Management report for financial year 2019

Contents

1. Business activities

WIEN ENERGIE is Austria's largest regional energy services provider, providing more than two million people, approximately 230,000 businesses, industrial facilities and public buildings, as well as around 4,500 farms in Vienna, Lower Austria and Burgenland with electricity, natural gas, heat, district cooling and innovative energy services. **WIEN ENERGIE** produces electricity and heat from renewable energy sources, thermal waste recycling and high-efficiency cogeneration power (CHP) plants. **WIEN ENERGIE** is also active in the field of telecommunications and provides additional energy and infrastructure services. **WIEN ENERGIE** is a wholly owned subsidiary of **WIENER STADTWERKE GmbH.**

2. Legal and economic environment

ECONOMIC FACTORS

Compared with the same quarter of the previous year, the Austrian economy grew by 0.2 per cent in Q4 2019. After expanding in the previous year, the economy continuously lost momentum during 2019, with the industrial sector in particular slowing from the beginning of the year onwards. Both domestic demand and exports fuelled GDP growth in the fourth quarter. Overall economic growth in 2019 amounted to 1.7 per cent. The robust economy also benefited the labour market. Unemployment fell to 7.4 per cent in 2019, a decrease of 0.4 percentage points year-on-year. Despite this, the jobless rate remains higher than before the last financial and economic crisis.[1]

Inflation (CPI) in Austria stood at 1.4 per cent in December, slightly below the average for the euro area. Prices rose sharply for energy, food, services and housing expenses in particular. The core inflation rate in December was 1.5 percentage points higher than in the previous year.[2]

While the Federal Reserve continuously lowered its key interest rate in 2019 (Q1: 2.13 per cent – Q4: 1.63 per cent), the European Central Bank (ECB) continued its highly expansionary monetary policy, intended to raise inflation and reach a price stability target of 2 per cent. To achieve this, the base lending rate was cut to zero per cent in March 2016 and has not changed since, while at the same time the programmes to buy government-issued bonds were extended and expanded.[3]

This macroeconomic situation, a higher number of providers and producers in the deregulated energy market, and ambitious climate and energy targets all pose major challenges for **WIEN ENERGIE**. These can only be overcome by systematically developing innovative services and products, providing first-rate support for existing customers and continuously increasing efficiency.

[1] Source for GDP and labour market: Austrian Institute of Economic Research (WIFO) and Austrian Public Employment Service (AMS)
[2] Source for inflation: WIFO and Austrian Economic Chamber (WKO)
[3] Source of key rates: www.finanzen.net/leitzins

THE EUROPEAN UNION'S ENERGY AND CLIMATE POLICY

An important basis for energy policy and energy law topics at European level is the Paris Agreement on climate change, adopted at the 2015 UN Climate Change Conference (COP21) held in December of that year. This stipulates that greenhouse gases across the EU will have to be reduced by at least 40 per cent compared with 1990 for the international target of keeping global warming to below 2°C to be achieved. Another driver of climate change mitigation is currently the Fridays for Future movement.

A CLEAN PLANET FOR ALL

The European Commission presented its strategic long-term vision for 2050 on 28 November 2018. Entitled "A Clean Planet for All", this aims to come up with new ways of achieving climate neutrality while combining the different political agendas. The 25th UN Climate Conference (COP25) held in Santiago de Chile between 2 and 13 December 2019 made reference to this. Questions of detail on its specific implementation remain unresolved, however.

CLEAN ENERGY FOR ALL EUROPEANS

Legislative work on the "Clean energy for all Europeans" package continued in 2019.[4] This will require national transition and implementing measures in the coming years. The conditions for capacity payments to CO_2-emitting power plants will also depend on how the electricity market is organised in the future. Not least with a view to security of supply, the overall distribution of power plant capacity in Europe will be particularly important – also in light of the planned coal phase-out in Germany.

EU CLIMATE STRATEGY FROM 2020, EU'S GREEN DEAL

The future energy policy framework will depend to a large extent on the climate strategy adopted by the European Union. Before taking office on 1 November 2019, the new President of the European Commission announced ambitious energy and climate targets for the EU, notably a further reduction in greenhouse gas emissions by 2030 of a total of 55 per cent compared with 1990. This will be achieved through more stringent EU requirements for the expansion of renewables as well as an expansion of the emission rights trading system. A strategy paper has been announced that is intended to provide clarity on the extent to which statutory frameworks will actually be modified and in what form. The financing side also needs to be resolved here.

CLIMATE AND ENERGY STRATEGY IN AUSTRIA

The energy policy and energy law environment was determined by the Austrian government's climate and energy strategy adopted in May 2018 (#mission2030).[5]

INTERIM SOLUTIONS IN 2019

In terms of energy policy, 2019 was marked by interim solutions. The legislative initiatives expected for 2019 to create the framework and incentives for necessary infrastructure measures and investments failed to materialise owing to political changes, including the establishment of a transitional government. This particularly concerns the expansion of renewable energy sources on the one hand and measures for fail-safe electricity supply on the

[4] DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast) (OJ L 158/125, 14. 6. 2019); REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the internal market for electricity (recast) (OJ L 158/54, 14. 6. 2019 (also referred to as the "2019 Electricity Trading Regulation"); REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC (OJ L 158/1, 14. 6. 2019); REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a European Union Agency for the Cooperation of Energy Regulators (recast) (OJ L 158/22, 14. 6. 2019).

