Act (Lieferkettensorgfaltspflichtengesetz - LkSG). Internal control systems have been implemented to ensure compliance with the legal requirements.

5.6. Opportunities and strategy

In general, political decision-makers in almost all countries agree on the fact that expanding renewable energies further is desirable and necessary. It is also beyond dispute that onshore wind energy and solar are by far the most economical methods of generating electricity in a manner that protects the environment. Any reform of energy policy resulting in a cost-effective expansion of the electricity-generating capacities should strengthen these technologies.

Project developers have a key role to play in implementing the energy transition. Only with their expertise and planning and construction capacities can projects be implemented in the intended scope.

As in any industry, hard work is the key. Dealing with our partners fairly and openly – from landowners and suppliers to banks and investors – is our guiding principle for long-term business success.

Consistent diversification cushions the risks typical of the industry: Collaboration with different manufacturers for wind energy and solar energy plants and battery systems as well as regional distribution of the projects reduce the significance of individual risk factors.

With this in mind, ABO Wind operates also the wind energy, solar energy, and battery plant service and maintenance division and is expanding additional services. In the medium term, these business areas, which are independent of the core business field of project development, should make a solid contribution to total earnings.

In addition, the issue of green hydrogen is increasingly becoming the focus of political and economic discussion in connection with the achievement of global climate goals. With the first projects in this area, ABO Wind believes it is well-positioned to make a positive contribution also to this segment in the future.

5.7. Overall statement on opportunities and risks

In summary, according to our analysis, the greatest potential risk arises for ABO Wind from the political and administrative conditions crucial for the planning of renewable energy plants.

As outlined above, political decision-makers in most countries around the world consider the increased use of renewable energies to be necessary and desirable. The technologies that, in the opinion of most experts and decision-makers, are indispensable to the global energy transition (wind power, solar, batteries, and hydrogen) also form the technological foundation for ABO Wind AG's business model. Therefore, we assess our business opportunities as positive. In the Group Management Report 2022, it was expected that, in view of very positive developments in many national markets, the gross performance in 2023 would increase by a double-digit percentage compared to the previous year. Gross performance increased by 28 per cent to EUR 396.3 million compared to EUR 308.1 million in the previous year, thus in line with the forecast. In the 2022 Group Management Report, the consolidated net profit after taxes of between EUR 22 million and EUR 26 million was forecast for 2023. On 16 February 2024, this forecast was increased in an ad hoc announcement to an anticipated consolidated net profit after taxes of approx. EUR 27.3 million.

From 2024 to 2026, we anticipate annual new business to the tune of at least two gigawatts for ABO Wind across the group and across the various technologies. In connection with the cyclical developments of new business, particularly in non-European markets, the further development of the hydrogen business, and the impact of individual large-scale projects on the data, more significant periodic fluctuations continue to be expected in the new business.

Regarding the completed project developments from the existing pipeline, ABO Wind is expected to achieve an average volume of

150 to 350 megawatts per year across the Group and the various technologies in the years 2024 to 2026. The sale of project rights and project portfolios, predominantly measured in megawatts, will play an important role. The magnitude in megawatts is likely to be around the same as for the completed project developments or more. As far as the completed construction services are concerned, from 2024 to 2026, we expect up to 250 megawatts per year across the Group and the various technologies, distributed mainly across projects in Europe. Individual large-scale projects could also significantly increase this figure within the specified period.

It is to be expected that the supply chain problems will impact the periodic allocation of project implementations in isolated cases and can thus lead in 2024 to shifts in earnings to subsequent years.

With this in mind, the 2024 financial year has so far developed as planned and we expect a 10-30 per cent increase in gross performance in the financial year 2024, given numerous projects ready for construction and the positive development in many national markets. For the 2024 financial year, the management expects to achieve a consolidated net profit after taxes in the range between EUR 25 and 31 million.

Wiesbaden, 1 March 2024

1.Srt

Dr. Karsten Schlageter Managing Board Spokesperson

usamm. Mutius

Susanne von Mutius Managing Board member

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Dr. Jochen Ahn Managing Board member

A. Otale.

Alexander Reinicke Managing Board member

Matthias Hollmann Managing Board member

Consolidated balance sheet

Assets

	As at 31.12. / in K€	2023	2022
Α.	Fixed Assets	13,961	13,642
I.	Intangible assets	1,125	1,574
II.	Tangible fixed assets	10,071	9,042
1.	Land and buildings	420	420
2.	Technical equipment and machinery	98	470
3.	Other fixed assets, factory and office equipment	8,596	7,465
4.	Advance payments and assets under construction	956	687
III.	Financial assets	2,765	3,026
1.	Shares in affiliated companies	309	513
2.	Loans to affiliated companies	1,535	1,535
3.	Investments	460	460
4.	Loans to companies in which the company has a participating interest	462	518
В.	Current assets	475,465	432,992
Ι.	Inventories	208,109	124,152
1.	Work-in-progress	313,533	229,102
2.	Finished goods and goods for resale	4,424	3,397
3.	Advance payments	40,280	17,212
4.	Down payments received	-150,128	-125,559
II.	Receivables and other assets	220,674	212,990
1.	Trade accounts receivable	47,177	26,502
2.	Receivables from affiliated companies	158,138	172,743
3.	Receivables from companies in which the company has participating interest	-	-
4.	Other assets	15,359	13,745
III.	Securities	9,512	8,775
1.	Shares in affiliated companies	2,700	4,000
2.	Other investments	6,812	4,775
IV.	Cash in hand and bank balances	37,170	87,075
C.	Deferred income	1,995	1,176
D.	Deferred taxes	2,524	3,454
	Balance sheet total	493,945	451,264

Equity and liabilities

Equity capital Subscribed capital Consolidated capital reserve Consolidated retained earnings Legal reserve	192,772 9,221 45,490 110,639	170,058 9,221 45,490
Subscribed capital Consolidated capital reserve Consolidated retained earnings Legal reserve	9,221 45,490 110,639	9,221 45,490
Consolidated capital reserve Consolidated retained earnings Legal reserve	45,490 110,639	45,490
Consolidated retained earnings Legal reserve	110,639	
Legal reserve		90,811
5	490	490
Other revenue reserves	110,149	90,321
Change in equity resulting from currency translation	149	-90
Consolidated net income	27,252	24,590
Not-controlling interests	21	36
Mezzanine Capital	13,680	13,412
Provisions	44,090	36,695
Tax provisions	11,015	8,715
Other provisions	33,075	27,980
Liabilities	241,869	229,705
Debenture loans	42,636	42,636
Bank loans and overdrafts	157,443	137,944
Trade accounts payable	18,454	19,081
Liabilities to affiliated companies	5,041	4,682
Other liabilities	18,295	25,362
Accured expenses and deffered income	1191	1394
Deferred taxes	343	0
Balance sheet total	493 945	451 264
	Consolidated net income Not-controlling interests Mezzanine Capital Provisions Tax provisions Other provisions Liabilities Debenture loans Bank loans and overdrafts Trade accounts payable Liabilities to affiliated companies Other liabilities Accured expenses and deffered income Deferred taxes	Consolidated net income27,252Not-controlling interests21Mezzanine Capital13,680Provisions44,090Tax provisions11,015Other provisions33,075Liabilities241,869Debenture loans42,636Bank loans and overdrafts157,443Trade accounts payable18,454Liabilities5,041Other liabilities5,041Other liabilities1191Deferred taxes343Balance sheet total493,945

