



# Combined Management Report

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*Disclosures made in italics in the Combined Management Report constitute other information for which the company's executive directors are responsible. The contents of these disclosures were not subject to any audit by the auditor.*

# Group Fundamentals

## Group Structure

### Company structure and shareholdings

As the publicly listed parent company of the MVV Group, MVV Energie AG, which has its legal domicile in Mannheim, directly or indirectly owns shares in the companies which form part of the Group and also has its own operations. Including MVV Energie AG, the MVV Group comprises 112 fully consolidated companies and 30 companies which are consolidated using the equity method (at-equity companies). Our group of companies has its largest locations in Mannheim, Kiel, Offenbach and Wörrstadt in Germany and in Plymouth and Dundee in the United Kingdom. An overview of all shareholdings, and thus of all countries in which we are present, can be found in the chapter [MVV's Shareholdings](#).

### Organisational structure

We manage MVV in five segments on which we also base our external reporting:

The **Customer Solutions** reporting segment comprises the business fields of Retail, Business and Commodities.

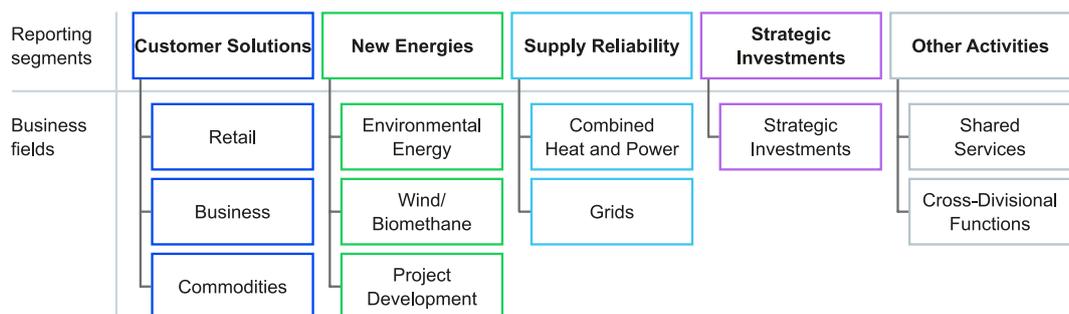
The Environmental Energy, Wind/Biomethane and Project Development business fields are allocated to the **New Energies** reporting segment.

The **Supply Reliability** reporting segment includes the Combined Heat and Power and the Grids business fields.

The **Strategic Investments** reporting segment comprises the companies of Köthen Energie and the MVV Energie CZ Group, as well as the at-equity results of selected shareholdings in municipal utility companies. We sold the MVV Energie CZ Group and our shares in Stadtwerke Ingolstadt in the year under report. These shareholdings are included in the Strategic Investments segment through to their respective deconsolidation dates.

Our shared-service companies and cross-divisional functions are pooled in the **Other Activities** reporting segment. The shared-service companies perform services such as metering, billing, IT and customer service on behalf of MVV.

### Reporting Segments and business fields



## Business Model

We cover all key stages of the energy industry value chain: We generate and trade with energy, distribute energy via proprietary grid companies and market energy solutions to various customer groups. We also have water production and distribution activities. One particular focus is on renewable energies, where we are active in the fields of project development for wind turbines and photovoltaics systems, operations management for windfarms and solar parks, as well as for biomass plants. Furthermore, we also have plants of these kinds in our own generation portfolio. We market the electricity from these plants, as well as from third-party plants, via power purchase agreements (PPA) and power sale agreements (PSA).

### Customer Solutions segment

The Customer Solutions reporting segment includes the energy and water retail and wholesale businesses. For retail, commercial and business customers, we have a broad range of products and services that meet ecological standards – from renewable energies through to environmentally friendly district heat. This also includes the portfolio of solutions we offer for self-generated photovoltaics electricity, heat pumps and e-mobility. In addition, e-mobility is an integral aspect of our activities in Smart Cities, where we act as a system partner to local authorities and offer networked solutions for towns and cities, as well as suitable services to support them in decarbonising their activities. Our solutions for business customers focus on projects and measures to enhance efficiency and decarbonise operations at industrial, retail and real estate customers. Moreover, the Customer Solutions segment also includes the commodities, service and trading business at MVV Trading. Here, we pool energy procurement, energy product trading, marketing electricity from renewable generation, also via direct marketing and PPA/PSA models, and portfolio management for our group of companies. We also offer these services to third-party customers on the market.

### New Energies segment

We pool our competence in making ecological use of waste and biomass in the New Energies reporting segment. We draw on this expertise not only at our plants in Mannheim, Offenbach, Leuna, Königs Wusterhausen and Flörsheim-Wicker, but also in the United Kingdom, where we operate an energy from waste plant with heat extraction in Plymouth, a biomass power plant with CHP capability at Ridham Dock and a further energy from waste plant in the Scottish city of Dundee. In Germany, we have biogas and biomethane plants, including bio-waste anaerobic digestion. Furthermore, the New Energies segment includes proprietary wind turbines and photovoltaics systems, as well as our national and international project development business. Here, we focus on onshore wind power in Germany and on photovoltaics. In addition, we act as operations managers for windfarms and solar parks and develop hybrid projects in which, depending on requirements, we supplement various energy generation systems with storage units and manage these using smart measurement and control technology.

### Supply Reliability segment

The Supply Reliability reporting segment comprises our generation portfolio for conventional energies with CHP. These include our coastal power plant in Kiel, our CHP plant in Offenbach and our minority shareholding in the power plant Grosskraftwerk Mannheim AG. High-performing grids are crucial to guarantee a reliable supply of energy and water and implement the energy transition. For this reason, this segment also includes the grid businesses at our distribution grid operators in Mannheim, Kiel and Offenbach. All in all, within the MVV Group we operate electricity, district heat, gas and water grids with a total length of around 19,000 kilometres.

# Corporate Strategy

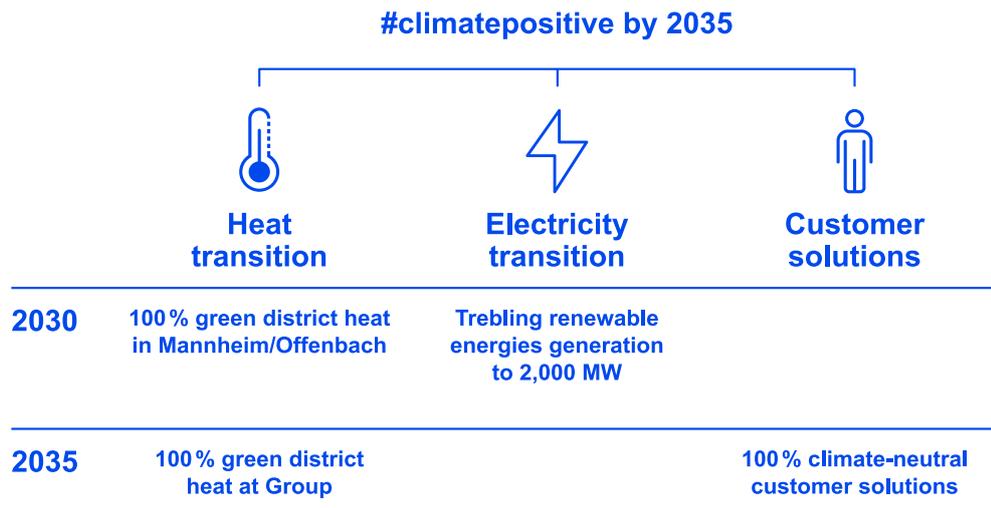
## Climate protection is a fixed component of our corporate strategy

MVV has been working on the energy system of the future for many years now. The energy supply has to be climate friendly and environmentally friendly, while also being reliable and affordable. With our corporate strategy, we acted early to prepare our company to actively shape this transformation. Our climate protection strategy is a fixed component of our corporate strategy and largely determines the allocation of our investments and MVV's further development. We base this strategy on the findings of climate science, such as the statement issued by the German Advisory Council on the Environment (SRU) in June 2022, or the Synthesis Report of the Sixth IPCC Status Report dated July 2023. The German energy industry will have to become virtually free of emissions within the next 15 to 20 years. This means that, rather than using fossil fuels, we will have to execute a full transition to renewable energies. That applies not only to our core business, but also to our upstream and downstream value chains and to companies we recognise at equity. We have underpinned our climate protection strategy with sustainability and decarbonisation targets.

Our sustainability and decarbonisation targets were already certified on several occasions in 2021 by the Science Based Target initiative (SBTi). In 2021, MVV was the first German energy company to obtain confirmation that it was pursuing a scientific 1.5-degree trajectory. In autumn 2022, MVV was the first energy company in Germany, and only the third worldwide, to be validated in accordance with the new, even stricter standard. This confirmed that, in addition to our medium and long-term sustainability and decarbonisation targets, the associated measures also satisfied the strictest scientific standards. As a result, MVV was recognised as being net-zero compatible.

## Moving faster to the future

We are convinced that an accelerated 1.5-degree trajectory is not only possible in technical terms, but also economically viable. Building on this conviction, we used the 2023 financial year to review the long-term sustainability and decarbonisation targets we had already set ourselves in the 2016 and 2020 financial years and concluded that we would raise them further as presented below.



**We are reducing our total CO<sub>2</sub> footprint to net zero and will be #climatepositive by 2035**

We consistently include all sources of greenhouse gases in our climate balance sheet, i.e. we also include sources in the upstream and downstream supply chains and at the companies we recognise at equity. To reach our net-zero target, we will fully convert our energy generation to renewable energies. Furthermore, by 2035 at the latest we will supply our customers exclusively with heat, electricity and gas from renewable energies and decarbonise our supply chains.

MVV will become #climatepositive as a company by 2035, five years earlier than previously planned. To achieve negative overall emissions and thus become #climatepositive, we will actively remove CO<sub>2</sub> from the atmosphere and permanently capture, use or store this. To this end, we are consistently upholding our existing climate protection activities and pursuing an even more ambitious pathway to expand BECCUS (Bioenergy Carbon Capture Usage and Storage). In this context, we will upgrade the technology at our biomass CHP plants and energy from waste plants to enable them to permanently remove not only fossil-based CO<sub>2</sub> but also biogenic, i.e. already climate-neutral, CO<sub>2</sub> from the atmosphere. This way, MVV will offset its own unavoidable residual emissions and, thanks to the additional volumes removed, become #climatepositive.

We have already successfully implemented the first steps. In Mannheim, we are currently testing the capture, liquefaction and loading of CO<sub>2</sub> with a pilot plant. In Dresden, we have created the first climate-positive facility at our bio-waste anaerobic digestion plant. Before the end of this decade, we will equip our other bio-waste anaerobic digestion and biomethane plants with BECCUS. Our biomass and energy from waste plants are set to follow in the subsequent decade. Further information about this can be found in the section [Environmental Concerns Aspect](#).

**The Mannheim Model: our course to the future**

The Mannheim Model, on which we are working at all our locations, provides the guiding framework for our #climatepositive course.



### **We are implementing the heat transition**

MVV supports local authorities in planning the heat transition. Together with our partners, we are shaping the heat transition on location. And we are securing the reliable supply of climate-neutral heat for all district heat customers. We acted early to start making district heat gradually green and will not build any new (CHP) power plants fired by fossil natural gas for the general public supply, i.e. of electricity and district heat. In Mannheim and the region, as well as in Offenbach, we are fully converting our district heat to 100 % green energy sources in the current decade. By 2035, we will reach 100 % green district heat generation in the whole of the Group, including Kiel. To achieve this, we are relying on a broad-based generation portfolio.

Thanks to the measures already implemented in recent years, green energy sources currently account for up to 30 % of our district heat generation for Mannheim and the region. We launched operations with our first river heat pump in October 2023 and our biomass CHP plant in Mannheim is scheduled to be connected to the district heat grid in 2024. In addition, we will further develop green heat generation by drawing on heat from deep geothermal energy. Energieversorgung Offenbach will replace the existing hard-coal-fired CHP plant by drawing on alternative generation sources, such as river or data centre heat pumps, biomass and biomethane, power-to-heat and optimised use of its energy from waste plant. This way, it will convert its district heat to 100 % green generation by 2030. On its “Course to Climate Neutrality” by 2035, Stadtwerke Kiel will deploy instruments including large-scale heat pumps and geothermal energy and convert the coastal power plant to 100 % hydrogen. At the same time, we are continually investigating further alternatives for all our locations, such as combined heat and power generation based on climate-neutral gases, additional large-scale heat pumps and industrial waste heat.

The heat transition will succeed together with our customers. We intend to make it possible for everyone living at our locations in Mannheim, Kiel and Offenbach to convert their heat supply to climate-friendly alternatives. To this end, we are increasing the density of and expanding our district heat grids, transforming gas grids, eliminating parallel grid structures where possible and strengthening electricity grids to satisfy the growing volume of demand, especially for heat pumps and e-mobility. We will further expand the district heat grid in Mannheim in particular by 2035. “Pathways to Climate Neutrality”, the integrated energy framework concept compiled for Mannheim by the Wuppertal Institute in March 2021, shows that more than 60 % of households in Mannheim are supplied with district heat, as are industrial and commercial customers. According to the “How Does Germany Heat Itself in 2019?” study published by the German Association of Energy and Water Industries (BDEW) in October 2019, this figure places Mannheim far ahead of the national average of just under 14 %. We will further increase the already high share of district heat. In those streets supplied by district heating, we intend to discontinue grid-based gas supplies by 2035. For those households that cannot be connected to district heat, we are offering decarbonisation options with decentralised solutions such as heat pumps or biomass heat systems.

We also offer climate-neutral heat solutions to those of our customers who live in areas not supplied with district heat. Here, we are expanding the range of information available on heat pumps and other decentralised solutions in order to exploit market potential and support our customers in implementing their own heat transitions. We are additionally extending the share of the value chain that we cover by forming partnerships with heat pump manufacturers and trade firms. We also intend to further extend the share of the value chain we cover with our own activities in the grid business as well. This way, we aim to safeguard implementation of the heat transition while simultaneously boosting our services business.

### **We are accelerating the electricity transition**

To implement the electricity transition, we have been expanding our proprietary renewables-based generation capacities for many years now. Our focus is on onshore wind power and photovoltaics. We will further accelerate our existing pace of adding new capacities and increase our installed renewable energies generation capacities to 2,000 MW by 2030. This means tripling our capacities compared with the 2022 financial year.

To enable us to reach this target, we will in future retain growing numbers of domestic wind and photovoltaics projects developed by Juwi within the Group in future. In the years ahead, we will also increasingly replace existing wind turbines with new, higher-performance turbines (repowering). Moreover, together with joint venture partners Stadtwerke Kiel will invest in renewable energies and accelerate the expansion in renewable energies in Schleswig-Holstein. This way, we will achieve 100 % green electricity generation at the Group by 2035.

### **We are further expanding our climate neutrality solutions for customers**

We aim to inspire our customers with the standard of our customer service and our portfolio of products and services, to convince them and to achieve high levels of customer satisfaction. We intend to support our customers in achieving their own climate neutrality. We will therefore gradually convert our products and services to 100 % climate-neutral solutions by 2035. We already have a full range of products and services available to supply green energy.

We take a holistic view of the transformation in the electricity and heat supply and aim to provide our customers with implementation solutions from a single source. For MVV, decarbonisation offers additional growth opportunities that we will seize by providing green products and services while also accounting for market and technical innovations. We report on our latest innovative projects in the chapter [Technology and Innovation](#). Our range of services addresses the needs of diverse customer groups. For business customers, our approach covers the portfolio of solutions offered by MVV Enamic. In the coming years, MVV Enamic will increasingly dovetail its sales and other processes, including data centre activities and the use of waste heat, and shape its development by efficiently managing and scaling its solutions. For local authorities and municipal utility companies, we offer solutions from our smart cities business. These are intended to promote intelligent urban development and support authorities in decarbonising their activities. Furthermore, together with our Beegy subsidiary we offer products for decentralised energy solutions in retail and business customer sales from a single source, including installation and service, and are thus generating nationwide growth both within and outside our own regions. To this end, we secure proprietary installation and service capacities and cooperate with trade firms and installation partners. Our range of services is complemented by wholesale-based marketing solutions focusing on renewable energies and commodity services for municipal utility companies, renewable energies investors and large-scale industry offered by our subsidiary MVV Trading.

**In the coming years, we will invest a total of around Euro 7 billion in the energy transition, and thus in our #climatepositive future**

To implement the Mannheim Model and reach our targets, we have initiated the largest growth programme in our company's history. In the decade to 2033, we will invest around Euro 7 billion in the energy system of the future.

Our growth programme, which is broad based and has a long-term horizon, will raise MVV to a new level. It will have a sustainably positive impact on our earnings performance. Here, we will make broadly diversified investments and this way enhance, transform and expand our business while developing innovations.

**With our employees we are upholding our fitness for the future**

Our future is #climatepositive – and our workforce of around 6,400 employees works each day to implement this goal. In this, we are convinced that diversity enhances our success. After all, diverse teams are better able to understand customers' needs, for example, and to work more creatively on innovative ideas. We have made progress with our "Energy for Diversity" programme and also launched our group diversity strategy in the 2023 financial year. We are noticing that, due to the demographic transformation and changes in the labour market, it is becoming increasingly challenging to find suitable employees. We are actively countering this shortage of specialists by stepping up our recruiting activities and expanding our range of internal training programmes. One key success factor that will assist us in achieving our targets is also a new world of work: more dynamic, more flexible and more mobile. Examples here are our mobile work provisions, desk-sharing concepts and hybrid work in teams based on new technical options. Further information about this can be found in the section [Employee Concerns Aspect](#).

# Technology and Innovation

## Innovative research and development

We have set ourselves the goal of developing smart energy products and innovative solutions that meet our customers' needs. Our efforts to meet this objective are driven among other areas by our Customer Experience and Innovation departments. Here, innovation managers and market researchers work together with employees from our operating business fields on research and development projects, as well as on specific projects aimed at increasing customer satisfaction. Moreover, our operating units are also independently involved in forward-looking projects. As a result, the development expenses for technology and innovation are not fully reflected in the research and development expenses reported in accordance with IFRS.

### Current projects

#### **We are actively promoting climate-friendly hydrogen technologies**

In July 2023, the Federal Government updated its National Hydrogen Strategy. Further information about this can be found in the chapter [Business Framework](#). Against this backdrop, we are well positioned with our strategic alignment as regards hydrogen. In the coming years, our focus will be on building expertise by implementing pilot projects. We will secure the hydrogen-readiness of our grids, i.e. their suitability for future use with hydrogen, in the early 2030s and subsequently safeguard our generation and backup facilities for district heat, particularly in Kiel.

In our "Hydrogen Programme", we have established an interdisciplinary MVV team within the Group. This ensures joint cross-departmental cooperation for hydrogen enquiries and secures the transfer of expertise to individual units. We began work in the 2022 financial year already on planning an electrolyser in the Stassfurt Energy Region. With a capacity of 36 MW, the associated windfarm has already received preliminary approval, while the application for the electrolyser was submitted in the year under report. We expect to receive approval for the electrolyser in the 2024 financial year.

In a further project, our Juwi subsidiary developed a green hydrogen supply concept in the context of a feasibility study conducted together with a Mannheim-based industrial company. Moreover, we are involved in several consulting projects at business customers and municipal utility companies.

#### **Digital Twin developed as guide for heat transition**

Together with a partner, we have further developed the Digital Twin for the heat market in Mannheim. We use this as a central analytical and planning tool and see great potential for spreading solutions of this kind in Germany. This way, we are able not only to press ahead with internal company planning and implementation, but also act as a competent partner to local authorities, advise them on municipal heat plans and implement these based on optimal heating solutions for our customers.

As well as factoring in all significant stakeholders, such as local authorities, local populations and heat providers, the Digital Twin also accounts for networked systems to expand renewable energies, develop grid infrastructures or ramp up e-mobility charging infrastructures. Furthermore, the solution considers a variety of scenarios in order to model robust development pathways.

### **EU project NUDGE: using incentives to achieve greater energy efficiency**

NUDGE, a three-year research project subsidised by the EU, was completed at the end of August 2023. This project involved developing and testing non-monetary incentives, known as “nudges”, for reducing private energy consumption and optimising own use of proprietary solar electricity. NUDGE comprises five pilot projects across Europe, each with a different focus. A total of 111 MVV customers from Mannheim and the region took part in the German pilot project.

All pilot households already had their own photovoltaics systems at the beginning of the practical trial, while most also had battery storage. In addition, more than half of the pilot households acquired an electric car and installed charging stations during the term of the project.

In three stages, the participants had the opportunity to use select functions on the web portal and charging app. They also received explanations of their own consumption patterns, were given specific tips as to how to raise the share of solar electricity they use themselves and were provided with an automated control function for surplus charging.

The Fraunhofer Institute for Systems and Innovation Research ISI accompanied all stages of the project in a scientific capacity. The scientific evaluation of the findings will be completed by the end of 2023.

Analysis of the energy data reveals an overall reduction in household electricity consumption. The findings also show a positive impact on proprietary consumption and energy independence. The use of automated surplus charging at customers with electric cars led to a 16 %, and thus significant, increase in the level of proprietary electricity consumption.

The experience gained and findings of the pilot projects will be used to derive proposals as to how non-monetary incentives should be structured and deployed in future. These will be submitted to the EU Commission as the sponsor of the project.

## Innovation processes

### **Award for ideas management – German Ideas Management Prize 2023**

Our ideas management programme is intended to actively involve our employees in the continuous improvement process and raise their awareness of permanent change.

Thanks to a one-off campaign jointly organised by our ideas management and our organisation and process management functions, in the year under report we received numerous new proposals for solutions to optimise our processes in keeping with our corporate strategy. We assessed a total of 428 proposals in the 2023 financial year. By implementing these ideas, we achieved savings of Euro 195 thousand in the first year alone. We distributed bonuses of Euro 55 thousand to the relevant employees. The multiyear benefit (four years) of the proposals implemented in the year under report currently amounts to Euro 262 thousand.

The German Ideas Management Prize promotes ideas management in German-speaking countries and is awarded to companies and individuals who act as role models when it comes to managing ideas. In this category, MVV was ranked 2<sup>nd</sup> in 2023.

### **Take-Off – our internal innovation process**

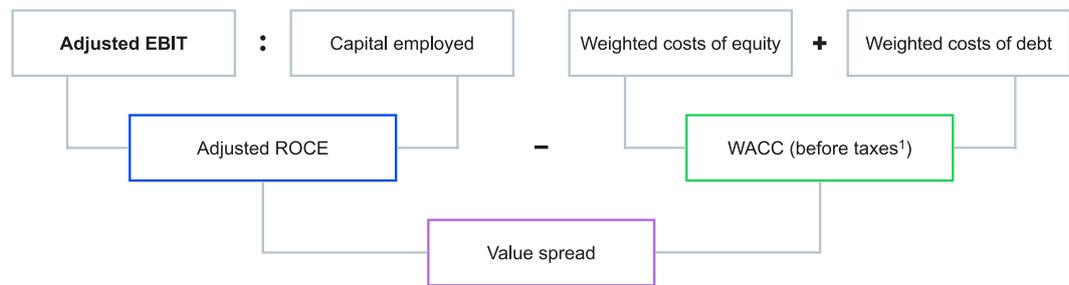
In “Take-Off”, our internal innovation process, all employees at our Mannheim location were able to contribute their ideas for new business models. MVV supported the submission of ideas by offering a range of workshops and training sessions. Based on all ideas submitted, MVV’s “InnoBoard”, a group of select employees, then chose the ten most promising candidates for the next stages. These were presented to the workforce at the company’s “InnoDay”. In the next stages, colleagues are now working to further develop the most promising projects on an interdisciplinary basis. The Executive Board will decide which ideas should actually be implemented. This way, we are making targeted efforts to extend our portfolio of services and products in line with the corporate strategy.

## Value-Based Corporate Management

The objectives of our value-based corporate management are to sustainably increase MVV's value and to offer an attractive dividend to our shareholders. We achieve this by generating a positive value spread, i.e. by ensuring that the return on average capital employed (adjusted ROCE) is higher than our costs of capital (WACC). The most important parameter in this respect is adjusted operating earnings before interest and taxes (adjusted EBIT). We adjust this key earnings figure to eliminate earnings items resulting from the measurement of financial derivatives pursuant to IFRS 9 as of the reporting date. We add interest income from finance leases, which is reported in the financing income line item in the income statement, to our adjusted EBIT. This income results from contracting projects and therefore forms part of our operating business.

### Calculation of value spread

(simplified presentation)



<sup>1</sup> WACC before taxes = WACC after taxes/0.7

We reviewed the individual parameters used to calculate the WACC figure relevant to MVV for the year under report and partly updated these to account for market changes.

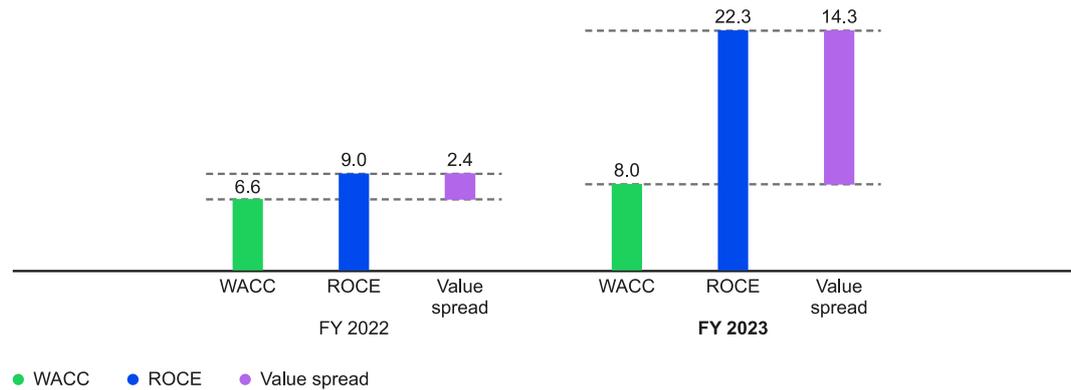
This resulted in a Group WACC of 8.0 % before taxes for the 2023 financial year (previous year: 6.6 %). The calculation of costs of capital was based on the methods promulgated by the Institute of Public Auditors in Germany (IDW) and is thus consistent with the relevant auditors' standard.

The ROCE rose from 16.2 % to 33.5 % in the 2023 financial year. The principal driver for this increase was adjusted EBIT which, mainly due to exceptional developments in the Commodities business field and disposal gains, rose significantly in the 2023 financial year (chapter [Presentation of Earnings Performance](#)). Following the subtraction of WACC before taxes of 8.0 %, the increase in ROCE led the value spread to rise to 25.5 % in the year under report. In the previous year, this key figure stood at 9.6 %.

From an operating perspective, i.e. excluding disposal gains and excluding the high volume of inflows and outflows of security deposits for counterparty default risk (margins), which impacted on the development in liquid funds, the ROCE amounted to 22.3 % in the 2023 financial year (previous year: 9.0 %). Liquid funds, which increased in the previous year and decreased in the year under report (chapter [Presentation of Financial Position](#)), directly influence the level of capital employed, as half of liquid funds are accounted for in the calculation of average capital employed.

**Key value management figures excluding disposal gains and excluding margins**

%



# Group Business Performance

- Disposal gains from sale of shareholdings
- Operative adjusted EBIT influenced by exceptional performance in marketing renewable energies and trading
- Ongoing high volume of investment

## Material developments

### Investments in sustainable profitable growth

Our investment programme, which is broad based and has a long-term perspective, is a firm component of our [Corporate Strategy](#) and is the basis for achieving our target of becoming #climatepositive by 2035. We invested Euro 344 million in the 2023 financial year, which again exceeded the previous year's figure (Euro 335 million) and marked our highest volume of investment in the past eight years. To make a reality of the heat transition, implement the electricity transition and expand our climate neutrality solutions for customers, we will significantly step up our pace of investment in the years ahead and make around Euro 7 billion available for this transformation in the decade until 2033.

In the year under report, we pressed ahead above all with expanding green heat in Mannheim. That is because we have set ourselves the target of converting the district heat supply for Mannheim and the region to 100 % green energy sources by 2030 at the latest. We launched operations with our first river heat pump at the beginning of the current 2023/24 heating period. With a heat generation capacity of 20 MW<sub>t</sub>, this draws on environmental heat in the Rhine to supply heat to an arithmetic total of around 3,500 households. Moreover, in Mannheim we are completing construction work on plants to provide backup and peak load cover for our district heat supply. We will be able to deploy these from the 2024 financial year. At our location on Friesenheimer Insel, our phosphorous recycling plant, which will enable the phosphorous contained in sewage sludge to be recovered for use in fertiliser production, is in the final stages of construction. In Dresden, we have implemented our first #climatepositive plant. Our bio-waste anaerobic digestion plant there is now permanently removing CO<sub>2</sub> from the atmosphere. We use part of the CO<sub>2</sub> captured during biomethane production for processes within the plant. The excess volume of liquified CO<sub>2</sub> is permanently stored in demolition concrete.

We also made further progress in expanding our proprietary renewable energies generation portfolio, and that despite the capacities retired from our portfolio in connection with the disposal of shareholdings. At the end of the year under report, our renewable energies electricity generation capacity stood at 633 MW, 19 MW higher than in the previous year. This figure is set to rise to 2,000 MW by 2030. We have thus further significantly raised our existing target ambition, which previously stood at 800 MW by 2026.

### **Strong earnings growth**

The earnings performance in the year under report was shaped on the one hand by the disposal gains generated from the sale of our Czech subsidiary MVV Energie CZ Group and of our shares in Stadtwerke Ingolstadt.

On the other hand, our operative adjusted EBIT particularly benefited from the exceptional performance of the Commodities business field. Here, our energy trading systematically expanded the marketing and management of renewable energies while maintaining a conservative approach to risk management. Moreover, we generated significant additional revenues by exploiting price volatilities in our trading activities with renewable energies. At the same time, we also achieved earnings growth in our portfolio management activities for conventional energy trading.

On an operating level, i.e. excluding disposal gains of Euro 133 million, our adjusted EBIT rose to Euro 747 million in the year under report (previous year: Euro 298 million). Including disposal gains, we generated earnings of Euro 880 million, an absolute record for MVV.

Pre-tax earnings (adjusted EBIT) increased year-on-year by Euro 508 million to Euro 829 million. This increase is also reflected in adjusted annual net income after minority interests, which rose by Euro 337 million and came to Euro 513 million in the year under report. Adjusted earnings per share amounted to Euro 7.78 (previous year: Euro 2.67).

### **150 years of MVV – special payments to shareholders and employees**

The history of MVV and its predecessor companies began 150 years ago. We can look back on a successful development in the years since then. To mark our 150<sup>th</sup> anniversary and in view of our strong operating earnings performance in the 2023 financial year, the Executive Board is proposing a one-off dividend of Euro 0.30 per share – in addition to the regular dividend, which should rise from Euro 1.05 to Euro 1.15 per share – for approval by the Annual General Meeting. Furthermore, the Executive Board has decided to make a one-off payment of Euro 1,500 to the company's employees (based on full-time activity). At the same time, we will be retaining surplus profits to enable us to implement the investments required in the years ahead for us to meet our target of becoming #climatepositive by 2035.

## Overall summary

The environment in which we operated in the 2023 financial year was once again very challenging both for the energy industry and in terms of energy policy. The energy trading and procurement markets remained highly volatile. Despite these difficult conditions, we can look back on a very successful financial year.

At Euro 747 million, our adjusted EBIT excluding disposal gains was ahead of the range of between Euro 650 million and Euro 720 million which we forecast at the end of the first half of the year. In our 9-month reporting, we referred to this possibility should energy markets stabilise in the remainder of the 2023 financial year and no setbacks arise due to macroeconomic factors.

Our operating performance in the 2023 financial year documents that, with our strategic alignment towards climate protection and our broad-based business portfolio, we are well positioned to generate sustainable and profitable growth.

## Comparison of Expected and Actual Business Performance and Outlook

### Comparison of expected and actual business performance and outlook

	Forecast FY 2023	Results FY 2023	Outlook FY 2024
<b>Adjusted EBIT</b>	Start of FY 2023: Adjusted EBIT excluding disposal gains at least at previous year's level (Euro 298 million); forecast raised after end of second quarter: inclusion of substantial additional revenues from renewable energies trading and earnings growth in conventional energy trading; including these items, adjusted EBIT excluding disposal gains set to range between Euro 650 million and Euro 720 million; announcement upon end of third quarter that, should energy markets stabilise further and no macroeconomic setbacks arise, adjusted EBIT excluding disposal gains may also exceed the forecast range	Adjusted EBIT of Euro 747 million excluding disposal gains	Adjusted EBIT of between Euro 360 million and Euro 440 million excluding disposal gains, i.e. within +/- 10 % of Euro 400 million; in general dependent on macroeconomic climate, weather and wind conditions, electricity and fuel prices and the availability of our plants; high volatility in renewable energies project development business
<b>Adjusted equity ratio</b>	Target > 30 %	Adjusted equity ratio of 39.7 % (40.7 % excluding security deposits for counterparty default risk (margins))	Target > 30 %
<b>Adjusted ROCE</b>	At around previous year's level (9.0 %) excluding security deposits for counterparty default risk (margins)	Adjusted ROCE of 22.3 % excluding security deposits for counterparty default risk (margins) and excluding disposal gains	Significantly below previous year's level (excluding security deposits for counterparty default risk (margins) and excluding disposal gains)
<b>Investments</b>	At around previous year's level (Euro 335 million)	Total investments of Euro 344 million	Significantly above previous year's level
<b>Employees</b>	Increase in personnel totals in growth fields; further efficiency measures in existing business	Reduction in personnel totals to 6,390 employees at 30 September 2023 (previous year: 6,566) due to disposal of shareholdings; this factor countered by increase in personnel totals in organic growth fields	Increase in personnel totals in growth fields; further efficiency measures in existing business

## Business Framework

### Energy policy developments

#### **Federal Government aims to accelerate renewable energies expansion**

With its so-called “Easter Package”, in summer 2022 the Federal Government adopted its first major legislative package to accelerate the expansion in renewable energies. It includes amendments to numerous energy laws, of which some important changes took effect in 2023, and focuses above all on speeding up the expansion of renewable electricity generation. Tender volumes for electricity generation from renewable sources, for example, were raised significantly, while an improved framework was created for photovoltaics (PV) systems and wind turbines.