[5] https://mission2030.info/, 13 January 2019

other, especially the safeguarding of thermal power plants including CHP and suitable storage technologies. Green electricity legislation was limited to a "minor amendment"[6] in October 2019. This is essentially a transitional solution to shorten waiting lists for new contracts for renewable power plants and set follow-up tariffs for biomass plants, among others.

AUSTRIAN GOVERNMENT PROGRAMME 2020–2024

At the end of 2019, the designated turquoise coalition government presented the Austrian government programme 2020–2024.[7] Described in the section entitled "Climate change mitigation & energy", this makes reference to the international and European efforts to mitigate climate change in the Paris Agreement and the EU's Green Deal and contains programmatic statements as well as commitments to expand renewables. The precise form that the legislative initiatives, especially the Renewable Energy Development Act and the Energy Efficiency Act, will take remains to be seen.

GENERAL DATA PROTECTION REGULATION

Since 2017, **WIEN ENERGIE** and the entire WIENER STADTWERKE Group have been working hard on the organisational and technical measures for implementing the General Data Protection Regulation (GDPR). The required processes are already in place. In the Group-wide data protection committees (data protection working group, inter-company data protection committee), topics with relevance to data protection are coordinated with the other companies of the Wiener Stadtwerke Group so that uniform quality standards are complied with. For example, the lists of procedures and the overviews of the order-processing contracts concluded are regularly updated and data protection documents are revised if necessary. The **WIEN ENERGIE** website has been examined for compliance with the GDPR and is being modified accordingly. In the future, there will be a centralised and standardised solution in the Group for the storage of declarations of consent and revocations; this will automatically evaluate the consents. Twice a year, a report will be submitted to the relevant management team and the Group's Management Board, detailing measures taken in the area of data protection, training courses given, requests received for provision or deletion of information and any data breaches.

TEMPERATURE DEVELOPMENTS

Like the years before it, 2019 was another extremely warm year. According to preliminary statistics, it was the third-warmest year recorded in the 250-year history of measurements in Austria held by the Central Institution for Meteorology and Geodynamics (ZAMG). The deviation from the 1981–2010 climatological mean was about +1.6°C over the entire year, with above-average temperatures in all months of 2019 except January and May; June 2019 with a deviation of +4.7°C was in fact the hottest June in Austria's measurement history. Furthermore, the number of hours of sunshine throughout Austria was 6 per cent higher than in an average year. The level of precipitation in Austria in 2019 was average, though it varied considerably from one region to the next. Whereas the west of Austria saw 5 to 25 per cent more precipitation than in an average year, in the eastern half of the country it was 10 to 40 per cent less dry.[8] Measured in terms of total heating degree days, the

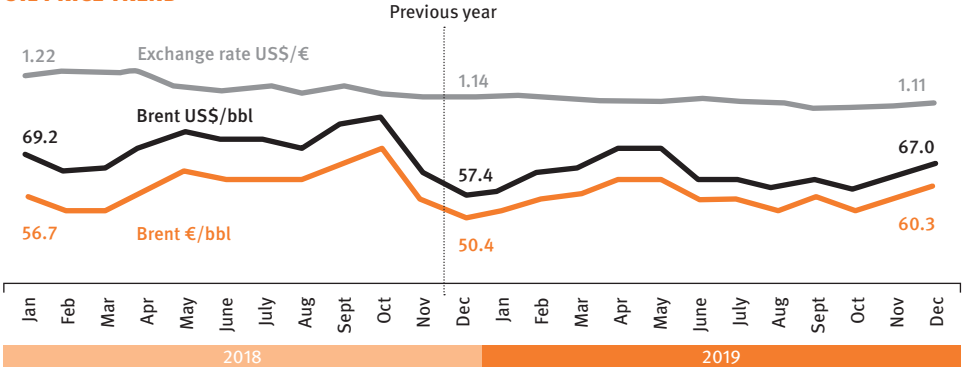
[6] Amendment of the Green Electricity Act of 2012 (ÖSG 2012), BGBl I 2019/97.
[7] From Responsibility for Austria, government programme 2020–2024, www.wienerzeitung.at/_em_daten/_wzo/2020/01/02/200102-1510_regierungsprogramm_2020_gesamt.pdf (7 January 2019, German only).
[8] www.zamg.ac.at/cms/de/klima/news/2019-eines-der-drei-waermsten-jahre-der-messgeschichte (German only)

standard parameter in the energy industry for temperature-related energy requirements, demand in **WIEN ENERGIE's** service area during the reporting period was 12.4 per cent lower than the comparable value of the past 30 years.

TREND IN CRUDE OIL PRICES

Autumn 2018 saw the price of oil climb to around USD 81 per barrel, reaching a maximum for the 2018/2019 period. The global economic upturn was the main driver of this price increase. The US sanctions against Iran also exacerbated geopolitical uncertainty and pushed up oil prices to a new record high. A reverse in this trend set in at the beginning of October as fears surfaced of a marked slowdown in the global economy, causing oil prices to plummet to an average of USD 57 per barrel in December 2018. In the course of 2019, prices recovered slightly, rising to just over USD 62 per barrel by the end of September 2019. OPEC's scaling back of supply has not yet been reflected in oil prices.