Consolidated profit and loss statement

	for the financial year from 1 January to 31 December / in K $\!$	2023	2022
1.	Sales revenue	299,685	231,658
2.	Increase in finished goods and work in progress	96,603	76,434
3.	Total turnover and operating revenue	396,288	308,092
4.	Other operating income	10,479	5,111
5.	Cost of materials	-210,278	-148,807
a)	Costs of auxiliary and operating materials and goods purchased	-5,132	-3,954
b)	Costs of purchased services	-205,146	-144,853
6.	Personnel expenses	-98,187	-77,730
a)	Salaries and wages	-81,432	-64,258
b)	Social security and other pension costs incl. pension fund contributions of 745 K€ (previous year: T€ 479)	-16,755	-13,472
7.	Depreciation	-16,701	-13,847
a)	Of intangible fixed assets and tangible assets	-4,312	-3,001
b)	Of fixed current assets	-12,389	-10,846
8.	Other operating expenses	-38,965	-29,694
9.	Income from equity interests	1,835	1,036
10.	Other interest and similar income	5,869	2,551
11.	Depreciation of financial assets and securities held as current assets	-1,307	-2,861
12.	Interest and similar expenses	-7,262	-5,613
13.	Earnings from ordinary business activities	41,771	38,238
14.	Taxes on income and profit	-13,716	-13,031
15.	Other taxes	-832	-630
16.	Net earnings	27,223	24,577
17.	Non-controlling interests	29	13
18.	Consolidated net profit	27,252	24,590

Consolidated statement of changes in equity

	Equity of the parent company					Non-Controlling interests		Group Equity			
In K€	Issued share capital	Capital reserves	Legal reserve	Other revenue reserves	Equity difference from currency	Consolidated net income for the year attributable to the parent company	Total	Equity difference from currency translation attributable to non- controlling interests	Profit / loss attributable to non- controlling interests	Total	Total
Status as of 31.12.2021	9,221	45,490	490	81,035	-217	13,804	149,822	-23	64	41	149,863
Transfer to revenue reserve				9,286		-9,286	0			0	0
Dividends paid						-4,518	-4,518			0	-4,518
Currency effects					127		127	9		9	136
Consolidated net income						24,590	24,590		-13	-13	24,576
Change of the year	0	0	0	9,286	127	10,786	20,198	9	-13	-4	20,194
Status as of 31.12.2022	9,221	45,490	490	90,321	-90	24,590	170,021	-14	50	36	170,057
						1					
Transfer to revenue reserve				19,610		-19,610	0			0	0
Dividends paid						-4,979	-4,979			0	-4,979
Change in the scope of consolidation				217	-8		209			0	209
Currency effects					248		248	15		15	263
Consolidated net income						27,252	27,252		-30	-30	27,223
Change of the year	0	0	0	19,827	240	2,663	22,730	15	-30	-15	22,715
Status as of 31.12.2023	9,221	45,490	490	110,149	150	27,252	192,751	1	21	21	192,772

Consolidated cash flow statement

in K€				
Opera	ting activities			
	Result for the period	27,223		
+/-	Depreciation/reversals of fixed assets	4,512		
+/-	Increase/decrease in reserves	4,886		
-/+	Increase/decrease in inventories	-83,952		
-/+	Increase/decrease in trade accounts receivable and other assets which are not classified as investment or financing activities	-8,836		
+/-	Increase/decrease in trade accounts payable and other liabilities which are not classified as investment or financing activities	-12,676		
-/+	Profit/loss from disposal of fixed assets	-42		
+	Interest expense	7,262		
-	Interest income	-5,869		
-	Other income from investments	-1,835		
+/-	Income tax expenditures/receipts	13,716		
-/+	Income tax payments	-7,385		
=	Cash flow from operating activities	-62.,997		
Invest	ment activities			
+	Proceeds from the disposal of property, plant and equipment items	431		
-	Expenditure for investments in intangible assets	-4,549		
+	Proceeds from the disposal of intangible assets	0		
-	Expenditure for investments in property, plant and equipment	-809		
+	Proceeds from the disposal of financial assets	57		
-	Expenditure for investments in financial assets	0		
+	Proceeds from acquisition of consolidates companies and other business units	0		
-	Expenditure from acquisition of consolidated companies and other business units	0		
+	Interest received	4,877		
+	Dividend received	1,835		
=	Cash flow from investment activities	1,842		
Financ	ing activities			
+	Proceeds from equity injections (capital increases, sale of treasury shares, etc.)	0		
-	Dividends paid to shareholders of the parent company	-4,979		
+	Proceeds from the issue of bonds and (financing) loans raised	42,108		
-	Expenditures from the repayment of bonds and (financial) loans	-22,005		
-	Interest paid	-5,059		
=	Cashflow from financing activities	10,065		
=	Net change in cash and cash equivalents	-51,090		
Currer	cy, consolidated companies and valuation-related changes in cash and cash equivalents	1185		
Cash and cash equivalents				
	as of January 2022	87,075		
	as of 31 December 2023	37,170		

Notes to the consolidated financial statements

1. General information

The consolidated financial statements of ABO Wind AG, Wiesbaden (registered at Wiesbaden District Court, HRB 12024) are prepared in accordance with the accounting regulations of the German Commercial Code (HGB) relating to incorporated companies, taking into account the German Stock Corporation Act (AG).

The income statement was prepared using the nature of expense method in line with § 275 (2) HGB. The financial year of the Group corresponds to the calendar year.

ABO Wind AG, as the parent company, is obliged to prepare consolidated financial statements under the provisions of §§ 290 et seq. HGB.

The accounting is based on the principle of consistency in accordance with § 246 (3) HGB or § 252 (1) no. 6 HGB.

For the sake of better clarity and transparency, the remarks to be included in the balance sheet and the income statement items pursuant to the statutory provisions as well as those remarks which should be optionally included in the balance sheet and the income statement or in the notes to the financial statements are presented mainly in the notes to the financial statements.

2. Consolidated companies

In addition to the parent company ABO Wind AG, the consolidated financial statements include 16 (previous year: 16) subsidiaries over which ABO Wind AG can directly or indirectly exercise a controlling influence within the meaning of § 290 HGB.