If the targets for generating electricity from renewable energies are to be met, their expansion will have to be significantly accelerated. To achieve this, in the middle of 2023 the Federal Ministry for Economic Affairs and Climate Action (BMWK) adopted a PV strategy and an onshore wind strategy. The measures presented for onshore wind power are intended above all to significantly speed up approval processes. The PV strategy sketches numerous proposals to boost the installation of PV systems across the whole segment – from large ground-mounted PV systems to rooftop PV to balcony PV. An initial legislative package to implement the PV strategy is scheduled to be adopted before the end of 2023.

#### **Managing the energy crisis with energy price caps and windfall taxes**

To protect consumers from the negative impact of the energy crisis, at the end of 2022 the Federal Parliament and Federal Council adopted extensive aid packages. In addition to one-off relief for December 2022, lawmakers approved energy price caps for electricity, gas and heat with assistance lasting at least until the end of 2023. These form a key part of the economic shield with a volume totalling Euro 200 billion.

The relief provided in the form of the electricity cap was to be partly refinanced by imposing a windfall tax on excess revenues in the electricity market from December 2022. The basis for this is provided by an EU Regulation. This instrument expired at the end of June 2023 and the Federal Government has not drawn on the option to extend it.

These legislative decisions to manage the crisis meant that extensive and complex tasks were assigned to us as an electricity generator, energy supplier and distribution grid operator. We were directly affected by the windfall tax at our proprietary electricity generation plants. The same applies for our activities in the segment of green power purchase agreements (PPAs).

#### **Update of National Hydrogen Strategy and plans for core hydrogen grid**

The Federal Government updated its National Hydrogen Strategy in July 2023. Among other measures, the target set for domestic electrolysis capacity in 2030 was doubled from 5 GW to 10 GW. In addition to domestic production, large volumes of hydrogen are due to be imported. Details of this are to be stipulated in an import strategy to be presented before the end of 2023. Moreover, consultations have been held on plans for a core hydrogen grid. Among other areas, hydrogen plays a role in the power plant strategy, particularly for storing electricity and as a fuel at those power plants which secure the electricity system at times of low feed-in volumes from renewable energies.

### **Political tug-of-war over the heat transition**

A regulatory and legal framework is now emerging in the political debate surrounding the heat transition. Laws governing both municipal heat plans (German Heat Planning Act (WPG)) and requirements for individual buildings (German Building Energy Act (GEG)) are scheduled to take effect on 1 January 2024. These requirements will have to be structured in such a way as to provide a solid foundation for both suppliers and grid operators on the one hand and building owners on the other to plan their investments. Based on the current status, district heat will be firmed up as a central heat supply option in large built-up areas. This underlines our strategic position in the heat transition. At the same time, the decision largely not to restrict technologies means that our customers can select the heat option at MVV that best meets their needs.

The first District Heat Summit held by the Federal Government and relevant industry associations in June 2023 underlines the importance which the Federal Government attaches to this topic. The summit agreed that three joint workgroups on the Heat Supply Ordinance, on prices and transparency and on approval processes would look into solutions for the most important topics relating to district heat. The results are due to be presented and adopted at a second summit at the beginning of 2024.

One consequence of the fossil fuel exit is the need to redefine the role of natural gas grids. Depending on municipal heat plans, gas distribution grids will be rededicated for distributing hydrogen or green gases or decommissioned due to the use of other heat options, such as district heat or heat pumps. To date, there is no legal or regulatory framework for this transformation, a factor that is creating uncertainty among local authorities, local populations and grid operators. In a study published in June 2023, we pointed to the absence of this framework and recommended how it might be structured. This study is available online at [mvv.de/gasnetzstudie](https://www.mvv.de/gasnetzstudie).

### **EU stipulates new targets for renewable energies and energy savings**

In March 2023, the European Commission, European Parliament and European Council reached agreement on the contents of two core elements of the "Fit for 55" package. On the one hand, a comprehensively redesigned version of the EU's Renewable Energy Directive (RED III) can take effect. This raises the European target for renewable energies by 2030 from 32.5 % to 45 % and sets out binding targets for individual sectors. On the other hand, the European institutions adopted the revision of the Energy Efficiency Directive (EED). This sets a binding target that energy consumption in the EU must be reduced by 11.7 % by 2030 compared with the projections in the 2020 EU reference scenario. This reduction is to be achieved by investing in the public sector, promoting district heat and cooling and setting annual targets for each member state. For MVV, this new framework harbours opportunities for district heat in particular, which is set to play a central role in future in the heat transition across Europe.

### **Strengthening the independence of the BNetzA**

In May 2023, the Federal Government presented an amendment to the German Energy Industry Act (EnWG) to implement the ruling by the European Court of Justice concerning the independence of the Federal Network Agency (BNetzA). This envisages granting significantly more extensive powers to the authority in future when it comes to regulating grid fees. Rather than the Federal Ministry for Economic Affairs and Climate Action (BMWK), the BNetzA would therefore be responsible for this area in future.

### **German Act to Restart the Digitisation of the Energy Transition (GNDEW) takes effect**

The GNDEW entered effect in May 2023. This legislation chiefly regulates the rollout of smart metering systems, including rollout obligations and deadlines, and sets price caps for standard and extra services. This will provide the rollout with greater legal security and accelerate the process. In particular, the rollout will in future no longer depend on the so-called market declaration by the German Federal Office for Information Security (BSI). We welcome this move. With regard to price caps, the participation of grid operators is now envisaged. Recognition of these costs in the context of incentive regulation is still uncertain given the ECJ ruling on the independence of Germany's regulatory authorities. We are calling for the recognition clearly intended by lawmakers to be implemented in regulatory practice.

### **BGH confirms electricity Xgen for 3<sup>rd</sup> regulatory period**

At the end of June 2023, Germany's Federal Court of Justice (BGH) announced its decision concerning the general sectoral productivity factor (Xgen) for electricity in the 3<sup>rd</sup> regulatory period. In response to the appeal filed by the Federal Network Agency (BNetzA), the ruling of the Higher Regional Court (OLG) in Düsseldorf from March 2022 was annulled and the appeals filed by grid operators rejected. The rationale for the decision is currently not yet available. The stipulation made by the BNetzA in November 2018 was thus confirmed. In terms of incentive regulation, this set an Xgen of 0.90 % for electricity supply grid operators in the third regulatory period. This factor reduces the permissible revenue cap due to assumed advances in the productivity of grid operations compared with overall economy. This aspect is countered by inflation.

### **OLG Düsseldorf annuls equity return rates for 4<sup>th</sup> regulatory period**

At the end of August 2023, the Higher Regional Court (OLG) in Düsseldorf responded to the petition filed by numerous grid operators and annulled the equity return rates set by the Federal Network Agency (BNetzA) in October 2021. For the 4<sup>th</sup> regulatory period, which starts in 2023 for gas grid operators and in 2024 for electricity grid operators, the BNetzA had set the return at 5.07 % for new systems and 3.51 % for existing systems. Considering all circumstances of the individual case, the calculation of the market risk premium using a single method was not appropriate to ensure that the resultant equity return was appropriate, competitive and risk adjusted. The BNetzA should have subject the market risk premium, which it determined solely by reference to historic datasets, to further protections and certainly to supplementary plausibility checks. Grid operators had particularly criticised the fact that the market risk premium proposed by the BNetzA was very low compared with other European countries. They also saw this as posing a threat to the performance and investment capability of grid operators, and thus to the success of the energy transition. The court decisions are not legally binding. The BNetzA has filed an appeal to the Federal Court of Justice (BGH). In the intervening period, the BNetzA has submitted key points for consultation which stipulate the way in which the imputed equity return for new systems is determined based on cost of capital plus a premium. This acknowledges the need to rescale grid investment conditions in the short term given the challenges presented by the energy transition and the current interest rate climate. We welcome this. When determining the cost of capital premium for the 4<sup>th</sup> regulatory period (until 31 December 2027), the key points – unlike the existing requirement – permit short-term price adjustments and provide for setting the equity return for new investments from 1 January 2024 on the basis of a variable annual basic return plus a constant appropriate risk premium. The extent to which this leads to significant improvements for distribution grid operators remains to be seen.

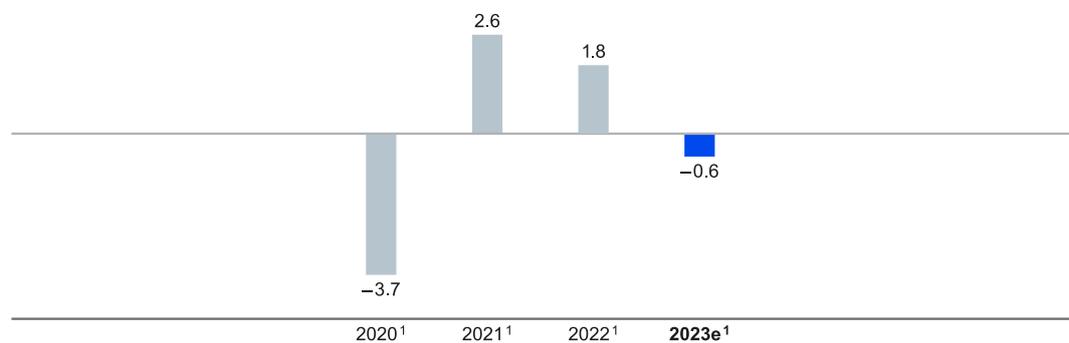
## Market climate and competition

### German economy in reverse gear

In their Joint Economic Forecast dated autumn 2023, Germany's leading economic research institutes reduced their growth expectations for the country's economy in the 2023 calendar year. Having forecast growth of 0.3 % in the spring, the experts now expect gross domestic product to fall by 0.6 %. This contraction is substantiated by reference to the sharp rise in energy prices in 2022, inflation, which has eroded household purchasing power, and the latest rises in interest rates, which have adversely affected the construction industry. For 2024, the economic researchers have scaled back their economic growth forecast by 0.2 percentage points to 1.3 %.

### GDP development in Germany

(%)



<sup>1</sup> Calendar year

Source: Joint Economic Forecast Autumn 2023 by Germany's leading economic research institutes (September 2023)

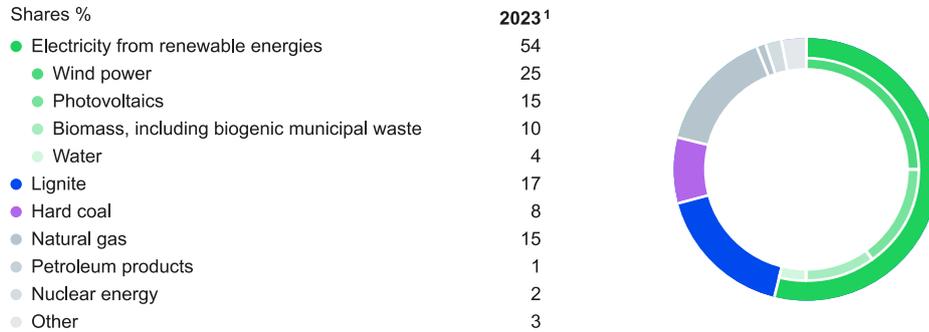
### Decrease in electricity generation in Germany

Based on current calculations compiled by the Association of the German Energy and Water Industries (BDEW), gross electricity generation volumes totalled 374 billion kWh in Germany in the first nine months of 2023 and were around 13 % lower than in the previous year (429 billion kWh).

### Renewables share of German electricity generation rises to 54 %

According to BDEW estimates, the renewable share of gross electricity generation in Germany totalled 54 % in the first nine months of the 2023 calendar year, up from 45 % in the previous year's period. Part of this relative increase is also due to lower electricity consumption in Germany, which fell by around 6 % compared with 2022 to 367 billion kWh in the first three quarters of 2023. Wind-based generation played a key role in the increase in the renewables share, although onshore and offshore electricity production showed disparate developments. Electricity generation volumes from onshore wind turbines were 8 % higher than in the previous year, while offshore wind turbines showed a 7 % reduction. Overall, the volume of electricity generated from wind rose by around 5 %. Photovoltaics systems also produced around 6 % more electricity. By contrast, biomass and biogenic municipal waste generated around 1 % less electricity than one year earlier. Overall, around 200 billion kWh of electricity was generated from renewable energies.

## Gross electricity generation in Germany



<sup>1</sup> January to September 2023

Source: BDEW Monthly Statistics, Destatis, EEX, VGB, ZSW (October 2023)

### Wind power expansion accelerating once again

In January 2023, the German Wind Energy Association (BWE) published its “Wind Energy Fact Sheet Germany” for the 2022 calendar year. Overall, gross onshore wind power capacity totalling 2,302 MW was newly installed in Germany. With growth of 25 % compared with the previous year’s figure, the upward trend seen in the capacity newly added each year since 2019 has continued. However, the volume of new capacities still remains well short of the record years from 2014 to 2017. Total installed onshore and offshore wind power capacity stood at 66,242 MW and was thus around 4 % higher than the previous year’s figure.

According to the BWE Fact Sheet published in July 2023 on the expansion status for onshore and offshore wind power, gross onshore wind power capacity totalling 1,565 MW was added in Germany in the first half of the 2023 calendar year. That corresponds to around 60 % more than in the first six months of the previous year. Cumulative installed onshore and offshore wind power capacity amounted to 67,728 MW.

### Wholesale prices for fuels and electricity remain high

#### Wholesale prices (average) from 1 October to 30 September

	FY 2023	FY 2022	+/- change	% change
Crude oil <sup>1</sup> (US\$/barrel)	83.61	96.63	- 13.02	- 13
Natural gas <sup>2</sup> (Euro/MWh)	68.25	93.58	- 25.33	- 27
Coal <sup>3</sup> (US\$/tonne)	150.29	189.44	- 39.15	- 21
CO <sub>2</sub> rights <sup>4</sup> (Euro/tonne)	90.48	80.80	+ 9.68	+ 12
Electricity <sup>5</sup> (Euro/MWh)	172.13	234.72	- 62.59	- 27

<sup>1</sup> Brent crude oil; front-month

<sup>2</sup> Trading Hub Germany market region; front-year

<sup>3</sup> Front-year

<sup>4</sup> Front December contract

<sup>5</sup> Front-year

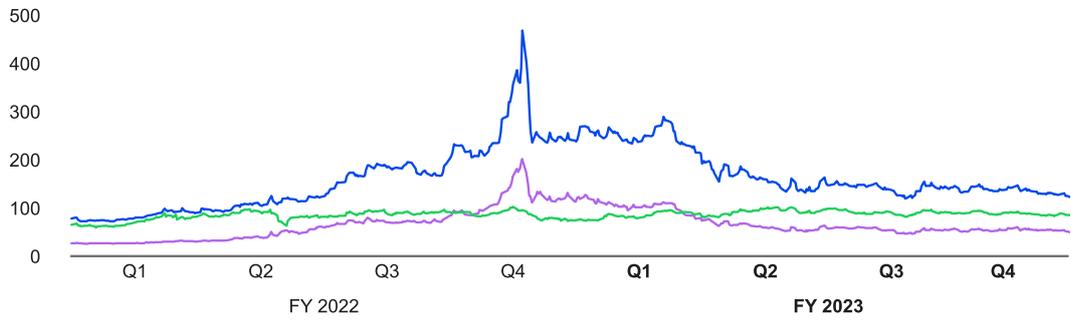
After the extreme price movements seen on energy markets in the 2022 financial year, in the year under report wholesale prices for fuels and electricity showed a year-on-year reduction. Average prices nevertheless remain elevated compared with previous years. The fall in prices mostly occurred in the first half of the 2023 financial year. Alongside a lower level of structural energy demand, the easing in prices was driven above all by a mild winter and the rise in LNG imports in Europe. In summer 2023, numerous wholesale energy prices showed volatile developments around overall levels that moved sideways.

The average price of Brent crude oil fell year-on-year by around 13 %. Barrel price highs of around US\$ 125 per barrel in summer 2022 were followed by a volatile downward movement to a minimum of around US\$ 70 in spring 2023. In the coal market, the downward trend started slightly later in the wake of an all-time high at the beginning of September 2022. Having bottomed out at the end of spring 2023, the coal price began to rise again in the fourth quarter of the 2023 financial year. On average for the year under report, however, the coal price nevertheless fell by around 21 %, while the gas price in the Trading Hub Europe (THE) market region decreased by around 27 % compared with the previous year.

Wholesale electricity prices fell on average by around 27 %, or Euro 63/MWh, in the 2023 financial year compared with the previous year. In absolute terms, they therefore showed the sharpest reduction. However, this depreciation was significantly smaller in scale than the price rises seen in the 2022 financial year. Prices showed highly volatile developments in the year under report, during which the electricity price for base load deliveries in the 2024 calendar year plummeted at times to lows around 60 % below its previous high.

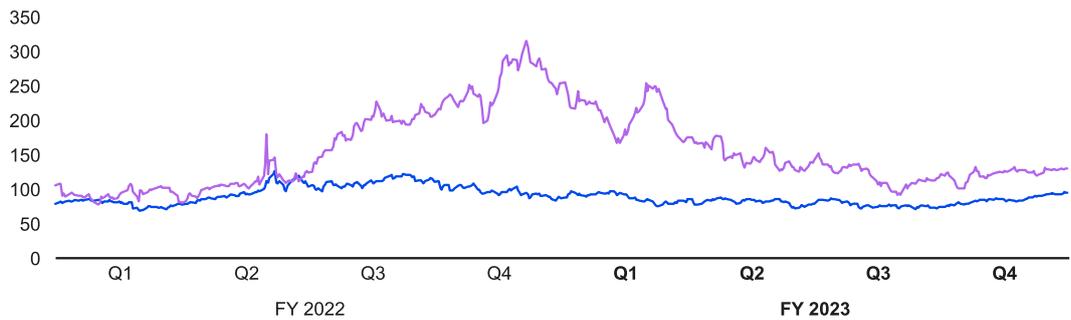
The margins achieved from generating electricity from hard coal and gas – clean dark spread (CDS) and clean spark spread (CSS) – showed disparate developments during the year under report. The CDS fell significantly in the first half of the year. By contrast, the CSS initially recovered before settling at a lower, negative level. In the year under report as a whole, average generation margins were lower than in the previous year.

### Development in wholesale market prices for electricity, gas and CO<sub>2</sub> rights



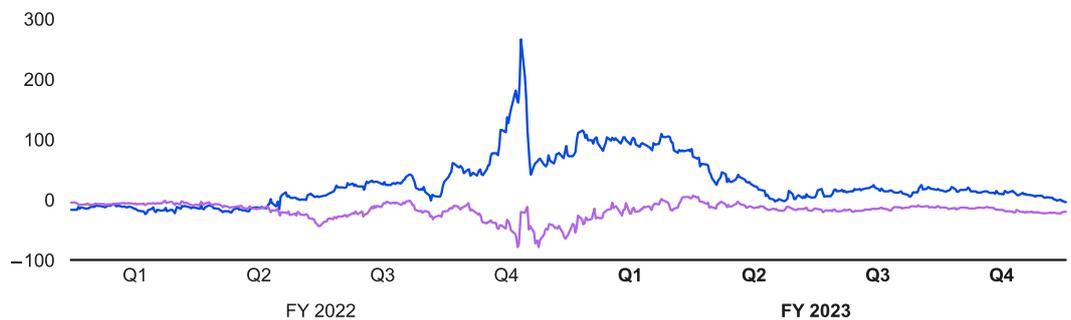
- EEX electricity base calendar year 2024 (Euro/MWh)
- EEX natural gas Trading Hub Germany calendar year 2024 (Euro/MWh)
- EUA December 2024 (Euro/tonne CO<sub>2</sub>)

### Development in wholesale prices for oil and coal



- Brent crude oil front-month (US\$/barrel)
- API2 coal calendar year 2024 (US\$/metric tonne)

### Development in clean dark spread and clean spark spread 2024



- Clean dark spread 2024 (Euro/MWh)
- Clean spark spread 2024 (Euro/MWh)

## Impact of weather conditions

### Milder weather leads to lower degree day figures

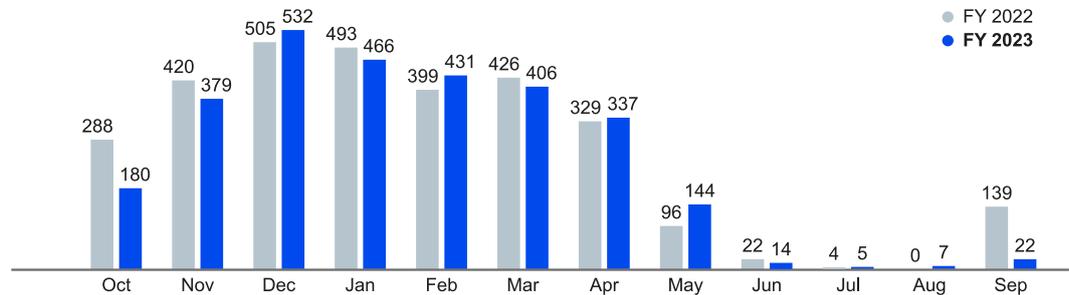
Higher outdoor temperatures lead to lower heat requirements at our customers. That is also reflected in lower degree day figures, which are used as an indicator of temperature-based heat consumption. It was milder on average in the year under report than in the previous year. Degree day figures were not only around 6 % lower than the figures for the previous year; they were also the lowest seen in the past ten years. Over a ten-year period, the 2023 financial year therefore had the highest average temperature. Based on our assessment, this factor was supplemented by the savings achieved by our customers, irrespective of temperatures, due to the exceptional supply situation arising as a result of the war in Ukraine.

### Wind volumes above previous year's level

By analogy with our customers' heating requirements, electricity generation volumes at our renewable energies plants are also influenced by weather conditions. Wind volumes, on which the amount of electricity generated by our wind turbines significantly depends, are particularly significant in this respect.

In the regions relevant to us, the volume of usable wind in the 2023 financial year was around 4 % higher overall than the long-term average. Wind volumes were thus higher than the previous year's figure, which itself fell around 4 % short of the long-term average at our wind power locations. For this comparison, we draw on the "EMD-ERA" wind index with a reference period (historical average).

### Degree day figures



## Earnings, Asset and Financial Position

The period under report is the 2023 financial year, which started on 1 October 2022 and ended on 30 September 2023. Unless otherwise indicated, the comments below refer to the MVV Group (MVV), i.e. all companies fully consolidated and the updated measurement of those shareholdings that are recognised at equity. The sale of our MVV Energie CZ Group subsidiary was completed in December 2022. In June 2023, our shares in Stadtwerke Ingolstadt were transferred to the City of Ingolstadt. Both companies are no longer included in the consolidated financial statements at the balance sheet date. Figures have been rounded up or down to the nearest million-euro amounts. Discrepancies may arise between the aggregate sums of individual items and the totals stated.

### Presentation of earnings performance

#### MVV from 1 October to 30 September

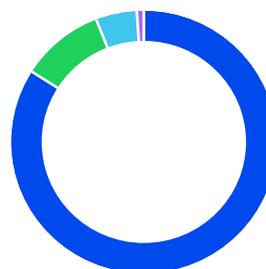
Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	7,531	4,199	+ 3,332	+ 79
Adjusted EBIT	880	353	+ 527	>+ 100
Adjusted EBIT excluding disposal gains	747	298	+ 449	>+ 100
<b>Turnover</b>				
Electricity (kWh million)	18,941	27,115	- 8,174	- 30
Heat (kWh million)	5,489	6,708	- 1,219	- 18
Gas (kWh million)	16,840	19,259	- 2,419	- 13
Water (m <sup>3</sup> million)	38.4	40.2	- 1.8	- 4
Usable residual waste delivered (tonnes 000s)	2,371	2,448	- 77	- 3

In sales, we eliminate the difference between the hedge and reporting date prices as of the respective realisation date pursuant to IFRS 9. In the realisation period from 1 October to 30 September, the net total amounted to Euro – 911 million (previous year: Euro 1,724 million). Overall, adjusted sales rose by Euro 3.3 billion to Euro 7.5 billion, a development chiefly driven by the year-on-year increase in wholesale electricity and gas prices. MVV generated 95 % of its consolidated sales in Germany in the 2023 financial year (previous year: 93 %), while 5 % of sales were generated abroad (previous year: 7 %).

#### Adjusted sales excluding energy taxes by reporting segment

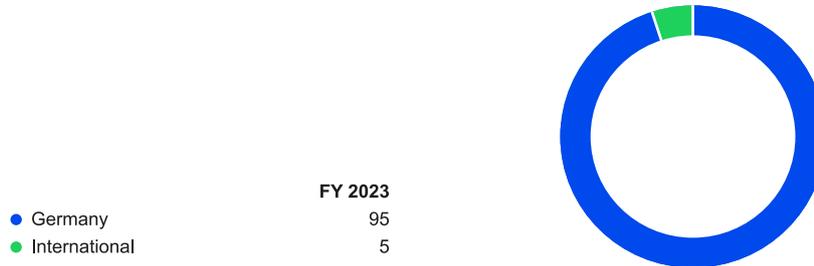
Shares (%)

	FY 2023
● Customer Solutions	84
● New Energies	10
● Supply Reliability	5
● Strategic Investments	1



### Adjusted sales excluding energy taxes by region

Shares (%)



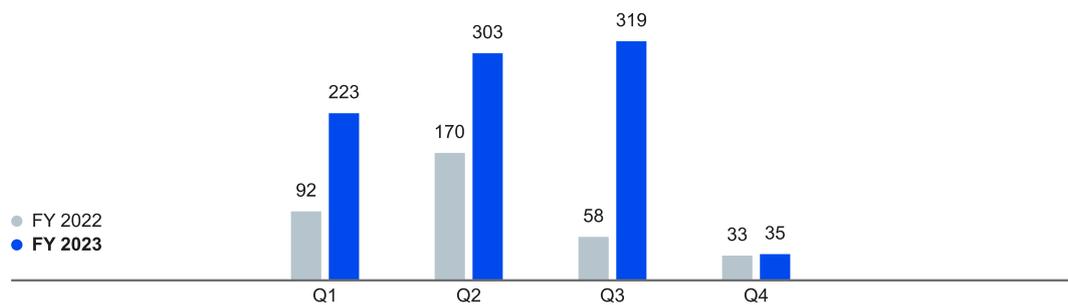
On an operating level, i.e. excluding disposal gains of Euro 133 million (previous year: Euro 55 million), adjusted EBIT came to Euro 747 million in the year under report (previous year: Euro 298 million) and thus exceeded the range of between Euro 650 million and Euro 720 million which we had forecast at the end of the first half of the year. In our 9-month reporting, we referred to this possibility should energy markets stabilise and no setbacks arise due to macroeconomic factors.

The key driver of the growth in adjusted EBIT was the exceptional performance of the Commodities business field. Here, our energy trading systematically expanded the marketing and management of renewable energies while maintaining a conservative approach to risk management. Moreover, we generated significant additional revenues by exploiting price volatilities in our trading activities with renewable energies. At the same time, we also achieved earnings growth in our portfolio management activities for conventional energy trading.

The other operating reporting segments each also contributed to a lesser extent to the growth in adjusted EBIT. Our environmental energy business in particular generated higher earnings contributions, benefiting here from the development in electricity and steam revenues, higher wind volumes and the addition of new wind turbines in the previous year already. Furthermore, earnings in the Supply Reliability segment rose compared with the previous year.

### Adjusted EBIT by quarter

Euro million



## Customer Solutions reporting segment

### Customer Solutions from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	6,313	3,106	+ 3,207	>+ 100
Adjusted EBIT	497	136	+ 361	>+ 100
<b>Turnover</b>				
Electricity (kWh million)	18,681	26,546	- 7,865	- 30
Heat (kWh million)	4,150	4,664	- 514	- 11
Gas (kWh million)	16,449	18,841	- 2,392	- 13
Water (m <sup>3</sup> million)	38.4	39.3	-0.9	- 2
Usable residual waste delivered (tonnes 000s)	150	145	+ 5	+ 3

Adjusted sales increased compared with the previous year. This was particularly the case in the electricity business as, due to developments in market prices, the underlying trading transactions were in some cases concluded at a higher price levels in previous years.

In the year under report, our energy trading business systematically expanded the marketing and managing of renewable energies while maintaining a conservative approach to risk management. Moreover, by exploiting exceptional price volatilities we were able to generate substantial additional revenues from trading with renewable energies. At the same time, we also generated earnings growth in our portfolio management activities for conventional energy trading. Overall, these factors led to a significant increase in adjusted EBIT.

The reduction in electricity and gas volumes is chiefly due to lower trading volumes resulting on the one hand from fewer opportunities to optimise the portfolio given the changed market climate and on the other from netting effects between sales procurement and increased marketing volumes. The year-on-year reduction in heat turnover was due above all to mild weather conditions. We also assume that the development in gas and heat turnover reflects energy-saving measures taken by our customers during the 2022/23 heating period.

## New Energies reporting segment

### New Energies from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	750	579	+ 171	+ 30
Adjusted EBIT	176	150	+ 26	+ 17
<b>Turnover</b>				
Electricity (kWh million)	230	238	- 8	- 3
Heat (kWh million)	1.316	1.369	- 53	- 4
Gas (kWh million)	246	273	- 27	- 10
Usable residual waste delivered (tonnes 000s)	2.221	2.186	+ 35	+ 2

The increase in adjusted sales was driven above all by our international project development business.

Adjusted EBIT rose compared with the previous year. On the one hand, we benefited in the year under report from high volumes of electricity and steam revenues, thus offsetting negative price effects for waste, waste timber and operating resources. On the other hand, the earnings

contributions from our wind turbines, our biomethane plants and our international project development business were higher than in the previous year.

The reduction in gas turnover was primarily attributable to a lower level of plant availability.

### Supply Reliability reporting segment

#### Supply Reliability from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	405	387	+ 18	+ 5
Adjusted EBIT	58	37	+ 21	+ 57

Adjusted sales were at the same level as in the previous year.

The year-on-year development in adjusted EBIT was mainly influenced by two factors. Firstly, one generation plant was only available to a limited extent both in the year under report and in the previous year. However, the negative impact on earnings due to the lower level of plant availability was significantly reduced compared with the previous year. Secondly, the year under report was characterised by a lower volume of electricity production due to price factors, a development which led to higher volumes of electricity being procured from the upstream grid. Overall, earnings in this reporting segment improved compared with the previous year.

### Strategic Investments reporting segment

#### Strategic Investments from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	62	126	- 64	- 51
Adjusted EBIT	154	18	+ 136	>+ 100
<b>Turnover</b>				
Electricity (kWh million)	30	331	- 301	- 91
Heat (kWh million)	23	675	- 652	- 97
Gas (kWh million)	145	145	0	0
Water (m <sup>3</sup> million)	0,0	0,9	- 0,9	- 100
Usable residual waste delivered (tonnes 000s)	0	117	- 117	- 100

Adjusted EBIT grew significantly compared with the previous year due to the disposal gains generated from the sale of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt. Turnover and sales both decreased on account of the sale of the MVV Energie CZ Group. The shareholding held in Stadtwerke Ingolstadt was consolidated at equity.

## Other Activities reporting segment

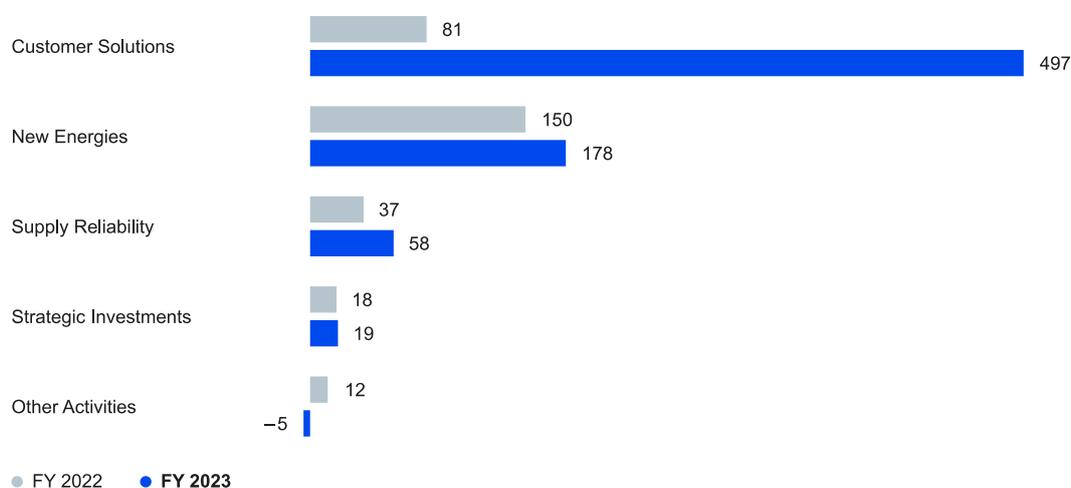
### Other Activities from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
<b>Sales and earnings</b>				
Adjusted sales excluding energy taxes	1	1	0	0
Adjusted EBIT	-5	12	-17	-

The reduction in adjusted EBIT is principally due to expenses incurred to establish a charitable foundation to mark the 150<sup>th</sup> anniversary of MVV and its predecessor companies.

### Adjusted EBIT excluding disposal gains by reporting segment

Euro million



### Reconciliation of adjusted EBIT and operative adjusted EBIT

In the following table, we show how we reconcile the EBIT reported in the income statement for the 2023 financial year with the adjusted EBIT relevant for management purposes.

#### Reconciliation of EBIT (income statement) with adjusted EBIT from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change
EBIT as reported in income statement	1,063	35	+ 1,028
Financial derivative measurement items	- 186	315	- 501
Interest income from finance leases	3	3	0
<b>Adjusted EBIT</b>	<b>880</b>	<b>353</b>	<b>+ 527</b>

For our value-based management, we refer to adjusted EBIT and calculate this key figure chiefly by adjusting our earnings before interest and taxes to eliminate positive and negative items resulting from fair value measurement as of the reporting date of those financial derivatives recognised under IFRS 9. These measurement items reflect the development in prices on the commodities and energy markets. They have no impact on payments, neither do they affect our operating business or dividend.

Our adjusted EBIT for the year under report and the 2022 financial year was significantly affected by disposal gains generated from the sale of shareholdings. These gains amounted to Euro 133 million in the year under report and to Euro 55 million in the previous year. As these involve non-

recurring items, we have additionally reported our operative adjusted EBIT. In the 2023 financial year, this amounted to Euro 747 million (previous year: Euro 298 million).

#### **Development in other key income statement items**

In cost of materials, we eliminate the difference between the hedge and reporting date prices pursuant to IFRS 9. **Adjusted cost of materials** rose by Euro 2,788 million to Euro 5,919 million. This increase largely reflects the higher wholesale prices realised for gas and electricity compared with the previous year, as well as the development in our project development business.