OIL PRICE TREND

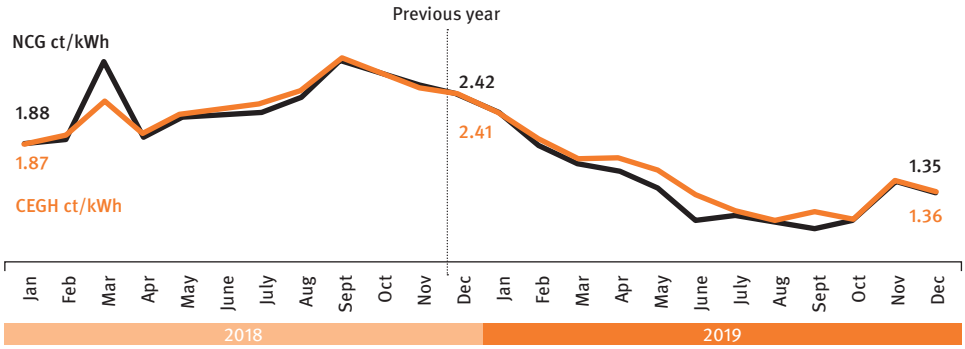


Source: Thomson Reuters (ICE monthly average)

TREND IN NATURAL GAS PRICES

Significant price increases were recorded at the beginning of 2018. The cold spell in February 2018, which generated higher demand for energy, sent gas prices on the spot market spiralling higher to as much as 10 cents per kilowatt hour for a short time. The subsequent uptake in gas storage facilities caused prices to rise to 2.8 cents per kilowatt hour (EEX monthly average market price) up to September 2018. The high prices in 2018 led to large volumes of LNG being imported into Europe until early July 2019. The currently low prices are an indication of the oversupply of gas. For this reason, and due to the mild December, gas storage facilities in Europe are very well filled. Yet at the same time, owing to the high coal prices, a fuel switch from coal to natural gas is taking place in electricity generation, which is increasing demand for gas. The agreement between Russia and Ukraine on gas transit is counteracting the uncertainty in the market.

GAS PRICE TREND

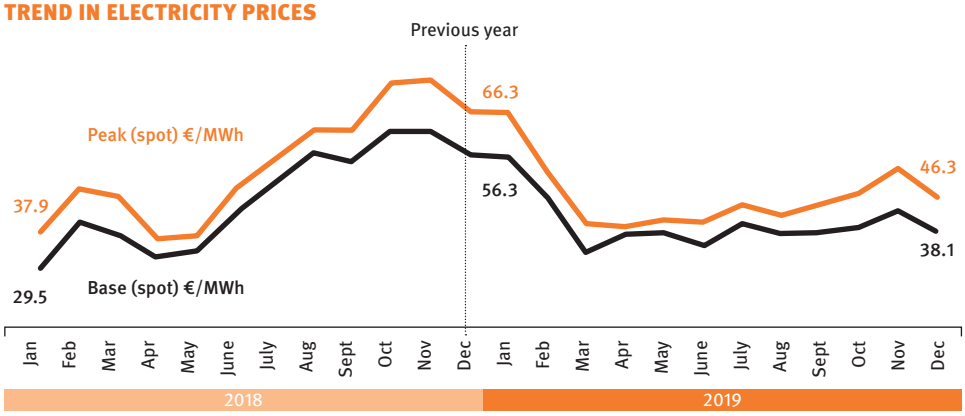


Source: Thomson Reuters (EEX monthly average market price)

TREND IN ELECTRICITY PRICES

Electricity prices kicked off 2019 at around EUR 50 per megawatt hour for base load power and EUR 60 for peak load power. The split of the German-Austrian bidding zone also affected electricity prices in 2019, when the two price zones were more frequently convergent, unlike in 2018. On average, electricity prices in Austria were EUR 3.4 per megawatt hour higher than in Germany. During the year, the price of electricity fell from its all-time high, but remained within the bandwidth that can be observed since October 2018. In December, electricity was priced at around EUR 33 per megawatt hour of base load power and EUR 43 per megawatt hour of peak load power. The high CO_2 prices and low gas prices were a significant contributory factor in the fuel switch from coal to natural gas in electricity generation. Electricity generation by gas-fired power plants is pushing up electricity prices.