The following companies were **fully consolidated** in the reporting year:

Company	Share in capital
ABO Energy Service GmbH, Heidesheim, Germany	100%
ABO Wind Betriebs GmbH, Wiesbaden, Germany	100%
ABO Wind Carthage SARL, Tunis, Tunisia	99%
ABO Wind Energias Renovables S.A., Buenos Aires, Argentina	94%
ABO Wind España S.A.U., Valencia, Spain	100%
ABO Wind Hellas Energy S.A., Athens, Greece	100%
ABO Wind Hungary Kft, Budapest, Hungary	100%
ABO Wind Ireland Ltd, Dublin, Ireland	100%
ABO Wind Mezzanine GmbH & Co. KG, Wiesbaden, Germany	100%
ABO Wind Mezzanine II GmbH & Co. KG, Wiesbaden, Germany	100%
ABO Wind N.I. Limited, Lisburn, Great Britain	100%
ABO Wind Oy, Helsinki, Finland	100%
ABO Wind Polska Sp. z. o. o, Lódz, Poland	100%
ABO Wind Renovables Colombia SAS, Bogota, Colombia	100%
ABO Wind SARL, Toulouse, France	100%
ABO Wind UK Ltd, Falkirk, Great Britain	100%

Changes in the scope of consolidation:

ABO Wind Service GmbH was merged with ABO Wind Technik GmbH retroactively as of 1 January 2023 in accordance with the provisions of the merger agreement dated 5 July 2023. Both companies were fully consolidated in the 2022 financial year. In the course of the merger, ABO Wind Technik GmbH was renamed to ABO Energy Service GmbH. As at 31 December 2023, ABO Wind Renovables Colombia SAS, Colombia, was included in the scope of consolidation with retroactive effect from 1 January 2023.

Shares of subsidiaries held solely for resale (§ 296 (1) no. 3 HGB) and those subsidiaries of minor significance, even as a whole, for the presentation of a true and fair view of the net assets, financial position and results of operations(§ 296 (2) HGB) **have not been** included in the consolidated companies. See also the list of shareholdings attached to the notes.

3. Consolidation principles

General information

The financial statements of the consolidated companies were prepared using uniform accounting and valuation methods. Financial statements in foreign currencies are translated using the modified closing rate method.

Capital consolidation

Capital consolidation for the companies already fully consolidated in previous years continues to be carried out in accordance with Article 66 (3) sentence 4 of the Introductory Act to the German Commercial Code [EGHGB] using the book value method by offsetting the acquisition costs of the participation against the (proportional) equity capital of the subsidiary.

The revaluation method applies to companies newly included in the consolidated companies. In the process, the acquisition costs of the shares in subsidiaries are offset against the equity capital attributable to them, valued at the current market value at the time of the initial consolidation. Differences on the assets side resulting from capital consolidation are generally capitalised as goodwill – after taking into account disclosed hidden reserves/ hidden liabilities and deferred taxes thereon.

Debt consolidation

Within the framework of debt consolidation, all receivables and liabilities that exist between the companies included in the consolidated financial statements have been offset in accordance with § 303(1) HGB.

Expense and income consolidation

For expense and income consolidation pursuant to § 305(1) HGB, income from supplies and services, and other income from transactions between consolidated companies, was included in the consolidated financial statements along with the corresponding expenses. The same applies to other interest and similar income, which was offset against corresponding expenses.

Elimination of interim results

In accordance with § 304 (1) HGB, intercompany profits from the intra-group acquisition of assets were eliminated.

4. Accounting and valuation methods

4.1. Accounting and valuation of assets

Intangible assets acquired from third parties are capitalised at cost. They are amortised on a straight-line basis over their expected useful life pro rata temporis in the year of acquisition. Thus, computer programs acquired for valuable consideration are amortized over an average useful life of three years. Computer programs with a purchase price of less than EUR 800 are an exception. These are immediately recognised in the full amount as an expense. If the fair values of individual intangible assets are below their book values and if permanent impairment of those assets is expected, the Company additionally makes value-adjustment write-downs of those assets. Purchased goodwill is amortised over a period of 10 years according to the straight-line amortisation method.

Property, plant and equipment is valued at the acquisition or production cost reduced by straight-line depreciation charges. Additions to the "Property, plant and equipment" item are basically depreciated on a pro-rata temporis basis. They are depreciated according to the straight-line depreciation method over 3 to 15 years. If the fair values of individual assets are below their book values and if permanent impairment of those assets is expected, the Company additionally makes value-adjustment write-downs of those assets.

Low-value assets are accounted for in accordance with the tax law regulation under § 6 (2) EStG. Acquisition or production costs of depreciable movable fixed assets that can be used independently are recorded in full as tax-deductible expenses in the year of acquisition, production or contribution, if the acquisition or production cost of the individual asset, less the respective input tax, does not exceed EUR 800.

Financial assets include shares in affiliated companies and investments valued at cost. If the fair values of individual financial assets are below their book values and if permanent impairment of those assets is expected, the Company additionally makes value-adjustment write-downs of those assets.

Loans are generally recognised at nominal value.

Inventories were valued at their acquisition or production cost, taking into account the principle of lower of cost or market. All identifiable risks relating to inventories and arising from storage periods exceeding average storage times, reduced usability and/or lower replacement costs were accounted for by making appropriate value-adjustment write-downs. In all cases, valuation was loss-free, i.e., where the expected selling prices less the costs incurred up to the date of the sales transaction resulted in a lower fair value, appropriate write-downs were made.

The acquisition costs of **raw materials and consumables** and **merchandise** were determined based on the average cost method.

Work-in-progress (goods and services) was measured at production cost. The production costs include the components that must be capitalised in accordance with § 255(2) HGB. In addition, a reasonable proportion of the administrative costs and a reasonable expenditure for the company's welfare facilities and for voluntary social security contributions are included in the production costs if incurred during the production period.

Advance payments made on account of inventories were recognised at their nominal value.

Advance payments received were recognised at nominal value, deducted from inventories on the face of the balance sheet in accordance with § 268 (5) HGB and reduced by the respective VAT (the so-called net method).

Receivables and other assets were recognised at the lower of the nominal value and fair value as of the balance sheet date. For receivables in respect of which there is an identifiable risk of incollectibility, appropriate value adjustment write-downs were made; bad debts were written off.

Foreign currency translation

In principle, transactions in foreign currencies were recognised at the exchange rate applicable as of the date of the transaction. Receivables or liabilities resulting from such transactions which are outstanding on the balance sheet date were valued as follows:

Short-term receivables in foreign currencies (falling due within one year or earlier) and cash or other current assets in foreign currencies were translated at the spot exchange rate applicable as of the balance sheet date. Short-term liabilities in foreign currencies (falling due within one year or earlier) were translated at the spot exchange rate applicable as of the balance sheet date.

The following applies to subsidiaries included in the consolidated financial statements that use a currency different from that of the Group:

Assets and liabilities were translated using the average spot exchange rate on the balance sheet date, **expenses** and **income** at the average exchange rate, and equity at the historical exchange rate. Any resulting currency difference from the translation is recorded in equity under the "Change in equity resulting from currency translation" item.

Securities held as current assets were recognised at the lower of cost or fair value.

Cash and cash equivalents were recognised at its nominal value as of the balance sheet date.

Payments made before the balance sheet date were recognised as **prepaid expenses** if such payments represented expenses for a specific period after that date.

4.2. Accounting and valuation of equity and liabilities

The **subscribed capital** was recognised at its nominal value. The legal reserve was formed in accordance with § 150 AktG.

The Group reported granted **profit participation rights** as a separate item between equity and liabilities, thus exercising the option under § 265 (5) HGB. They are presented at nominal value.

Provisions were recognised in the amount payable estimated in accordance with a prudent commercial assessment. Provisions with a remaining term of more than one year were discounted at the average market interest rate for the previous seven financial years, which is a period that corresponds to their remaining term.