Driven above all by workforce growth at several domestic group companies and by collectively agreed pay rises, **employee benefit expenses** increased by Euro 30 million to Euro 541 million.

**Adjusted income from derivative financial instruments** (chapter [Notes to Income Statement, Note 4](#)) rose by Euro 6 million to Euro 198 million, while **adjusted expenses for derivative financial instruments** (chapter [Notes to Income Statement, Note 8](#)) grew by Euro 12 million to Euro 189 million.

The development in **other operating income** (chapter [Notes to Income Statement, Note 5](#)) was chiefly shaped by income from the sale of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt. Overall, adjusted other operating income rose year-on-year by Euro 131 million to Euro 258 million. The increase in **other operating expenses** by Euro 100 million to Euro 307 million was driven in particular by expenses for public relations, business agency agreements, IT operations and the windfall tax (chapter [Notes to Income Statement, Note 9](#)).

At Euro 22 million, **income from companies recognised at equity** was at the same level as in the previous year.

The reduction in **depreciation and amortisation** (chapter [Notes to Income Statement, Note 11](#)) by Euro 4 million to Euro 207 million largely resulted from the sale of the MVV Energie CZ Group.

The **adjusted financial result** (expense) rose by Euro 19 million to Euro – 51 million. This was principally due to foreign currency translation items, which were offset only in part by higher interest income.

Net of the adjusted financial result, **adjusted EBT** amounted to Euro 829 million in the 2023 financial year, Euro 507 million higher than in the previous year (Euro 322 million). Adjusted taxes on income stood at Euro 237 million (previous year: Euro 73 million).

**Adjusted annual net income** rose by Euro 343 million and amounted to Euro 592 million for the year under report.

At Euro 79 million, **adjusted non-controlling interests** were Euro 7 million higher than in the previous year, a development chiefly due to improved earnings at Stadtwerke Kiel. **Adjusted annual net income after minority interests** rose by Euro 337 million to Euro 513 million (previous year: Euro 176 million). On this basis, **adjusted earnings per share** amounted to Euro 7.78 (previous year: Euro 2.67). The number of shares was unchanged at 65.9 million.

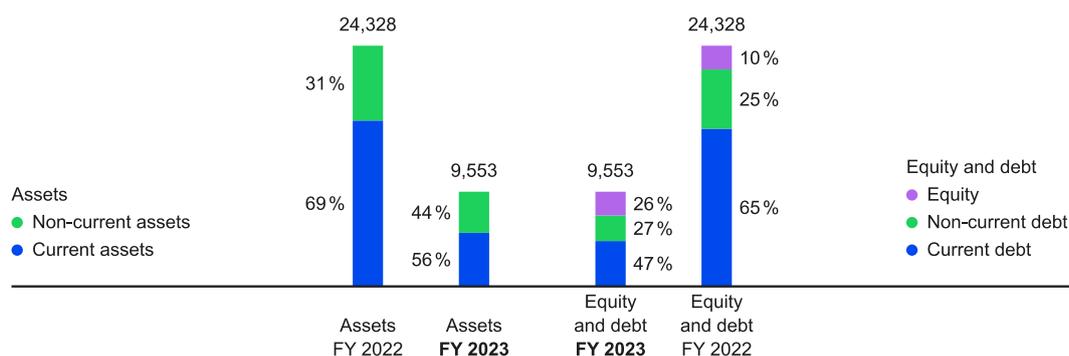
## Presentation of asset position

### Balance sheet structure

Euro 000s	30 Sep 2023	30 Sep 2022	% change
<b>Assets</b>			
Non-current assets	4,202,038	7,569,386	- 44
Current assets	5,351,443	16,758,893	- 68
<b>Total assets</b>	<b>9,553,481</b>	<b>24,328,279</b>	<b>- 61</b>
<b>Equity and debt</b>			
Equity	2,456,005	2,446,071	0
Non-current debt	2,557,105	5,998,445	- 57
Current debt	4,540,371	15,883,763	- 71
<b>Total equity and debt</b>	<b>9,553,481</b>	<b>24,328,279</b>	<b>- 61</b>

### Balance sheet structure

Euro million



### Balance sheet development

Total assets fell to Euro 9,553 million, down Euro 14,775 million compared with 30 September 2022, with this reduction chiefly being due to the lower fair values of energy trading transactions recognised under IFRS 9. These changes are reflected in the development in asset-side and liability-side derivative financial instruments (chapter [Notes to Balance Sheet, Notes 24 and 36](#)) and in the change in deferred tax assets and liabilities (chapter [Notes to Balance Sheet, Note 39](#)). Asset-side derivative financial instruments fell year-on-year by Euro 13,891 million to Euro 3,536 million, while liability-side derivative financial instruments decreased by Euro 13,168 million to Euro 3,438 million.

**Non-current assets** decreased by Euro 3,367 million to Euro 4,202 million. As outlined above, this reduction mainly results from the lower fair values of energy trading transactions recognised under IFRS 9. Due above all to the sale of the MVV Energie CZ Group, property, plant and equipment fell by Euro 31 million to Euro 2,924 million. The development in shareholdings recognised at equity on the one hand reflects the sale of the shares held in Stadtwerke Ingolstadt. This was opposed by the increase in actuarial gains and losses at a company recognised at equity. Overall, shareholdings in companies recognised at equity declined by Euro 40 million to Euro 154 million.

**Current assets** fell by Euro 11,407 million to Euro 5,351 million. Here too, the reduction was essentially due to lower fair values of energy trading transactions recognised under IFRS 9. Inventories (chapter [Notes to Balance Sheet, Note 27](#)) decreased by Euro 30 million to Euro 322 million, with this resulting in particular from our project development business and the removal of gas from a storage cavern. The reduction in trade receivables (chapter [Notes to Balance Sheet, Note 28](#)) by Euro 39 million to Euro 515 million results above all from declining purchase volumes

and energy market prices. The increase in current other financial receivables and assets by Euro 258 million to Euro 321 million is primarily attributable to cash investments with terms longer than three months, as well as to the rise in receivables from security deposits for counterparty default risk. Due above all to tax refunds, income tax receivables (chapter [Notes to Balance Sheet, Note 29](#)) decreased by a total of Euro 32 million to Euro 26 million. Cash and cash equivalents (chapter [Notes to Balance Sheet, Note 30](#)) fell by Euro 910 million to Euro 975 million. This reduction was chiefly due to high outflows of funds amounting to Euro 1,400 million for security deposits for counterparty default risk (margins) (previous year: inflow of Euro 595 million). Furthermore, investments, cash investments and dividend payments also led to an outflow of liquidity. These items were opposed by the significant increase in operating earnings and the disposals of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt.

Our equity including non-controlling interests amounted to Euro 2,456 million at the balance sheet date and was thus Euro 10 million higher than in the previous year (chapter [Notes to Balance Sheet, Note 31](#)).

**Non-current debt** decreased by Euro 3,441 million to Euro 2,557 million, with this change principally due to the lower fair values of energy trading transactions recognised under IFRS 9 compared with the previous year's balance sheet date. The rise in other non-financial liabilities (chapter [Notes to Balance Sheet, Note 37](#)) by Euro 35 million to Euro 179 million chiefly results from an increase in prepayments received, as well as from higher contract liabilities for construction cost grants. These factors were opposed by a lower volume of VAT liabilities.

**Current debt** fell by Euro 11,343 million to Euro 4,540 million. This development also mainly reflects the changed level of market prices and resultant change in fair values of energy trading transactions recognised under IFRS 9. The reduction in trade payables (chapter [Notes to Balance Sheet, Note 38](#)) by Euro 35 million to Euro 472 million also chiefly results from the lower level of wholesale prices on the energy markets. The decrease in current other financial liabilities by Euro 1,286 million to Euro 255 million is primarily attributable to a lower volume of liabilities for security deposits for counterparty risk (margins). Due above all to higher earnings in the year under report and the resultant higher tax charge, income tax liabilities (chapter [Notes to Balance Sheet, Note 39](#)) rose by Euro 88 million to Euro 127 million.

For Group management purposes, we adjust our consolidated balance sheet at 30 September 2023 to eliminate cumulative IFRS 9 measurement items. On the asset side, we eliminate positive fair values of derivatives and allocable deferred taxes, which amounted to Euro 3,525 million (30 September 2022: Euro 17,441 million). On the equity and debt side, we eliminate negative fair values and allocable deferred taxes, which stood at Euro 3,460 million (30 September 2022: Euro 16,858 million). Within equity, we then eliminate the net balance of Euro 65 million (30 September 2022: Euro 583 million). This results in adjusted equity of Euro 2,391 million at 30 September 2023 (30 September 2022: Euro 1,863 million). As a percentage of adjusted total assets of Euro 6,028 million (30 September 2022: Euro 6,888 million), the adjusted equity ratio came to 39.7 % at 30 September 2023, as against 27.1 % at 30 September 2022. This increase is attributable above all to the substantial reduction in total assets due to high outflows of security deposits (margins). Excluding these margins, the adjusted equity ratio amounted to 40.7 % at 30 September 2023 (30 September 2022: 34.3 %).

From our perspective, the reduction in the fair values of energy trading transactions recognised under IFRS 9 and in security deposits for counterparty default risk (margins) indicate that markets have become slightly calmer once again since the beginning of the war in Ukraine and that energy industry fundamentals are now returning to the foreground.

## Investments

We invested a total of Euro 344 million in the 2023 financial year (previous year: Euro 335 million).

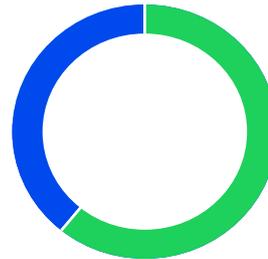
### Investments from 1 October to 30 September

Euro million	FY 2023	FY 2022	+/- change	% change
Customer Solutions	29	58	- 29	- 50
New Energies	133	109	+ 24	+ 22
Supply Reliability	160	135	+ 25	+ 19
Strategic Investments	4	11	- 7	- 64
Other Activities	18	22	- 4	- 18
<b>Total</b>	<b>344</b>	<b>335</b>	<b>+ 9</b>	<b>+ 3</b>

## Investments

Shares (%)

	FY 2023
● Growth investments	61
● Investments in existing business	39



Our largest investment projects involved:

- Investing in green heat generation plants, including building plants to provide backup and cover peak load in our district heat supply, building our first river heat pump and the grid connections required for this
- Taking over a 70 % stake in an Italian company specialising in the development of PV projects
- Building windfarms and solar parks and taking over PV parks into our proprietary portfolio
- Installing a new plant technology to produce phosphorous from sewage sludge in Mannheim
- Maintaining and renewing our distribution grids to safeguard supply reliability
- Building charging infrastructure in Mannheim and the region.

## Presentation of financial position

**Current and non-current financial debt** (chapter [Notes to Balance Sheet, Note 34](#)) decreased by Euro 119 million to Euro 1,798 million. The taking up of new loans was countered by higher repayments of existing loans. At the same time, **cash and cash equivalents** (chapter [Notes to Balance Sheet, Note 30](#)) fell by Euro 910 million to Euro 975 million. This was chiefly due to high outflows of security margins for counterparty default risk (margins), which amounted to Euro 1,400 million (previous year: inflow of Euro 595 million). Moreover, investments, cash investments and the dividend payment also led to outflows of liquidity. These factors were opposed by the significant rise in operating earnings and the disposals of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt. Overall, **net financial debt** (current and non-current financial debt less cash and cash equivalents) rose by Euro 791 million to Euro 823 million. Excluding margins, net financial debt showed a significant reduction to Euro 840 million (previous year: Euro 1,449 million).

The **cash flow before working capital and taxes** increased year-on-year by Euro 422 million. This development was chiefly due to the fact that, also after elimination of non-cash-effective and non-operating income and expenses, the significant year-on-year growth in earnings before taxes (EBT) led to a higher volume of cash-effective operating earnings. The largest item in this elimination related to the non-cash-effective measurement of derivatives pursuant to IFRS 9. The reclassification of non-operating income generated from the sales of the MVV Energie CZ Group and the shares in Stadtwerke Ingolstadt to the cash flow from investing activities also impacted negatively on the cash flow before working capital.

The **cash flow from operating activities** fell year-on-year by Euro 1,566 million. This resulted above all from higher repayments of security deposits for counterparty default risk (margins). Largely on account of lower wholesale prices for electricity and gas, the period under report saw a significant reduction in the volume of margins received. This more than offset the significant improvement in the operating cash flow. Adjusted to exclude the change in margins deposited, the cash flow from operating activities increased by Euro 430 million to Euro 786 million and was thus consistent with the strong operating earnings performance. Alongside higher earnings, the main factor influencing the year-on-year development in the cash flow from an operating perspective was the reduction in the volume of receivables and inventories.

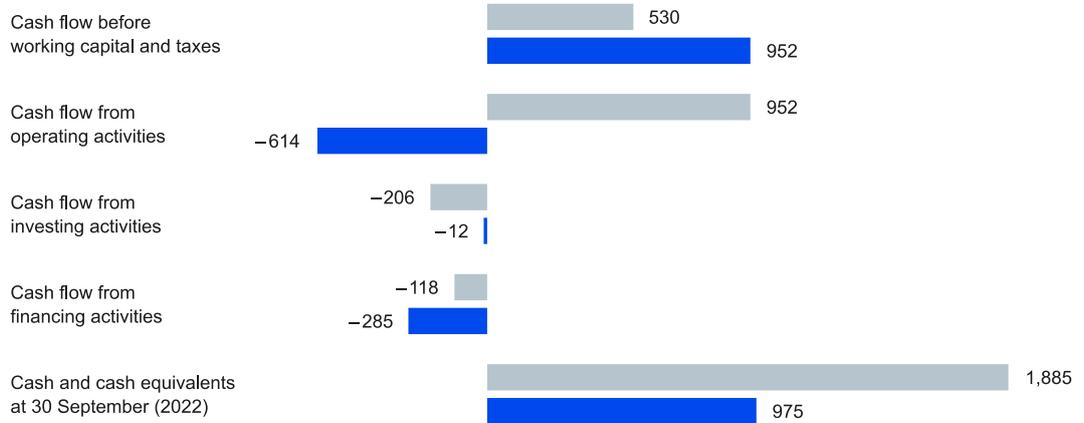
The development in the **cash flow from investing activities** was chiefly shaped by proceeds from the sales of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt in the period under report. Moreover, the volume of outgoing payments to acquire companies was lower in the current period. These factors were countered by higher payments for investments in non-current assets. Overall, the cash flow from investing activities rose year-on-year by Euro 195 million.

The **cash flow from financing activities** fell by Euro 167 million to Euro – 285 million, a development mainly resulting from a lower volume of net new borrowing.

MVV reported **cash and cash equivalents** of Euro 975 million at 30 September 2023 (30 September 2022: Euro 1,885 million). Excluding margins, cash and cash equivalents stood at Euro 958 million (previous year: Euro 468 million).

### Cash flow statement

Euro million



● FY 2022 ● FY 2023

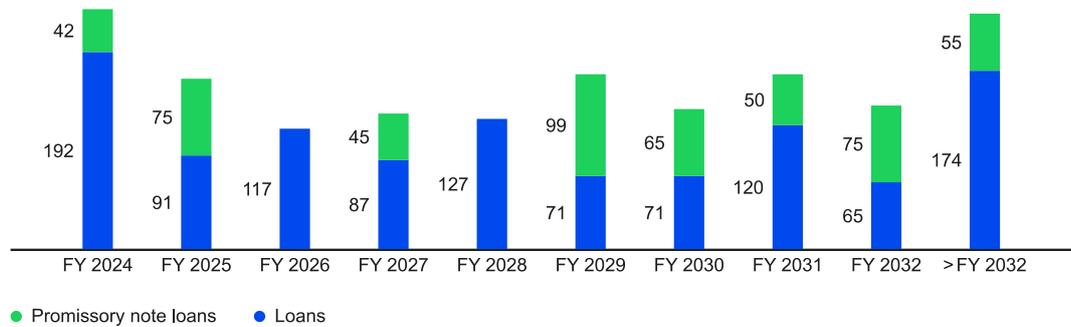
### Financial management

Our access to the capital markets is as good as ever, meaning that we have no difficulty in covering MVV's liquidity requirements. We benefit here from our strong creditworthiness, our diversified business portfolio and our corporate strategy, which focuses on sustainable and profitable growth. MVV has very strong liquidity in the form of cash funds and firmly committed bank credit lines.

Our repayment profile is well balanced for the years ahead.

### Repayment profile

Euro million



● Promissory note loans ● Loans

At the balance sheet date, MVV Energie managed a cash pool for itself and 35 companies in our Group. In this capacity, it manages, procures and secures both its own short-term liquidity and that of subsidiaries included in the pool. Long-term financing required for investments is provided to the subsidiaries in the form of shareholder loans.

### Credit rating

MVV does not have an external credit rating. In the rating talks we hold with our core banks, however, we receive regular feedback on our creditworthiness. Based on this information, we can assume that MVV continues to be classified at stable investment grade level.

# Combined Non-Financial Declaration

## General information

By publishing this Combined Non-Financial Declaration (NFD), we have complied with our reporting obligations in accordance with § 289b (1) and § 315b (1) of the German Commercial Code (HGB). We submit the NFD both for the MVV Group (MVV) and for its parent company, MVV Energie AG. The guidelines and concepts applied by MVV and MVV Energie AG are consistent with each other: there are no non-financial targets which would refer solely to MVV Energie AG. The NFD comprises this chapter and forms a constituent part of the combined management report. In connection with Regulation EU 2020/852, in the chapter [EU Taxonomy](#), which forms a constituent part of this NFD, we publish the corresponding disclosures required by Article 8 of the EU Taxonomy and the associated Delegated Regulations and Acts.

The reporting in the NFD refers to MVV and thus, as in other sections of this Annual Report, to all subsidiaries fully consolidated in the consolidated financial statements. For select key figures in the environmental aspects section, we additionally provide information on shareholdings recognised at equity. If, for select reporting topics, we focus on our main locations in Mannheim, Offenbach, Kiel and Wörrstadt, then we indicate this accordingly. To avoid redundancies within our combined management report, in relevant sections of the NFD we refer to further information included in other chapters. References to disclosures outside the combined management report constitute supplementary information and do not form part of the NFD.

The Supervisory Board commissioned PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC) to perform a limited assurance audit on the NFD. This was based on the International Standards on Assurance Engagements ISAE 3000 (revised). The audit opinion can be found in the chapter [Other Disclosures](#).

We are consistently working to minimise any potentially negative implications of our business activities and to make measurable contributions to transforming the energy supply and protecting the climate and environment. In our Annual Report and on our website, we have for many years now provided information about the challenges we face and the progress we have made as a company that acts sustainably. As in previous years, moreover, we will publish our Sustainability Report for the 2023 financial year on our website in February 2024. We prepare this in accordance with the GRI Standards of the Global Reporting Initiative and thus go beyond our statutory reporting obligations to satisfy the transparency requirements of our stakeholders.

The contents of the NFD and our Sustainability Report are determined on the basis of our materiality analysis. To perform this, we continually monitor public discussions and the positions of our stakeholders. We regularly assess whether and how the relevance of our material topics has changed. This multistage process includes:

- Desk research and internal analysis
- Surveys of those specialist departments which have interfaces with our external stakeholder groups
- Workshops and interviews with select stakeholders and internal experts
- Use of external AI-based data providers

We review all aspects of the materiality process every three to four years and did so most recently in the 2021 financial year. Moreover, we also update the main characteristics and prioritisations on an annual basis. In terms of its contents, the materiality analysis also accounts for global challenges and megatrends, Sustainable Development Goals, industry and technology-related

trends and the expectations of our internal and external shareholders. Our materiality analysis comprises three content-related perspectives, namely stakeholder relevance, business relevance and impact of our business activities. Analysing these dimensions enables us to meet the various requirements placed in the materiality analysis by different reporting standards.

To identify which sustainability topics are particularly significant to us, in 2023 we performed a materiality analysis in accordance with GRI Standards and voluntarily supplemented this with the business relevance dimension. In the second stage, we allocated the results of this analysis, where applicable, to the aspects listed in § 289c HGB, namely environmental concerns, employee concerns, social concerns, respect for human rights and combating corruption and bribery. We reviewed which disclosures were needed for these aspects to provide an understanding of the course of business, business results and situation of MVV Energie AG and the MVV Group, as well as the impact of our business activities on these aspects. The [Table of Contents](#) provides an overview of these aspects. We base our description of concepts and our non-financial key figures for this NFD on GRI Standards (2021).

## Business model and risk analysis

We are pursuing a long-term strategy focused on climate protection. This involves providing our customers with a supply of energy that is generated in ways that are as environmentally friendly as possible and supporting them with innovative solutions enabling them to implement their own energy transformation and achieve climate neutrality. We cover all major stages of the energy industry value chain. Further information can be found in the chapters [Business Model](#) and [Corporate Strategy](#).

Within our existing risk management system, which is described in the chapter [Opportunity and Risk Report](#), we record and evaluate all material risks, including non-financial risks, that are associated with our business activities and business relationships. The review process performed on non-financial risks in the 2023 financial year concluded that there were no risks which satisfied the materiality criteria set out in § 289c (3) Nos. 3 and 4 HGB.

The war in Ukraine and its associated impact on energy markets influenced MVV's performance once again in the year under report. Our risk management continually evaluates the resultant financial and non-financial risks. In this context, one knock-on effect involves climate protection: Germany changed its generation structure in order to consume less natural gas. Although less coal was consumed in the year under report than in the previous year, the volume of coal use was nevertheless higher than envisaged in the original coal exit trajectory. The reactivated coal-fired power plants are still in operation and there is still the risk of gas shortages arising in the winter of 2023/24. We explain how we are reacting to these developments in the environmental concerns aspect in the section [Climate Neutrality](#).

The political implementation of the energy transition and decarbonisation continues to impact on our operating business, whether due to shifting political priorities or changed fiscal scope. However, the focuses set by the Federal Government to date are moving more closely towards transforming the economy and society along the lines of climate neutrality. This approach is also to be viewed in connection with the final section of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), released in spring 2022, which calls for accelerated implementation of climate protection measures.

## Sustainability management

Our sustainability management focuses on those topics, processes and measures that we view as forming part of our core business (please also see the chapter [Business Model](#)) and is based on our corporate strategy (find out more in the chapter [Corporate Strategy](#)). Our climate protection strategy and our strategic sustainability and decarbonisation targets (here we refer to the section [Environmental Concerns Aspect](#)) were adopted by the Executive Board and discussed by the Supervisory Board; they form an integral component of our corporate strategy and of the business field strategies adopted on this basis.

Our sustainability management is anchored on various levels of the Group. The Executive Board bears overall strategic responsibility. The sustainability department, which is located in organisational terms in our group strategy and energy industry department, coordinates the sustainability strategy, reports to the Executive Board and relevant internal management and sustainability bodies on a regular basis and whenever required by specific events and manages the groupwide sustainability programme. This department shares information across business fields and is also where projects and measures are planned and implemented. Moreover, sustainability management is also responsible for major aspects of MVV's stakeholder management. The specialist departments continually review, evaluate and manage MVV's performance based on sustainability indicators and medium-term targets. For many years now, we have evaluated investment projects by reference to sustainability criteria and in terms of the contribution they make to our decarbonisation and sustainability targets. To promote sustainable investments even more effectively, in the year under report we included a sustainability-related component in the economic viability requirements for investments. The business fields act under their own responsibility to implement the measures and management systems on an operative level.

## Disclosures on contents of combined non-financial declaration

### Contents of combined non-financial declaration

Aspects pursuant to § 289c HGB	MVV area of action pursuant to MVV materiality analysis according to GRI	Disclosures on concepts, targets, measures, results, due diligence processes and non-financial key figures pursuant to § 289c HGB in section
Environmental concerns	Energy system transformation	Climate neutrality Renewable energies and energy transition Supply reliability Resource efficiency and local environmental protection Sustainable circular economy
Employee concerns	Environment and resources	
Social concerns	Social responsibility	Employer attractiveness
Respect for human rights and combating corruption and bribery	Social responsibility	Corporate social responsibility Responsibility for supply chain and human rights Compliance and respect for human rights

## Environmental concerns aspect

### Climate neutrality

Containing human-induced climate change is one of the greatest challenges of our time. In the EU, climate neutrality is to be achieved by 2050 at the latest. In 2021, the German Climate Protection Act (KSG) stipulated that Germany should become climate neutral by 2045 already. This course will also require unavoidable emissions to be offset. It will therefore be necessary to achieve negative emissions from the 2040s at the latest, for example by capturing CO<sub>2</sub>. We describe the relevant developments in energy policy in the chapter [Business Framework](#). MVV has attached great importance to climate protection, decarbonisation and renewable energies for many years already. We comment on our direct and indirect CO<sub>2</sub> emissions in Scopes 1, 2 and 3 in the section [MVV's Climate Balance Sheet](#).

#### **Energy industry has a key role to play**

As one of the main emitters of CO<sub>2</sub>, the energy industry has a key role to play in achieving climate neutrality. It must quickly reduce both its direct and its indirect emissions to zero and do entirely without fossil fuels. This affects not only the core business of energy companies, but also their upstream and downstream value chains and their shareholdings. The great challenges for this decade involve rapidly exiting from coal-based generation and reducing energy consumption in absolute terms. At the same time, it is necessary to build or modernise the infrastructures needed to facilitate a fully climate-neutral energy supply. This involves accelerating the expansion in renewable energies (electricity and heat) and the infrastructures needed to generate, transport and use climate-neutral gases. These are the technical preconditions enabling the use of fossil-based natural gas to be gradually phased out. Liquefied natural gas (LNG) can only provide temporary assistance in this respect.

#### **Climate neutrality is only an interim stage**

The term climate neutrality is often used, particularly by companies, to designate strategies in which CO<sub>2</sub> emissions are arithmetically neutralised by working with offsetting measures rather than reducing the use of fossil-based energy to virtually zero ("net zero"). Here, it is often notable that the climate protection measures implemented are predominantly those which offer economic benefits for the respective company, rather than all those that would be technically possible to reduce CO<sub>2</sub> emissions. The 2023 IPCC Synthesis Report makes clear not only that the use of fossil-based energies will have to be phased out completely worldwide, but that the net balance sheet will have to be negative by the middle of the century. This means that CO<sub>2</sub> will have to be permanently captured by being removed from the atmosphere in order to offset unavoidable emissions, such as those arising from agriculture.

## Our climate protection strategy

MVV uses the generic term #climatepositive to designate the measures required for greater climate protection. By 2035, we will be one of the first energy companies to achieve negative overall emissions, and that without deploying offsetting certificates. Our climate protection strategy and the associated sustainability and decarbonisation targets, including the measures planned, form the centrepiece of our Mannheim Model. Further information about this can be found in the chapter [Corporate Strategy](#).

Our climate protection strategy is based on the following key principles:

- It forms an integral component of our corporate strategy and determines the allocation of our investments and service focuses, and thus our further development.
- Together with the associated measures, our sustainability and decarbonisation targets have been certified by the Science Based Target Initiative (SBTi).
- We consistently include all sources of greenhouse gas emissions, including those at our at-equity shareholdings, in MVV's climate balance sheet.
- Our CO<sub>2</sub> reduction strategy is intended to reduce Scope 1, 2 and 3 emissions in absolute terms; offsetting and compensation measures do not form part of the strategy.

The Executive Board bears overall responsibility for our climate protection strategy. Climate protection management is performed by our sustainability management department.

### Our strategic sustainability and decarbonisation targets

To account for changes in the political and competitive climate, in the year under report we further raised the long-term sustainability and decarbonisation targets we had already set ourselves in the 2016 and 2020 financial years.

#### **We are reducing our total CO<sub>2</sub> footprint to net zero and will be #climatepositive by 2035.**

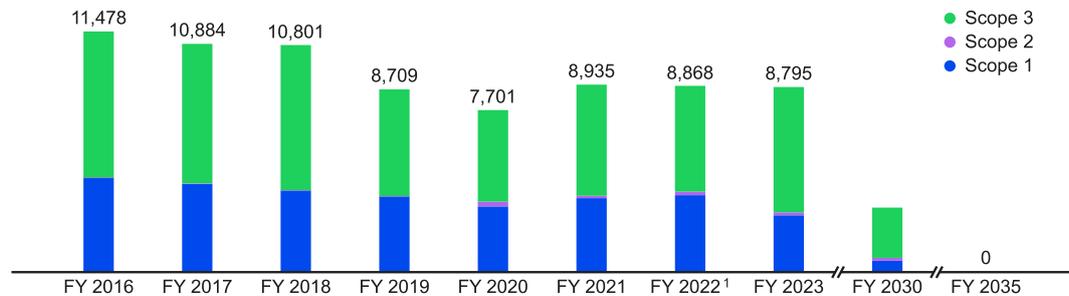
To achieve our Scope 1 target, we will decommission our remaining fossil-based energy generation and fully convert our energy generation to renewable energies. Until then, we will if necessary reduce condensation-based electricity generation at our coal power plants and take additional energy efficiency measures. The steps required to discontinue fossil-based generation by 2030 on the one hand include decommissioning the CHP plant in Offenbach. On the other hand, we assume that the nationwide exit from coal-based electricity generation envisaged by lawmakers will be completed by 2030 and that the remaining blocks at the Grosskraftwerk Mannheim power plant will no longer be operated in the market. The precise dates will largely be determined by federal policy. To achieve our net zero target for indirect emissions in Scopes 2 and 3 as well, by 2035 at the latest we will supply our customers exclusively with green heat, green electricity and green gases and decarbonise our supply chains. For MVV, net zero is achieved when we have reduced our absolute direct and indirect emissions on portfolio level by at least 95 % and have offset any residual emissions potentially unavoidable due to technical reasons with our own permanent CO<sub>2</sub> sinks. Unavoidable greenhouse gas emissions arise when no technical alternatives are available for the same application. Today, that is the case for generating energy from waste, for example, or for upstream emissions due to soil movements in agriculture.

Working with BECCUS (Bioenergy Carbon Capture Usage and Storage) will enable us not only to offset our own unavoidable residual emissions but also to become #climatepositive as a company thanks to the additional volumes thereby captured. To this end, by 2035 we will upgrade our bio-waste digestion, biomethane, biomass and energy from waste plants with suitable technologies enabling them to permanently remove CO<sub>2</sub> from the atmosphere.

This way, our biomass and energy from waste plants will in the long term become large, industrial-scale CO<sub>2</sub> sinks. That is because around half of the non-recyclable waste incinerated at energy from waste plants comprises biological, i.e. climate-neutral components. The other half involves waste that leads to unavoidable residual emissions. Thanks to BECCUS, the share of biogenic emissions thereby captured is turned into “negative emissions”, while the share of non-biogenic emissions captured becomes CO<sub>2</sub> neutral. We report the total waste-related emissions at our waste incineration and refuse-derived fuel plants in our [Climate Balance Sheet](#). The chart below presents the historic development in our total emissions, as well as the emissions we expect until 2035.

### Development in total emissions

Fully consolidated companies and companies recognised at equity  
1,000 tonnes CO<sub>2eq</sub>



<sup>1</sup> Previous year's figure adjusted

If we are to meet this ambitious goal, we will have to achieve further targets and milestones as we head towards becoming #climatepositive:

### We will convert our district heat generation in Mannheim and Offenbach to 100 % green energy sources by 2030.

In Germany, climate neutrality can only be achieved by way of the heat transition, which means fully converting all heat generation from fossil-based to renewable energy sources. As one of the largest district heat suppliers in Germany and a supplier of natural gas, we therefore bear a particular responsibility. In summer 2023, the Federal Government decided that, by 2030, on average half of Germany's district heat supply should result from green fuels. We are aiming for a significantly higher pace of decarbonisation. In Mannheim and Offenbach, we will generate 100 % green district heat by 2030, while Kiel is set to follow by 2035. We are continually expanding our district heat grids and supporting our customers, for example in converting from natural-gas-based house connections.

Furthermore, we will offer climate-neutral decentralised heat solutions to all households in our supply regions that are not connected to district heat.

**We will offer 100 % climate-neutral customer solutions by 2035 at the latest.**

Most of our indirect CO<sub>2</sub> emissions result from supplying electricity and natural gas to our customers. By 2035, we will gradually convert our products and services to 100 % climate-neutral solutions and supply our customers exclusively with green energy. By discontinuing sales of fossil-based fuels by 2035, we will achieve effective reductions in greenhouse gases.

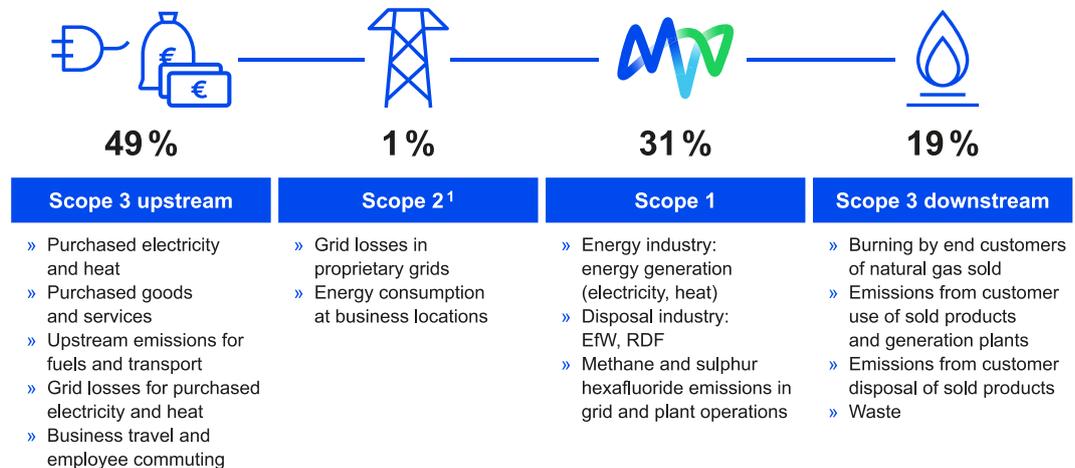
**We will triple our electricity generation from renewable energies compared with 2022 to around 2,000 megawatts by 2030.**

Renewable energies have been the key focus of our strategic alignment for many years already. The increased use of renewable energies is necessary to achieve the national climate protection targets. Not only that, for MVV they also offer opportunities to generate further growth. We will step up the pace of expansion for our own renewable energies generation portfolio. By 2030, we intend to increase our capacities to around 2,000 MW<sub>e</sub> (basis 2022: 614 MW<sub>e</sub>). Further information about our renewable energies generation portfolio can be found in the section [Renewable Energies and Energy Transition](#).