TREND IN ELECTRICITY PRICES

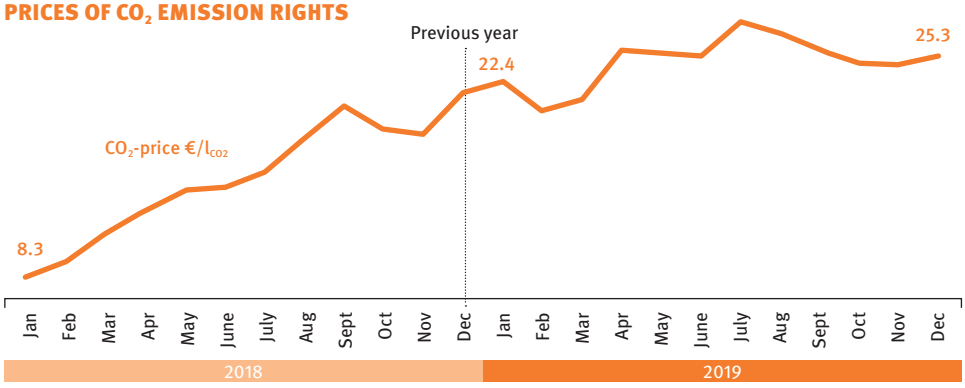


Source: Base/peak (EEX monthly average market prices) AT

TREND IN PRICES FOR CO_2 EMISSION RIGHTS

In 2018, CO_2 prices jumped from EUR 8 to EUR 22 EUR per tonne. The reasons for this were the improved legal certainty of the fourth allocation period of the 2021–2030 period, the market stability reserve and growing demand for emission rights. Prices in 2019 continued their slight upward trend before settling at around EUR 25 per tonne in December 2019. The CO_2 price is a key driver for electricity prices and gas demand – also against the backdrop of the aforementioned fuel switch. Future developments will depend to a large extent on political developments, not least the consequences of Brexit and the coal phase-out in Germany, but also on the Fridays for Future movement.

PRICES OF CO_2 EMISSION RIGHTS



Source: Thomson Reuters (ICE monthly average)

3. Course of business, financial and non-financial KPIs

INCOME STATEMENT

INCOME STATEMENT IN ACCORDANCE WITH IFRS (IN EUR MILLION)	2019	2018*	±	±%
Revenue	1,677.4	1,429.5	247.8	17.3
Changes in inventories	0.0	0.0	0.0	n.e.
Other own work capitalised	0.7	0.8	0.0	–3.2
Other operating income	40.0	24.7	15.3	61.9
Income from the release of investment subsidies	0.0	0.0	0.0	n.e.
Cost of materials and services	–1,080.8	–847.5	–233.3	–27.5
Personnel expenses	–212.4	–211.9	–0.5	–0.2
Depreciation and amortisation	–123.3	–114.6	–8.7	–7.6
Effects from impairment tests	74.5	22.6	51.9	229.1
Other operating expenses	–206.8	–197.1	–9.7	–4.9
(Operating) profit from investments accounted for using the equity method	64.4	64.1	0.2	0.3
Earnings before interest and tax (EBIT)	**233.6**	**170.7**	**62.9**	**36.9**
Financial result	–30.7	–28.4	–2.3	–8.0
Earnings before tax (EBT)	202.9	142.3	60.6	42.6
Tax on income and revenue	–0.4	–0.8	0.3	42.2
Profit/loss for the period	**202.5**	**141.5**	**61.0**	**43.1**
OCI non–recyclable	80.9	147.9	–66.9	–45.3
OCI recyclable	–173.6	45.7	–219.3	–479.7
Other comprehensive income	**–92.7**	**193.6**	**–286.3**	**–147.9**
Total comprehensive income	**109.8**	**335.1**	**–225.3**	**–67.2**

* Due to the changeover from the Austrian Commercial Code to IFRS accounting, the figures stated here for 2018 are not comparable with the prior-year report.

REVENUE

The increase in revenues is mainly attributable to higher electricity and gas revenues. The growth in electricity sales is primarily due to sales in the German market for hedging purposes and to higher generation volumes, while the rise in gas sales is attributable to higher resale volumes.

OTHER OPERATING INCOME

Other operating income increased in particular as a result of the investment income from Facilitycomfort generated by the sale of investments.

COST OF MATERIALS AND SERVICES

The cost of materials and services was up on the figure for 2018. The main reasons for the increase are electricity repurchases in the German market, higher generation in CHP plants, increased gas storage costs, additional gas purchases for resale and the adjustment of the provision for onerous contracts associated with a foreign electricity purchase right.

PERSONNEL EXPENSES

Higher salary expenses are offset by lower expenses for pensions and similar obligations.

DEPRECIATION AND AMORTISATION

The increase in property, plant and equipment raised the annual depreciation charge.

EFFECTS FROM IMPAIRMENT TESTS

Reversals of impairment losses on the CHP plants are higher than in the previous year.

OTHER OPERATING EXPENSES

Here, the increase was mainly due to higher maintenance and IT expenses.

EBIT

The operating result increased by EUR 62.9 million year-on-year, chiefly as a result of the more favourable specific clean spark spread, increased electricity generation, reversals of impairment losses on the CHP plants and higher investment income from Facilitycomfort.

FINANCIAL RESULT

In contrast to 2018, investment income was reclassified as other operating income.

PROFIT FOR THE PERIOD

In total, **WIEN ENERGIE GmbH** achieved a profit for financial year 2019 of EUR 202.5 million, EUR 61.0 million higher than in the previous year.

OCI

The change essentially results from the measurement of the open electricity and gas derivatives of **WIEN ENERGIE Vertrieb GmbH & Co KG** on the reporting date as well as actuarial adjustments in the calculation of pension provisions.