Liabilities were recognised at their settlement amount.

Deferred taxes

Deferred taxes were recognised in respect of differences between the values in the commercial and tax balance sheets, so long as these differences are expected to be eliminated in future financial years. Deferred taxes are also shown under losses carried forward and consolidation measures.

The expense and income from the change in the deferred taxes recorded on the balance sheet is shown in the income statement under the "Income taxes" item and explained separately in the notes to the financial statements.

The valuation of deferred taxes is based on the individual tax rate expected to apply at the time the differences are reduced for the group company in which the differences are likely to be reduced.

5. Information on the balance sheet

Unless otherwise stated, the previous year's figures on the balance sheet relate to 31 December 2022.

Fixed assets

Movements in the individual items of fixed assets are presented in the schedule of fixed assets indicating the amortisation/ depreciation in the financial year. The schedule of fixed assets has been appended to the notes to the financial statements.

The previous year's goodwill resulted from the initial consolidation of ABO Energy Service GmbH, Heidesheim (previously: ABO Wind Technik GmbH, Heidesheim) in September 2021. Due to negative development prospects for this company, the remaining goodwill was written off in the 2023 financial year in the amount of EUR 465 thousand.

The shares in affiliated companies and investments shown under financial assets, are listed in the list of shareholdings which is appended to the notes. Shares or investments that are of minor importance for the assessment of the net assets, financial position and results of operations have not been disclosed. In addition, the company applied the exemption arising from § 313 (3) sentence 1.

Receivables and other assets

Information about receivables and other assets can be found in the following statement of receivables:

31/12/2023		Remaining terms	
	Total	< 1 year	> 1 year
	in T€		
Trade receivables	47,177	46,886	291
(previous year)	(26,502)	(26,502)	(0)
Receivables from	158,138	153,913	4,225
related parties			
(previous year)	(172,743)	(166,709)	(6,034)
Other assets	15,359	15,134	225
(previous year)	(13,745)	(13,550)	(195)
Total	220,674	215,933	4,741
(previous year)	(212,990)	(206,761)	(6,229)

Receivables from affiliated companies mainly result from intragroup corporate financing in the amount of EUR 121.1 million (previous year: EUR 65.2 million) and from trade receivables in the amount of EUR 37.0 million (previous year: EUR 107.5 million).

Deferred tax assets

The "Deferred tax assets" item shown separately in the balance sheet is the result of reconciling the local separate financial statements to the group's uniform accounting and valuation standards (EUR 0.3 million; previous year: EUR 2.1 million), loss carryforwards (EUR 0.3 million; previous year: EUR 0.0 million), and the elimination of interim profits (EUR 1.9 million; previous year: EUR 1.4 million).

Deferred tax assets and liabilities were valued using the following company-specific tax rates:

- Argentina 25.0 %
- Finland 20.0 %
- France 25.0 %
- Greece 22.0 %
- United Kingdom 19.0 %
- Ireland 12.5 %
- Colombia 19.0 %
- Northern Ireland 19.0 %
- Poland 19.0 %
- Spain 25.0 %
- Tunisia 15.0 %
- Hungary 9.0 %

Equity

ABO Wind AG's subscribed capital is divided into 9,220,893 no-par-value shares with an accounting par value of EUR 1/share in the share capital.

The Managing Board is authorised to increase the share capital one or more times before 21 August 2024 with the consent of the Supervisory Board by up to EUR 2.9 million in return for cash contributions or contributions in kind. In so doing, shareholders' subscription rights may be excluded (authorised capital 2019/1).

The Managing Board is authorised to increase the share capital one or more times before 19 August 2025 with the consent of the Supervisory Board by up to EUR 0.3 million in return for cash contributions or contributions in kind. In so doing, shareholders' subscription rights may be excluded (authorised capital 2020/1).

The Managing Board is authorised to increase the share capital one or more times before 27 April 2027 with the consent of the Supervisory Board by up to EUR 0.5 million in return for cash contributions. In so doing, shareholders' subscription rights may be excluded (authorised capital 2022/1).

The parent company's net income for the 2022 financial year of EUR 15.5 million was used as follows:

- EUR 5.0 million was distributed as dividends;
- EUR 10.5 million was transferred to other retained earnings.

The Managing Board of ABO Wind AG recommends that a dividend of EUR 0.60 pro share be distributed from the net profit of EUR 27.0 million for the 2023 financial year. The remainder of the net profit for the year should be carried forward onto a new account.

Mezzanine capital

As at the balance sheet date, participation certificates totalling EUR 13.7 million were issued (previous year EUR 13.4 million). Each of the participation certificates issued represents an accounting par value of EUR 1. Of the total sum, EUR 8.5 million (previous year EUR 8.5 million) is attributable to ABO Wind Mezzanine GmbH & Co. KG, and EUR 5.2 million (previous year EUR 5.0 million) to ABO Wind Mezzanine II GmbH & Co. KG. The participation certificate bearers are entitled to annual interest.

Provisions

Tax provisions are structured as follows:

Tax provisions	31/12/2023	31/12/2022
	T€	T€
Provision for corporation tax	7,348	7,099
Provision for trade tax	3,667	1,616
Total	11,015	8,715

Other provisions are subdivided as follows:

Other provisions	31/12/2023	31/12/2022
	T€	T€
Provision for	15,935	12,154
outstanding invoices		
Provision for personnel	7,556	6,890
Other provisions	5,341	5,148
Provision for	1,816	1,967
compensatory measures		
Provision for misc.	1,525	1,193
project risks		
Provision for warranties	686	442
Provision for financial	191	161
statement and audit costs		
Provision for	25	25
archiving costs		
Total	33,075	27,980

Liabilities

Based on a securities prospectus approved by the German Federal Financial Supervisory Authority (BaFin), ABO Wind AG offered up to 50,000 bearer partial debentures with a nominal value of €1 thousand each. Overall, the total net proceeds achieved from the issuance were EUR 42.6 million. The partial debentures bear interest of 3.5 per cent per annum on their nominal amount until 31 March 2029. From 1 April 2029 to 31 March 2030, interest will be 1.75 per cent per annum on the nominal amount. Interest is payable annually in arrears on 1 April of each year. Liabilities to banks comprise exclusively low-interest amortising loans and bullet bonded loans.

The statement of liabilities below shows the liabilities and their remaining terms:

Liabilities	31/12/2023	Re	maining ter	rms
	Total	up to	1 to 5	over 5
	in T€	1 year	years	years
Bonds	42,636	0	0	42,636
(previous year)	(42,636)	(0)	(0)	42,636
Liabilities to	157,443	3,221	128,772	25,500
banks				
(previous year)	(137,944)	(10,331)	(112,113)	(15,500)
Trade liabilities	18,454	18,454	0	0
(previous year)	(19,081)	(19,081)	(0)	(0)
Liabilities to	5,041	5,041	0	0
affiliated				
companies				
(previous year)	(4,682)	(4,682)	(0)	(0)
Other	18,295	18,295	0	0
liabilities				
(previous year)	(25,362)	(25,362)	(0)	(0)
-of which	14,001	14,001	0	0
relating to				
taxes				
(previous year)	(20,722)	(20,722)	(0)	(0)
-of which	903	903	0	0
relating to				
social security				
(previous year)	(1,184)	(1,184)	(0)	(0)
Total	241,869	45,011	128,722	68,136
(previous year)	(229,705)	(59,456)	(112,113)	(58,136)

Liabilities to affiliated companies primarily include those arising from trade liabilities (EUR 5.0 million; previous year: EUR 4.7 million).