### MVV's 2023 climate balance sheet

In our climate balance sheet, we distinguish between direct and indirect CO<sub>2</sub> emissions.

#### Structural composition of our climate balance sheet



<sup>1</sup> Location-based

The generation of energy at our own plants or at plants from which we procure contingents gives rise to direct CO<sub>2</sub> emissions. These are designated as Scope 1 under the Greenhouse Gas Protocol.

On the one hand, our Scope 1 emissions are influenced by weather-based demand for heat and by developments in wholesale electricity prices. These factors cannot be influenced by MVV but are reflected in capacity utilisation rates at our generation plants. On the other hand, the medium to long-term development in our direct emissions largely depends on the dates when our existing plants using fossil-based fuels are decommissioned and on new plants needed to secure the supply.

Our Scope 1 emissions fell year-on-year by 26 % in the 2023 financial year. This reduction was predominantly due to lower generation at our conventional CHP plants. Furthermore, this development also reflects the disposal of the MVV Energie CZ Group and the increasing volume of green heat and electricity generation. In this respect, Scope 1 CO<sub>2</sub> emissions fell more sharply in the year under report than would have been expected without the one-off effects. Regardless of this, we are aware that the emissions incurred have reduced the remaining budget required to comply with a 1.5-degree trajectory and have introduced operative and strategic measures to ensure budget compliance. Examples of these include accelerating the expansion of renewable energies in our own portfolio. In addition, the situation on the German gas and electricity markets may currently still be tense, but once this has eased we will align our conventional generation portfolio even more closely to avoiding CO<sub>2</sub> emissions and gradually decommission our remaining fossil-based generation.

Indirect CO<sub>2</sub> emissions, Scope 2, mainly result from the energy we use for our business operations outside energy generation. These emissions are only of subordinate significance at MVV and were 12 % lower in the year under report than in the previous year.

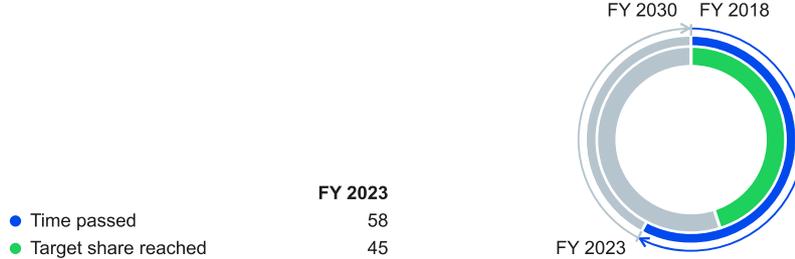
Indirect CO<sub>2</sub> emissions, Scope 3, comprise greenhouse gases arising in upstream and downstream stages of the value chain. CO<sub>2</sub> emissions in upstream value chain stages arise at suppliers manufacturing products and services purchased by MVV. These relate, for example, to the production of photovoltaics systems and wind turbines or the procurement of electricity not generated by MVV. Emission activities in downstream stages of the value chain chiefly involve the use of natural gas supplied by MVV to its customers. The annual development in Scope 3 emissions is chiefly determined by sales volumes for electricity, gas and heat, as well as by volumes in the renewable energies project development business. This key figure also includes emissions from non-commodities procurement activities.

The 18 % increase in Scope 3 emissions in the 2023 financial year largely reflects two opposing effects. The sharp rise in the volume of wind and solar projects implemented led to significantly higher indirect emissions. By contrast, there was a reduction in the upstream and downstream emissions resulting from commodity sales.

We continue to assume that this trend in total direct and indirect emissions will also continue in future and that we will be able to meet our decarbonisation targets.

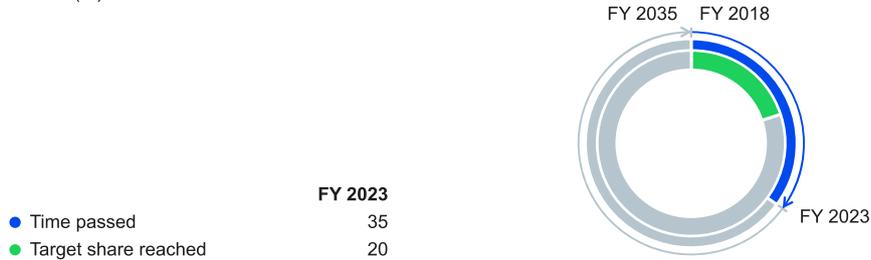
### Reduction in energy industry CO<sub>2</sub> (Scope 1)

Shares (%)



### #climatepositive by 2035 (Scope 1, 2 and 3)

Shares (%)



### Lower specific CO<sub>2</sub> emissions

Specific CO<sub>2</sub> emissions for our generation portfolio decreased compared with the previous year, with this being due to the lower volume of conventional electricity generation.

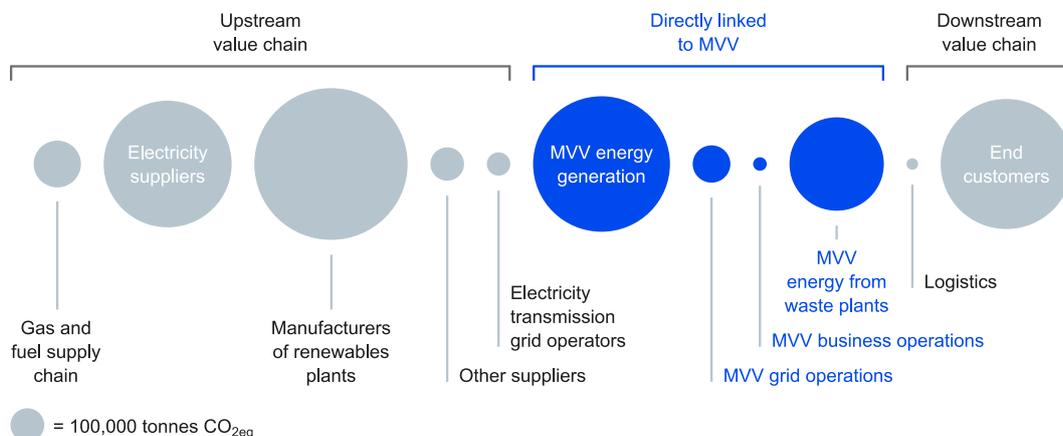
#### Specific CO<sub>2</sub> emissions in the groupwide generation portfolio

g CO <sub>2</sub> /kWh	FY 2023	FY 2022
Electricity generation	365	460
Heat generation	115	122
Energy generation in the generation portfolio	212	249

We again operated our plants in accordance with the approvals granted and relevant legal requirements in the 2023 financial year. We continually monitored compliance with the threshold values applicable to our plants.

## Direct and indirect CO<sub>2</sub> sources at MVV

Fully consolidated companies and companies recognised at equity



### Climate balance sheet

Fully consolidated companies and companies recognised at equity

1,000 tonnes CO <sub>2eq</sub>	FY 2023	FY 2022	+/- change	% change
<b>Direct CO<sub>2</sub> emissions (Scope 1)<sup>1,2</sup></b>	<b>2,684</b>	<b>3,649</b>	<b>- 965</b>	<b>- 26</b>
Energy industry activities <sup>2</sup>	1,852	2,703	- 851	- 31
of which CH <sub>4</sub> emissions <sup>2,3</sup>	42	58	- 16	- 28
of which SF <sub>6</sub> emissions <sup>4</sup>	2	1	+ 1	+ 100
Disposal activities (EfW) <sup>5</sup>	832	946	- 114	- 12
<b>Indirect CO<sub>2</sub> emissions (Scope 2)<sup>2,6</sup></b>	<b>127</b>	<b>147</b>	<b>- 20</b>	<b>- 14</b>
of which energy procured for proprietary plants <sup>2</sup>	6	7	- 1	- 14
of which energy used for grid operations <sup>2</sup>	121	140	- 19	- 14
<b>Indirect CO<sub>2</sub> emissions (Scope 3)<sup>2</sup></b>	<b>5,984</b>	<b>5,072</b>	<b>+ 912</b>	<b>+ 18</b>
of which purchased goods and services (GHG category 1) <sup>7</sup>	2,429	872	+ 1,557	>+ 100
of which fuel and energy-related activities (GHG category 3)	1,839	2,302	- 463	- 20
of which waste generated in operations (GHG category 5)	3	1	+ 2	>+ 100
of which business travel (GHG category 6)	0	1	- 1	- 100
of which employee commuting (GHG category 7)	6	6	0	0
of which use of sold products (GHG category 11) <sup>2</sup>	1,702	1,887	- 185	- 10
of which end-of-life treatment of sold products (GHG category 12)	3	1	+ 2	>+ 100
of which downstream leased assets (GHG category 13)	2	2	0	0
For information: indirect emissions from gas grid use by third-party sales operations <sup>8</sup>	545	620	- 75	- 12
For information: climate-neutral biogenic emissions	1,653	1,706	- 53	- 3
For information: biogenic emissions captured at MVV plants (BECCUS)	< 1	0	+< 1	+ 100

1 We refer to industry-typical factors from GEMIS/Öko-Institut for fuel-related emissions, the emissions factors issued by the Federal Environment Agency (UBA) for electricity and the certified emissions factors of the respective locations for district heat.

2 Previous year's figure adjusted

3 Emissions from gas motor combustion

4 Inspection work performed on an older plant enabled leakages to be remedied, significantly reducing SF<sub>6</sub> emissions.

5 Including RDF plants

6 Indirect Scope 2 emissions (location-based) cover the Mannheim, Kiel and Offenbach locations and are recorded on a calendar year basis.

7 GHG Protocol methodology used: spend-based and average data method

8 Due to the SBTi certification, MVV is required to publish regular reports. This involves natural gas volumes channelled by other energy companies through our gas grids.

## Renewable energies and energy transition

By expanding renewable energies, we are also making a measurable contribution to achieving the national climate protection targets on behalf of society as a whole. We set out our climate protection strategy in the chapter [Corporate Strategy](#).

### Developments in year under report

#### Green generation portfolio extended

We are expanding our own portfolio, particularly by adding onshore wind turbines and photovoltaics systems. Including our shareholdings recognised at equity and despite retirements from our portfolio in connection with the disposal of shareholdings, our electricity generation capacity from renewable energies stood at 633 MW at the end of the 2023 financial year and thus 19 MW higher than one year earlier.

At the end of the 2023 financial year, electricity generation at renewable energies plants (including biomass/biogas plants and EfW/RDF) accounted for 49 % of our total electricity generation capacity (previous year: 47 %). The prorated share of installed conventional generation capacity fell by 7 % in the 2023 financial year.

#### Electricity generation capacity Fully consolidated companies and companies recognised at equity

MW <sub>e</sub>	FY 2023	FY 2022	+/- change	% change
Biomass and biogas plants <sup>1</sup>	120	121	- 1	- 1
EfW <sup>2</sup>	172	176	- 4	- 2
Wind power	280	290	- 10	- 3
Photovoltaics	59	25	+ 34	>+ 100
Hydroelectricity	2	2	0	0
<b>Renewables and EfW</b>	<b>633</b>	<b>614</b>	<b>+ 19</b>	<b>+ 3</b>
Conventional CHP and other activities	655	703	- 48	- 7
<b>Total</b>	<b>1,288</b>	<b>1,317</b>	<b>- 29</b>	<b>- 2</b>

1 Including biomethane plants

2 Including RDF plants and sewage sludge treatment

The generation capacity at our biomethane plants did not change compared with the previous year and stood at 41 MW at the end of the 2023 financial year. Biomethane can be used both to generate electricity and heat and as a fuel for vehicles. In the medium term, we plan to further expand our biomethane generation capacities from waste digestion.

At the end of the financial year, green heat accounted for a 24 % share of our total heat generation capacities (previous year: 21 %).

### Heat generation capacity

#### Fully consolidated companies and companies recognised at equity

MW <sub>t</sub>	FY 2023	FY 2022	+/- change	% change
Biomass and biogas plants	88	99	- 11	- 11
EfW <sup>1</sup>	724	762	- 38	- 5
<b>Green heat capacity</b>	<b>812</b>	<b>861</b>	<b>- 49</b>	<b>- 6</b>
Conventional CHP and other activities	2,573	3,150	- 577	- 18
<b>Total</b>	<b>3,385</b>	<b>4,011</b>	<b>- 626</b>	<b>- 16</b>

<sup>1</sup> Including RDF plants and sewage sludge treatment

### International growth in project development business

We have all-round expertise in developing, building and launching operations with renewable energies plants. We aim to reach the projecting target in particular by installing onshore wind turbines and photovoltaics systems both in Germany and abroad. Smaller contributions will be made by biomass and photovoltaics systems at customer locations.

In the 2017 financial year, we set ourselves the target of connecting around 10,000 MW of renewable energies to the grid between 2016 and 2026. In the 2023 financial year, we connected 1,436 MW. Between 2017 and the end of the year under report, we have therefore added a total of 4,665 MW. We expect to see increasingly dynamic developments in terms of the installation of renewable energies in the years ahead.

#### Completed development of new renewable energies plants

MW <sub>e</sub>	FY 2023	FY 2022	+/- change	% change
Wind power	218	58	+ 160	>+ 100
Photovoltaics	1,218	418	+ 800	>+ 100
<b>Total</b>	<b>1,436</b>	<b>476</b>	<b>+ 960</b>	<b>&gt;+ 100</b>

With our Juwi subsidiary, we offer end-to-end project development and services both in Germany and abroad for planning, building and managing operations at onshore wind turbines and ground-mounted photovoltaics plants, as well as for hybrid projects, i.e. systems combined with battery storage facilities. In future, we will increasingly retain the wind and photovoltaics projects developed by Germany within the Group and thus expand our own generation portfolio. Our Avantag subsidiary supplements our project development business with rooftop photovoltaics in the B2B business, while our Beegy subsidiary offers decentralised renewable energies solutions in the retail and commercial customer business.

The project development business is inherently volatile, both in Germany and in our international markets. The volume of new renewable energies plants at which operations are launched each year depends, among other factors, on social and political acceptance, the length of approval processes, regulations governing subsidies for renewable energies and specific implementation dates for individual projects. Volumes may therefore vary widely from year to year. Moreover, changes in underlying conditions, such as in national subsidy mechanisms for renewable energies, may have a notable impact on the implementation of projects.

#### Operations management for renewable energies plants

MW <sub>e</sub>	FY 2023	FY 2022	+/- change	% change
Wind power	1,159	1,261	- 102	- 8
Photovoltaics	2,549	2,518	+ 31	+ 1
<b>Total</b>	<b>3,708</b>	<b>3,779</b>	<b>- 71</b>	<b>- 2</b>

## Supply reliability

Together with other energy companies, MVV has a key role to play in the energy system transformation by making sure that we too invest in the energy infrastructure to prepare this for the energy transition and make it fit for the future. At the same time, we perform what is for society the important task of ensuring that the supply of electricity, gas, heat and water remains reliable and stable. As the volume of electricity fed in from wind turbines or photovoltaics systems fluctuates in line with weather conditions and the time of day, it will be necessary at first to smartly combine renewable energies with highly efficient, flexible and controllable power plants. This makes it possible to provide our customers at all times with a secure and reliable supply of energy.

Supply reliability, always a core topic, has become a key focus of attention again due to the effects of current geopolitical upheavals and the war underway in Ukraine since 2022. Irrespective of these developments, we have always been aware of the importance of this aspect in our area of responsibility. In terms of our district heat supply, we are therefore currently implementing two back-up facilities at our Mannheim location that we will be able to deploy from the 2024 financial year.

The reliability, smartness and performance capacity of our grids also have a key role to play in this respect. That is why we continually invest in digitalising, maintaining, expanding and optimising our grids and plants, increasingly also against the backdrop of an acceleration in the electricity and heat transitions.

### Diversified generation portfolio

#### Further progress in converting our generation portfolio

We are working to an increasing extent with renewable and to a decreasing extent with conventional energies. In this, we are relying on a variety of energy sources and technologies. By building a diversified generation portfolio, we are helping to ensure a secure energy supply for our customers. That is particularly true for the supply of heat to those retail, business and industrial customers connected to our district heat and industrial steam grids in Mannheim, Offenbach and Kiel.

At the end of the 2023 financial year, the electricity generated at renewable energies plants (including biomass/biogas and the biogenic share of waste/refuse-derived fuels) accounted for 41 % of our total electricity generation (previous year: 32 %).

### Electricity generation

Shares (%)

	FY 2023
● Electricity from renewable energies <sup>1</sup>	41
● Electricity from wind power	16
● Electricity from biomass and biogas plants	14
● Electricity from biogenic energy from waste <sup>2</sup>	10
● Electricity from photovoltaics	1
● Electricity from CHP	33
● Other electricity generation	28



<sup>1</sup> Due to their immaterial share, electricity generation volumes from hydroelectricity have not been presented in this overview.

<sup>2</sup> Including RDF plants

**Electricity generation volumes**  
Fully consolidated companies and companies recognised at equity

kWh million	FY 2023	FY 2022	+/- change	% change
Biomass and biogas plants	482	492	- 10	- 2
Biogenic share of EfW <sup>1</sup>	322	306	+ 16	+ 5
Wind power	548	480	+ 68	+ 14
Hydroelectricity	3	5	- 2	- 40
Photovoltaics	43	12	+ 31	>+ 100
	<b>1,398</b>	<b>1,295</b>	<b>+ 103</b>	<b>+ 8</b>
Electricity from CHP	1,117	1,438	- 321	- 22
Other electricity generation	861	1,345	- 484	- 36
<b>Total</b>	<b>3,376</b>	<b>4,078</b>	<b>- 702</b>	<b>- 17</b>

<sup>1</sup> Including RDF plants and sewage sludge treatment

The increased generation volumes from wind power result from higher wind volumes, as well as from the fact that we took over a windfarm into our generation portfolio in the previous year. In the year under report, this made its first full-year contribution to our generation volumes. The retirement of wind turbines resulting from the disposal of our shares in Stadtwerke Ingolstadt only reduced our volumes to minor extent. The marked rise in generation volumes from photovoltaics reflects the addition of new capacities to our portfolio. The reduction in generation from combined heat and power (CHP) is due on the one hand to lower electricity generation at our conventional CHP plants and on the other to the disposal of the MVV Energie CZ Group.

**Heat generation volumes**  
Fully consolidated companies and companies recognised at equity

kWh million	FY 2023	FY 2022	+/- change	% change
Biomass and biogas plants	107	147	- 40	- 27
EfW <sup>1</sup>	2,358	2,515	- 157	- 6
<b>Green heat generation</b>	<b>2,465</b>	<b>2,662</b>	<b>- 197</b>	<b>- 7</b>
Other heat generation <sup>2</sup>	2,915	4,096	- 1,181	- 29
<b>Total</b>	<b>5,380</b>	<b>6,758</b>	<b>- 1,378</b>	<b>- 20</b>

<sup>1</sup> Including RDF plants and sewage sludge treatment

<sup>2</sup> Previous year's figure adjusted

At the end of the 2023 financial year, green heat generation accounted for a 46 % share of our total heat generation volumes (previous year: 39 %). The reduction at our biomass plants is attributable to the sale of the MVV Energie CZ Group. The lower heat generation volumes at our energy from waste (EfW) plants also mainly result from the disposal of the MVV Energie CZ Group. The reduction in other heat generation is due on the one hand to the sale of the MVV Energie CZ Group and of our shares in Stadtwerke Ingolstadt and on the other to lower generation volumes at our conventional CHP plants.

**Biomethane generation volumes**  
Fully consolidated companies and companies recognised at equity

kWh million	FY 2023	FY 2022	+/- change	% change
Biomethane generation	259	288	- 29	- 10

The principal cause of the reduction in biomethane generation volumes was a lower level of plant availability compared with the previous year.

## Grid stability

### Secure grid stability even with growing loads

One way to assess the reliability of the energy supply involves measuring the frequency and duration of grid downtime. Our three large grid companies MVV Netze, Energienetze Offenbach and SWKiel Netz have set themselves the goal of ensuring a secure supply free of interruptions and of avoiding grid downtime and remedying any downtime as quickly as possible.

#### We aim to minimise any interruption-induced failure in the supply.

We are investing large sums in maintaining, modernising and expanding our grids. In the 2023 financial year, these investments totalled Euro 143 million. One key performance indicator which shows the security of the energy supply is the system average interruption duration index (SAIDI), which presents the average interruption to the supply in minutes per year and customer. The SAIDI figure only accounts for unplanned downtimes lasting longer than three minutes and not due to force majeure.

The management teams at our grid companies are kept regularly informed about interruptions and also discuss this information with the Executive Board. Any countermeasures required are factored into our investment and maintenance projects. Following a very good value in the previous year (10.3), the cumulative SAIDI figure for our grid regions rose to 11.9 in the 2022 calendar year. Overall, we were able to provide our customers with an electricity supply that was largely free of interruptions and once again ahead of the national average.

#### Electricity supply interruptions (SAIDI)

Minutes/year	2022 <sup>1</sup>	2021 <sup>1</sup>	+/- change	% change
Electricity at MVV	11.9	10.3	+ 1.6	+ 16
Electricity in Germany <sup>2</sup>	12.2	12.7	- 0.5	- 4

1 Calendar year

2 Source: Federal Network Agency (BNetzA)

## Resource efficiency

The consequences of the ongoing growth in global resource consumption are apparent in much-discussed issues, such as biodiversity, resource scarcity or emissions of pollutants. Climate change offers the most striking example of these effects.

We use natural resources to generate energy. Our conventional generation plants also use finite resources such as natural gas and hard coal as fuels. We attach great importance to efficiency. We minimise the energy losses arising when the fuels are converted into end energy, such as electricity or heat, and consistently invest both in enhancing the energy efficiency of our generation plants and in expanding green heat in conjunction with highly efficient combined heat and power generation. Wherever technically possible, we are also increasingly relying on recycled products and input materials. One key indicator of very high resource efficiency involves the high fuel efficiency rates resulting from optimised use of the energy contained in fuels.

### Energy and resource use at MVV

#### **Fuel efficiency rate documents high level of generation efficiency**

The fuel efficiency rate key figure shows the efficiency of generation by presenting the volume of end energy generated (electricity and heat) as a ratio of the energy input (primary energy). If the fuel efficiency rate increases, the generation portfolio has a higher yield. By increasing the fuel efficiency rates of our plants, we reduce the volume of fuels used and cut emissions. In the year under report, our plants had an average fuel efficiency rate of 66 %. Our energy yield is thus ahead of the German average for generation activities. The Working Group on Energy Balances (AG Energiebilanzen) published an average fuel efficiency rate of 51.9 % for electricity generation at German power plants in 2021.

We operate our major generation plants almost exclusively with highly efficient combined heat and power (CHP) generation. After all, the fuel efficiency rate for CHP is significantly higher than when electricity and heat are generated separately.

The volume of fuel used in individual financial years largely depends on developments in weather conditions and market prices, as well as on the properties of the fuel in question. Another factor that may have a significant influence is the geopolitical situation. By-products, primarily ash and slag, arise in our energy from waste and CHP plants. The relevant data can be found in the section [Local Environmental Protection](#). The volume of this ash and slag is determined by technical factors or by the fuels used and does not lie within MVV's control. Wherever technologically possible and economically viable, we put these by-products to further use. After suitable treatment, they are returned to the economic cycle, for example as products for the construction industry.

**Fuels and waste used at power plants and energy from waste plants  
Fully consolidated companies and companies recognised at equity**

	FY 2023	FY 2022	+/- change	% change
Biomass (tonnes 000s)	539	559	- 20	- 4
Waste/RDF (tonnes 000s)	2,015	2,018	- 3	-
Sewage sludge (tonnes 000s)	72	-	-	-
Natural gas (kWh million)	1,982	2,954	- 972	- 33
Hard coal (tonnes 000s)	568	806	- 238	- 30
Other fossil fuels (kWh million)	58	354	- 296	- 84

**Low volume of coal use at MVV**

We are a minority shareholder in Grosskraftwerk Mannheim AG (GKM), with a 28 % stake, and do not operate this plant ourselves. GKM currently still operates three hard-coal-fired CHP blocks in the market. Due to supply reliability considerations, market operations were temporarily relaunched at Block 7 at the beginning of 2023. This block has now fully returned to the grid reserve at TransnetBW. Block 9 at GKM is one of the newest and most efficient hard-coal-fired power plants in Germany. In its Coalition Agreement signed in 2021, the Federal Government agreed that Germany would “ideally” exit from coal-based energy generation by 2030. We are basing our plans and measures on coal-based electricity generation being discontinued by the end of this decade. The setting of specific decommissioning dates for individual power plant blocks is subject to the proviso of supply reliability, as well as to the legal framework and agreements reached with GKM and its shareholders. We report on the measures with which we will convert district heat generation for Mannheim and the region to 100 % green energy sources by 2030 in the chapter [Corporate Strategy](#).

With its capacity of 60 MW<sub>e</sub>, the power plant in Offenbach is now the only hard-coal-fired power plant in our majority-owned conventional generation portfolio. As outlined in the chapter [Corporate Strategy](#) and the section [Climate Neutrality](#), we will also convert generation in Offenbach to renewable energies by 2030.

Until the date on which the MVV Energie CZ Group was deconsolidated in December 2022, we operated several small coal-based plants in the Czech Republic to generate and secure the heat supply.

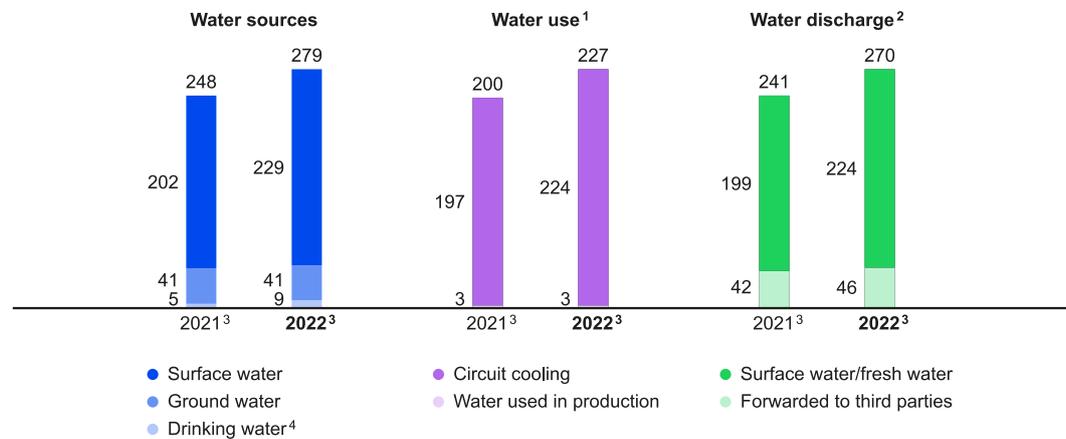
**Increased water use required**

On a global basis, the availability of clean fresh water and drinking water is an increasingly important topic, partly as a result of climate change and partly due to the increasing overuse of groundwater and surface water. Our subsidiaries MVV Netze and Stadtwerke Kiel play an active role in protecting ground water and water surfaces. As they are responsible for the supply of drinking water in their regions, they regularly analyse and check their supply systems. Here, the production, treatment and distribution of drinking water are not only of economic significance; the public supply mandate serves the common good. As a crucial source of life, drinking water is governed by strict quality standards. The most important objective for the water supply is to comply with these quality standards and minimise relevant contents. We have formulated the targets for our drinking water supply in detail in our Water Policy [mvv.de/water-policy](https://www.mvv.de/water-policy). MVV's water balance sheet shows that the majority of our water use relates not to the production of drinking water, but rather to circuit cooling at power plants. Here, we and our at-equity shareholdings chiefly take water from rivers and channel it back following cooling.

We are pursuing the objective of systematically reducing our ecological footprint on the level of water use as well and intend to back this up with more far-reaching activities. We are currently working to further develop our position and strategy for water. We intend to expand our reporting on this in the medium term and, with this aim in mind, have conducted suitable detailed analysis. On an internal basis, for example, we now distinguish for the first time between drinking water that we have produced ourselves and that procured from third parties. We have also for the first time included the water used for circuit cooling in our assessment. The growth in our water footprint in the 2022 calendar year was the result of increased conventional generation in our portfolio. This decreased in the year under report already and we expect this development to continue in the medium to long term. We thus also expect to see a reduction in the associated need for cooling water.

### Water volumes

Fully consolidated companies and companies recognised at equity  
m<sup>3</sup> million



1 Due to the low shares involved, closed-circuit cooling has been omitted from this overview.

2 Due to the low shares involved, water discharged to sewage plants has been omitted from this overview.

3 Calendar year

4 Includes drinking water produced internally and procured from third parties.

## Local environmental protection

Local environmental protection is a further fixed component of our management systems. For us, environmental protection on both national and local levels is closely based on legal requirements. The approvals granted and legal requirements form the basis for our activities, both when we build or modernise plants and in our day-to-day operations. Compliance, particularly with the prescribed threshold values, is monitored by the relevant authorities. Certain aspects of our operations, such as plant-specific emissions at large combustion plants, are subject to reporting requirements. Our subsidiaries and at-equity shareholdings are responsible for the operative management of environmental concerns on a decentralised basis. As they work with different technologies and our stakeholders in the regions have different concerns, these companies set their own relevant focuses within the framework provided by our groupwide guidelines. Given the tense current situation on the energy market and in global supply chains, there is an increasing probability of temporary shortages of specific chemical additives and input materials, such as ammoniac. This in turn could result either in emissions threshold values being temporarily exceeded or in energy generation having to be curtailed. By working with forward-looking procurement, MVV is attempting to mitigate the potential implications of a situation of this kind.

We work with decentralised environmental and energy management systems for the control and operative implementation of environmental protection measures. Where possible, we avoid other harmful environmental effects resulting from the generation and provision of our products and services or reduce these to a minimum. We pay attention, for example, to reducing other air pollutants. We treat the pollutants incurred very carefully. In the interests of a circular economy, unavoidable waste from energy generation and waste incineration, such as ash, metals and slag – so-called by-products – is turned wherever possible into products for other companies. Where this is not possible, the waste is disposed of correctly.

We are making a crucial contribution towards a sustainable circular economy with the ecological disposal of municipal sewage sludge. At our Offenbach locations, we have since 2021 used a single-purpose sewage sludge incineration plant with an annual capacity of 80,000 tonnes of sewage sludge. At our Mannheim location, a sewage sludge treatment plant with capacity for up to 180,000 tonnes of sewage sludge a year is currently in the final stage of construction. Here, we will in future recover phosphorous on location from the sewage sludge for use in fertiliser production.

At our conventional power plants, we generate electricity and heat by using fossil fuels, here especially natural gas and hard coal, as well as regenerative fuels. The latter fuels include both solid biomass and refuse-derived fuels (RDF), which are produced from waste and have a biogenic share of around one half.

### Other emissions and by-products

#### Fully consolidated companies and companies recognised at equity

Tonnes	2022 <sup>1</sup>	2021 <sup>1</sup>	+/- change	% change
NO <sub>x</sub>	2,726	2,970	- 244	- 8
SO <sub>2</sub>	715	971	- 256	- 26
Dust	27	28	- 1	- 4
Fly ash	134,538	94,039	+ 40,499	+ 43
Ash and slag	514,136	528,235	- 14,099	- 3

<sup>1</sup> Calendar year

Further environmental protection aspects form part of the environmental management systems organised on a decentralised basis at our subsidiaries and at-equity shareholdings.

## Biodiversity

The environmental topic of biodiversity is increasingly important for MVV. On an international level, it is discussed at the regular UN Biodiversity Conference. The Kunming-Montreal Agreement, which is intended to intensify worldwide efforts to maintain and re-establish biodiversity, was signed at the World Nature Conference held in Montreal in December 2022. The background to this is the increasing rate of species extinction, with climate change putting pressure on ecosystems in Europe as well. In the 2023 World Risk Report of the World Economic Forum, the loss of biodiversity is already ranked as the fourth-largest long-term economic risk, as the destruction of natural capital and reduction in diversity of species harbours the risk of irreversible consequences for the environment, humanity and thus economic activity. In view of this, the EU has also included the topic of biodiversity as one of its five strategic environmental objectives. Under the EU's new Nature Restoration Regulation, a target has been set to restore at least 20 % of the EU's land and sea areas by 2030 and to return all ecosystems to good ecological condition by 2050. Moreover, no further loss of biodiversity should be caused outside the EU. The efforts made by the EU in this area have already resulted in specific legal requirements for companies, such as the obligation to integrate biodiversity as a focus topic in the EU Taxonomy for sustainable investments and in future reporting obligations under the Corporate Sustainability Reporting Directive (CSRD). In connection with these requirements, we will further develop our strategy and measures and report in greater detail on biodiversity.

MVV directly touches upon biodiversity when it builds new or upgrades existing energy infrastructure. When we build our renewable energies plants, for example, we commission surveys to investigate the location-specific impact on the environment and biodiversity. Impact assessments evaluate potential negative impacts, impose restrictions or call for offsetting measures. This can create tensions between local animal protection, regional species conservation and climate protection measures. To date, these have to be resolved on an individual case level. With a view to accelerating the expansion of renewable energies, the Federal Government intends in future, within certain limits, to grant renewable energies priority over species conservation concerns.

However, biodiversity is also relevant to MVV in areas other than infrastructure projects. We use various types of biomass to generate energy, whether these be biogenic non-recyclable waste, regenerative resources, landscaping material or waste timber. We are aware that the use of fresh wood to generate energy, for example, only makes a limited contribution to protecting the climate and may also impact negatively on forests. In view of this, we attach value both to sustainable forestry and to avoiding the use of fresh wood at our biomass (CHP) plants. The waste timber we dispose of at our plants in pollutant categories III and IV includes contaminated timber, such as railway sleepers, that would otherwise introduce pollutants and hazardous substances into the natural world.

## Extreme weather events

As climate change advances, the number of extreme weather events, such as torrential rain, severe wind, flooding or extended periods of heat, is expected to increase in future. These may also impact on MVV, for example in the form of damage to buildings, hazards for employees or interruptions to energy generation or distribution. Based on climate scenarios, we can assess the potential risks at our company's various locations with the assistance of climate risk analysis. In the section [EU Taxonomy](#) we report on the details of this analysis, which found that none of the assets that we deploy to perform economic activities is vulnerable to the risks identified and that we have already implemented suitable measures to minimise such risks.