ASSET AND CAPITAL STRUCTURE

CONDENSED BALANCE SHEET IN ACCORDANCE WITH IFRS (IN EUR MILLION)	2019	2018*	±	±%
Non-current assets	2,769.7	2,657.7	112.0	4.2
Current assets	756.5	463.0	293.6	63.4
Total assets	**3,526.3**	**3,120.7**	**405.5**	**13.0**
Equity	565.2	466.9	98.3	21.1
Non-current liabilities	2,474.8	2,288.3	186.5	8.1
Current liabilities	486.3	365.5	120.8	33.0
Total equity and liabilities	**3.,526.3**	**3,120.7**	**405.5**	**13.0**

* Due to the changeover from the Austrian Commercial Code to IFRS accounting, the figures stated here for 2018 are not comparable with the prior-year report.

NON-CURRENT ASSETS

Non-current assets are mainly comprised of property, plant and equipment, right-of-use lease assets and non-current financial assets. The increase is attributable to investing activities on the one hand and to the fair value measurement of financial instruments on the other.

CURRENT ASSETS

Current assets largely comprise inventories, trade receivables and current financial assets. The increase is primarily due to the measurement of open

electricity and gas derivatives and to an increase in receivables from cash pooling attributable to the positive overall cash flow.

EQUITY

Equity consists of nominal capital, capital reserves, revenue reserves and other reserves, as well as other comprehensive income (OCI). After deduction of the dividend paid to Wiener Stadtwerke GmbH, the positive total comprehensive income leads to an increase in equity.

NON-CURRENT LIABILITIES

Around 50 per cent of this item is attributable to provisions for pensions; additions to these provisions are the main reason for the increase in non-current liabilities. Other non-current provisions primarily consist of a provision for onerous contracts associated with a foreign electricity purchase right, which was likewise added to in 2019. Non-current liabilities also include, in particular, lease liabilities, liabilities from long-term Group financing of Wiener Stadtwerke and a liability to Wiener Netze GmbH arising from the purchase of interests in **WIEN ENERGIE Vertrieb GmbH & Co KG.**

CURRENT LIABILITIES

The main factor leading to the increase in current liabilities is higher liabilities arising from the measurement of the gas derivatives at the reporting date. This item was increased by higher trade payables in particular.

INVESTMENTS

INVESTMENTS IN ACCORDANCE WITH IFRS (IN EUR MILLION	2019	2018*	±	±%
Property, plant and equipment	99.5	103.8	–4.3	–4.1
Intangible assets	17.3	11.6	5.7	48.7
Financial assets	11.9	131.8	–119.9	–91.0
Total gross investments	**128.7**	**247.3**	**–118.5**	**–47.9**

*** Due to the changeover from the Austrian Commercial Code to IFRS accounting, the figures stated here for 2018 are not comparable with the prior-year report.**

Investments in property, plant and equipment primarily related to the expansion of renewable energy generation plants (especially photovoltaic installations), cooling centres, district heating connections and existing installations.

The increase in investments in intangible assets compared with 2018 is attributable to higher capital expenditure for software development as well as rights of use for telecommunications networks. The “KIT” IT project and the digitalisation programme mainly accounted for the higher level of investments than in the prior year.

The decrease in financial investments is attributable to the reallocation in 2018 of cash reserves from the cash pool to the fund WSTW Fonds VI and to securities with a more favourable interest rate.

NON-FINANCIAL PERFORMANCE INDICATORS

PERFORMANCE DATA INCL. PROPORTIONATE EQUITY AMOUNT IN GWH	2019	2018*	±	±%
Calorific production	6,213.6	4,957.4	1,256.1	25.3
Biomass	67.8	97.1	–29.3	–30.1
Water power	766.8	701.5	65.3	9.3
Wind power	332.4	282.8	49.5	17.5
Photovoltaics	17.5	14.2	3.3	23.3
Total electricity production	**7,398.0**	**6,053.1**	**1,345.0**	**22.2**
Power-heat coupling	3,329.2	3,302.0	27.2	0.8
Waste and special waste combustion (our own)	1,374.6	1,336.2	38.3	2.9
High temperature boiler	189.1	362.2	–173.1	–47.8
Geothermal and ambient energy	97.7	5.4	92.3	1.724.1
Heating centres	**239.9**	**227.9**	**11.9**	**5.2**
Biomass power plant	44.8	85.4	–40.5	–47.5
Aquisition waste heat	1,146.8	1.132.7	14.1	1.2
– Network losses	–571.9	–583.5	11.5	–2.0
Sales heating	**5,850.1**	**5,868.3**	**–18.2**	**–0.3**

The calorific electricity production in 2019 was above the amount of the previous year due to the favourable Clean Spark Spread.

The joint enterprise WIEN ENERGIE Bundesforste Biomasse Kraftwerk GmbH & Co KG produced 30.2 % less electricity than in 2018 because the power plant was turned off in the summer, after the tariff funding had expired.

The electricity production from water power was slightly above the amount of the previous year. The determining factor for this was the favourable water conditions in the first half year.

The electricity production from wind power rose by 17.7 % compared to the previous year because the wind conditions were better during the first half year.