Deferred income

Deferred income mainly includes a KfW subsidy of EUR 1.0 million (previous year: EUR 1.4 million) granted in connection with loans and amortised over the term of the loan.

Deferred tax liabilities

The "Deferred tax liabilities" item shown separately in the balance sheet is the result of reconciling the local separate financial statements to the group's uniform accounting and valuation standards (EUR 0.3 million; previous year: EUR 0 million). The tax rates used are identical to the tax rates recognised under the item "Deferred tax assets".

6. Information on the income statement

Sales revenues

The following breakdown shows sales revenues by area of activity:

	31/12/202	23	31/12/202	22
	T€	%	T€	%
Planning and sale of rights	127,295	42.5	119,613	51.6
Construction	154,568	51.6	96,169	41.5
Services	17,822	5.9	15,876	6.9
Total	299,685	100	231,658	100

	31/12/202	:3	31/12/2022	
	T€	%	T€	%
Germany	118,569	39.6	80,078	34.5
Finland	51,367	17.1	29,158	12.6
Spain	49,012	16.4	27,030	11.7
France	34,121	11.4	63,108	27.2
Greece	27,295	9.1	46	0
Hungary	9,033	3	180	0.1
Canada	3,407	1.1	1,206	0.5
Poland	2,187	0.7	8,820	2
South Africa	2,026	0.7	4,631	3.8
Colombia	1,706	0.6	608	0.3
Ireland	824	0.3	13,377	5.8
Netherlands	108	0	61	0
United Kingdom	30	0	2,487	1.1
Argentina	0	0	861	0.4
Northern Ireland	0	0	7	0
Tunisia	0	0	0	0
	299.685	100	231,658	100

The table below shows the breakdown by geographical market:

Other operating income

Other operating income includes income relating to other periods of EUR 3.9 million as a result of releasing provisions (previous year: 1.3 million) and foreign exchange gains of EUR 2.9 million (previous year: EUR 1.0 million). Of these foreign exchange gains, EUR 0.7 million (previous year: 0.5 million) has already been realised.

Depreciation

Depreciation in the amount of EUR 16.7 million (previous year: EUR 13.8 million) comprises EUR 4.3 million (previous year: EUR 3.0 million) in depreciation of fixed assets and EUR 12.4 million (previous year: EUR 10.8 million) in write-downs on projects underway which are no longer feasible or whose profitability has deteriorated significantly. The write-downs relate to projects in France (EUR 3.2 million), Germany (EUR 2.7 million), Greece (EUR 1.8 million) and Spain (EUR 1.5 million), Argentina (EUR 1.1 million) and a total of EUR 2.1 million for projects in Tunisia, Colombia, Ireland, Poland, Finland, and the UK. No write-downs to account for country risks were made in the 2023 financial year (previous year: EUR 0.5 million).

Other operating expenses

Other operating expenses include expenses relating to other periods of EUR 3.6 million (previous year: EUR 1.9 million) which is predominantly the result of bad debts. Foreign exchange losses of EUR 3.0 million (previous year: EUR 1.9 million) were also recorded.

Income taxes

Income taxes include income from deferred taxes of EUR 6.6 million (previous year EUR 4.9 million) and expenses from deferred taxes of EUR 7.9 million (previous year EUR 4.2 million).

7. Other information

Contingent liabilities

ABO Wind AG has issued a guarantee bond to the holders of profit participation rights of ABO Wind Mezzanine GmbH & Co. KG for the interest liabilities in the amount of 4.3 per cent of the respective contributions if ABO Wind Mezzanine GmbH & Co. KG is unable to distribute the interest in full or at all. The maximum contribution is EUR 10 million; as of 31/12/2023 the contribution was EUR 8.5 million. The interest for 2023 will be distributed as scheduled on 28/02/2024.

The company has also issued a guarantee bond to the holders of profit participation rights of ABO Wind Mezzanine II GmbH & Co. KG for the interest liabilities in the amount of 4% of the respective contributions if ABO Wind Mezzanine II GmbH & Co. KG is unable to distribute the interest in full or at all. The maximum contribution is EUR 5.4 million; as of 31/12/2023 the contribution was EUR 5.2 million. The interest for 2023 will be distributed as scheduled on 28/02/2024.

The company is liable for a total of EUR 13.3 million for overdraft facilities provided to ABO Wind SARL by the French banks CREDIT AGRICOLE (Toulouse), La Banque CIC SUD OUEST (Bordeaux), and Crédit Lyonnais (Toulouse). In addition, the company is liable for EUR 136.5 million for the overdraft facility provided to ABO Wind S.A.U. by Iberian (Valencia), Caixa Bank (Albacete), Bankinter (Madrid), and Accelerant (Madrid).

By way of security for payment claims under the contracts to supply, install and commission wind turbines for various projects, ABO Wind AG has also issued suretyship guarantees to suppliers for EUR 248 million.

In addition, ABO Wind AG has issued a letter of comfort in favour of a subsidiary. In this letter of comfort, ABO Wind AG undertakes to maintain intercompany loans and to guarantee the existing and future liabilities of the subsidiary. The letter of comfort expires on 30/06/2026 at the latest.

No reserves have been formed for the specified contingent liabilities, estimated at nominal values, because their use and any negative impact on ABO Wind AG is not expected.

Other financial liabilities and off-balance sheet transactions

The Group also has liabilities arising from fixed-term rental and lease agreements of EUR 13.1 million (previous year: EUR 7.5 million). These liabilities are predominantly incurred as a result of premises rental and vehicle leasing.

Hedge accounting

To hedge the interest rate risk of loans with variable interest rates, derivative financial instruments were used. If statutory requirements apply, hedges within the meaning of § 254 HGB are created. The so-called "net hedge presentation method" [Einfrierungsmethode] (compensatory valuation) was applied to account for the effective parts of the created hedges in the balance sheet. The compliance of the valuation-related parameters of the hedging instrument and the hedged item serves as the basis for determining the effectiveness of the hedge (the so-called critical terms match method). The effectiveness of the hedge accounting is determined prospectively at every balance sheet date and is almost 100 per cent due to the congruent maturities and amounts of the hedged item and the hedging instrument.