## Sustainable circular economy

A sustainable circular economy focuses on closing materials cycles and making effective use of waste, preferably by returning it to the economic cycle as a secondary raw material or, where this is not possible or expedient, by using it to generate energy. This means that, even when it has been correctly separated, household waste and commercial waste is by no means “rubbish”. We make effective use of these valuable commodities in order to protect natural resources.

At MVV, the circular economy mainly plays a major role in the environmental energy business field, and here in particular in treating waste at the end of the waste hierarchy. However, in our business customer business field we also make major contributions to saving resources and the circular economy. Our targets and measures for further developing these business fields therefore directly help to promote a sustainable circular economy. We are currently honing our strategy for the circular economy in connection with the future requirements of the CSRD.

Using the materials and energy contained in waste makes a major contribution towards reaching the target of building an economy that is as circular as possible. The best solution should always be to design products in such a way that they can remain in the cycle on a permanent basis, for example, due to recycling, and do not become non-recyclable waste. That is also the aim of the long-term political targets set out, for example in the Green Deal of the European Commission. Until that aim is achievable in terms of the underlying technology and regulation, and in cases where it is not possible, the next-best solution is to use unavoidable waste to generate energy. If it were possible to enhance global production in the long term in such a way that all unavoidable waste is free of fossil fuels, then the energy generated at energy from waste plants would be fully regenerative. As well as generating energy, our plants already separate specific materials, such as metals and minerals, and return these to the economic cycle.

Treating unavoidable waste in strictly controlled conditions at an energy from waste plant offers threefold benefits. Firstly, the waste is sanitised, meaning that materials harmful to people’s health or the environment are destroyed. Secondly, the energy contained in the waste is used to produce steam for industry, heat for businesses and households and electricity. Put simply, households deliver their non-recyclable waste to MVV and in return receive energy in the form of heat and electricity. Around 50 % of the energy generated is renewable, as around half of the waste is of biogenic origin. Thirdly, by avoiding the emissions which would arise from landfilling, incineration makes an active contribution to climate protection.

We incinerated around 1.9 million tonnes of non-recyclable waste and refuse-derived fuels in the 2023 financial year. We operate seven energy from waste plants in Germany and the UK. Due to their deconsolidation in December 2022, the plants at our former subsidiary in the Czech Republic contributed only a prorated share of this total. In Offenbach, we have used a sewage sludge incineration plant to treat municipal sewage since 2021 already. A further such plant at which we will simultaneously recover phosphorous is currently being built at our Mannheim location. Phosphorous is used as a valuable resource in fertiliser production. Together with our customer Olam Food Ingredients (ofi), we took a major step towards greater sustainability in the year under report by launching operations with a unique boiler system on its behalf. With this new steam generation plant, ofi has almost fully converted the supply of process steam at its Mannheim location from gas to the biomass incurred from processing cocoa. The resultant husks are thus used directly on location to generate steam.

## Employee concerns aspect

We are part of society at the locations and in the regions where we operate. Our goal is to make positive contributions for our employees and for local populations. We offer attractive and secure jobs to our employees, who number around 6,400, in an environment in which everyone can make their contribution to promoting decarbonisation and upholding supply reliability.

## Employee attractiveness

### **Our employees are our future**

Motivated, healthy and well-qualified employees are crucial to MVV's success. Viewed in the long term, demographic trends and changes in the population structure will create additional challenges if we wish to attract and retain suitable employees in future as well.

This being so, in our personnel strategy we are focusing on the following areas:

- **Leadership:** We are continually and systematically improving the quality of management at the company and adapting this in line with changing market and employee requirements.
- **Securing specialist staff:** We aim to remain an attractive employer. That is why we offer performance-based remuneration packages and are committed to helping our employees combine their work and private commitments. In our recruitment, we are focusing on expanding diversity at the company and here in particular on equal opportunities.
- **Work organisation:** We are making continuing efforts to further develop our company and corporate culture and aim to retain and enhance our employees' skills. To this end, we invest in training our workforce and promoting its willingness to embrace change. After all, we need highly trained, flexible and innovative specialists and managers who are keen to make their contribution to the new energy system. We are actively continuing to shape our company. Mobile work, for example, has become a fixed aspect of our work organisation.
- **Talent management:** We deliberately identify, support and cultivate upcoming talent – within the company from among our trainees and new recruits through to employees who have the potential to take on management positions, and externally with great personnel recruitment efforts on the market.
- **Diversity management:** Specialist and talented staff of all genders, age groups, backgrounds and situations should feel they have found the right job at MVV. With "Energy for Diversity", our diversity management programme, we are working consistently and with specific measures to create a suitable environment, structures, and support services for all our employees.

[mvv.de/en/vielfalt](https://www.mvv.de/en/vielfalt)

The Executive Board Personnel Director is responsible for all personnel-related activities. Reporting on relevant personnel topics is regularly provided to the full Executive Board and whenever necessary due to individual events or topics. The specific structure and implementation of the personnel strategy is organised on a decentralised basis. This way, targeted focuses can be set in line with circumstances on location.

MVV has a Group Works Council, as well as works council bodies and committees on the relevant levels. The company's management works together with these bodies on a basis of trust, meaning that both the company's concerns and those of its workforce are accounted for in all significant decisions. The Supervisory Board of MVV Energie AG [mvv.de/en/supervisory-board](https://www.mvv.de/en/supervisory-board) includes equal numbers of shareholder and employee representatives. This means that employee concerns are also central to any important company decisions.

## Key figures for year under report

### Personnel figures (headcount) at balance sheet date

	30 Sep 2023	30 Sep 2022	+/- change	% change
<b>MVV<sup>1</sup></b>	<b>6,390</b>	<b>6,556</b>	<b>- 166</b>	<b>- 3</b>
of which in Germany	5,833	5,552	+ 281	+ 5
of which abroad	557	1,004	- 447	- 45

<sup>1</sup> Including 331 trainees (previous year: 335)

We employed a groupwide total of 6,390 individuals as of 30 September 2023. This reduction is due above all to the sale of the MVV Energie CZ Group. Furthermore, the development in our workforce also reflects higher employee totals in our organic growth fields.

Our international workforce includes 349 employees at Juwi's shareholdings and 162 at the British subsidiaries of MVV Umwelt.

## Training and development

### Training with promising prospects for the future

With our broad range of training options – in Mannheim alone, we offer training in 14 different vocations and combined training and study programmes – we provide young people with numerous opportunities to start their career at our company. In Mannheim, Offenbach, Kiel and Gersthofen close to Augsburg, we are among the largest trainers in the respective regions.

**Our broad range of training programmes aims to show young people  
the wide variety of career opportunities at our company.**

We employed a total of 331 trainees at 30 September 2023. We regularly receive large numbers of applications for the training positions we offer, enabling us to fill these with suitable young people.

### Targeted personnel development: training concept implemented

We have developed numerous measures and instruments for targeted personnel development. These are based on the experience we have gained in the rapidly changing economic and technological environment in which we operate.

We are consistently upholding our further training concept and offer numerous virtual or in-person seminars on various topics on all levels of the hierarchy.

Our further training measures and a variety of knowledge platforms enable us to ensure a shared skills base for overriding strategic topics. Alongside in-house training on various topics, we also offer team development and individual measures, such as coaching and mentoring.

### We aim to develop the potential of our employees.

Key focuses of staff development measures at our Mannheim location in the 2023 financial year on the one hand included continuing the General Management series, which is intended to develop our management staff and for which 26 training sessions were held in the year under report. On the other hand, they involve further expanding our IT training for all employees. Here, we added programmes to train employees in preparing and working with data.

In Mannheim, we work with a management review system conducted at intervals of around two years to record the skills and further training needs of our managers and high-potential employees and to plan their next career steps. This involves a graded process including self-assessment, third-party assessment, internal management review conferences and concluding feedback talks between employees and managers. Within a well-established talent management process, we subsequently develop our employees with potential for management positions. More than 40 % of the participants in the 2019 management review now hold management roles or manage major projects. Our talent management activities also extend to specialist and upcoming staff, such as trainees and career starters.

MVV's specific competency model forms the basis for personnel development meetings and individual support programmes for all employees. We also hold regular appraisals and surveys at our main locations in Germany. This way, our employees have the opportunity to provide honest feedback and we can further enhance the quality of management at our company.

### Energy for Diversity

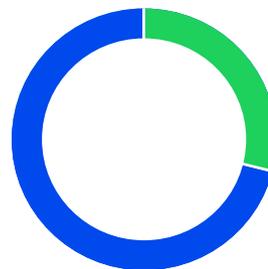
#### Employees by gender<sup>1</sup>

Shares (%)

	FY 2023
● Women	29
● Men	71

<sup>1</sup> Due to its low percentage, the "diverse" gender category cannot be meaningfully presented in the chart.

Status: 30 September 2023



We are convinced that the company can achieve sustainable business success only if responsibility is assigned to women and men on an equal basis. Not least with a view to demographic change, it makes sense for both social and economic reasons to promote all talents regardless of their gender. Among others, this approach has the benefit of proactively countering the effects of any shortage of specialist and management staff. To date, women have only made up a comparatively low share of the overall workforce at companies operating in the energy sector. We believe that raising the share of women working at our group of companies in the long term is one key to the company's successful further development.

**By 30 September 2026, we aim to raise women's share of our workforce to 35 %  
and of our total management staff to 25 %.**

We have set ourselves the target of raising women's share of our Group's workforce to 35 % by 30 September 2026, up from 28 % at 30 September 2021. Women accounted for 29 % of the Group's employees at the end of the 2023 financial year. Among our management staff, we aim to increase the share of women to 25 %. At the balance sheet date on 30 September 2023, this share stood at 19 %. To achieve our targets by 2026, we are consistently implementing and further expanding our promotional measures and programmes. That is particularly true for our targeted personnel development activities for women with the potential to take on management positions.

We are supplementing existing activities to increase the share of women by implementing measures aimed at raising women's visibility at MVV both within and outside the company. One key aspect is the establishment of "wom:energy", our groupwide network of women that holds regular networking meetings and organises its own formats. Moreover, we have also taken measures to increase the number of applications we receive from promising external and internal women candidates.

For MVV Energie AG as well, we have set ourselves targets for the share of women in the first and second management tiers below the Executive Board. In September 2021, the Executive Board set targets for the share of women at 25 % for the first and 30 % for the second management tiers, with both targets to be met by 30 September 2026. In the first management tier, we reached our target prematurely: At 30 September 2023, the share of women amounted to 33 % and was thus already well ahead of the 25 % target. In the second management tier, the share of women stood at 23 % (30 September 2022: 22 %) and was thus slightly higher than in the previous year. We see these increases as confirming the effectiveness of the measures we have drawn on, particularly to further enhance the skills of internal management staff.

**We promote equal opportunities and diversity**

We are convinced that diversity increases our success. One example: Diverse teams are better able to understand customers' needs and work more creatively on innovative ideas. In the year under report, our Diversity and Prevention central department defined which further aspects of the diversity topic are particularly relevant both to our workforce and to our business success. We will review these aspects in 2026 and at two-yearly intervals thereafter.

Alongside our focus on raising the share of women, we are currently concentrating on the dimensions of social and cultural background, the ability to combine work and personal commitments, and age. To reach the targets we have set ourselves, we are developing and implementing measures relating to our image as an employer, inclusion, equal treatment, recruitment and employer branding, as well as in the fields of employee and cultural development. Working in close cooperation with the specialist departments, we are also planning campaigns and thus promoting achievement of our targets. To raise awareness of diversity on management level at the company, we offer training sessions which address MVV's diversity focuses, unconscious prejudice, judgemental habits and the handling of discrimination or unequal treatment.

We are promoting the exchange of information and experiences between employees in dialogue formats such as "Diversity Talk", in which we look at a variety of diversity-related topics. In addition to our internal mentoring scheme for upcoming managers, we also take part in mentoring programmes for women that are organised in cooperation with other well-known companies in the region. Cooperating this way provides us with valuable ideas from outside the company and enables us to create further offerings. One example is "Spitzenfrauen BW", a regional project for women in Baden-Württemberg which enables us to provide interested women employees with an external network, bespoke seminars and access to areas of knowledge specially tailored to women.

### **Work and family can be combined at MVV**

Our aim is for our employees to be able to successfully combine their family and work commitments on an ongoing basis. Over their working lives, employees pass through many different stages of life. We aim to support them in mastering the daily requirements of their work and private lives. To this end, we offer a variety of worktime models with flexible working hours; these are explicitly available for our managers as well.

Digitalisation and the use of modern communications appliances also facilitate mobile work in line with specific needs. In the year under report, we performed a mobile work survey of employees at our Mannheim location. The findings have been factored into a new company agreement. Equivalent agreements governing mobile and hybrid work are also in place at our Kiel, Offenbach and Wörrstadt locations. Our part-time management concept is intended to retain high-performing employees at the company through various stages of their lives. This concept is targeted on the one hand at management staff in specific situations, such as parental or nursing care leave. It therefore makes it easier for them to return to work more quickly. On the other hand, the concept is intended to encourage employees to directly assume part-time management positions.

Since the 2021 financial year, we have offered a family service. Here, we work together with an experienced service provider who can offer strictly confidential advice to employees who wish to discuss work-related, family or financial issues.

Another area in which our employees face growing challenges involves caring for relatives. Here too, we are providing them with support. Employees caring for relatives can be granted leave from work. We also inform our staff about nursing care options by holding information events, providing emergency folders with information about work and care and, as is the case at our subsidiary Energieversorgung Offenbach, by cooperating with a nursing care service.

### **We are actively tackling demographic management**

In our third pillar of “Energy for Diversity”, we are addressing the demographic challenges we face. As well as offering extensive services via our company health management service to help employees preserve their health and further develop their personal skillset, we also draw on a modern knowledge transfer method for employees leaving the company. The expertise they have gained over many years should be retained at the company after their departure. We organise a well-structured and moderated transition and coordinate which knowledge should be transferred, as well as the timeframe and manner in which this should take place. In selected departments in Mannheim, for example, we perform “parallel runs”, in which employees due to retire from the company help to train their new colleagues over an extended period of time.

## Occupational health and safety

We aim to protect the physical and mental wellbeing of our own employees and of those who work on our behalf. To this end, we are making ongoing efforts to improve work safety at the Group. Consistent with this objective, we have established groupwide programmes to enhance safety at work. These programmes are taken up by the work safety officers on a decentralised basis and then backed up and supplemented with suitable measures. The current status is reported on Group level and discussed by the Executive Board on a quarterly basis.

### **Lived Safety still a key focus**

We accord the utmost priority to protecting the health and safety of our employees and those who work on our behalf.

### **Our goal: zero accidents.**

Our accident statistics and the prevention measures taken are evaluated on Executive Board and group level on a monthly basis, with further measures also being discussed and planned. The work safety committees required by § 11 of the German Occupational Safety Act (ASiG) are formed by companies on location and comprise both employer and employee representatives. The great importance our company attaches to work safety is also reflected in the fact that this is a fixed agenda item at the meetings of our Supervisory Board. We liaise closely with professional associations and employee representatives and agree our work safety and prevention strategies and measures with them.

### **Every accident is one too many**

We are making continuous efforts to improve work safety at the Group and are clear that every accident is one too many. This is the only way we can help to ensure that safety is actually lived within our company and beyond.

Structured programmes and measures form a key foundation in this respect. Examples here include an electronic instruction system with occupational safety training tailored to the respective workplace, an inspection concept and "Safety Moments", i.e. regular safety briefings aimed at raising safety awareness and firmly establishing this on all levels.

In line with the German Industrial Safety Act (ArbSchG), we perform risk assessments in all areas of the company. This way, we identify any work-related hazards, assess associated risks and lay down suitable technical, organisational and personal measures. Together with safety specialists, managers compile risk assessments and, where necessary, consult the company doctor and the Works Council. This cooperation enables us to ensure that we account for all relevant requirements and information.

In the great majority our domestic company departments, these risk assessments are performed and documented digitally. Here, we analyse the workplaces used, the activities performed, the work equipment used and any hazardous materials deployed. Where necessary, account is also taken of groups of persons who are at particular risk. Once we have implemented protective measures and conclusively checked their effectiveness, we reassess the remaining residual risk. Furthermore, implementation of various work safety ordinances is also factored into our analyses. We perform a review at least once a year to ascertain whether new findings or new legal or operating requirements mean that we have to amend the risk assessments.

In our instructions, we explain the interrelationships involved and lay down work safety requirements. We supplement personal training by offering an electronic instruction system based on the results of the risk assessment. This way, our employees can flexibly and individually address a variety of basic topics relating to work safety.

Employees who find themselves in a work situation where there is an acute risk of injury or sickness must stop work and immediately consult their managers. We have laid this down in corresponding operating instructions that we communicate to our employees, for example in training sessions. We systematically investigate any accidents, near-accidents, unsafe conditions and unsafe actions reported and derive measures where necessary. For all incidents, we consider whether we have to make any amendments to our risk assessments.

We evaluate accident statistics on a systematic basis for the overall Group. In this, we consider all accidents at or on the way to or from work, including more minor injuries. We only perform a statistical evaluation of accidents with particularly severe injuries and of accident types on an incident-related basis. The most frequent types of accident include people stumbling, slipping or falling over, as well as handling-related accidents. The assessment and evaluation are performed on a gender-neutral basis and in line with data protection requirements. We also assess the expediency of further preventative measures.

#### Accident statistics

	FY 2023	FY 2022	+/- change	% change
Lost time injury frequency rate (LTIF) <sup>1, 2, 3</sup>	4.3	3.7	+ 0.6	+ 16
Fatal accidents	0	0	0	0

1 Includes all fully consolidated companies in Germany (new fully consolidated companies only included in accident statistics at the earliest in the second financial year after acquisition)

2 Calculation based on work-related accidents from first day of absence per 1,000,000 working hours

3 Basis for FTE figures: FTE figures at reporting date on 30 September

Basis for non-centrally recorded FTE figures: FTE figures received directly from companies at reporting date on 30 September

Working hours = number of FTEs (full-time equivalents) at reporting date on 30 September multiplied by 1,700 hours (corresponds to 1 FTE)

With an LTIF of 4.3, the accident frequency was higher than the previous year's figure of 3.7. We have taken additional measures to raise awareness for potential accident risks. There were no accidents with fatal consequences in the year under report.

#### Health protection

We aim to preserve and promote the health of our workforce by offering a range of targeted services and preventative medical care. We also attach great value to raising awareness for our employees' mental and physical wellbeing. With the wide variety of measures offered by our company health management services, the information, events and fitness formats provided online and the extensive offerings available at company medical services at our larger locations, we provide our employees with numerous health promotion options.

## Social concerns aspect

### Corporate social responsibility

As a company with regional roots, we are an active part of society in the locations and regions in which we operate. We are aware of the important role we play in society. We therefore assume responsibility for our decisions, actions, products and services, and that towards our customers and capital providers, as well as towards the environment and society in which we live. The value we create on site makes us a major economic factor at our locations. We invest, award contracts, preferably to local or regional businesses, safeguard jobs, offer high-quality training and pay taxes and duties. It goes without saying that we do not use any questionable measures to avoid taxes or move profits across borders.

#### In dialogue with our stakeholders

We are open to the concerns of all our stakeholder groups and seek ongoing dialogue with them. This makes it possible to assess a variety of perspectives and concerns more closely and to factor these into our company's activities.

We operate at various locations and in diverse business fields and therefore account for the interests of numerous, often heterogeneous groups of stakeholders. These include our customers, employees, shareholders, government and political representatives, as well as non-government organisations (NGOs), the media, analysts, local residents at our locations, associations and suppliers. Further stakeholders are cooperation partners, business partners and research institutes.

#### **Our aim is to communicate transparently and openly with our stakeholders.**

We attach great value to maintaining an open and transparent dialogue with our stakeholder groups, and that both in our one-to-one contacts and via our websites, in press releases, on social networks and in specialist formats, such as analysts' or press conferences. We take part in public discussions and other events, such as specialist energy industry conferences and public information events. We play an active role in the relevant bodies, associations and networks, participate in research projects and take part in the public debate. We focus here on the energy system transformation.

Via our membership in industry associations, we participate in energy policy and energy industry discussions. In some cases, experts from MVV participate in the specialist and management boards, and thus in the respective opinion-forming processes, at these organisations. In the Association of the German Energy and Water Industries (BDEW), our CEO Dr. Georg Müller is a member of the Association's Board. Moreover, senior MVV employees are involved in the BDEW Steering Committees for Energy and Environmental Policy, Sales and District Heat. Our Executive Board member Dr. Hansjörg Roll is the President of the German Energy Efficiency Association for Heating, Cooling and CHP (AGFW). Examples of further associations and stakeholder groups of which we were members in the 2023 financial year are: the Federation of the German Waste, Water and Raw Materials Management Industry (BDE), the German Energy Storage Systems Association (BVES), the German Geothermal Association (BVG), the German Association of Energy Market Innovators (bne), the German Wind Energy Association (BWE), the German Association of Waste-to-Energy Plants (ITAD), the German Association for Electrical, Electronic and Information Technologies (VDE), the Baden-Württemberg Association of the Energy and Water Industries (VfEW), the German Association of Public Utilities (VKU) and the Technical Association for the Generation and Storage of Electricity and Heat (vgbe). Furthermore, MVV is a member of the 8KU Group, in which eight large municipal utility companies in Germany have joined forces to communicate their specific concerns in the political arena. Dr. Georg Müller has been entrusted with coordinating the activities of 8KU in 2023.

### Local communities

We have the responsibility to use our resources to make the energy system more sustainable and efficient and, to this end, maintain an open exchange of ideas with our stakeholders. Our dealings with local communities therefore form a further important aspect of our responsibility towards society. For many of the projects involved in expanding renewable energies and the necessary infrastructure, acceptance by people on location is absolutely crucial. We are therefore committed to planning and implementing projects together with local populations and their representatives on location, promoting acceptance for these projects on the basis of dialogue and reaching decisions that also convince third parties. We adopt a project-specific approach which is handled on a decentralised basis by our subsidiaries and shareholdings.

In many of the projects in which we promote the expansion of renewable energies, we see how important it is to involve people on location and gain their acceptance. We channelled our energies into promoting such acceptance once again in the 2023 financial year.

## Respect for human rights and combating corruption and bribery aspect

### Responsibility for supply chain and human rights

We exercise influence on topics relating to sustainability along our upstream and downstream supply chains as well. In the upstream supply chain, for example, we can decide who we wish to do business with and which minimum requirements we place in our suppliers. Key factors influencing our supplier selection from a non-financial perspective include the topics of anti-corruption measures, human rights, employee rights, including work safety, and environmental protection.

**We aim to avoid any situation in which activities along our value chain have or favour any harmful effects in terms of human rights and the environment.**

#### MVV's procurement

The energy industry supply chain is greatly influenced by fuel trading, which is handled on energy exchanges or in bilateral agreements. A significantly lower share of our total procurement volumes relates to suppliers who provide us with goods or perform services for us.

#### Key factor: commodities

Most of our procurement volumes involve energy carriers such as electricity and natural gas. In recent years, there has been increasing public interest in the greenhouse gas emissions resulting from the production and transport of natural gas. This particularly relates to imported liquefied natural gas (LNG). The topic of energy security remained highly important in the year under report. In Germany, the permanent discontinuation of Russian gas supplies has mostly been offset with LNG. Depending on the procurement source, this may give rise to other ecological issues which we analyse very closely.

We occasionally receive enquiries as to the origin of the hard coal used at our power plants and whether we exert influence on production conditions at the coal mines. The only coal-fired plant we operate ourselves is the CHP plant in Offenbach. For this, we directly procured around 64 thousand tonnes of hard coal in the year under report. This hard coal mainly comes from Latin and North America. We do not have any direct contractual relationships to mine operators but, given the low volumes involved, procure the fuels via intermediaries. Not only that, our very low volume of demand means that we have hardly any possibility of exerting influence on location. The power plant Grosskraftwerk Mannheim AG (GKM), where we are minority shareholders, also makes use of hard coal. As we ourselves do not operate the plant, we have no direct influence on business activities and fuel activities. We are nevertheless aware of our responsibility and endeavour to ensure that the coal industry respects human rights and makes a positive contribution to the social and economic livelihoods of workers, producers and communities by discussing sustainability topics closely with GKM and requesting information. GKM has been a member of the Better Coal Initiative since March 2021. We take due account of the German Act on Corporate Due Diligence Obligations in the Supply Chain (LkSG) [mvv.de/en/LkSG](https://www.mvv.de/en/LkSG).

#### Low volume of non-commodities

Apart from energy procurement our other procurement volumes are comparatively low, corresponding to only around one fifth of our commodity procurement. They mostly involve procuring goods, construction services and highly qualified services from contract partners often known to us for many years. Based on separate analysis, we also address the major potential risks further upstream in our supply chain. Here, we also perform a detailed analysis of the CO<sub>2</sub> footprint of the products and solutions we procure and account for these in our climate balance sheet. The cross-location team of experts we have established for this purpose acts early to assess legal requirements, discusses these and the latest developments in central procurement and implements measures to shape further developments. This team of experts includes procurement staff, lawyers,

our Human Rights Officer and our sustainability management. In a process managed by this expert team, our suppliers are subject to an automated risk review which compiles individual profiles of human rights and environmental-related risks.

In the year under report, we joined the sector dialogue of the German energy industry concerning respect for human rights along global supply and value chains. Supported by the Federal Government, this forum for sharing information enables industry representatives and members of society to investigate relevant potential violations of human rights along global supply chains and to analyse how the human rights-related situation could be improved. One topic that was again relevant in the year under report involved potential human rights violations in the production of photovoltaics modules in China. This risk is not specific to MVV's photovoltaics supply chains but rather constitutes a cross-industry risk involved in trading with China. We have longstanding supply relationships with module manufacturers, particularly via our Juwi subsidiary. We are in close contact with our suppliers with regard to these topics, although we have yet to gain awareness of any specific violations within our direct supply chains. We have nevertheless also contractually agreed more far-reaching precautions with the suppliers. Irrespective of this, we are closely looking into which alternative procurement options may be available for photovoltaics modules in the medium term.

### Procurement and business terms for suppliers

We accord high priority to respecting human rights and compliance with legal requirements in our cooperation with our suppliers. We deploy supplier management systems and expect all our suppliers to commit to adhering to our compliance requirements, particularly those relating to anticorruption measures, environmental protection, respect for human and workers' rights in the supply chain and the acceptance of responsibility towards society. The basis for our cooperation with suppliers and service providers in Germany and the European Union is provided by applicable laws and regulations, including the German Act on Corporate Due Diligence Obligations in the Supply Chain (LkSG), which has applied to us since 1 January 2023, as well as those compliance regulations, forms of conduct and work practices relevant to us. Among others, these comprise the international conventions of the United Nations (UN), the International Labour Organization (ILO) and the Organisation for Economic Cooperation and Development (OECD), as well as the UN Global Compact. We agree with our suppliers that they will comply with our Business Code of Conduct; this is published on our website at [mvv.de/en/compliance](https://www.mvv.de/en/compliance). If these obligations are breached, then contractual sanctions, including contractual penalties, termination and damages payments, are provided for. To implement the risk analysis requirement of the German Act on Corporate Due Diligence Obligations in the Supply Chain (LkSG), we have introduced an AI-assisted process and established supplier risk management connected to this. This enables us to detect, avoid, terminate or minimise and violations by our suppliers of human rights and/or human rights-related environmental protection requirements and to draw consequences in the event of such violations. This process already accounts for the requirements contained in the draft version of the EU Corporate Sustainability Due Diligence (CSDD) Directive.

Suppliers to MVV Energie AG, Energieversorgung Offenbach, Juwi and Stadtwerke Kiel are assessed in terms of their sustainability, risks and compliance, as are the subcontractors we approve. In our supplier management system, all suppliers are required to provide disclosures on whether they have compliance or anticorruption requirements and a code of conduct, as well as on whether they are committed to the UN Global Compact. Moreover, they must disclose whether they have a sustainability concept and, if so, how this is implemented. Corresponding information and certificates are deposited in our supplier management system.

For the most important of our strategic suppliers, we perform additional in-depth analyses of their strategy and of the climate protection and sustainability measures they have in place. Compliance with social welfare standards also forms part of our contract awarding process. As a general rule, we do not obtain data from suppliers located further upstream in the supply chain ourselves, but rather draw on external sources of information.

The overwhelming share of our business activities takes place in Germany and the UK, i.e. in European countries where respect for human rights is a core aspect of entrepreneurial activity. Within our supplier management, we have taken specific measures to perform a sustainability evaluation of select business areas with potentially critical conditions. Acquisitions of companies or shareholdings are subject to painstaking due diligence that also covers compliance with human rights, adherence to compliance-related requirements and further sustainability aspects, such as environmental protection and occupational safety.

Large numbers of subcontractors, most of which based in European countries, work on behalf of MVV. As human and employee rights are legally protected in these countries, we assume that employment conditions there are humane. High safety standards are also important to us for our subcontractors. We are therefore committed to ensuring that they comply with legal requirements and have issued corresponding requirements which provide, for example, for health and safety instructions to be issued to employees at third-party companies. We review our subcontractors in individual cases, particularly for major projects. We do not keep comprehensive records of working conditions at our subcontractors, especially at their production locations, but draw here too on external sources of information.

## Compliance

Our compliance management system (CMS) supports us in safeguarding compliance with applicable laws, as well as with in-company guidelines and the ethical standards to which we are committed. The CMS is intended on the one hand to ensure that our managers and employees understand and adhere to these guidelines and standards and on the other hand to monitor all relevant business activities and processes within our Group.

In our Compliance Handbook, we have summarised the most important rules, requirements and the organisational structures and responsibilities required to comply with these, as well as stating and providing a detailed description of the processes in our reporting system. The handbook is binding for all companies at the Mannheim subgroup of MVV Energie AG and is permanently available to all employees at this subgroup. The other subgroups have introduced equivalent compliance management systems.

Our Compliance Officer is responsible for the CMS with regard to its contents, organisation and processes. She compiles the relevant compliance requirements, updates these and exchanges information about them with the various organisational units. Moreover, she is responsible for ensuring that employee training measures are implemented and that adherence to the compliance requirements is monitored. Furthermore, she acts in an advisory capacity to support measures intended to prevent and, where necessary, investigate any violations of the law, corruption or deliberate acts harmful to the company. The Compliance Officer reports to the Executive Board regularly and whenever otherwise required by specific developments, as well as to the Audit Committee in the context of the annual financial statements.

**We aim to avoid any infringements of compliance requirements on a preventative basis.**

We have structured our CMS in such a way that any infringements are avoided on a preventative basis, particularly by implementing preventative measures in the respective business processes (systemic compliance). We perform advance checks on relevant processes in sensitive areas, for example, and act early to take corrective measures where necessary. Donations and payments to parties and political organisations are strictly prohibited. Payments to equity providers exclusively take the form of dividends.

By embedding active prevention measures within business processes, we are committed to averting any criminal or grossly improper violations of the law. In particular, we maintain a zero-tolerance policy towards bribery and all other forms of corruption. With regard to corruption prevention, we provide extensive training to our employees, particularly those working in sales, related areas and procurement. We show them, for example, how to deal with gratuities and invitations, which we record and check. With these measures, we minimise the risk of bribery and the granting of advantages.

We take all measures necessary to prevent money laundering and terrorism financing. Given its products, customer base and geographical scope of activity, MVV is only exposed to a low potential risk in this respect. To eliminate the risk of participating in money laundering and terrorism financing entirely, cash transactions are prohibited without exception. In addition, when business relationships are established requirements have to be met in terms of identifying the contract partners and their economic beneficiaries. To ensure that we do not maintain any business relationships with individuals who are subject to sanctions, we regularly screen our business partners against the relevant sanctions lists with the assistance of an IT tool.

Employees and third parties can contact the Compliance Officer or an external confidence lawyer directly and, if preferred, anonymously via “whistle-blower” hotlines and provide tip-offs of potential misconduct. We have published all necessary information and the telephone number of our confidence lawyer, also on our website at [mvv.de/en/whistleblower-hotline](https://www.mvv.de/en/whistleblower-hotline).

Regular training is provided to all MVV managers and employees who have contact to customers, service providers or suppliers, as well as to employees with other latent compliance-related risk exposure, to ensure that they are extensively informed of general compliance requirements and also familiar with the legal requirements relevant to their respective business units. Examples of the topics covered by this training are combating corruption and money laundering, capital market, stock market, competition and cartel law, handling sanction lists, respect for human rights and the relevant requirements of energy industry law. In the 2023 financial year, 487 employees at the Mannheim subgroup and 385 employees at the other subgroups took part in this training. The majority of these training sessions were held as in-person events. In parallel, over the same period 4,669 individuals completed an e-learning training module offered by our subsidiaries Stadtwerke Kiel, Energieversorgung Offenbach and Juwi.

Managers in the first management tier are required to submit a Compliance Management Declaration (CMD) at the end of each financial year. The same requirement applies to the managing directors of our subsidiaries and select other shareholdings. In this, they must state whether all relevant compliance regulations and legal requirements have been complied with. Among others, the questions in the CMD include asking whether the employees of the individual manager have received the required instruction and suitable training for the CMS. Moreover, in the context of the CMD the managers also provide detailed responses to questions specifically tailored to circumstances at their respective business unit.

## Legal responsibility and liability

Questions relating to legal responsibility and liability arise in the environment in which the energy industry operates. We report on MVV's legal risks in the chapter [Opportunity and Risk Report](#).

## Respect for human rights

Respect for human rights is also integrated into our compliance management system. In our Policy Statement on Respect for the Environment and Human Rights [mvv.de/en/LkSG](https://www.mvv.de/en/LkSG), we underline our commitment to internationally recognised principles of human rights and take due account of the German Act on Corporate Due Diligence Obligations in the Supply Chain (LkSG). The Policy Statement was adopted by our Executive Board, while the management at our companies and locations is responsible for compliance with the resultant requirements.

MVV's Human Rights Officer, who reports directly to the Executive Board, is responsible for implementing and monitoring the risk management activities required to meet the due diligence obligations imposed by the LkSG legislation. Among other aspects, this involves performing a human rights risk analysis each year and on specific occasions. This analysis covers the company's own business activities, as well as those of suppliers, and also involves defining measures to prevent any violations of human rights in the supply chain and our own activities and meeting statutory reporting obligations. As the central point of contact, the Human Rights Officer is the first person to turn to for employees. Not only that: In the event of potential violations, she ensures that these are remedied and investigated. It is important to us that all suspected cases should be recorded and reviewed. To this end, employees and third parties can either contact MVV's Human Rights Officer directly or use the anonymous whistle-blower hotline.