The electricity production from solar energy rose by 23.2 % in 2019 compared to the previous year due to numerous photovoltaic systems being put into operation.

The heating degree totals in 2019 were 0.7 % above the value of the previous year. Despite the slightly lower outside temperatures, the district heating sales were reduced. Mostly peak boilers were retracted due to the lower demand. By turning off the biomass power plant, heat extraction decreased.

4. Employees

WIEN ENERGIE GmbH had an average of 2,185 employees (full-time equivalents, excluding trainees and apprentices) in financial year 2019. At the end of 2019, the share of women was 28.7 per cent. A total of 62 people with special needs were employed. The training of a total of 37 apprentices and trainees will safeguard **WIEN ENERGIE's** future needs for specialists in the technical and commercial divisions.

AVERAGE NUMBER OF EMPLOYEES in › FTE	2019	2018	±	±%
Total	**2,184.79**	**2,251.09**	**–66.30**	**–2.95**
Apprentices and trainees	37.16	37.54	–0.38	–1.02

Rounding differences are not adjusted

The personnel policy of **WIEN ENERGIE GmbH** pursues the overriding aim of safeguarding the competitiveness and hence the commercial success of the company. A key element of personnel management is the endeavour to offer all staff an innovative and attractive working environment.

CORPORATE CULTURE

The "Spirit" project launched in 2018 established common rules on cooperation, with the spotlight on executives as multipliers for all staff. This led to the initiation of a cultural development process. Most of the projects were completed in 2019, or will be completed shortly. The topic of diversity was prioritised in 2019 with the launch of programmes for the advancement of women and of female apprentices and trainees in technical professions, for example.

SALES & CUSTOMER SERVICE

In 2019, large numbers of staff worked hard to advance the project entitled "Harmonisation of customer processes & IT (KIT)". On the one hand, KIT focuses on the needs of customers with a uniform customer understanding, a personalised online portal and a demand-driven range of services. On the other hand, KIT modernises employees' world of work: a uniform IT landscape and guided processes accelerate client-centred action.

TRAINING AND EDUCATION

In 2019, employees spent a total of 2,287 days in internal and external professional and personal development training. Numerous internal workshops were also organised.

OCCUPATIONAL HEALTH MANAGEMENT

One of the measures organised in 2019 was a series of campaigns intended to raise awareness among managers and staff of occupational health management issues. At a Health Day, **WIEN ENERGIE's** entire management team discussed in detail not just their own health, but in particular their responsibility in this regard towards employees. The extensive programme included, for example, the topics of nutrition, exercise and stress management. Focus was placed on ergonomic measures, such as height-adjustable tables, swopper chairs and desk bikes. **WIEN ENERGIE** offers weekly sports activities for apprentices and trainees.

5. Environmental and social issues

Vienna still ranks as the world's most liveable city. In the global ranking of the Mercer Study, Vienna held the top spot for the tenth time in a row in 2019. Forecast to have a population of 2.5 million by 2050, Vienna is set to remain one of Europe's most dynamic urban areas. However, this poses major challenges in terms of energy supply, mobility and climate protection. Environmental protection is firmly embedded in WIEN ENERGIE's business model. The company is currently reducing the climate impact by up to 3 million tonnes of CO_2 emissions per year and counting. WIEN ENERGIE therefore relies on innovations in the area of energy supply and continuously strives to increase energy efficiency in all areas.

Sustainability is one of the central pillars of WIEN ENERGIE's corporate strategy. This is based, on the one hand, on the sustainability management of Wiener Stadtwerke, with its annual review and updated sustainability programme signed off on by the Management Board, and, on the other, on an integrated management system (IMS) that covers the aspects of quality management (ISO 9001), environmental protection (ISO 14001/EMAS) and occupational health and safety (OHSAS 18001).

"RENEWABLE ENERGY IN AUSTRIA" 2019

In conducting the representative study entitled "Renewable Energy in Austria", the Vienna University of Economics and Business, the Alpen-Adria University Klagenfurt, Deloitte Austria and WIEN ENERGIE have been investigating Austrians' attitudes to renewable energy annually since 2015. Be it wind power, solar power, hydropower or e-mobility, Austrians speak about the energy transition in very positive terms. However, implementation to date has been sluggish, the authors of the study say. WIEN ENERGIE is helping to raise acceptance of renewable energy in Austria with appropriate initiatives, projects and products. In the field of generation, WIEN ENERGIE is focusing on diversification. This entails:

1. EXPANSION OF ELECTRICITY GENERATED FROM RENEWABLE SOURCES

- **Focus on solar power**
  Solar power is the most suitable form of renewable energy for urban areas. Increased usage of this form of electricity is crucial for achieving the climate targets by 2030. In 2019, WIEN ENERGIE expanded solar power to a greater extent than in the ten years before. Most of the PV systems have been installed on unused roof surfaces.
- **Agri-PV**
  With Austria's first agri-PV installation, WIEN ENERGIE is setting new standards in the design of ground-mounted photovoltaic systems. This innovative concept allows agricultural space to be doubled and used 60 per cent more efficiently. The pilot installation with 60 bifacial (double-sided) vertically mounted modules was put into operation in Guntramsdorf at the end of October 2019.