A hedge was created for the following micro hedge:

To hedge interest rate risks arising from the issuance of a bonded loan with variable interest rates, the company concluded interest rate swaps due to the current and future interest rate development and the expected increase in interest rates. In detail, this concerns two tranches of the total of five tranches of the bonded loans, one for EUR 8.0 million with a term of 3 years and an interest rate of "EURIBOR 6 months + 1.400%" and the other for EUR 9.0 million with a term of 5 years and an interest rate of "EURIBOR 6 months + 1.600%". Notes to the consolidated financial statements

Start date	End date	Currency	Tranche	Fixed rate (% p.a.)	Fixed amount	Maturity
07/09/2023	07/03/2024	EUR	8,000,000	2.75	111,222	07/03/2024
07/03/2024	09/09/2024	EUR	8,000,000	2.75	113,667	09/09/2024
09/09/2024	07/03/2025	EUR	8,000,000	2.75	109,389	07/03/2025
07/03/2025	08/09/2025	EUR	8,000,000	2.75	113,056	08/09/2025
The fair value of	this interest rate h	edge is EUR 18 th	ousand.			
Start date	End date	Currency	Tranche	Fixed rate (% p.a.)	Fixed amount	Maturity
07.09.23	07.03.24	EUR	9.000.000	2,82	128.310	07.03.24
07.03.24	09.09.24	EUR	9.000.000	2,82	131.130	09.09.24
09.09.24	07.03.25	EUR	9.000.000	2,82	126.195	07.03.25
07.03.25	08.09.25	EUR	9.000.000	2,82	130.425	08.09.25
08.09.25	09.03.26	EUR	9.000.000	2,82	128.310	09.03.26
09.03.26	07.09.26	EUR	9.000.000	2,82	128.310	07.09.26
07.09.26	08.03.27	EUR	9.000.000	2,82	128.310	08.03.27
08.03.27	07.09.27	EUR	9.000.000	2,82	129.015	07.09.27
The fair value of	this interest rate h	edge is EUR -120	thousand.			

Cash flow statement

The cash flow statement shows changes in cash and cash equivalents in detail. Cash and cash equivalents as at the balance sheet date corresponds to the "Cash on hand and at bank" balance sheet item.

Managing Board

The following persons were on the Managing Board in the reporting year:

Dr Karsten Schlageter, industrial engineering graduate, Taunusstein, responsible for international business development; spokesperson for the Managing Board

Dr Jochen Ahn, chemistry graduate, Wiesbaden, responsible for business development,

Dipl. Ing. Matthias Bockholt, graduate electrical engineer, Heidesheim, responsible for service and operational management (until 31/07/2023),

Alexander Reinicke, business graduate, Mainz, responsible for Corporate Finance, Controlling, Human Resources and Administration,

Susanne von Mutius, business graduate Oberursel, responsible for project financing and sales,

Matthias Hollmann, machine engineering graduate, Frankfurt, responsible for technology, purchasing and construction.

The remuneration of the Managing Board members totalled EUR 1.8 million (previous year EUR 1.3 million).

Auditor's total fee

The parent company's individual and consolidated financial statements as at 31 December 2023 were audited by Rödl & Partner GmbH Wirtschaftsprüfungsgesellschaft, Cologne, Germany. The total fee for audit services is EUR 195 thousand (previous year EUR 116 thousand), EUR 170 thousand (previous year EUR 581 thousand) for tax advisory services, and EUR 12 thousand (previous year EUR 8 thousand) for other services. The above information also includes the services provided by Rödl & Partner in subsidiaries.

Employees

As at 31/12/2023, an average of 1,221 salaried employees (previous year 1,036) were employed. This figure is broken down by group as follows:

Employee groups	31/12/2023	31/12/2022
Executive salaried employees	28	16
Full-time employees	940	773
Part-time employees	253	247
Total	1,221	1,036

Supervisory Board

Members of the Supervisory Board in the 2023 financial year were:

Chair

Lawyer Jörg Lukowsky, tax law and employment law specialist, employed at law partnership FUHRMANN WALLENFELS Wiesbaden Rechtsanwälte Partnerschaftsgesellschaft in Wiesbaden (until 27/04/2023),

Lawyer Dr Alexander Thomas, stock corporation and capital market law specialist, partner at GSK Stockmann, Pullach im Isartal (since 27/04/2023).

Other members:

Prof. Dr Uwe Leprich, Professor of Economic Policy and Energy Economics at Saarland Business Technical College of Higher Education in Saarbrücken (until 27/10/2023),

Eveline Lemke, Managing Director of Eveline Lemke Consulting, Volksfeld,

Maike Schmidt, scientist, Head of Systems Analysis at the Centre for Solar Energy and Hydrogen Research, Stuttgart (until 27/10/2023),

Martin Giehl, managing board member of Mainova AG, Heiligenhaus (until 27/10/2023),

Natalie Hahner, business economist, employee of ABO Wind AG, Mainz (since 10/12/2023).

The remuneration for members of the Supervisory Board totalled EUR 85 thousand (EUR 91 thousand in the previous year).

An Extraordinary General Meeting on 27 October 2023 resolved to change the company's legal form to a partnership limited by shares (KGaA). An action to rescind this resolution was filed and, consequently, the company filed a court application to initiate proceedings for the release for entry in the register.

8. Report on post-balance-sheet events

The Higher Regional Court of Frankfurt am Main approved the proceedings for the release by a decision dated 29 February 2024 served on 1 March 2024, meaning that the new legal form can be entered in the Wiesbaden company register in accordance with § 198 (1) of the German Transformation Act (UmwG).

No other incidents of major significance for ABO Wind AG to its business operations or its net assets, financial position and results of operations occurred after 31 December 2023 that could result in a different assessment of the company's position.

Wiesbaden, 1 March 2024

Dr. Karsten Schlageter Managing Board Spokesperson

Dr. Jochen Ahn Managing Board member

Matthias Hollmann Managing Board member

Susanne von Mutius Managing Board member

A Otale.

Alexander Reinicke Managing Board member

Summary of fixed assets

	Values in K€	Aquistic	on costs						Deprecia	ıtion						Book val	les
		As at 01.01. 2023	scope of consoli- dation	Cur- rency effect	Addi- tons	Dispo- sals	Re- classifi- cations	As at 31.12. 2023	As at 01.01. 2023	scope of consoli- dation	Cur- rency effect	Addi- tons	Dispo- sals	Re- classifi- cations	As at 31.12. 2023	As at 31.12. 2023	As at 31.12. 2022
<u> </u>	Intangible Assets																
сі	Purchased licences, industrial property rights an similar rights and assets as well as licences for such rights and assets	3,869	Ω	ų	167	0	0	4,665	2,945	m	-134	914	0	1	3,728	937	924
2.	Payment on account	185	0	0	17	I	0	202	I	0	O -	15	I	I	15	188	465
m.	Goodwill	531	0	0	0	0	0	531	66	0		465			531	0	185
	Intangible Assets	4,585	'n	Ļ	809	0	0	5,398	3,011	m	-134	1,393	0	0	4,274	1,125	1,574
≓	Property, pland and equipment																
ij	Land and buildings	428	0	0	0	0	I	428	7	0	I	I	I	I	7	420	420
2.	Technical equipment and machinery	680		0	20	-501	-72	127	210	0	I	41	-177	-45	29	98	470
'n	Other fixed assets, factory and office equipment	20,282	24	-400	3,542	-985	792	23,254	12,817	6	-170	2,878	-921	45	14,658	8,596	7,465
4	Advanced payments and assets under construction	687	0		988		-719	956		0						956	687
	Tangible fixed assets total	22,077	24	-400	4,550	-1,487	0	24,765	13,035	6	-170	2,919	-1,098	0	14,694	10,071	9,043
≓	Financial assets																
ц.	Shares in affiliated companies	527	'n	1	0	-15	I	509	15	0	I	200	-15	I	200	309	512
2.	Loans to affiliated companies	5,054	0	1	0	0	I	5,054	3,519	0	I	0	I	I	3,519	1,535	1,535
'n.	Investments	996	0	1	1	0	I	966	506	0	I	I	I	I	506	460	460
4	Loans to companies in which the company has participating interest	518	0	1	I	-57	ı	462	I	0	I	I	I	I	ı	462	518
	Financial assets	7,066	'n	0	•	-71	I	6,991	4,040	0	I	200	-15	I	4,225	2,766	3,026
Fixed	assets total	33,728	27	-400	5,358	-1,558	I	37,155	20,086	12	-304	4,512	-1,113	I	23,193	13,961	13,642