Employee training on the topic of human rights forms part of the compliance training.

In the year under report, we further developed the risk analysis process and other processes relating to the supply chain in our "Sustainable Supply Chain" workgroup, which operates across business units and locations. The workgroup promotes the further development and harmonisation of existing processes in the field of supply chain management; it therefore also addresses compliance with human rights and raises awareness within the organisation for potential human rights risks. In this year's process to identify any potential risks relevant to human rights, we concluded that there were no risks relevant to our reporting in terms of great significance or high probability of occurrence.

## EU Taxonomy

The Sustainable Finance Action Plan (SFAP) plays a key role within the EU's Green Deal. It is intended to direct capital flows towards environmentally sustainable technologies and companies. The framework for this plan is provided by Regulation EU 2020/852 (EU Taxonomy), which serves as a system of classification and, in supplementing Delegated Regulations, lays down the technical criteria governing whether economic activities may be classified as "environmentally sustainable". Environmentally sustainable economic activities have to make a substantial contribution to one of the six following environmental objectives (pursuant to Article 9 of the EU Taxonomy):

- 1. Climate change mitigation (CCM)
- 2. Climate change adaptation (CCA)
- 3. Sustainable use and protection of water and marine resources (WTR)
- 4. Transition to a circular economy (CE)
- 5. Pollution prevention and control (PPC)
- 6. Protection and restoration of biodiversity and ecosystems (BIO)

To determine whether they make a substantial contribution, the EU Taxonomy divides economic activities by reference to their taxonomy eligibility and alignment:

**Taxonomy-eligible** economic activities are those economic activities of a company for which final technical screening criteria are stated in the annexes to Delegated Regulations EU 2021/2139, EU 2022/1214, EU Document C(2023) 3850 final and EU 2023 Document C(2023) 3851 final. This classification is irrespective of whether the activities meet the technical screening criteria that have to be reviewed in the next stage.

Pursuant to Articles 10 to 18 of the EU Taxonomy, **taxonomy-aligned** and thus environmentally sustainable economic activities only include those activities that are described in the annexes to Delegated Regulations EU 2021/2139, EU 2022/1214, EU Document C(2023) 3850 final and EU Dokument C(2023) 3851 final and which make a substantial contribution to achieving one or several of the six environmental objectives and do no significant harm ("DNSH") to achievement of the other five environmental objectives. These two latter conditions are deemed to have been met if the economic activities satisfy the currently valid version of the technical screening criteria. Moreover, compliance with minimum safeguards has to be ensured for all environmentally sustainable economic activities.

At first, the classification criteria for the first two environmental objectives, namely "climate change mitigation" and "climate change adaptation" were laid down in Delegated Regulation EU 2021/2139. This took effect as of 1 January 2022. In early March 2022, the European Commission published a complementary Delegated Regulation EU 2022/1214 on the environmental objectives of "climate change mitigation" and "climate change adaptation". This defines the criteria which, if met, sales ("turnover"), investment expenses ("CapEx") and operating expenses ("OpEx") in gas and nuclear energy activities may be classified as environmentally sustainable, as these activities have the potential to assist in accelerating the transition to a climate-neutral future with predominantly renewable energies. This complementary Regulation has required mandatory application since 1 January 2023. In Delegated Regulation EU Document C(2023) 3851 final, adopted at the end of June 2023, the EU Commission also approved the classification criteria for the four other environmental objectives of "sustainable use and protection of marine resources", "transition to a circular economy", "pollution prevention and control" and "protection and restoration of biodiversity and ecosystems". Furthermore, Delegated Regulation EU Document C(2023) 3850 final extended the range of economic activities making a substantial contribution to the "climate change mitigation"

and “climate change adaptation” objectives and clarified detailed issues relating to the regulation. These Delegated Regulations are scheduled to take effect as of 1 January 2024; upon the editorial deadline, they had not yet been published in the Official Journal of the European Union. Upon the expiry of the relevant deadline, no objections were known to have been raised by the European Parliament or the EU Council.

Pursuant to the Taxonomy Regulation, the EU Commission will review and update the technical screening criteria at regular intervals in future as well. It is therefore a dynamic set of regulations. This process is intended to integrate technical advances, new scientific findings and EU policy developments.

## Implementation of EU Taxonomy at MVV

For the 2023 financial year, MVV is obliged to report on its taxonomy-eligible and taxonomy-aligned economic activities in the “climate change mitigation” and “climate change adaptation” environmental objectives, as well as on their respective shares of its turnover, CapEx and OpEx. With regard to the economic activities identified for the first time in the previous year, we have now implemented a regular process which subjects the disclosures and their current status to specialist review. Over and above the statutory disclosures, for the 2023 financial year we have also already reported on a voluntary and comprehensive basis on our taxonomy-eligible and taxonomy-aligned economic activities in the “sustainable use and protection of water and marine resources”, “transition to a circular economy”, “pollution prevention and control” and “protection and restoration of biodiversity and ecosystems” environmental objectives, as well as on their respective shares of turnover, CapEx and OpEx. MVV is thus one of the first companies in Germany to report in full on the currently known and future requirements of the EU Taxonomy.

The EU Taxonomy and the supplementary Delegated Regulations only record select economic activities. This means that we are unable to classify some activities as taxonomy-eligible which we believe make a key contribution to the environmental objectives, and in particular to climate change mitigation. One example: New BECCUS (Bio-Energy Carbon Capture Utilisation & Storage) technologies, which make it possible to withdraw carbon from the atmosphere, are currently not included in the EU Taxonomy. For MVV, however, they constitute an important factor as we head for a #climatepositive future. To withdraw carbon from the carbon cycle, for example, we intend to implement carbon capture (CC) by supplementing the technology at our energy from waste plants. We report on these activities in various sections of this report, including in the [Environmental Concerns Aspect](#) section of this Non-Financial Declaration.

### Identification and classification of our economic activities

We began by analysing all MVV’s economic activities on the basis of the descriptions provided in the Delegated Regulations and their annexes and then identifying our taxonomy-eligible activities (eligibility review).

On this basis, as well as of our assessment of compliance with the substantial contribution, DNSH and minimum safeguard requirements, we concluded for the 2023 financial year that the economic activities thereby identified contribute to the “climate change mitigation”, “sustainable use and protection of water and marine resources”, “transition to a circular economy” and “pollution prevention and control” environmental objectives. The environmental sustainability review also ascertained that our economic activities do not make any contribution to the second environmental objective, namely “climate change adaptation”. Furthermore, due not least to the limited range of economic activities described to date we have not identified any taxonomy-eligible economic activities for the sixth environmental objective, namely “protection and restoration of biodiversity and ecosystems”.

In the next step, all economic activities identified were subject to a taxonomy alignment review:

**Review step 1: substantial contribution to the environmental objectives**

We individually review each of our taxonomy-eligible economic activities by reference to the technical screening criteria pursuant to the relevant articles of the Delegated Regulations to the EU Taxonomy in conjunction with the associated annexes to ascertain whether they make a substantial contribution. The initial recording and review of economic activities in terms of their taxonomy alignment is performed with the assistance of uniform assessment forms across the Group. We devised these on the basis of the Delegated Regulations and the relevant annexes. They serve as work-sheets and documentary evidence. We accompany the subsequent process for the annual specialist current status review with our EUT management system. We manage the review process centrally, while the review of the respective economic activity takes place on a decentralised basis at the organisational unit responsible for the activity.

**Review step 2: do no significant harm**

A review is performed for each economic activity to ascertain whether it does any significant harm to the other environmental objectives. For the six environmental objectives, the DNSH criteria set out in the annexes and appendices to Delegated Regulations EU 2021/2139 and EU Document C(2023) 3851 final chiefly relate to compliance with European and/or German legal requirements. For MVV's taxonomy-eligible activities, the Delegated Regulations do not define any requirements concerning the avoidance of significant harm for the "climate change mitigation" environmental objective.

Due to our energy industry activities, the review of DNSH conformity concerning the avoidance of significant harm to the "climate change adaptation" environmental objective formed the key focus of our DNSH review process. To determine conformity pursuant to the annexes and appendices to Delegated Regulations EU 2021/2139 and EU Document C(2023) 3851 final, it is necessary to assess the physical climate risks. This is based on the findings of a climate risk model and climate risk analysis we performed with external climate risk experts. In this, the risk for a location or region in which we perform an economic activity was assessed for 15 climate risks based on various climate scenarios. This conformity assessment also involved performing climate projections relating to the scope of the activity and to the expected lifetime of such activity. Based on our uniform assumption of a 30-year lifecycle, we flexed the assessment to factor in high-resolution and state-of-the-art climate projections for the existing series of future scenarios.

We performed a separate assessment for each risk. Depending on the individual data situation, the RCP scenarios (2.6, 4.5, 6.0 and 8.5 – explained below) are converted from climatological forecasts, such as precipitation or global radiation, into physical risks. The calculation of climate risks due to extreme weather events covers the period until 2052. Implementation is aligned to the individual steps stated in the EU Taxonomy and is based on the following logic:

- Based on the data sources suggested by the EU, in a first step we identified those risks that are basically possible for the locations or regions stated due to extreme weather events. The primary data source we referred to was the database of the Copernicus Climate Change Service listed in Delegated Regulations EU 2021/2139 and EU Document C(2023) 3851 final.
- We subsequently used the four representative concentration pathways (RCP) for the scenario projection in order to identify possible future changes on a location-specific basis and to derive the resultant climate risks.
- To enhance the comparability of various studies, the International Panel on Climate Change (IPCC) developed the RCP scenarios to provide the scientific community with a shared set of assumptions concerning possible climate change developments. The term “concentration pathway” is intended to underline that the scenarios are aligned to select chronological sequences in greenhouse gas concentrations and the underlying socio-economic models. We refer to four scenarios defined by the IPCC, namely 2.6, 4.5, 6.0 and 8.5, which are applied in the annexes and appendices to Delegated Regulations EU 2021/2139 and EU Document C(2023) 3851 final of the EU Taxonomy. These four scenarios are described as follows: In each scenario, the projection reflects the scope of global mitigation strategies in respect of climate change. Scenario RCP 2.6, for example, presupposes significant efforts in this area, while Scenario RCP 8.5 assumes that CO<sub>2</sub> emissions will triple by the end of the century due to the absence of any mitigation measures. Scenario RCP 4.5 sets out a medium scenario in which fossil fuels are used until the middle of the century while also accounting for mitigation strategies. In Scenario RCP 4.5, emissions peak around 2040 and then decline. Scenario RCP 6.0 outlines a pathway similar to Scenario RCP 4.5, but here emissions only peak in 2080. The figures do not outline the expected rise in temperature; the increase in temperature is rather the consequence of the radiative forcing expressed by the figures due to increased concentrations of greenhouse gases in the atmosphere. The figures refer to the cumulative total volume by 2100 and the resultant radiative forcing. In addition, a rise in global mean temperatures can be allocated to each RCP Scenario. Scenario RCP 8.5 corresponds to an increase of around 4.8°C compared with preindustrial levels. In Scenario RCP 6.0, mean temperatures rise by between 3 °C and 4 °C by 2100. In the medium Scenario RCP 4.5, global warming reaches 2.6 °C compared with preindustrial levels. In Scenario RCP 2.6, by contrast, the average rise in global temperatures forecast by the model remains below the 2-degree Paris target.
- Due to circumstances at the locations and the specific features of the assets used to perform the economic activity, despite the risks identified for the respective location the assets may possibly not be vulnerable to such risks. We investigated this aspect in a second stage. For the locations thereby affected, we assessed the findings in cooperation with the directors of the respective location to ascertain whether any vulnerability to the identified risks that could negatively affect the economic activity actually applies. Where this is the case, in a third stage we evaluated whether any suitable risk-minimising measure is already in place. Depending on the risk, this may take a variety of forms and may involve structural or non-structural measures.

Overall, it was established that, for all assets we deploy to perform our economic activities, there is either no vulnerability to the risks identified or suitable risk-minimising measures (adaptation solutions) are already in place.

With regard to the avoidance of significant harm to the “sustainable use and protection of water and marine resources” environmental objective, the Delegated Regulations require those economic activities whose construction or operation may impact on existing water to meet specific criteria. We document that these criteria are met on the level of individual projects and plants, for example by liaising with the relevant authorities to allow inspection of approval applications, environmental reviews and approval conditions relating to water. We document, also on individual project and plant level, that we have met the criteria governing the avoidance of significant harm to the “transition to a circular economy” environmental objective by setting out our specific measures relating to the circular economy. To show the avoidance of any significant harm to the “pollution prevention and control” environmental objective, we document that we have met the criteria by presenting application approvals, environmental reviews and approval conditions for individual projects and plants. With regard to the “protection and restoration of biodiversity and ecosystems” environmental objective, the Delegated Regulations require criteria to be met for all our activities. We demonstrate that we satisfy these criteria by documenting our compliance with the approval process requirements, for example by granting access to the findings of environmental reviews.

**Review step 3: compliance with minimum safeguards for the topics of human rights (including employee and consumer rights), corruption and bribery, taxation and fair competition (“minimum safeguards”)**

We have adopted a groupwide approach to determine compliance with the minimum safeguards pursuant to Article 18 of the EU Taxonomy. With this approach, we ensure that due diligence obligations in respect of human rights are complied with on the level of individual economic activities. The same applies for our efforts to combat corruption and bribery. A key role is placed in this respect by our compliance management system (CMS), which we report on in the [Compliance](#) section of this Non-Financial Declaration. This assists us in ensuring that all applicable laws are complied with, as are internal company guidelines and the ethical standards to which we are committed. Respect for human rights is also integrated into our CMS. With our Policy Statement on Respect for the Environment and Human Rights and our Human Rights Policy, we underline our commitment to internationally recognised human rights norms, conventions, principles and policies. Among others, these include the International Bill of Human Rights of the United Nations (UN), the OECD Guidelines for Multinational Enterprises, the Ten Principles of the UN Global Compact, the Guiding Principles on Business and Human Rights of the United Nations and the Core Labour Standards of the International Labour Organization (ILO). These also form part of our MVV Business Code of Conduct for our suppliers and business partners. Moreover, we further developed our risk analysis process and other supply chain-related processes in our “Sustainable Supply Chain” workgroup, which covers activities in our business fields and our locations. “Potential violations of human rights in the photovoltaics supply chain”, which was a relevant topic in the year under report, was also subject to close risk monitoring, with suitable precautionary measures taken. We report on this in the [Respect for Human Rights and Combating Corruption and Bribery Aspect](#) section of this Non-Financial Declaration.

We promote employee awareness of the importance of compliance with all applicable competition laws and regulations. Neither the company nor its senior management have been finally convicted either of violating tax or competition laws or of corruption.

On this basis, we concluded overall that MVV complies with the requirements of the minimum safeguards.

Where the respective economic activity cumulatively meets all points of the three review steps outlined above, we classify this activity as “taxonomy-aligned”. For the 2023 financial year, we identified the following economic activities as being taxonomy-aligned:

**Overview of all taxonomy-aligned economic activities FY 2023**

<b>Economic activity pursuant to EU Taxonomy</b>	<b>Environmental objective</b>	<b>MVV's activity <sup>1</sup></b>
4.1. Electricity generation using solar photovoltaic technology	Climate change mitigation (CCM)	Projecting and construction of photovoltaics parks and generation of electricity from photovoltaics systems
4.3. Electricity generation from wind power	Climate change mitigation (CCM)	Projecting, construction and generation of electricity from onshore wind turbines
4.5. Electricity generation from hydropower	Climate change mitigation (CCM)	Generation of electricity from hydropower plants
4.8. Electricity generation from bioenergy	Climate change mitigation (CCM)	Generation of electricity from biomethane and biogas plants
4.9. Transmission and distribution of electricity	Climate change mitigation (CCM)	Distribution grid operator for electricity
4.11. Storage of thermal energy	Climate change mitigation (CCM)	Use of heat storage facilities
4.13. Manufacture of biogas and biofuels for use in transport and of bioliquids	Climate change mitigation (CCM)	Biomethane production
4.14. Transmission and distribution networks for renewable and low-carbon gases	Climate change mitigation (CCM)	Distribution grid operator for green gases
4.15. District heating/cooling distribution	Climate change mitigation (CCM)	District heat supply
4.16. Installation and operation of electric heat pumps	Climate change mitigation (CCM)	Construction and operation of a river heat pump
4.20. Cogeneration of heat/cool and power from bioenergy	Climate change mitigation (CCM)	Electricity generation using CHP at biomass plants
4.24. Production of heat/cool from bioenergy	Climate change mitigation (CCM)	Heat generation at biomass plants
4.25. Production of heat/cool using waste heat	Climate change mitigation (CCM)	Use of waste heat for district heat supply
4.30. <sup>2</sup> High-efficiency co-generation of heat/cool and power from fossil gaseous fuels	Climate change mitigation (CCM)	Coastal power plant in Kiel
4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system	Climate change mitigation (CCM)	Gas-based backup facilities for district heat supply
5.7. Anaerobic digestion of bio-waste	Climate change mitigation (CCM)	Biomethane production from bio-waste
6.15. Infrastructure enabling low-carbon road transport and public transport	Climate change mitigation (CCM)	Public charging infrastructure activities
7.3. Installation, maintenance and repair of energy efficiency equipment	Climate change mitigation (CCM)	LED contracting
7.4. Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	Climate change mitigation (CCM)	Charging infrastructure activities for business and commercial customers
7.5. Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	Climate change mitigation (CCM)	Meter operations
7.6. Installation, maintenance and repair of renewable energy technologies	Climate change mitigation (CCM)	Installation of photovoltaics systems for business, commercial and retail customers
9.3. Professional services related to energy performance of buildings	Climate change mitigation (CCM)	Energy efficiency consulting for business, commercial and industrial customers
2.1. <sup>2</sup> Water supply	Water and marine resources (WTR)	Water production and supply
2.1. <sup>2</sup> Phosphorous recovery from waste water	Circular economy (CE)	Phosphorous recycling plants
2.7. <sup>2</sup> Sorting and material recovery of non-hazardous waste	Circular economy (CE)	Recovery of secondary raw materials at energy from waste plants
2.2. <sup>2</sup> Treatment of hazardous waste	Pollution (PPC)	Treatment of hazardous waste timber

<sup>1</sup> Our plants are subject, among other legislation, to the strict requirements of the German Federal Immission Control Ordinances (BImSchV) enabling us to safeguard compliance with the relevant DNSH criteria.

<sup>2</sup> Economic activities newly added in year under report

For the 2023 financial year, we also classified the following economic activities as being taxonomy-eligible but not yet taxonomy-aligned:

**Overview of all taxonomy-eligible but not taxonomy-aligned economic activities FY 2023**

<b>Economic activity pursuant to EU Taxonomy</b>	<b>Environmental objective</b>	<b>MVV's activity</b>
4.29. Electricity generation from gaseous fossil fuels	Climate change mitigation (CCM)	Gas power plants
4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels	Climate change mitigation (CCM)	Generation of electricity and heat using gas-based CHP (except coastal power plant in Kiel)
4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system	Climate change mitigation (CCM)	Gas-based backup facilities for district heat supply
8.2. Data-driven solutions for GHG emissions reductions	Climate change mitigation (CCM)	Energy data collection and management systems

**Calculation and definition of EU Taxonomy KPIs**

We based our calculation of taxonomy-eligible and taxonomy-aligned shares on the following approach: Key performance figures (KPIs) have been calculated based on the accounting policies applied in the consolidated financial statements that, pursuant to § 315e (1) HGB, we prepare in accordance with International Financial Reporting Standards (IFRS).

KPIs have basically been determined on the basis of the data in our consolidated financial statements. Where the calculation of EU Taxonomy KPIs and relevant components of such requires reference to local IT systems or the use of calculation keys, we safeguard process conformity with suitable internal checks both in terms of processes (dual control principle) and of system assistance (validation), thus also avoiding duplicate inclusion.

**Sales (turnover)** correspond to adjusted sales excluding energy taxes. To determine this KPI, we adjust sales after electricity and natural gas taxes as stated in the [Income Statement](#) as of the balance sheet date to eliminate the difference between the hedge and reporting date prices as of the respective realisation date pursuant to IFRS 9 (further details can be found in the section [Presentation of Earnings Performance](#) in the chapter Group Business Performance). The taxonomy-eligible and taxonomy-aligned shares of our sales are determined by presenting total adjusted sales in our taxonomy-eligible and taxonomy-aligned economic activities (numerator) as a percentage of the MVV Group's adjusted sales (denominator). Further details can be found in the [EU Taxonomy Tables](#).

Pursuant to EU Taxonomy requirements, **investment expenses** correspond to additions to intangible assets and property, plant and equipment. These are determined without including depreciation and amortisation, remeasurements or fair value changes. Furthermore, the investment concept used in the EU Taxonomy requires inclusion of the following additions:

- Additions to property, plant and equipment pursuant to IAS 16.73 (e) (i) and (iii)
- Additions to intangible assets pursuant to IAS 38.118 (e) (i)
- Additions to investment properties pursuant to IAS 40.79 (d) (i) and (ii)
- Additions to right-of-use assets pursuant to IFRS 16.53 (h)

The definition of investment expenses in the EU Taxonomy thus diverges from our definition of the investments KPI. In the following table, we show how we reconcile investment expenses as defined in the EU Taxonomy with our investments in the 2023 financial year. Further information about MVV's investments can be found in the section [Presentation of Asset Position](#).

#### Reconciliation of investment expenses

Euro million	FY 2023	FY 2022	+/- change
<b>Investment expenses pursuant to EU Taxonomy Regulation</b>	<b>344</b>	<b>350</b>	<b>- 6</b>
+ Unfinished products in connection with finance leases	+ 12	+ 5	+ 7
+ Financial assets	+ 11	+ 37	- 26
- Dismantling obligations	- (- 1)	- (- 6)	- 5
- Right-of-use assets	- 19	- 18	- 1
- Company acquisitions	- 5	- 45	+ 40
<b>Investments pursuant to MVV definition</b>	<b>344</b>	<b>335</b>	<b>+ 9</b>

The taxonomy-eligible and taxonomy-aligned shares of our investment expenses are determined by presenting our total taxonomy-eligible and taxonomy-aligned investment expenses (numerator) as a percentage of the MVV Group's investments pursuant to the EU Taxonomy Regulation (denominator). Further details can be found in the [EU Taxonomy Tables](#). In the 2023 financial year, virtually all our taxonomy-eligible investment expenses were also taxonomy-aligned. The numerator thus represents "CapEx Category a" as defined in Delegated Regulations EU 2021/2178.

According to Delegated Regulations EU 2021/2178, the numerator for investment expenses also includes investment expenses in "CapEx Category b" and "CapEx Category c". Investment expenses that contribute to extending taxonomy-eligible economic activities, or to converting taxonomy-eligible economic activities into taxonomy-aligned economic activities within a CapEx plan require report in "CapEx Category b". The review of investments to assess their taxonomy eligibility or alignment is performed on the basis of individual investment projects and programmes. This process covers all current investment measures at MVV. In this respect, investments that extend beyond the current financial year and form part of our long-term investment programme are also included. No investment expenses requiring allocation to "CapEx Category b" were identified in the year under report.

Individual investments that relate to the acquisition of production for taxonomy-aligned economic activities and individual measures by means of which the target activities can be executed on a low-carbon basis or emissions of greenhouse gases reduced require report in "CapEx Category c". At MVV, these relate above all to investments involving cross-departmental activities, particularly at office buildings or in our vehicle pool. MVV only has material investments in Category a. Investments in Category c involve marginal and non-strategic investments and are also negligible in terms of their volume. The review of these investments for the 2023 financial year concluded that they account for significantly less than 1 % of our total investments. We therefore do not include any CapEx in Category c in the numerator.

The numerator and denominator used to calculate the **operating expenses** KPI are defined in the Delegated Regulations EU 2021/2178. Pursuant to the EU Taxonomy, the denominator comprises direct non-capitalised operating expenses for research and development, building refurbishment, short-term leases, maintenance and repairs, and all other direct expenses relating to the day-to-day maintenance of items of property, plant and equipment that are required to safeguard the ongoing effective functionality of these assets. At MVV, this item chiefly comprises employee benefit expenses, cost of materials and other operating expenses, including prorated IT expenses for maintaining, repairing and cleaning energy generation and distribution facilities, and short-term lease expenses. Expenses for research and development and for building refurbishment currently only play a subordinate role at MVV.

According to the EU Taxonomy, the numerator comprises the share of those operating expenses included in the denominator that relate to assets or processes involved in taxonomy-aligned and taxonomy-eligible economic activities respectively (OpEx Category a). At MVV, the numerator simultaneously constitutes “OpEx Category a”.

Pursuant to Delegated Regulations EU 2021/2178, the numerator also includes the share of those operating expenses included in the denominator for “OpEx Category b” and “OpEx Category c”. We refer in this respect to the comments made above for investment expenses in “CapEx Category b” and “CapEx Category c”. Accordingly, no material operating expenses requiring allocation to “OpEx Category b” or “OpEx Category c” were identified in the 2023 year under report. The amounts stated for OpEx were in some cases determined with the assistance of suitable value-based calculation keys.

### Overview of EU Taxonomy KPIs

The complete disclosures of key performance indicators (KPIs) relating to taxonomy-eligible and taxonomy-aligned economic activities are presented in the chapter [Other Disclosures](#).

#### EU Taxonomy KPIs: sales (turnover), investment expenses (CapEx) and operating expenses (OpEx)

	FY 2023 Euro million	FY 2022 Euro million	+/- change	FY 2023 Share %	FY 2022 Share %
<b>Total sales (turnover)</b>	<b>7,531</b>	<b>4,199</b>	<b>+ 3,332</b>	<b>100.0</b>	<b>100.0</b>
of which taxonomy-eligible	1,290	934	+ 356	17.1	22.2
of which taxonomy-aligned	1,238	756	+ 482	16.4	18.0
<b>Total investment expenses (CapEx)</b>	<b>344</b>	<b>350</b>	<b>- 5</b>	<b>100.0</b>	<b>100.0</b>
of which taxonomy-eligible	271	264	+ 6	78.6	75.6
of which taxonomy-aligned	268	262	+ 6	77.7	74.9
<b>Total operating expenses (OpEx)</b>	<b>682</b>	<b>584</b>	<b>+ 97</b>	<b>100.0</b>	<b>100.0</b>
of which taxonomy-eligible	177	159	+ 18	26.0	27.3
of which taxonomy-aligned	173	156	+ 17	25.4	26.6

### Sales (turnover)

We generate the overwhelming share of our sales by selling electricity and gas to our business, commercial, industrial and retail customers and, linked to these activities, with commodities trading (please see the comments provided in the section [Presentation of Earnings Performance](#)). These business activities are not recorded as economic activities in the EU Taxonomy. Although we identified four further economic activities in the year under report, it is still the case that only a minor share of our sales is within the scope of the EU Taxonomy and thus taxonomy-eligible.

Our taxonomy-aligned sales rose by Euro 482 million compared with the previous year, equivalent to an increase of 64 %. The largest sales contributions are attributable to the installation of photovoltaics systems for business, commercial and retail customers (EA 7.6 Climate Change Mitigation), our activities in the distribution of electricity and supply of district heat (EA 4.9, 4.15 Climate Change Mitigation) and the newly added activity of secondary materials recovery at our energy from waste plants (EA 2.7 Circular Economy). The year-on-year increase in taxonomy-aligned sales is due on the one hand to the newly added activity of secondary materials recovery at our energy from waste plants (EA.2.7 Circular Economy) and on the other hand to higher sales with the installation of photovoltaics systems for business, commercial and retail customers (EA 7.6 Climate Change Mitigation).

Overall, the volume of sales in the numerator of the calculation (total of adjusted sales with taxonomy-eligible and taxonomy-aligned economic activities) increased compared with the previous year.

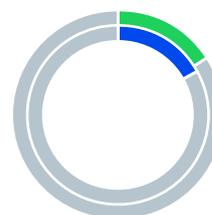
Taxonomy-eligible economic activities accounted for a 17 % share of sales in the 2023 financial year (previous year: 22 %). Of these, 96 % are also taxonomy-aligned and thus environmentally sustainable (previous year: 81 %). The year-on-year reduction in the shares of taxonomy-eligible and taxonomy-aligned economic activities in our sales is due to the fact that the significant increase in our overall sales was driven above all by trading with commodities.

For individual economic activities, such as the operation of our natural gas distribution grids (EA 4.14), the taxonomy requirements merely permit the recognition of investments and do not allow any sales to be stated.

### Sales (turnover)

Shares (%)

	FY 2023
● of which taxonomy-aligned	16
● of which taxonomy-eligible	17
● of which non-taxonomy-eligible/ not classified by EU Taxonomy	83



### Investment expenses (CapEx)

We have had a broad-based investment programme with a long-term horizon for many years. This programme is geared to our decarbonisation and sustainability targets (please also see the comments provided in the [Environmental Concerns Aspect](#) section of this Non-Financial Declaration). However, not all of these investments are covered by the EU Taxonomy.

We made taxonomy-aligned investments of Euro 268 million in the year under report (previous year: Euro 262 million). Most of these investments involve projects which contribute to climate protection. Above all, these involve investments in supply reliability which demonstrably lead to reductions in CO<sub>2</sub> emissions, i.e. investments in activities relating to the distribution of electricity (EA 4.9 Climate Change Mitigation) and the supply of district heat (EA 4.15, 4.25 and 4.31 Climate Change Mitigation), as well as investments in the installation of photovoltaics systems for business, commercial and retail customers (EA 7.6 Climate Change Mitigation).

Overall, the volume of investment expenses in the numerator of the calculation (total investment expenses for taxonomy-eligible and taxonomy-aligned economic activities) increased compared with the previous year.

In the 2023 financial year, 79 % of our investments were within the scope of the EU Taxonomy and thus taxonomy-eligible (previous year: 76 %). At 99 %, almost all taxonomy-eligible investment expenses were also taxonomy-aligned. These therefore count as environmentally sustainable investments.

To date, the EU Taxonomy only covers a fraction of business activities in industry and the services sector, including the energy industry. Our high ratio thus confirms that we are investing in the right, i.e. sustainable areas. We expect investment contributions from individual economic activities to fluctuate sharply between individual years. That is because they depend on the implementation of larger-scale projects and the EU Taxonomy assesses CapEx solely on the basis of additions in the year under report.

### Investments (CapEx)

Shares (%)

	FY 2023
● of which taxonomy-aligned	78
● of which taxonomy-eligible	79
● of which non-taxonomy-eligible/ not classified by EU Taxonomy	21



### Operating expenses

At Euro 173 million, our taxonomy-aligned operating expenses in the year under report were Euro 17 million higher than in the previous year. The largest items related to the installation of photovoltaics systems for business, commercial and retail customers (EA 7.6 Climate Change Mitigation), to our activities in the distribution of electricity (EA 4.9 Climate Change Mitigation) and to the newly added economic activity of secondary materials recovery at energy from waste plants (EA 2.7 Circular Economy).

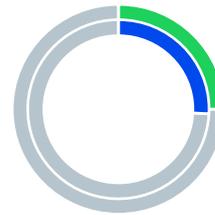
Overall, the volume of operating expenses in the numerator of the calculation (total operating expenses for taxonomy-eligible and taxonomy-aligned economic activities) increased compared with the previous year.

Of operating expenses in the 2023 financial year, 26 % were within the scope of the EU Taxonomy (previous year: 27 %). Of the taxonomy-eligible operating expenses, 98 % were also taxonomy-aligned (previous year: 98 %). As the definition of operating expenses in the EU Taxonomy differs significantly from the definition usually applied in a commercial context, the key figures reported for the EU Taxonomy do not allow any robust conclusions to be drawn or analyses compiled with regard to the amount or structure of such expenses.

### Operating expenses (OpEx)

Shares (%)

	FY 2023
● of which taxonomy-aligned	25
● of which taxonomy-eligible	26
● of which non-taxonomy-eligible/ not classified by EU Taxonomy	74



# Business Performance of MVV Energie AG

## Executive summary

The MVV Group's highly positive earnings performance is also reflected in earnings at MVV Energie AG. Earnings here benefited not only from disposal gains due to the sale of the Czech MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt, but also from exceptionally high earnings contributions from the energy trading business due to the marketing of renewable energies and portfolio management activities.

## Notes to annual financial statements of MVV Energie AG (HGB)

As the publicly listed parent company of the MVV Energie Group ("MVV"), MVV Energie AG prepares its annual financial statements based on the requirements of the German Commercial Code (HGB) and the supplementary requirements of the German Stock Corporation Act (AktG) and the German Energy Industry Act (EnWG). MVV's consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU. Unlike in the HGB separate financial statements, in the consolidated financial statements income and expense items at consolidated subsidiaries are included in individual income and expense items in the consolidated income statement. Further differences between the separate financial statements of MVV Energie AG and the consolidated financial statements relate in particular to differences between the requirements of commercial law and those of IFRS international accounting standards in terms of the recognition and measurement of individual items.

The annual financial statements of MVV Energie AG, the consolidated financial statements of MVV and the combined management report for the 2023 financial year are published in the Federal Gazette (Bundesanzeiger). The complete 2023 annual financial statements of MVV Energie AG can be downloaded at [mvv.de/en/investors](https://www.mvv.de/en/investors), as can the consolidated financial statements and the combined management report.

By adopting the German Coal Exit Act (KAG) on 3 July 2020, lawmakers demonstrated their commitment to moving towards a climate-neutral energy system on economically sustainable terms. The coal exit resolved by the Federal Parliament provides for a gradual end to the generation of electricity from coal by 2038 at the latest. While the KAG includes legal requirements which set binding and thus plannable decommissioning dates for lignite power plants, backed up by a public law contract, the exit from generating electricity from hard coal will initially be managed with tenders and only subsequently with legal requirements. For new hard coal power plants, the KAG states that premature write-downs and undue hardship should be avoided. This may be achieved by providing compensation consistent with state aid requirements in cases of undue hardship or by implementing measures with the same effect.

The entry into effect of the KAG has led to shorter useful lives for the generation blocks at the power plant Grosskraftwerk Mannheim. Due to cost allocations resulting from the acceptance of electricity and district heat, this led to additional expenses in a medium single-digit million amount at MVV in the year under report. These do not account for profits lost for the years of operation not realised between the date of statutory decommissioning and the original operating life, if longer, or for compensation granted for undue hardship.