2. EXPANSION OF DISTRICT HEATING AND COOLING

- **Heat pumps at UNO City**
  WIEN ENERGIE has installed three new heat pump systems in Vienna's UNO City. These use the waste heat generated when the building is cooled and recycle it for use as district heating. As a result, 18,000 megawatt hours can be fed into the district heating grid each year, meeting the annual heating requirements of over 2,400 households.
- **District cooling for residential customers for the first time**
  2019 was the third-warmest year on record. Those who live in cities are more acutely aware of the rising temperatures. Higher temperatures increase demand for air conditioning. WIEN ENERGIE is therefore massively expanding its district cooling capacity, with an annual growth rate of 10 to 15 per cent. The Althan Park residential development was connected to the district cooling centre in Spittelau in summer 2019. Preliminary work on an additional district cooling centre on the Stubenring also began this year.

3. INFRASTRUCTURE EXPANSION AND MORE PRODUCTS AND SERVICES FOR E-MOBILITY

- At the end of 2019, a total of 1,348 charging stations were in operation, compared with 920 in 2018.
- As part of the expansion of the public charging network in Vienna, no fewer than 630 open-access charging points had already been set up by the end of the year.
- In cooperation with Vienna International Airport, WIEN ENERGIE is testing the world's first charging station with flywheel mass storage technology. Although the mains connection at the charging station is only 40 kilowatts, the innovative movement storage system makes it possible to charge an electric vehicle at up to 100 kilowatts, completing the process in just 20 minutes.

A comprehensive list of environmental measures can be found in the 2019 EMAS-certified environmental statement on WIEN ENERGIE's power and heat generation plants.

OMBUDSMAN OFFICE FOR CUSTOMERS EXPERIENCING SOCIAL HARDSHIP

WIEN ENERGIE is aware of its responsibility to the people living in the Greater Vienna metropolitan area. Since 2011, a special team at WIEN ENERGIE has therefore been involved in helping out in specific cases to ensure a sustainable energy supply for customers who are facing social hardship. Thanks to the close cooperation with welfare institutions such as the MA 40 municipal department and Fonds Soziales Wien, solutions tailored to each individual case can be found. WIEN ENERGIE's ombudsman office has handled over 21,000 enquiries and successfully assisted 14,500 households over the past eight years. In fact, around 70 per cent of the amounts owed have already been collected without having to involve the courts. In view of the high costs arising from protracted lawsuits or defaults in payment, this has not only social but also financial benefits.

6. Research and innovation issues

In order to be ideally prepared to meet the challenges associated with the fundamental transition taking place in European energy markets, WIEN ENERGIE is involved in a range of different research and development projects. Alongside the integration of renewable energy sources into Vienna's energy system, strong focus is being placed on digitalisation, innovation and the implementation of new business models.

INNOVATION CHALLENGE

The WIEN ENERGIE Innovation Challenge is part of an initiative to develop new energy solutions and took place in 2019 for the fourth time. The overarching topic chosen was "Smart City" with the focus on mobility, infrastructure and logistics. The challenge centred on the ecosystem concept and in 2019, had an even broader base than in preceding years. For this reason, not only international start-ups were approached this time, but also other Wiener Stadtwerke companies as well as medium-sized and large companies. Four teams made it to the next round and have until spring 2020 to work on their innovative solutions. Initial prototypes will be built and business models developed to be presented to a panel of prominent experts in the finals.

SMART MOBILITY PROTOTYPING DAYS

At the Smart Mobility Prototyping Days, WIEN ENERGIE along with Upstream Mobility approached start-ups and developers. Solutions were designed with which customers can use the value equivalent to the power generated by their own PV installation to charge their electric vehicle at WIEN ENERGIE's EV charging stations. Features developed at the Smart Mobility Prototyping Days are being incorporated into the new WIEN ENERGIE charging app.

SMARTWORKS

The establishment of Smartworks Innovation GmbH & Co KG in 2019 will allow WIEN ENERGIE to acquire direct investments in strategically promising start-ups in the future. For this, global technology developments outside of the core business will be harnessed for use in the domestic market and strategic white spaces will be developed. The aim is to participate in relevant market and technology developments through an investment and to be able to shape the future of our own industry through early identification of disruptive technologies.

WEXELERATE

weXelerate is the start-up hub for Central Europe. Here, 100 of Europe's best start-ups come into contact with established companies every year on an area covering nearly 9,000 square metres. Focal topics are energy and infrastructure, Industry 4.0, media, insurance undertakings and credit institutions, as well as cross-industry technologies such as the Internet of Things, artificial intelligence, mobility, bots, blockchain and cyber security. WIEN ENERGIE is a partner from the outset. Five employees who are "entrepreneurs in residence" are continuing to work on the smart drone project and act as an interface between WIEN ENERGIE and the start-ups. In addition, numerous projects have already been implemented with promising start-ups.