Independent auditor's report

Audit opinions

We have audited the consolidated financial statements of ABO Wind AG, Wiesbaden, and its subsidiaries (the Group) – which comprise the consolidated balance sheet as of 31 December 2023, the consolidated statement of profit and loss, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from 1 January 2023 to 31 December 2023, and notes to the consolidated financial statements, including the presentation of the accounting and valuation methods. In addition, we have audited the group management report of ABO Wind AG, Wiesbaden, for the financial year from 1 January 2023 to 31 December 2023. In accordance with the German legal provisions, we have not audited the content of those parts of the group management report and other parts of the annual report specified in the "Other information" section of our auditor's report in terms of their content.

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

- the accompanying consolidated financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the Group's net assets and financial position as at 31 December 2023, and of it's financial performance for the financial year from 1 January 2023 to 31 December 2023 in compliance with German Legally Required Accounting Principles; and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of those parts of the group management report and the annual report specified in the "Other information" section that were not audited in terms of their content

Pursuant to § 322 (3) 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 consolidated financial statements and of the group management report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and the group management report in accordance with § 317 HGB and 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 "Responsibility of the auditor for the audit of the consolidated financial statements and the group management report" section of our auditor's report. We are independent of the group entities 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 regarding the consolidated financial statements and the group management report.

Other information

The legal representatives are responsible for other information. The other information includes the following non-audited parts of the group management report and the remaining parts of the annual report of ABO Wind AG, but does not include the annual financial statements, the audited disclosures in the group management report, or the related auditor's report we issued:

- the corporate governance statement according to § 289f (4)
 HGB, which is included in the group management report,
- the information contained in the group management report that is not part of the management report and has been marked as unaudited,
- the annual report of ABO Wind AG.

Our audit opinions on the consolidated financial statements and on the group management report do not cover other information and, therefore, we do not issue any audit opinion or any other form of audit findings about it.

With reference to our audit of the consolidated financial statements, we are responsible for reading the above-mentioned other information and consider whether

• there is a material inconsistency between the other information and the consolidated financial statements, the

audited disclosures in the group management report or the auditor's knowledge obtained in the audit; or

• it appears to be materially misstated.

If, based on the procedures performed by us, we conclude that other information contains material misstatement, we are required to include a note about this fact in the report. No such misstatements have been identified, though.

Responsibility of the legal representatives and the supervisory board for the consolidated financial statements and the group management report

The legal representatives are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with the requirements of German commercial law and that the consolidated financial statements, in compliance with German Legally Required Accounting Principles, give a true and fair view of the net assets, financial position and results of operations. In addition, the legal representatives are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (e.g., manipulation of accounting and damage to assets) or error.

In preparing the consolidated financial statements, the legal representatives are responsible for assessing the Group'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 legal representatives are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the legal representatives are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a consolidated 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 group management report.

The supervisory board is responsible for monitoring the Group's accounting process relating to the preparation of the consolidated financial statements and the group management report.

Responsibility of the auditor for the audit of the consolidated financial statements and the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated 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 consolidated financial statements and on the group 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 consolidated financial statements and this group 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 consolidated financial statements and of the group 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 consolidated financial statements and of arrangements and measures relevant to the audit of the group 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.
- Evaluate the appropriateness of accounting policies used by the legal representatives and the reasonableness of estimates made by the legal representatives and related disclosures.
- Conclude on the appropriateness of the legal representatives' 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 Group'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 consolidated financial statements and in the group 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 Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group in compliance with German Legally Required Accounting Principles.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the consolidated management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the legal representatives in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the legal representatives 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. Cologne, 4 March 2024 Rödl & Partner GmbH

Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft



Groll

Schambeck

Wirtschaftsprüfer [German Public Auditor] Wirtschaftsprüferin [Certified Public Auditor]

Shares in affiliated companies

Name, Sitz (Land)	Shares in %	Year	Currency	Equity capital in thousand	Net profit for the year in thousand
Full consolidation					
ABO Energy Services GmbH, Ingelheim am Rhein (Deutschland)	100%	2023	EUR	-2,956	-2,584
ABO Wind Betriebs GmbH, Wiesbaden (Deutschland)	100%	2023	EUR	1,308	30
ABO Wind Carthage SARL, Tunis (Tunesien)	99%	2023	TND	-241	170
ABO WIND ENERGIAS RENOVABLES SA, BUENOS AIRES (Argentinien)	94%	2023	ARS	258,960	-66,197
ABO Wind España, S.A.U., VALENCIA (Spanien)	100%	2023	EUR	5,468	4,991
ABO Wind Hellas Energy S.A., CHALANDRI (Griechen- land)	100%	2023	EUR	-453	-1,350
ABO Wind Hungary KFT, Budapest (Ungarn)	100%	2023	EUR	1,838	1,741
ABO Wind Ireland Ltd., Dublin (Irland)	100%	2023	EUR	-1,463	-1,886
ABO Wind Mezzanine GmbH & Co. KG, Wiesbaden (Deutschland)	100%	2023	EUR	8,641	11
ABO Wind Mezzanine II GmbH & Co. KG, Wiesbaden (Deutschland)	100%	2023	EUR	5,264	5
ABO Wind NI Ltd., Lisburn, Northern Ireland (Nord Irland)	100%	2023	GBP	-1,658	-289
ABO Wind Oy, Helsinki (Finnland)	100%	2023	EUR	7,557	4,669
ABO Wind Polska Sp.z o.o., Łódź (Polen)	100%	2023	PLN	-5,600	4,742
ABO Wind Renovables Colombia SAS, Bogota (Kolum- bien)	100%	2023	СОР	2,563,584	1,491,133
ABO Wind SARL, Toulouse (Frankreich)	100%	2023	EUR	7,382	6,991
ABO Wind UK Ltd., Falkirk, Scotland (Großbritanien)	100%	2023	GBP	179	78
Kein Einbezug nach § 296 Abs. 2 HGB (nicht wesentlich)					
ABO Energy 2. Verwaltungs GmbH, Ingelheim am Rhein (Deutschland)	100%	2022	EUR	10	0
ABO Pionier AG, Wiesbaden (Deutschland)	100%	2022	EUR	37	-31
ABO Tanzania Limited, Dar Es Salaam (Tansania)	99%	2022	TZS	20,307	-75,873
ABO Wind Biomasse GmbH, Ingelheim am Rhein (Deutschland)	100%	2022	EUR	66	2