Future compensation of this nature for expenses caused by the coal exit has been recognised under other receivables at the MVV RHE subsidiary.

## Presentation of earnings performance of MVV Energie AG

### Income statement

Euro 000s	1 Oct 2022 to 30 Sep 2023	1 Oct 2021 to 30 Sep 2022
Sales	2,842,203	2,813,211
Less electricity and natural gas taxes	– 122,068	– 126,701
<b>Sales less electricity and natural gas taxes</b>	<b>2,720,135</b>	<b>2,686,510</b>
Increase or reduction in finished and unfinished products	–125	173
Other own work capitalised	94	81
Other operating income	224,863	60,685
Cost of materials	2,460,419	2,465,694
Employee benefit expenses	97,460	81,975
Depreciation and amortisation	23,253	21,356
Other operating expenses	162,224	130,698
Financial result	127,089	101,220
Taxes on income	137,415	31,296
<b>Earnings after taxes</b>	<b>191,285</b>	<b>117,650</b>
Other taxes	665	421
<b>Annual net income</b>	<b>190,620</b>	<b>117,229</b>
Allocations to other revenue reserves	95,055	48,027
<b>Unappropriated net profit</b>	<b>95,565</b>	<b>69,202</b>

Sales less energy taxes at MVV Energie AG grew year-on-year by Euro 34 million to Euro 2,720 million. This growth was due to higher gas revenues resulting from an increase in average prices, as well as to higher sales from the provision of CO<sub>2</sub> rights. This was countered by a reduction in electricity revenues due to volatile but lower prices on the energy markets. The company generated its sales exclusively in Germany. The electricity business accounted for 63.6 % of total sales (previous year: 68.0 %) and thus remains the largest division in terms of sales at MVV Energie AG.

At Euro 2,460 million, cost of materials were Euro 5 million lower than in the previous year. The change in this line item largely reflects the development in sales. Electricity procurement in particular, however, showed a more marked proportionate reduction than electricity revenues, leading to the slight overall decrease in cost of materials.

Other operating income rose by Euro 164 million to Euro 225 million. This increase was due above all to the disposal of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt.

MVV Energie AG had 912 employees at 30 September 2023, 12 more than at the previous year's balance sheet date. Due to higher personnel provisions and corresponding items in the previous year, the employee benefit expenses of Euro 97 million were Euro 15 million higher than in the previous year.

At Euro 23 million, depreciation and amortisation were at around the previous year's level. No impairment losses were recognised on intangible assets or property, plant and equipment in the year under report or the previous year.

Other operating expenses increased by Euro 32 million to Euro 162 million. This change was chiefly due to higher expenses for billing services, as well as to the expenses incurred to establish a charitable foundation to mark the 150<sup>th</sup> anniversary of MVV and its predecessor companies.

The financial result rose year-on-year by Euro 26 million to Euro 127 million. This development was due above all to higher amounts of profit transferred, particularly from the MVV Trading GmbH subsidiary.

At Euro 191 million, earnings after taxes were Euro 74 million higher than in the previous year. After the deduction of other taxes, MVV Energie AG generated annual net income of Euro 191 million in the 2023 financial year and thus exceeded its forecast that annual net income would approximately match the previous year's figure. This was chiefly attributable to the disposal in the year under report of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt. Based on the profit utilisation resolution adopted by the Annual General Meeting on 10 March 2023, the unappropriated net profit of Euro 69 million was fully distributed to the shareholders of MVV Energie AG. The dividend amounted to Euro 1.05 per share.

Revenue reserves of Euro 95 million were formed from the annual net income for the year under report. MVV Energie AG reported unappropriated net profit of Euro 96 million at 30 September 2023. The Annual General Meeting to be held on 8 March 2024 will decide on the dividend proposal adopted by the Executive and Supervisory Boards. The proposal to be submitted by the Executive Board for approval by the Annual General Meeting provides for the distribution of a dividend of Euro 1.15 per share (previous year: Euro 1.05 per share) and of a one-off dividend of Euro 0.30 per share to mark the 150<sup>th</sup> anniversary of MVV and its predecessor companies and the company's exceptional earnings performance. The Supervisory Board will decide on its dividend proposal in December 2023.

## Presentation of asset and financial position of MVV Energie AG

### Balance sheet

Euro 000s	30 Sep 2023	30 Sep 2022
<b>Assets</b>		
<b>Non-current assets</b>		
Intangible assets	561	341
Property, plant and equipment	586,587	543,035
Financial assets	1,617,803	1,733,828
	<b>2,204,951</b>	<b>2,277,204</b>
<b>Current assets</b>		
Inventories	221	865
Receivables and other assets	880,514	645,818
Cash and cash equivalents	518,993	939,093
	<b>1,399,728</b>	<b>1,585,776</b>
Deferred expenses and accrued income	131	510
	<b>3,604,810</b>	<b>3,863,490</b>
<b>Equity and liabilities</b>		
<b>Equity</b>		
Share capital	168,721	168,721
Capital reserve	458,946	458,946
Revenue reserves	694,939	599,884
Unappropriated net profit	95,565	69,202
	<b>1,418,171</b>	<b>1,296,753</b>
Income grants received	34,728	36,418
Provisions	154,586	104,204
Liabilities	1,990,116	2,423,112
Deferred tax liabilities	7,209	3,003
	<b>3,604,810</b>	<b>3,863,490</b>

Total assets decreased year-on-year by Euro 259 million to Euro 3,605 million, a development driven above all by lower prices on energy markets compared with the previous year.

The asset side of the balance sheet is largely shaped by financial assets. At 30 September 2023, these totalled Euro 1,618 million, equivalent to a 45 % share of total assets. The figures for the previous year were Euro 1,734 million and 45 % respectively. The reduction in financial assets by Euro 116 million is chiefly attributable to the disposal of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt. Property, plant and equipment increased year-on-year by Euro 44 million to Euro 587 million. This was mainly due to investments in transmission and supply grids for all utilities.

Current assets decreased to Euro 1,400 million, down by Euro 186 million compared with 30 September 2022. This reduction mainly resulted from the decrease in liquid funds on account of outflows of security deposits for counterparty default risk (margins). This factor was countered by increases in receivables from associates and other assets.

Equity grew by Euro 121 million in the year under report and stood at Euro 1,418 million at the balance sheet date. At 39 %, the equity ratio at 30 September 2023 was higher than the previous year's figure of 34 %.

Provisions rose by Euro 50 million in total to Euro 155 million, with this increase being due above all to higher tax provisions. These mainly result from higher tax expenses in the year under report on account of the one-off other operating income generated from the disposal of the MVV Energie CZ Group and of the shares in Stadtwerke Ingolstadt, as well of higher earnings at companies included in the fiscal unity.

Liabilities decreased by Euro 433 million to Euro 1,990 million. This reduction was principally due to the lower volume of liabilities to associates, particularly for security deposits for counterparty default risk (margins) due to MVV Trading GmbH.

MVV Energie AG performs the financing function for its associates. In this capacity, it safeguards the operating liquidity of numerous companies and, in the form of shareholder loans, supplies these with the long-term capital they need for investments. An adequate volume of committed credit lines is available to secure liquidity.

### 2023 activity statements

With its 2023 activity statements, MVV Energie AG has satisfied its reporting obligations pursuant to § 6b of the German Electricity and Gas Supply Act (German Energy Industry Act – EnWG) and § 3 of the German Metering Point Operation Act (MsbG). In our internal financial reporting, we maintain separate accounts for the activities of electricity and gas distribution, metering operations, other activities within the electricity and gas sectors and other activities outside the electricity and gas sectors.

Furthermore, we also prepare balance sheets and income statements for our electricity and gas distribution and our metering operations.

### Electricity distribution

The electricity distribution activity field reported sales of Euro 44 million for the year under report (previous year: Euro 45 million). The gross performance for the 2023 financial year was thus at the previous year's level. In terms of total electricity sector sales of Euro 1,072 million (previous year: Euro 1,035 million), sales in the electricity distribution activity are of subordinate significance.

Alongside income from leasing its electricity grids to MVV Netze GmbH, earnings in the electricity distribution activity field at MVV Energie AG also include income from concession duties. MVV Netze GmbH manages and operates distribution facilities and grids at MVV Energie AG and is responsible for their maintenance. Other operating income resulting from the charging on of the concession duty to MVV Netze GmbH until 30 September 2023 was opposed by corresponding other operating expenses. The electricity distribution activity field generated an annual net deficit of Euro 2 million in the 2023 financial year (previous year: annual net income of Euro 9 million).

At 30 September 2023, total assets in the electricity distribution activity field came to Euro 168 million (previous year: Euro 160 million), corresponding to a 39 % share of total assets in the electricity sector at MVV Energie AG (previous year: 26 %). Property, plant and equipment relating to electricity distribution increased compared with the previous year's balance sheet date. At Euro 158 million (previous year: Euro 149 million), this item accounted for a 94 % share of total electricity distribution assets (previous year: 93 %). On the equity and liabilities side of the balance sheet, electricity distribution liabilities decreased from Euro 87 million to Euro 83 million. These mainly involve liabilities to banks.

### Metering operations (mME/iMSys)

Consistent with the unbundling requirements of § 3 (4) Sentence 2 MsbG with corresponding application of § 6b (3) EnWG, sales of Euro 0.9 million were reported for metering operations using modern measuring equipment and intelligent measuring systems in the year under report (previous year: Euro 0.8 million). Gross performance for the 2023 financial year therefore amounted to Euro 0.9 million. Measured in terms of total electricity sector sales of Euro 1,072 million (previous year: Euro 1,035 million), sales in the mME/iMSys metering operations activity field are of subordinate significance.

Earnings in the mME/iMSys metering operations activity field at MVV Energie AG include income from leasing its electricity meters (mME/iMSys).

Earnings were countered by depreciation of Euro 0.7 million on the electricity meters (mME/iMSys) recognised under non-current assets at MVV Energie AG (previous year: Euro 0.5 million). In the 2023 financial year, mME/iMSys metering operations posted an annual net deficit of Euro 118 thousand (previous year: annual net deficit of Euro 414 thousand).

At 30 September 2023, total assets in the mME/iMSys metering operations activity field stood at Euro 3.9 million (previous year: Euro 3.3 million), corresponding to a 0.9 % share of total assets in the electricity sector at MVV Energie AG (previous year: 0.5 %). At the balance sheet date, property, plant and equipment relating to mME/iMSys metering operations amounted to Euro 3.9 million (previous year: Euro 3.3 million) and thus accounted for a 99 % share of total assets in the mME/iMSys metering operations (previous year: 99 %). On the equity and liabilities side, liabilities of Euro 2.3 million were reported for mME/iMSys metering operations (previous year: Euro 2.2 million). These mainly involve liabilities to other activity fields.

### Gas distribution

In the year under report, the gas distribution activity field reported sales of Euro 26 million (previous year: Euro 28 million). Gross performance was thus at the previous year's level. Compared with total gas sector sales of Euro 142 million (previous year: Euro 112 million), the gas distribution activity field is of subordinate significance. By analogy with electricity distribution, as well as income from leasing its grids to MVV Netze GmbH earnings in the gas distribution activity field also include income from concession duties. The other operating income resulting from charging on the concession duty to MVV Netze GmbH until 30 September 2023 was opposed by corresponding other operating expenses. The gas distribution activity field generated annual net income of Euro 4 million in the year under report (previous year: Euro 5 million).

Total assets in the gas distribution activity field amounted to Euro 141 million at the balance sheet date on 30 September 2023 (previous year: Euro 136 million) and accounted for some 62 % of total assets in the gas sector at MVV Energie AG (previous year: 74 %). At Euro 135 million, property, plant and equipment in gas distribution was Euro 5 million higher than in the previous year and made up 96 % of total assets in this activity field (previous year: 95 %). On the equity and liabilities side of the balance sheet, gas distribution liabilities decreased from Euro 77 million to Euro 72 million. These primarily involve liabilities to banks.

## Corporate Governance Statement (§ 289f, § 315d HGB)

Publicly listed companies are obliged under § 289f of the German Commercial Code (HGB) to submit a Corporate Governance Statement. In this, they report on their latest Declaration of Compliance with the German Corporate Governance Code pursuant to § 161 of the German Stock Corporation Act (AktG) and on corporate governance practices applied over and above legal requirements. Furthermore, they report on the mode of operation of the Executive and Supervisory Boards, on the composition and mode of operation of the Supervisory Board committees and on the equal participation of women and men in management positions.

The Corporate Governance Statement with the Declaration of Compliance was published on our website at [mvv.de/en/corporate-governance](https://www.mvv.de/en/corporate-governance) on 9 November 2023.

## Declaration pursuant to § 312 AktG

The Executive Board has compiled a report on relationships with associates for the 2023 financial year (dependent company report) pursuant to § 312 AktG in which it states: “MVV Energie AG received commensurate compensation for each of the transactions listed in its report on relationships with the City of Mannheim and associates based on the circumstances known to the Executive Board at the time at which the transactions were performed.”

## Non-Financial Declaration (§ 315b, § 315c in conjunction with § 289b et seq. HGB)

The non-financial declaration for the 2023 financial year, which has been jointly compiled for MVV Energie AG and the MVV Energie Group (“MVV”), has been published as a combined non-financial declaration within the combined management report.

# Takeover-Related Disclosures

The combined management report includes takeover-related disclosures pursuant to § 289a (1) and § 315a (1) of the German Commercial Code (HGB). The Executive Board has examined these disclosures and offers the following explanatory comments:

## Composition of share capital

At the balance sheet date on 30 September 2023, the company's share capital totalled Euro 168,721,397.76 and was divided into 65,906,796 individual non-par registered shares with a prorated amount in the share capital of Euro 2.56 per share. Each share entitles its holder to exercise one vote at the Annual General Meeting of MVV Energie AG, as well as to the rights and obligations accruing to it by law and the Articles of Incorporation.

## Restrictions on voting rights and transferability; shares with special rights

As far as we are aware, the City of Mannheim as the majority shareholder and its subsidiaries MKB Mannheimer Kommunalbeteiligungen GmbH and MV Mannheimer Verkehr GmbH on the one hand and FS DE Energy GmbH, its material shareholder FS Energy TopCo S.à r.l. and First Sentier Investments International IM Limited on the other hand concluded a shareholders' agreement on 2 April 2020. This includes understandings concerning proposals for the composition of the Supervisory Board; apart from this, it excludes any other voting pacts and acknowledges that MVV Energie AG should continue to be a company controlled by the City of Mannheim. The shareholders' agreement also includes understandings concerning the transfer of shares. In particular, MVV shares may only be sold by FS DE Energy GmbH prior to 1 January 2029 with the approval of the City of Mannheim. There are no shares with special rights conferring powers of control.

## Direct or indirect shareholdings exceeding 10 % of voting rights

The City of Mannheim indirectly held 50.1 % of the share capital and voting rights in MVV Energie AG at the balance sheet date; FS DE Energy GmbH directly held 45.08 % of the share capital and voting rights. The sole shareholder in FS DE Energy GmbH is FS Energy Holdco S.à r.l. The shareholders of FS Energy Holdco S.à r.l. are FS Energy TopCo S.à r.l., which holds a shareholding of 84.9%, and Square Beteiligungs GmbH & Co. KG, which holds a 15.1 % stake. FS Energy TopCo S.à r.l. is an indirect subsidiary of a fund managed by First Sentier Investments International IM Limited. The shareholders (limited shareholders) in Square Beteiligungs GmbH & Co. KG are various individual companies of Versicherungskammer Bayern, Versicherungsanstalt des öffentlichen Rechts (VKB). This indirect shareholding is also managed by First Sentier Investments International IM Limited; Square and VKB do not have any rights of control or management over the indirect shareholding in MVV.

These disclosures are based on voting right notifications provided to us by shareholders, entries in the Share Register and publicly available information.

### Control of voting rights

There is no control of voting rights as defined in § 289a (1) No. 5 and § 315a (1) No. 5 HGB.

### Regulations for appointing and dismissing Executive Board members and to amend Articles of Incorporation

The appointment and dismissal of Executive Board members is based on § 76 et seq. of the German Stock Corporation Act (AktG), and especially on § 84 AktG and § 30 et seq. of the German Codetermination Act (MitbestG). In line with the Articles of Incorporation, the company's Executive Board consists of at least two members. The Supervisory Board is responsible for determining the number of members and for appointing and dismissing members. Members are appointed for a maximum five-year term, with repeated appointments permitted.

Amendments to the Articles of Incorporation must be undertaken in accordance with § 133 and § 179 AktG in conjunction with § 19 of the company's Articles of Incorporation. Pursuant to § 19 (1) of the Articles of Incorporation, a simple majority of the share capital with voting entitlement participating in the adoption of a resolution is also sufficient to amend the Articles of Incorporation, unless mandatory legal provisions require a larger majority. Pursuant to § 11 (3) of the company's Articles of Incorporation, the Supervisory Board is authorised to adopt amendments to the Articles of Incorporation that only affect the wording.

### Executive Board powers to issue and buy back shares

By resolution on 13 March 2020, the Annual General Meeting authorised the Executive Board until 12 March 2025 to acquire treasury stock up to an amount of 10 % of existing share capital upon adoption of the resolution. By resolution on 8 March 2019, the Annual General Meeting also authorised the Executive Board until 7 March 2024, subject to approval by the Supervisory Board, to raise the share capital by a total of up to Euro 51.2 million by issuing up to 20 million new individual non-par registered shares on one or several occasions in return for cash and/or non-cash contributions. The Executive Board of MVV Energie AG has not yet made use of either of these authorisations.

### Compensation agreements and change of control clauses

MVV Energie AG has no material agreements that are subject to a change of control due to a takeover bid (change of control clauses). The company also has not concluded any compensation agreements with Executive Board members or employees for the event of a takeover bid.

# Outlook, Opportunity and Risk Report

- Continuing great uncertainty in overall economy and energy industry
- Decreasing volatility on energy trading and procurement markets
- Adjusted EBIT excluding disposal gains expected to amount to between Euro 360 million and Euro 440 million
- Investments set to rise significantly

## Outlook

### Macroeconomic developments

In their “Autumn Joint Forecast” for the 2023 calendar year, Germany’s leading economic research institutes expect the country’s gross domestic product to contract by 0.6 %. The sharp rise in energy prices in 2022 had halted the recovery from the effects of the coronavirus pandemic, inflation was eroding household purchasing power and the rise in base rates was adversely affecting the construction industry. More recently, wages and salaries have risen due to inflation, energy prices have fallen and exporters have in some cases been able to charge on the higher costs they have incurred, leading to a recovery in purchasing power. The downturn is therefore expected to ease at the end of the year. For 2024, the economic researchers have reduced their economic growth forecast by 0.2 percentage points to 1.3 %.

### Business framework

Alongside macroeconomic developments, MVV’s future business performance will be shaped above all by changes in energy and climate policy on national and European levels, as well as by regulatory interventions. We report on relevant changes in energy policy in the chapter [Business Framework](#).

The degree of volatility on the energy trading and procurement markets, involving rapid movements in prices, decreased somewhat in the year under report compared with the previous year (chapter [Business Framework](#)). We expect volatility to decline further. From our perspective, however, it will still not return to its normal long-term level and will therefore remain a source of uncertainties for MVV in the 2024 financial year as well. This is also due to overall global tensions, the further development in which cannot be predicted with any degree of reliability. Looking ahead, we also expect competitive pressure to remain relentlessly high.

### Overall summary

We again issue our forecast for the 2024 financial year against a backdrop of great uncertainty in the overall economy and the energy industry. Overall, we expect the energy industry, and thus MVV as well, to be exposed to far-reaching changes in the medium to long term. We have been preparing for these for years now. We are continually monitoring all developments relevant to our business. With our measures, we are endeavouring to ensure that our [Opportunity/Risk Profile](#) remains well balanced despite all these challenges.

Encouraged by national and international climate protection efforts and legal initiatives, in the year under report we further raised our long-term sustainability and decarbonisation targets (chapter [Corporate Strategy](#)). We now aim to become #climatepositive as a company by 2035. To achieve this target, we will step up the pace of our activities to make a reality of the heat transition, implement the electricity transition and expand our climate neutrality solutions for customers. To this end, we will significantly increase our investments, with a total of around Euro 7 billion planned for this transformation in the decade until 2033. At the same time, we are pursuing measures to enhance processes and reduce costs. This way, we are creating a basis for MVV to generate sustainable and profitable growth.

## Group earnings performance

Due to our business model, our earnings performance is dependent in particular on weather conditions and wind volumes, wholesale prices on energy markets, waste and biomass prices, procurement costs for fuels and CO<sub>2</sub> emission rights, availability levels at our plants and the development in market conditions and the competitive climate. Moreover, the development and marketing of photovoltaics and wind projects are generally characterised by high volatility. In view of the current situation, alongside the factors listed above our expectations in respect of our adjusted EBIT also depend on the further development in conditions on the energy markets, as well as on these factors, together with the consequences of the geopolitical situation, not restricting the availability of commodities or impairing supply chain integrity.

For the 2024 financial year, we expect adjusted EBIT in the Customer Solutions reporting segment to fall significantly short of the previous year's figure, which was influenced by exceptional non-recurring items. For the New Energies reporting segment, we expect to see a moderate rise in adjusted EBIT. In the Supply Reliability reporting segment, we expect adjusted EBIT to show a significant increase.

Based on these expectations for our reporting segments, from an operating perspective we expect adjusted EBIT on Group level and excluding disposal gains to amount to between Euro 360 million and Euro 440 million, i.e. to be within a range of +/- 10 % of Euro 400 million.

## Earnings performance of MVV Energie AG in separate financial statements

For the 2024 financial year, we expect annual net income after taxes at MVV Energie AG to fall significantly short of the previous year's figure (Euro 191 million). Earnings in the separate financial statements are influenced in particular by weather conditions, grid operations, the sales business and income from group shareholdings.

## Dividend

We aim to pay a dividend to our shareholders that is aligned to MVV's earnings performance. In view of this, the Executive Board has decided to increase the regular dividend by Euro 0.10 per share compared with the previous year and to propose a dividend of Euro 1.15 per share for approval by the Annual General Meeting on 8 March 2024. In addition, to mark the 150<sup>th</sup> anniversary of MVV and its predecessor companies it plans to distribute a one-off dividend. Given the company's exceptional earnings performance, it is proposed that this should amount to Euro 0.30 per share. The Supervisory Board will decide in December 2023 on its dividend proposal to the Annual General Meeting.

## Investments

From a current perspective, we will significantly increase our investments in the 2024 financial year compared with the previous year (Euro 344 million) while retaining largely unamended investment focuses.

## Capital resources and financing structure

We continue to have very good access to the capital markets and are therefore able to cover our financing and liquidity needs at all times. Our adjusted equity ratio of around 40 % enables us to continue making high volumes of investments. We finance investments in the existing business primarily from depreciation. For growth projects, we draw on retained earnings and on optimised project-based financing facilities. We pool projects with structural similarities and comparable terms and then finance these via the capital market. We draw here on the bank and promissory note loan markets. We adhere to key figures as guidelines for debt-financed growth and thus ensure an implicit rating for MVV that is stably on investment grade level.

## New reporting structure from 2024 financial year

To account for the disposals of shareholdings made in recent financial years, which impacted in particular on the structure of our existing reporting segment Strategic Investments, as well as for the further development of the MVV Group, MVV also plans to amend its reporting structure from the start of the 2024 financial year. The company is to be managed in four reporting segments to which various business fields are allocated:

- Customer Solutions
- New Energies
- Generation and Infrastructure
- Other Activities

## Forward-looking statements and forecasts

Our combined management report for MVV (IFRS) and MVV Energie AG (HGB) includes forward-looking statements that are based on current assumptions and estimates. Although the Executive Board is convinced to the best of its knowledge that these assumptions and budgets are accurate, actual future developments and actual future earnings may deviate from these forecasts.

## Opportunity and Risk Report

The energy industry has been undergoing a process of fundamental change for years now, one reflected not least in the fact that many participants on national and international levels are stepping up their efforts to protect the climate and make their businesses sustainable. MVV is actively shaping this transformation: With our “Mannheim Model”, we will be one of the first energy companies in Germany to become #climatepositive. This process will be driven by the components of the model, namely heat transition, electricity transition and customer solutions. Further details about this can be found in the chapter [Corporate Strategy](#).

The uncertainties accompanying a transformation on this scale have increased for our industry as a whole and also for MVV due to the war in Ukraine. This is true both for the year under report and for the near future.

The opportunities and risks which describe these uncertainties have always formed part of our entrepreneurial activity. One key task for our corporate management, now more than ever, involves identifying both at an early stage of developments, exploiting opportunities and countering risks with suitable measures. We have installed suitable instruments and processes for this purpose. On the one hand, these include our internal control system (IKS) in respect of the financial reporting process, which serves to ensure correct, reliable and uniform companywide financial reporting. On the other hand, they also include our risk management system (RMS), with which we record developments relevant to our company at an early stage, particularly those relating to competitive and regulatory developments, as well as to changes in technologies. Systematically factoring opportunities and risks into our entrepreneurial activities enables us to safeguard and further extend MVV’s competitiveness.

## Explanation of internal control system (IKS)

### General provisions

Our internal control system (IKS) comprises all principles, processes and measures introduced by the company’s management, executives and other parties that are primarily aimed at ensuring reliable and prompt financial reporting with an adequate degree of security. In terms of its structure and processes, our IKS is based on the globally recognised and widespread COSO reference model. We have adopted a risk-based approach in which those organisational units, processes and systems with greater risk exposure are safeguarded more closely by control activities.

The financial reporting covered by our IKS comprises our quarterly statements, interim consolidated financial statements, half-year financial report, consolidated financial statements and combined management report, as well as the separate financial statements of MVV Energie AG.

### IKS management

Our IKS management experts ensure that our IKS functions reliably and is continually developed further. The central IKS manager ensures that MVV has an effective IKS with uniform groupwide requirements. To this end, he develops the principles for the structure, processes and documentation of our IKS, including necessary IT solutions. Furthermore, he supports and monitors implementation of these requirements at the group companies included in the IKS. On the level of group companies and cross-departmental functions, IKS officers bear decentralised responsibility for the functionality of the IKS. These officers are appointed by managers with legal responsibility for the respective area and, in this capacity, also report to the central IKS manager.

### Control environment

The foundation for our IKS is provided by a well-functioning control environment. This provides the framework for implementing the principles, processes and measures of our IKS and has the following key features:

- “Lived Energy”, the programme jointly developed by our Executive Board, managers and employees, sets out the values guiding our company and governs the way all colleagues behave both towards each other and towards third parties.
- We have regulated the allocation of competencies and responsibilities within the company (organisational structure) in the form of organisational structure charts and job descriptions.
- For all company processes relevant to the IKS (process structure), there are up-to-date process diagrams, manuals and implementation guides. Control activities are documented in risk and control matrices together with the requirements for performing such activities.
- We safeguard the required specialist and personal skills of our employees with the assistance of job descriptions; these set out the relevant requirements in holders of the respective positions.
- We permanently raise awareness of the need for and benefits of the IKS by providing presentations and training, as well as by sharing information and experience within the company.

### Risk assessment

Our overriding IKS objective of ensuring reliable and prompt financial reporting is adversely affected by risks resulting above all from amended or incorrectly functioning internal processes, amended or malfunctioning IT systems, erroneous conduct on the part of persons (whether unintended or intended) and internal and external events (such as company acquisitions or new accounting standards).

At MVV, the systematic assessment of risks relating to the company’s financial reporting is performed on several levels. Our IKS management each year reviews all group companies based on suitable criteria to assess their materiality and thus determine whether they are to be included in the groupwide IKS and, if so, on the basis of which requirements. Furthermore, our IKS management holds workshops with group companies that have been newly included. At these, it identifies and evaluates operative IKS objectives and those risks which counter compliance with such for all IKS-relevant processes. Moreover, managers responsible for processes directly or indirectly involved in financial reporting perform a review at least once a year to ascertain whether their operative IKS objectives and existing risks are up to date and complete. They are supported in this by the IKS management.

### Control activities

The control activities we have introduced include all principles and processes intended to ensure that we suitably address the risks identified and thus meet our IKS objectives. These control activities affect all levels of the company and processes and can basically be subdivided into written requirements in which, among other content, the IKS objectives are formulated and into measures and processes intended to ensure implementation of these requirements.

The control activities for all IKS-related processes at MVV are based on defined policies, manuals, work instructions and the like. We draw on suitable internal checks to safeguard correct implementation of the requirements, which are stipulated with due consideration of the risks identified. Each year, we review our policies and manuals to ensure that they are up to date and our control activities to check their suitability to reduce identified risks as intended.

At all group companies and cross-departmental functions relevant to the IKS, irrespective of their size, application is made of a uniform minimum level of operative IKS objectives. This has to be backed up with suitable internal checks. Among others, these include strict separation of critical functions in all IKS-related processes, as well as the regular review of access authorisations to the IT systems relevant to financial reporting.

Over and above this minimum level, group companies and cross-departmental functions have further internal checks in place depending on relevant risk factors, such as their materiality to the Group or the complexity of their business models. These checks safeguard those processes that harbour risks for financial reporting, such as the placing of orders with and payment of suppliers, hiring and payment of employees, metering and billing of services performed, management of liquidity, ongoing recording of business transactions, inventories of non-current and/or current assets, preparation of the separate and consolidated financial statements, preparation and publication of the annual report or the preparation and submission of tax returns. Internal checks take a variety of forms, such as the dual control principle, approval limits, signing powers, review and approval by managers, data reconciliation, plausibility checks, or checks to ascertain completeness and correctness.

Alongside the checks we have anchored in the financial reporting and other operative processes, we have also secured our IT systems and the processes required for them to operate reliably with suitable general IT checks. Examples here include role-based authorisation management governing access to our accounting systems, the prevention of critical combinations of authorisations, separate responsibilities for systems used for development, tests and productive use and measures to prevent the loss of data, system downtime or malware attacks.

### **Communication and information**

The IKS in place at MVV ensures that the relevant company departments always have all the information they need at the right time and in the necessary quality. To this end, we generate relevant information internally or procure it externally and subsequently communicate it as appropriate within the company.

Our employees receive or themselves compile information about their tasks and responsibilities relating to the IKS in the form of organisational manuals, company manuals and the like. We supplement this information with policies, manuals and work instructions for all relevant processes. We present the processes and embedded internal checks in visual form in process charts; risk and control matrices contain all details on internal checks. We use IT solutions to support and document the execution of control activities. The IKS management also performs training and offers advice and support.

If they suspect potential misconduct, our employees can also use an anonymous whistle-blower hotline operated by an external confidence lawyer commissioned by MVV.

By regularly sharing information between IKS management and group internal audit, we ensure that these key players are at all times informed about all current developments in connection with our IKS.

The IKS manager reports on the status of Group IKS to the relevant head of department on a quarterly basis and to the Executive and Supervisory Boards of MVV Energie AG on an annual basis. The status reports submitted by the IKS manager are based, among other aspects, on information from the decentralised IKS officers, data from the IT solution used to check performance and feedback received from the IKS audits performed by the group internal audit department.

### Supervision and improvement

The IKS in place at MVV is continually supervised and improved on several levels.

With support from IKS management, our managers perform a self-assessment on the effectiveness of the IKS in their area of responsibility at least once a year. To this end, they assess the appropriateness of the existing IKS structure and assure themselves that control activities have been performed as envisaged. The findings of these self-assessments are drawn on to further improve the IKS.

Together with managers, the central IKS management also supervises our IKS by managing and supervising the implementation of control activities with the assistance of IT tools and by initiating an escalation process in the event of non-compliance with requirements.

As the managers with legal responsibility, the managing directors and board members of the group companies included in the IKS and the heads of cross-departmental functions included in the IKS submit an annual formal declaration of compliance in which they confirm that the IKS in their area of responsibility is effective and also meets MVV's requirements.

As an independent body, the group internal audit department at MVV Energie AG regularly audits all group companies and cross-departmental functions included in the IKS to assess the appropriateness and effectiveness of the respective measures. Any deficiencies are reported and promptly remedied by the managers responsible.

*The Executive and Supervisory Boards of MVV Energie AG fulfil their duty to supervise the IKS by being informed by the IKS management each year about the status of the IKS. From the perspective of MVV's Executive Board, the IKS is appropriate and effective.*

## Explanation of risk management system (RMS)

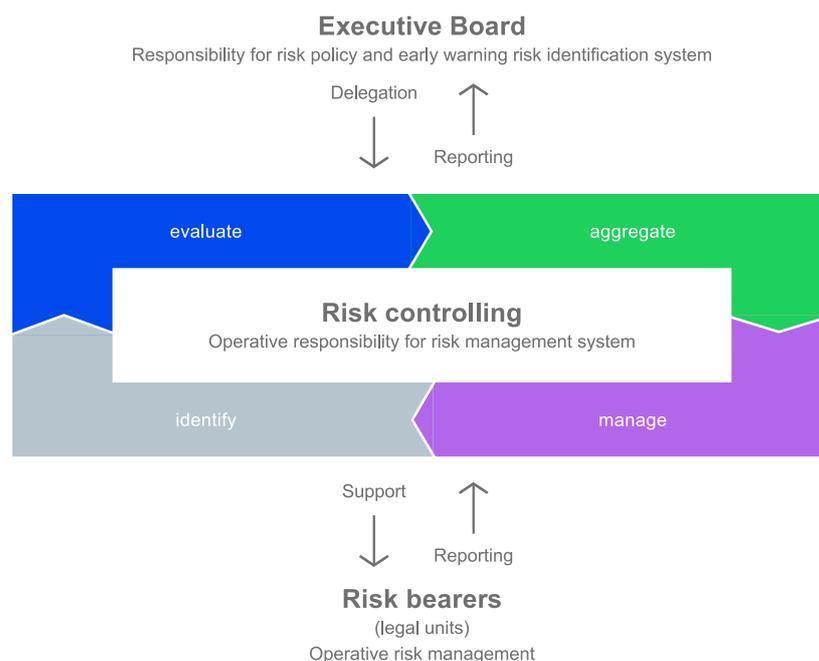
Our risk management system (RMS) is intended to enable us to detect opportunities and risks at an early stage of developments. Opportunities may lead to a positive financial variance in company earnings compared with the value budgeted, while risks may result in a correspondingly negative financial divergence. We evaluate opportunities and risks at the Group on the basis of in-depth market and competitive analyses. We reduce risks wherever possible or pass them on to third parties. Here, we devise suitable measures and monitor their effectiveness and implementation. In an uncertain climate, however, a successful strategy may also involve deliberately entering into risks, provided that these are manageable and offset by suitable opportunities.

### Risk management in context of MVV's strategy

Our corporate strategy therefore has direct implications for our financial risk management. The opportunities and risks expected at the MVV Group directly reflect the potential and the challenges resulting from the transformation in our business processes towards even greater sustainability and climate-positive business activities.

Our course to a #climatepositive future, the Mannheim Model, has three strategic focuses, all of which involve both opportunities and risks. Alongside the heat transition, with its move towards increasingly green heat generation, the electricity transition, with its accelerated expansion of renewable energies, our innovative marketing concepts and our pooled project development capacities, we also offer solutions to our customers that support them in implementing their own energy transitions. Just like comparable strategic focuses at further group companies, this approach should contribute towards our #climatepositive target and enable MVV to exploit associated additional opportunities. At present, this is all taking place against the backdrop of a significantly changed market risk situation and ever-growing requirements in the sustainability of our business model. Alongside our own measures, our risk management system is accompanied and supported by additional requirements which oblige us to report in accordance with the EU Taxonomy and in future also with the Corporate Sustainability Reporting Directive (CSRD).

### Risk management system



## Basic principles and organisation of RMS

The Executive Board determines the company's risk policy and lays down all processes and responsibilities. Within the legal business units and business fields, responsibility for operative risk management is incumbent on "risk bearers". These are the employees who, on account of their specific expertise, form part of the chain of responsibility for operating earnings at their respective business units. One of their core tasks involves regularly reviewing the current business situation. They identify material opportunities and risks and assess the potential implications of these for adjusted EBIT. They report their assessments regularly and in standardised form to our central risk controlling function. The tasks incumbent on risk bearers also include implementing, or monitoring implementation, of measures enabling risks to be avoided, managed or reduced and opportunities to be exploited.

Our central risk controlling function monitors the risk situation at the Group. It continually monitors those opportunities and risks that are relevant to our company and aggregates these into an opportunity/risk profile. This profile represents a net analysis, meaning that all measures taken to avoid a risk are already factored into the measurement of the risk. We aggregate existing opportunities and risks using probability methods.

In our risk report, we comment on the largest single risks separately. We combine the implications of opportunities arising or risks materialising with the respective probability of occurrence and evaluate the opportunity/risk situation accordingly. In our short and medium-term planning, we carefully assess opportunities and risks and account for these in our adjusted EBIT forecast.

The Executive and Supervisory Boards are provided with a quarterly risk report presenting the Group's opportunity/risk profile. We immediately report any significant new risks arising at short notice or material changes in existing risks to the Executive Board, which in turn informs the Supervisory Board as appropriate.

## Supervision

The RMS is implemented, maintained and supervised by the executive boards and managing directors of consolidated subsidiaries. Our group internal audit department audits the system regularly as part of its risk-based audit plan. It identifies any weak points and reviews whether the improvements introduced are having their intended effect. The Executive Board is informed about the risk management status regularly and whenever specific events require report.

*The Supervisory Board and Audit Committee of MVV Energie AG also monitor the appropriateness of the structure and functionality of the RMS.*

## Presentation of opportunity/risk situation

In what follows, we present MVV's current opportunity/risk situation. We allocate opportunities and risks in each case to one of our total of six categories, quantify the opportunity/risk situation for each category and present the potential impact on earnings for each category in terms of the Group's budgeted adjusted EBIT. We categorise the opportunity/risk situation in three different risk classes: "low", "medium" and "high". These classifications show how high, as a percentage, the expected impact of the category is for the Group's budgeted adjusted EBIT. We report on our adjusted EBIT forecast in the chapter [Outlook](#).

### Expected risk situation

Since the 2022 financial year, the Group's risk situation has, in addition to the opportunities and risks typical to its business, continued to be significantly influenced by the effects of the war in Ukraine. At the same time, our business is increasingly being affected by risks resulting from the development in interest rates, purchasing power and inflation, as well as by credit risks and the availability of specialist staff. For companies operating in Germany and in our sector, we also see crisis-related market price and financing risks, legal risks and individual operating risks (such as cyber risk or the availability of critical raw materials and supplies due to developments in supply chains).

MVV is responding to these great uncertainties with numerous operating measures and initiatives. This way, MVV intends to develop solutions that are coordinated with the objectives of our [Corporate Strategy](#) in order to limit potential negative implications both for our own business performance and for our customers to the best possible extent while at the same time supporting our #climatepositive strategy.

We provide detailed comments on the principal opportunities and risks in the six categories presented in the chart below.

### Expected risk situation in FY 2024

Risk category		Risk class
<b>PRICE RISKS</b>	<ul style="list-style-type: none"> <li>» Market prices:                             <ul style="list-style-type: none"> <li>• Clean dark spread</li> <li>• Clean spark spread</li> </ul> </li> <li>» Procurement prices:                             <ul style="list-style-type: none"> <li>• Energy, waste and biomass</li> <li>• Supplies and operating resources, components and hardware</li> </ul> </li> <li>» Exchange rates and interest rates</li> </ul>	 <b>Medium</b>
<b>VOLUME RISKS</b>	<ul style="list-style-type: none"> <li>» Sales volumes:                             <ul style="list-style-type: none"> <li>• Weather conditions and wind volumes</li> <li>• Economic climate</li> </ul> </li> <li>» Competition and efficiency</li> <li>» Procurement for waste and biomass</li> </ul>	 <b>Medium</b>
<b>OPERATING RISKS</b>	<ul style="list-style-type: none"> <li>» Renewable energies project development</li> <li>» Construction projects</li> <li>» Plant operation</li> <li>» Supply chains</li> <li>» Personnel</li> <li>» IT risks</li> </ul>	 <b>Medium</b>
<b>LEGISLATIVE RISKS</b>	<ul style="list-style-type: none"> <li>» Regulation</li> <li>» Legal risks</li> <li>» Legal interventions in operating business</li> </ul>	 <b>Medium</b>
<b>FINANCING RISKS</b>	<ul style="list-style-type: none"> <li>» Receivables default</li> <li>» Refinancing</li> <li>» Liquidity</li> <li>» Countries</li> </ul>	 <b>Medium</b>
<b>STRATEGIC RISKS</b>	<ul style="list-style-type: none"> <li>» Strategic decisions (including investments)</li> </ul>	 <b>Low</b>

Risk<sup>1</sup> in % of operating earnings (adjusted EBIT) at Group:  
 high: > 40%    medium: 10% to 40%    low: 0% to 10%

<sup>1</sup> Budget variance in earnings: likely average maximum damages in the financial year in which the resultant charge on earnings may arise

## Price opportunities and risks

In the price opportunities and risks category we summarise commodity price fluctuations on both procurement and sales markets, as well as exchange and interest rate movements. We deploy [Financial Instruments](#) to limit interest rate, exchange rate and commodity risks. These are described in more detail in the chapter Notes to Balance Sheet.

### Lower level of energy prices on wholesale markets

The clean dark spread (CDS) and the clean spark spread (CSS), i.e. the result achieved from marketing electricity from the generation plants in our environmental energy business and our renewable generation sources, are each calculated as the difference between the electricity revenues on wholesale markets and the costs incurred to generate the electricity. The costs of electricity generation include – in each case together with the costs of CO<sub>2</sub> emission rights – the costs of coal for the CDS and the costs of gas for the CSS, in each case including transport costs and currency translation differences, and the costs of substrates for the generation plants in our environmental energy business. We work with suitable hedging strategies to limit potentially negative implications for our generation portfolio.

During the war in Ukraine to date, we have observed at times stark rises in wholesale market prices accompanied by significant fluctuations (volatility). These have impacted on the CSS and CDS. Higher electricity generation margins in the market may impact positively on adjusted EBIT in Supply Reliability, the reporting segment to which the marketing of generation positions in our combined heat and power business field is allocated. Risks countering these marketing opportunities arose most recently due to restrictions in the technical availability of our generation capacity at a company recognised at equity. No interventions by lawmakers in plant management and operating strategy are currently apparent for the near future in connection with the gas supply situation, neither are any such interventions visible in terms of short-term amendments to incentives to uphold fossil-based generation capacities (we refer here to the reactivation of coal-based generation plants due to potential gas shortages versus the decommissioning of such plants to achieve climate protection targets). Any such interventions would nevertheless significantly change our opportunity/risk profile.

At the same time, marketing uncertainties in the combined heat and power and environmental energy business fields are countered by opportunities resulting from the higher current level of market prices for energy. The growth recently achieved in the marketing of renewable generation sources makes it possible for MVV to seize market opportunities together with its customers and business partners and thus press ahead with its goal of becoming #climatepositive.

### Procurement price levels and volatilities continue to present challenges

The energy volumes required by our sales department for customer supplies at various locations are predominantly procured on the energy trading market. To mitigate the ongoing high energy procurement prices resulting from the war in Ukraine, our energy trading subsidiary MVV Trading concludes futures transactions, some of which several calendar years in advance, taking account of our applicable hedging regulations. We thus raise the consistency of our earnings and act early to improve our planning reliability for subsequent financial years. This way, we can reduce the impact of the sharply fluctuating market prices seen in recent periods on our procurement costs and customer sales prices.

Moreover, given the renewed intensification in price competition there is nevertheless increased uncertainty at present as to whether we will be able to fully include the recent sharp rise in procurement costs in our price calculations in all cases in future.

In combination with sales prices, the scope of fluctuations observed in procurement prices and the speed at which these changes have taken place, such as the particularly marked changes most recently seen in late summer 2022, may result in significant opportunities and risks. Such situations may create economic difficulties for individual market players in future as well and, as a result, threaten the performance of contracts with us. Despite our active management of trading limits with our trading and contract partners, a price risk may arise from the potential procurement of replacement resources required due to defaults among trading partners.

We are countering the sharp change in market conditions by adjusting our supply contracts with business customers to reflect both price fluctuations and the associated impact on margins and liquidity in the contractual terms and thus manage these aspects.

At the same time, insolvencies among competitors in the energy industry due to market volatility mean that customers previously supplied by third parties are returning to the basic supply at short notice and on an unplanned basis. For these customers, early hedging with cost mitigation is no longer possible. As the basic supplier, MVV may face a margin risk in supplying such customers. We accompany the energy trading performed by our group company MVV Trading with suitable risk management measures.

Due to potential supply bottlenecks and delays, as well as to general inflation, price risks may arise for commodities, materials or supplier products that require procurement. Particularly worth mentioning in this respect are raw materials and supplies for power plant operations, as well as components such as photovoltaics systems, batteries, wall boxes, transformers, smart meters and cables. We are also noticing an increasingly marked reduction in the availability of service providers for plant construction and installation.

#### **Fluctuating waste and biomass procurement prices**

We observe and assess potential opportunities and risks resulting from fluctuating waste prices, and that in both the German and British markets. Moreover, we track the development in biomass prices across Europe. Our material and substrate flow management enables us to identify potential risks at an early stage and to mitigate these with suitable measures. Waste volumes are significantly dependent on overall macroeconomic and commercial developments. Here too, the war in Ukraine may impact negatively on our waste incineration business.

#### **Exchange rate fluctuations unchanged**

Exchange rate movements may create opportunities or harbour risks for us in connection with fuel procurement, our UK commitment and our international project development business. We limit these risks with natural hedges and futures transactions. Since the beginning of the war in Ukraine, we have observed additional uncertainty in exchange rate movements.

#### **Dynamic recent changes in interest rates**

Our finance department continually monitors the interest rate risks relevant to our business. Where possible, we finance our investment projects with fixed interest rates and congruent terms. We already account in our company planning for the expected impact of interest rates when projects are refinanced. Changes in interest rates also impact on our project development business. Demand for renewable energies may fall, for example, if interest rates rise and other forms of investment become more attractive for investors.

## Volume opportunities and risks

Our operating earnings may be positively or negatively influenced by fluctuations in volumes both on the procurement front and on the generation and sales front.

### Fluctuations in turnover due to weather conditions and wind volumes

Two key factors influencing our business performance are weather conditions and wind volumes. The weather has a major impact on our turnover with district heat and gas, particularly during the heating period from September to May. Electricity generation volumes at our wind turbines are dependent on natural wind volumes. Opportunities and risks arise for our business performance if temperatures during the heating period and/or annual wind volumes deviate from our expectations. Together with relevant price movements, the development in these factors produces opportunities or risks for our business performance.

### Macroeconomic developments impact on turnover

MVV is directly affected by macroeconomic developments, and here in particular due to developments in the energy market. If our major industrial and commercial customers cut back their production due to the economic situation or supply bottlenecks, this may lead them to procure lower volumes of energy from us. Conversely, our sales volumes increase if such customers step up their production due to economic developments or their strong competitive positions. Together with relevant price movements, these factors too lead to opportunities or risks for our business performance.

Given the ongoing war in Ukraine, our electricity and gas sales volumes could decrease due to lower demand, a shortage of gas, necessary saving measures or the loss of customers.

### Competitive pressure on turnover and opportunities resulting from sustainability measures

Competitive pressure in the energy market is as high as ever. Should customers decide to switch provider, then this reduces our sales volumes. Similarly, efficiency measures implemented by our customers, such as heat insulation, may also reduce our turnover. If customers switch to generating the energy they consume themselves, we accompany them as partners, support them with innovative, competitive products and develop services offering substantial customer benefits. Alongside opportunities arising in the market due to growing climate protection requirements, the current rise in energy prices also makes innovative and renewable energy generation technologies increasingly interesting for our customers. We expect this to create additional positive demand and value creation potential. We also attach great value to working with local authorities on a basis of partnership. By working together on shared sustainability targets, we also create a basis for extending existing concessions and improve our chances of acquiring new concessions.

### Availability and quality of waste and biomass are highly significant factors

With regard to incinerating commercial waste and biomass, our adjusted EBIT may be affected both by the volumes available and by their quality. Both aspects are in turn influenced by the macroeconomic situation and legal requirements, as well as by plant capacities at competitors and weather-related events. We minimise volume risks for our plants by working with professional material and substrate flow management. We also pursue a substitute procurement strategy.

Further developments in the ongoing war in Ukraine and potential associated reductions in industrial and commercial production and waste volumes may have a noticeably negative impact on waste prices and procurement volumes. This applies in equal measure to both of our geographical focuses in Germany and the UK.

## Operating opportunities and risks

MVV's operating opportunities and risks chiefly arise in connection with its renewable energies project development business and with the construction and operation of energy generation plants and grids.

### Uncertainties in renewable energies project development business

One key factor in achieving our #climatepositive target is our own project development expertise. Decentralised renewable projects in our project development business generally have shorter planning and construction stages than large-scale generation plants. Having said that, these projects also involve uncertainties: In general, the development of relevant markets depends both on the further development in political regulation and on levels of public acceptance. Based on our assessment, key opportunities and risks in the wind turbine and photovoltaics system project development business are attributable to the regulatory climate and to the resultant scope and structure of future project tenders and the development in market interest rates. During implementation, the progress made with projects may be negatively influenced by factors such as any delay in obtaining building or operating permits, or failure to obtain such permits, as well as by every higher approval requirements and related issues. Further factors that cannot be excluded are the downstream impact of supply delays or bottlenecks with supplier products such as, in the case of photovoltaics systems, batteries, wall boxes, transformers, smart meters and cables, as well as price increases by upstream suppliers that we cannot fully factor into our sales prices in the short term. At the same time, we are also focusing on securing the availability of adequate installation and tradespeople capacities to enable us to meet our goal of becoming #climatepositive.

Particularly in connection with potential supply bottlenecks at upstream suppliers and delays to process stages, we monitor any potential delays to operation launches or projects, especially in the project development business. We have taken measures within our procurement management to counter the effects of potential supply bottlenecks.

Our financial success in the international business is also determined by political and macro-economic developments in our target markets. Major sources of uncertainty affecting our success abroad include potential disruptions in international trade relationships, which may impact on market access (punitive tariffs) and competitiveness, and the possibility of further interventions in subsidy regimes. We also face opportunities in our renewable energies business given our extensive experience and great competence in project development and operations management for renewable energies plants.

### Risks from progress with construction projects unchanged

By their nature, large-scale generation plants and grid infrastructure installation measures have long planning and construction stages and harbour corresponding risks. Delays in the completion and launch of operations at our major projects could impact negatively on our expected adjusted EBIT, as could any unplanned costs to procure substitute electricity or heat or additional costs due to new developments or potential price increases arising at short notice at upstream suppliers. We therefore attach great value to ensuring that projects are robustly designed and budgeted in the planning stage already and to detecting and evaluating the material opportunities and risks involved in projects at an early stage of developments.

Here, we are paying particular attention to the impact of the ongoing war in Ukraine on supply chains and upstream suppliers, on the prices of materials and commodities for construction projects and on the availability of sufficient installation and tradespeople capacities. Any delays to supplies of materials, unbudgeted increases in the cost of materials or shortage of installation capacities may, in terms of the completion of modules or sections, lead to delays in construction and projects, as well as to margin risks. We counter these risks, to the extent that they are within our control, with professional project organisation and by commissioning suppliers with experience in the sector. Where contractually possible, we pass on the implications of project risks, especially those involving higher costs and deadline overruns, to the contractual partners responsible for such.

### **Uncertainties resulting from plant operations unchanged**

The operation of energy generation plants and grid facilities to supply our customers with energy and utilities involves substantial operating uncertainties for our Group. Unscheduled downtime at plants may lead to a loss of production or interruption to supplies. Additional financial outlays may also be required in this context, for example to repair the plant, for substitute supplies to our customers or for contractual penalties.

The implications of the war in Ukraine present additional challenges in terms of organising operations. Alongside additional risks relating to ongoing operations, such as the risk of shortages of relevant raw materials and supplies, account now also has to be taken of the amended approach to substitute energy generation targeted by lawmakers for the short and medium term in order to respond to any gas shortage, a situation which is still possible. This includes increasing the availability of individual plants or reactivating these if needed. It may require replacement investments, sometimes substantial, for an unspecified term of operations and thus uncertain economic viability.

To safeguard supply reliability and reduce plant operation risks, for our existing generation capacities we perform regular maintenance and monitoring measures and make every economically feasible effort to minimise downtime at our plants and the potential resultant risks. This way, we also aim to do justice to our claim to act as a reliable supply partner and avoid any risks to our reputation. Due to the nature of the issues involved, we nevertheless cannot wholly exclude the possibility of downtime. The measures we take to counter this risk in general include optimising scheduled inspection times within our maintenance strategy. We thus work towards using capacity at our plants over and above the planned hours of use or to increase efficiency rates. This assists us both in realising opportunities due to higher generation volumes and in avoiding operating risks. To limit the financial implications of any potential damages, we have also agreed suitable insurance policies. In many cases, however, these only partly cover the effects of unscheduled downtime. Any shortfall in production volumes compared with planned marketing volumes may also result in financial risks. Moreover, we assess the risk and environmental protection aspects of potential clean-up projects on derelict land formerly occupied by our plants.

### **Personnel developments noticeable**

Our employees form the foundation for our company's success. We work with numerous measures to attract the right employees to us and retain them in the long term. We see our #climatepositive target as providing an opportunity for us to be viewed as an attractive employer by the right employees. Risks may nevertheless also arise with regard to our personnel. Our group of companies may also face capacity risks and risks resulting from ageing workforces, particularly among specialists, due to forthcoming demographic changes accompanied by the new and growing requirements presented by the energy transition. These risks apply both to MVV's own business fields, as well as to the partners with which we cooperate to install and service new energy solutions. The extent of these risks also depends on the attractiveness of the company and the individual location. To enable us to continue filling key positions as efficiently as possible, we will keep providing our staff with targeted training. By taking targeted measures to strengthen our staff recruiting unit, we are maintaining our ability to fill positions with the required specialists and experts at a high level.

We assume that we would be able to successfully manage the specific challenges presented by coronavirus, also if the pandemic were to intensify once again in future. To protect our employees while simultaneously safeguarding our operating processes, we adopted rules governing conduct, contact and absence and adapted our forms of cooperation and communication to work requirements, not least by drawing on digital solutions. These necessary solutions and requirements were widely accepted and implemented by our staff. This way, we safeguarded the availability of personnel required for our processes – at MVV, at our shareholdings and in our cooperation with other companies. This is a significant factor, not least given the sharp rise in our recruiting requirements, particularly in our growth businesses.

In the pension surveys we have compiled, we have also accounted for those factors that may involve financial risks from pension obligations. Based on the latest information available, we have included these factors as appropriate in our budgets (chapter [Notes to Balance Sheet \(Note 32 Provisions\)](#)).

#### **IT security as highly significant factor**

Two crucial factors for nearly all our business processes are secure data storage and interruption-free information technology. We therefore accord great priority to systematically protecting our IT infrastructure and our IT systems against any potential attacks by third parties.

We reduce our IT risks as far as possible by implementing an extensive range of technical and organisational measures and by drawing on insurance solutions where these are available in the market. We make use of security systems and only grant access authorisations to systems and information on a restrictive basis. We have redundant copies for our key hardware components and permanently reflect data between production systems and geographically separate backup systems. We also have a backup computer centre. To counter widespread and constantly rising IT threats due to blackmail and malware and to respond to the recent intensification in the cyber-IT risk situation due to geopolitical motives, we are continually developing additional measures to enhance our IT security. Together with external consultants, we are thus reviewing and enhancing our cyber-IT security.

#### **Legislative risks**

In this category, we aggregate uncertainties existing in connection with regulation or with other changes in the legal basis for our business operations.

#### **Regulatory uncertainties continue to apply, while innovative products and sustainable energy generation offer potential**

Companies operating in the energy industry basically face the risk and opportunity that federal and state lawmakers and authorities, such as the Federal Network Agency (BNetzA) or cartel authorities, may amend the regulatory framework. In the past, this related, for example, to the grid fees set by the BNetzA. At present, energy and climate policy decisions in particular have significant implications for our business performance. Examples here include regulations governing the expansion in renewable energies and new requirements to achieve national climate protection targets. Moreover, we are closely monitoring developments in terms of a future windfall tax that may potentially be imposed by lawmakers on certain profits.

One further consequence of the ongoing war in Ukraine involves the increased efforts currently being made to convert electricity and heat generation and their respective distribution as swiftly as possible to a sustainable approach.

With regard to the legislation already in place for the coal exit, the ongoing war in Ukraine has led to the amended political objective of temporarily retaining and reactivating existing generation capacities and those already in the process of being decommissioned. This development harbours both risks and opportunities for MVV. Risks continue to result from potential legislative restrictions or interventions in our planned plant operations to generate district heat and electricity. There is also uncertainty as to the economic viability of short-term replacement and renewal investments for plants that are already in the process of being decommissioned in line with government plans and climate protection targets.

We see the legal framework for transitioning to sustainable energy generation as presenting challenges, but also as a particular source of strategic potential. Based on our #climatepositive target, we are actively and consistently seizing this potential with innovative products, such as the extensive measures and efforts we are making to develop green heat supply structures and new components of a circular economy within the Mannheim Model.

These challenges apply not only to our activities in Germany, but also by analogy to our international business. We counter these risks actively by participating in the political opinion-forming process, adapting our processes and business models and, where possible, also developing suitable products. This way, we are also able to exploit any opportunities that arise.

#### **Management of legal risks**

MVV may be exposed to legal risks in connection with court cases due to product liability and with unenforceable contracts or contractual terms. We therefore check, negotiate and draft contracts aimed at limiting these risks.

Our [Compliance Management System \(CMS\)](#) helps us to minimise any infringements of the law. Where applicable, any compliance risks are managed in the compliance management system and simultaneously recorded in the risk management system (RMS). Alongside risks relating to potential infringements of our compliance regulations, the CMS also monitors risks relating to respect for human rights in accordance with the German Act on Corporate Due Diligence Obligations in the Supply Chain (LkSG). This relates both to our own activities and to compliance with requirements within our supply chains.

MVV's business performance is also exposed to risks and opportunities which result from legal pronouncements on energy industry matters or other topics. These could, for example, limit (or potentially extend) our ability to structure contracts. In connection with the ongoing war in Ukraine, legal requirements may also restrict the company's ability to include potential additional costs in sales prices.

#### **Financing opportunities and risks**

In this category, we mainly report on receivables default risks and on refinancing and liquidity opportunities and risks.

#### **Active receivables management**

There is the risk that customers or business partners may fail to settle our invoices, or settle them only in part. This risk may arise in our OTC trading activities, for example, or in our long-term supply relationships with business customers. Moreover, the significant rises in energy product prices arising at short notice in the past have increased the risk that individual wholesale partners may encounter financial difficulties, potentially threatening the fulfilment of their contractual obligations to us. To limit this kind of receivables default risk, we select our business partners systematically and with due commercial prudence, check their creditworthiness and, where necessary, agree deposits of securities, and in particular guarantees. Moreover, we are also diversifying our portfolio, thus enabling us to avoid clusters of default risks.

Due to the ongoing war in Ukraine, delays and defaults may arise in the settlement of outstanding receivables, also to an increasing extent among end customers. We are proactively countering this risk with active receivables management and by focusing on the customer-based implementation of the energy price cap. At the same time, we have also established assistance programmes for particularly vulnerable retail customers.

#### **Active management of refinancing and liquidity**

The possibility of being unable to obtain liquid funds, or not to the full extent required, is referred to as refinancing and liquidity risk. To cover our capital requirements, we have a variety of financing instruments at our disposal. These include promissory note loans, bilateral loans and syndicated loans. We continually monitor the financial markets, regularly share information with our lenders and carefully monitor our liquidity. This enables us to counter any refinancing and liquidity risks and, where possible, to additionally exploit any opportunities arising in the market. Furthermore, our group-internal cash pool also serves to reduce this risk.

Given the ongoing war in Ukraine, we continue to monitor our liquidity management very closely. To this end, MVV has established automated assessments which perform detailed analyses of potential future developments and influences on the liquidity management in our wholesale business by reference to different scenarios. This approach is to be viewed in particular against the backdrop of ongoing uncertainty on energy trading markets and the possibility of sharp fluctuations in market prices.

The analysis focuses above all on the resultant cash-effective security deposits required for wholesale trading, i.e. margins, which fluctuate sharply. These involve requirements customary to the industry in terms of depositing cash-effective financial collateral to open trading positions (initial margins) and cover subsequent fluctuations in market prices (variation margins). The amount of collateral to be deposited for the variation margin is based on the current market price compared with the price at which we as a company entered into the trading transaction via the exchange. Depending on price developments, a company may be a provider or a recipient of this collateral. By contrast, the initial margin always results in an obligation to provide a deposit, the amount of which depends on current market prices and their volatility. To ensure that we always have sufficient liquid funds even in the event of larger-scale fluctuations, we have on the one hand expanded our margin and liquidity management and forecasts and on the other hand maintain cash lines. If need be, we can identify any need for action at an early stage, take suitable countermeasures and conclude off-market transactions. These steps would nevertheless be performed with due consideration of our potential receivable default risks.

#### **Monitoring country risks**

For MVV, country risks take the form of transfer risks and the possibility that states may become unable or unwilling to meet their payment obligations. Due to our international activities in the field of renewable energies project development, country risks may impact on our adjusted EBIT. We continually monitor any uncertainties relating to the terms of access of our target markets that may arise due to potential disruptions in international trade relationships. Before entering international markets that are new to us, we perform analyses of the potential risks. For our existing activities, we observe the political and economic situation on location and continually monitor alternative courses of action. Should any deterioration arise in the situation and our risk position, we may decide to leave the given market. We are closely monitoring current developments in the UK economy, for example, in respect of our current activities and those planned for the future.

## Strategic opportunities and risks

Good strategic decisions form the basis for any company's success. The energy policy and industry framework have been changing dynamically for years now. This transformation harbours strategic risks, but also gives rise to new opportunities. We intend to actively shape this transformation and make use of it to promote our interests. That is why we have set ourselves the target of becoming #climatepositive by 2035. Against this backdrop, we review our investment projects in great detail and decide in which markets, technologies, companies and projects we intend to invest, as well as the timing and scope of such investments. We take these decisions on the basis of in-depth market and competitive analyses and painstaking viability calculations for investments and projects. Our group strategy department also liaises closely with the Executive Board to monitor our strategic alignment on an ongoing basis and adjust it where necessary to new conditions.

Key components of our [Corporate Strategy](#), and thus of our Mannheim Model, are the heat and electricity transitions, which we are promoting with an extensive programme of strategically important investments. Further information about these can be found in the chapter [Presentation of Asset Position](#). We expect these to create competitive advantages and sustainable growth. Although we review and plan such investments with great care, erroneous assessments or unexpected changes in the macroeconomic framework may reduce the level of adjusted EBIT generated in future financial years.

We see the heat transition, which we are promoting by converting our generation portfolio from fossil fuels to a CO<sub>2</sub>-neutral heat supply, as offering opportunities in the Group's business fields. Examples with which we are reducing the fossil-based share of our generation include gaining heat from sustainable energy sources, such as river heat pumps or deep geothermal energy, as well as heat pumps at our customers. This approach also involves measures to reinforce our district heat, gas and electricity grids. This way, we aim to secure the supply while at the same time avoiding risks both in our business and at our customers. One example is the river heat pump which the power plant Grosskraftwerk Mannheim AG (GKM) has built on behalf of MVV. Since October 2023, this has used river water from the Rhine as a climate-neutral source of warmth to generate district heat. With thermal energy capacity of around 20 MW and electricity capacity of 7 MW, it is one of the largest heat pumps in Europe.

Given the transformation in the German energy system and the scope of the political framework, our company has only limited planning certainty. We are tracking the decision taken by the Federal Government to exit from coal and head for climate neutrality with our own ambitious decarbonisation strategy. Further information about this can be found in the section [Environmental Concerns Aspect](#). The framework for withdrawing from our conventional generation capacities is largely determined by the coal exit legislation and, since the beginning of the war against Ukraine, by any associated potential gas shortage. This situation, and in particular the changes arising at very short notice in the legal framework, creates great uncertainties for our company.

For renewable energies, we still expect sustainably attractive market potential. This has been significantly extended by current developments in energy prices as a result of the ongoing war in Ukraine. That is why, in our Mannheim Model, we are also focusing on the electricity transition, i.e. on the accelerated and continued expansion in renewable energies, innovative electricity marketing products for renewable energies on the energy trading market and participating in innovation tenders. We have pooled our project development capacities at the Group. We currently still see challenges surrounding the addition of onshore wind turbines, where difficult hurdles exist in approval processes, particularly in respect of aligning the interests of conservation, local residents and the duration of the processes needed to obtain a basis for planning.

Based on our assessment, the German biomass market and the anaerobic digestion of bio-waste still offer expansion potential and investment opportunities, with these being due in particular to ever stricter requirements governing the disposal of bio-waste. We have all-round experience in both building and operating biomass plants. We see further opportunities for our group of companies here, not least in view of our consistent focus on becoming #climatepositive. Given our expertise and our partnership-based approach to working towards sustainability targets, we see expansion potential in the German market, for example in the anaerobic digestion of bio-waste and in recovering resources upon the incineration of sewage sludge. With the launch of operations at our first climate-positive plant in Dresden, we have reached an important internal milestone for MVV in this respect. Not only that, we have demonstrated that we can successfully address the social and economic challenges facing our industry.

Further growth potential is available to us abroad and in photovoltaics. However, these areas are subject to dependencies on local subsidy regimes and clients. Moreover, there is tough competition, particularly in high-growth Asian markets, which we intend to counter with a highly focused approach.

Given the ongoing crisis in energy prices and the existing political pressure to respond while retaining climate protection targets, we nevertheless expect to see an overall upturn in the expansion of renewable energies.

Together with climate targets, changing and newly emerging markets offer opportunities for innovation and profitable growth, particularly in the fields of renewable energies, decentralised and sustainable energy supply, energy efficiency, digitalisation, building refurbishment and sustainable mobility. These apply to MVV, but also to our partners in the market. To master these challenges together and benefit from the resultant opportunities, partnerships with our customers and the close dovetailing of these partnerships with the objectives of the heat transition also form part of our Mannheim Model (further details can be found in the chapter [Corporate Strategy](#)). We aim to offer solutions to all our customers to enable them to press ahead with their own energy transitions. Examples here include the portfolio of solutions offered by MVV Enamic, products for decentralised solutions in our retail and commercial sales activities, such as heat pumps, the energy trading and portfolio management performed by MVV Trading and trade and other services that we offer on behalf of third parties. In implementing these developments, we see opportunities for synergies resulting from close cooperation with technology manufacturers and local installation companies.

## Executive summary

Current developments on the energy and procurement markets, and in particular the implications of the ongoing war in Ukraine, mean that the degree of uncertainty involved in entrepreneurial activity in the energy sector as whole, and thus also for MVV, has increased significantly. Compared with previous years, MVV continues to face a high level of uncertainty. Overall, however, the range of implications which opportunities and risks may have for our adjusted EBIT and our liquidity decreased slightly again in the year under report.

Alongside volatility on the energy trading markets, the high ongoing level of competitive pressure, changes in energy and climate policy and regulatory interventions have substantial implications for our business performance. The resultant planning uncertainty for MVV remains just as great as ever, particularly with regard to long-term investments in electricity and heat generation plants. In the renewable energies project development business, further developments in Germany will particularly depend on sufficient space being made available, on processes being speeded up and simplified and on state subsidy initiatives. In our international target markets for renewable energies, key risk factors alongside the development in political frameworks and market access terms include local subsidy and market regimes and relevant macroeconomic developments.

One aspect that remains uncertain is how the opportunities and risks and the crisis-related challenges triggered by the ongoing war in Ukraine will develop in the medium and long terms and how long these will continue to apply. Key foreground issues are our supply chains, the availability of commodities and materials, the development in their prices, demand for qualified specialists in general, the ability to secure installation and tradespeople capacities in particular and, to a growing extent, the cumulative impact of these individual factors on macroeconomic developments. Various government bodies on both international and national levels are attempting to counter these developments with numerous measures and thus limit the impact on societies and economies. On this basis, our overall expectation is that our industry will continue to face fundamental changes in the medium and long terms as well and that this situation results in a high degree of planning uncertainty with regard to relevant underlying conditions.

We are closely monitoring all relevant developments and, despite these limiting conditions, are working to ensure that our opportunity/risk profile remains as well balanced as possible. The same approach also basically applies to the renewed flaring up of the Middle East conflict since 7 October 2023.

From the perspective of MVV's Executive Board, there were and are no indications that any risks, whether individual or aggregate, could have endangered the continued existence of the overall company, or of any material subgroup, in the period under report, or could do so in future. *The risk management system is appropriately structured and effective.*