ABO Wind Bürgerbeteiligung GmbH & Co. KG, Wiesba- den (Deutschland)	100%	2022	EUR	-5	-10
ABO Wind Büroleistungen GmbH, Wiesbaden (Deutschland)	100%	2022	EUR	23	-2
ABO Wind Canada Ltd., Calgary (Kanada)	100%	2022	CAD	600	381
ABO Wind Forst Briesnig GmbH, Ingelheim am Rhein (Deutschland)	100%	2021	EUR	-1,362	-11
ABO Wind Hellas O&M S.A, CHALANDRI (Griechenland)	100%	2022	EUR	-84	-102
ABO Wind Hellas Verwaltungs GmbH, Wiesbaden (Deutschland)	100%	2022	EUR	23	-1
ABO Wind Nederland B.V., Amsterdam (Niederlande)	100%	2023	EUR	118	48
ABO Wind OMS Ireland Ltd., Dublin (Irland)	100%	2022	EUR	18	20
ABO Wind Renewable Energies Pty Ltd., Cape Town (Südafrika)	100%	2022	ZAR	2,637	1,879
ABO Wind Sachverständigen GmbH, Ingelheim am Rhein (Deutschland)	100%	2022	EUR	151	6
ABO Wind Services OY, Helsinki (Finnland)	100%	2021	EUR	1	-137
ABO Wind Solutions GmbH, Wiesbaden (Deutschland)	100%	2022	EUR	-388	-183
ABO Wind Verwaltungs GmbH, Ingelheim am Rhein (Deutschland)	100%	2022	EUR	153	1
B & F Windpark GmbH, Ingelheim am Rhein (Deutsch- land)	24%	2022	EUR	61	8
Ekmetalleusi Akiniton Megala Kalivia Single Member S.A. , CHALANDRI (Griechenland)	100%	2022	EUR	-258	-150
Upepo Tanzania Limited, Mwanza (Tansania)	50%	2022	TZS	-669,500	-147,013
Verwaltungsgesellschaft WP Hocheifel II GmbH, Wies- baden (Deutschland)	100%	2022	EUR	24	0
No inclusion in accordance with § 296 (1) no. 3 HGB (held	d for sale)				
ABO Kraft & Wärme AG, Wiesbaden (Deutschland)	23%	2022	EUR	24,383	224
United Battery Management GmbH, Berlin (Deutsch- land)	70%	2022	EUR	73	62

ABO Wind AG balance sheet

Assets

As at 3	31.12. / in K€	2023	2022
Α.	Fixed assets	9,281	11,260
١.	Intangible assets	931	884
1.	Intangible assets as concessions, patents, licences, trade marks and similar rights and assets acquired from third parties	746	698
2.	Payments on account	185	185
II.	Tangible fixed assets	3,388	3,125
1.	Land and leasehold rights and buildings, including buildings on third-party land	420	420
2.	Fixtures, fittings, tools and equipment	2,968	2,475
3.	Payments on account and assets in process of construction	0	230
III.	Financial assets	4,962	7,251
1.	Shares in affiliated companies	2,505	4,738
2.	Loans to affiliated companies	1,535	1,535
3.	Investments	460	460
4.	Loans to companies in which the company has a participating interest	462	518
В.	Current assets	448.640	401.995
١.	Inventories	185,254	132,202
1.	Work in progress	245,805	173,406
2.	Finished goods and goods for resale	0	0
3.	Payments on account	28,492	11,434
4.	Down payments received	-89,043	-52.,639
١١.	Receivables and other assets	223,040	184,451
1.	Trade accounts receivable	13,420	16,213
2.	Receivables from affiliated companies	203,200	157,312
3.	Receivables from companies in which the company has a participating interest		0
4.	Other assets - of which with a remaining term of over one year 225 (previous year: 195)	6,420	10,927
111.	Securities	9,248	8,829
1.	Shares in affiliated companies	2,407	3,756
2.	Other investments	6,841	5,073
IV.	Cash on hand, Bundesbank balance, cash at bank and cheques	31,098	76,513
с.	Deferred income	577	361
	Balance sheet total	458,498	413,617

Liabilities

As at 3	31.12. / in K€	2023	2022
Α.	Equity capital	176,346	154,333
I.	Subscribed capital	9,221	9,221
II.	Capital reserve	45,490	45,490
III.	Revenue reserves	94,642	84,080
1.	Legal reserve	490	490
2.	Other revenue reserves	94,153	83,591
IV.	Net earnings	26,993	15,542
B.	Provisions	25,745	21,297
1.	Tax provisions	9,486	6,537
2.	Other provisions	16,259	14,760
с.	Liabilities	255,293	236,594
1.	Debenture loans - of which with a remaining term of up to one year 42,636 (previous year: 42,636)	42,636	42,636
2.	Bank loans and overdrafts - of which with a remaining term of up to one year 3.221 (previous year: 2,460)	157,443	137,941
3.	Trade accounts payable - of which with a remaining term of up to one year 9,169 (previous year: 2,945)	9,169	2,945
4.	Liabilities to affiliated companies - of which with a remaining term of up to one year 38,033 (previous year:42,706)	38,033	42,706
5.	Other liabilities - of which with a remaining term of up to one year 8,011 (previous year: 10,365) - of which tax 5,788 (previous year: 8,225)	8,012	10,365
D.	Deferred income	1,114	1,394
	Balance sheet total	458,498	413,617

ABO Wind AG profit and loss statement

	From 1.1. to 31.12. / in K€	2023	2022
1.	Sales revenues	180,814	140,797
2.	Increase in inventory of finished products and work in progress	84,788	57,714
3.	Other capitalised assets	0	0
	Total turnover and operating revenue	265,602	198,512
4.	Other operating income	4,639	2,536
5.	Cost of materials	-156,454	-108,252
a)	Cost of auxiliary and operating materials and goods purchased	-31	-30
b)	Cost of purchased services	-156,423	-108,222
6.	Personnel expenses	-62,821	-49,734
a)	Salaries and wages	-53,726	-42,309
b)	Social security and other pension costs	-9,095	-7,426
7.	Depreciation	-14,067	-12,333
a)	of intangible fixed assets and tangible assets	-1,678	-1,488
b)	of fixed current assets, where these exceed the usual depreciation in the company	-12,389	-10,846
8.	Other operating expenses	-25,702	-18,137
9.	Income from equity interests in affiliated companies - of which from affiliated companies: 27,536 (previous year: 13,396)	27,635	13,446
10.	Other interest and similar income - of which from affiliated companies: 6,779 (previous year: 3.086)	7,014	3,112
11.	Depreciation of financial assets and securities held as current assets	-3,340	-2,861
12.	Interest and similar expenses - of which to affiliated companies: 597 (previous year: 0)	-7.130	-4.056
13.	Taxes on income and profit	-8,349	-6,658
14.	Earnings after tax	27,027	15.,574
15.	Other taxes	-34	-32
16.	Net profit	26,993	15,542
17.	Net earnings	26,993	15,542