ENERGY & STRATEGY THINK TANK AT THE VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS

The Energy & Strategy Think Tank at the Vienna University of Economics and Business (WU), part of the Institute for Strategic Management, was founded as a knowledge network in order to identify industry trends and to gather insights into strategic issues related to the energy sector. This think tank was established in early 2013 as a partnership with OMV AG. In 2017, WIEN ENERGIE joined this network aimed at exploring and developing innovations and disruptive business models. Common goals of this collaboration between the WU, OMV and WIEN ENERGIE are to promote research, educate students and facilitate the exchange of knowledge between national and international experts and research institutes as well as exchanges between scientists and practitioners in the energy sector.

ASPERN SMART CITY RESEARCH (ASCR) PROJECT

Aspern Smart City Research (ASCR) is implementing one of Europe's most innovative and sustainable energy efficiency demonstration projects. In addition to the size and constellation of the research company, its integrative approach is particularly remarkable. Rather than individual elements of the energy system, complex relationships are researched using real data. The research company was set up in 2013 by Siemens, WIEN ENERGIE, Wiener Netze and the City of Vienna (Wirtschaftsagentur Wien and Wien 3420). Technical solutions for the future of energy are being developed in this joint venture. The project is being implemented with participating consumers right in the middle of a new urban district. In 2018, a decision was made to extend the research cooperation. Focal points for the next phase of ASCR 2023 are further smart connectivity of buildings, grids and markets, in-depth research into use of exhaust air from heating for space cooling and, last but not least, smart charging of electric vehicles and their use as energy storage units.

URBAN PIONEERS COMMUNITY IN VIERTEL ZWEI

At the Viertel Zwei urban development area, WIEN ENERGIE will be working alongside the residents of around 300 apartments in the coming years to jointly research, test and develop concepts for urban life in a digitalised future. The focus is on practical deployment of new technologies such as blockchain and fibre optics as well as new contractual arrangements such as an energy flat rate. The residents decide how the innovative ideas will be implemented. This is effectively making partners of WIEN ENERGIE's customers. All of these urban pioneers can have their say in the course of various workshops, surveys and by other means. Last year, WIEN ENERGIE set up one of Europe's first energy communities. A local energy storage system is now optimising use of the locally generated electricity for residents.

MODEL REGION: NEW GREEN ENERGY LAB COMBINES INNOVATIVE APPROACHES FOR A FULLY RENEWABLE ENERGY SUPPLY

This project (Vorzeigeregionen Energie) is Austria's largest national innovation project for green energy to date and aims to define benchmarks for energy and mobility in the future. The Green Energy Lab is the biggest of the three model regions and extends across the federal states of Vienna, Lower Austria, Burgenland and Styria. The objective is to concentrate existing technologies, enrich these with innovative ideas and develop sustainable energy solutions. The content is varied and ranges from the decoupling of

generation and consumption to energy storage and the use of new technologies for achieving efficiency increases and reducing emissions. Through the access to the core market of the energy supply companies from the participating federal states with around five million consumers, innovations can be tested on a large scale under the umbrella of the Green Energy Lab. The intention is to accelerate the launch of new technologies, products and services. With its renewable energy producers and experts as well as a sharp differentiation between urban and rural areas, the east of Austria offers a test bed that is unique in Europe. Some of the areas **WIEN ENERGIE** is researching are the use of latent energy from flue gas using a high-temperature heat pump (Vienna High Temperature Heat Pump Spittelau project) and the development of the district heating network of tomorrow (ThermaFLEX project).

7. Internal control and risk management system

At WIEN ENERGIE, a comprehensive risk management system has been introduced that enables opportunities and risks to be identified at an early stage. Risks and opportunities are defined as the possibility of negative and positive deviations from expected outcomes. The internal control system (ICS) comprises all measures to ensure the reliability, effectiveness and efficiency of material processes. Compliance relates to respecting both internal and external rules. The Internal Audit department audits the execution of business processes as well as the internal control and risk management system in accordance with an annual audit programme approved by management.

The risk management process follows the internationally recognised standards of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The ongoing identification, recording and assessment of risks forms the basis for regular risk reporting. A distinction is generally made between qualitative and quantitative risks. Quantitative risks are included in the financial reporting (integrated reporting). For financial performance indicators that are significant for future development, the risk management function develops ranges in the form of confidence intervals and presents them in the financial reporting. A key objective is ensuring the ability of the company to bear risk. A risk and opportunity review is performed every year, i.e. a comparison is performed of the original assessment of risks and opportunities with the actual outcomes. The resulting findings are then used to update the risk catalogue, which provides a basis for the corporate planning. The discussion and coordination of the most important opportunities and risks are also included in the annual business planning meeting. The aim is to identify, based on a holistic view, which opportunities and risks can be anticipated in the future and take these into account in corporate planning. Measures are developed from this and monitoring in the corresponding planned items is strengthened.
A risk controller function, established within the company, is responsible for ensuring compliance with the risk management process depicted. This position reports regularly and directly to the relevant management team, which in turn reports to the Management Board of the Wiener Stadtwerke Group.

WIEN ENERGIE's risk landscape is broken down into seven risk groups. The main risks in the various risk groups are the following:

Plant and operational safety: Mitigation of risk by means of regular maintenance and investment programmes, compliance with strict technical standards and crisis management
The very high level of reliability of WIEN ENERGIE's technical infrastructure is ensured through compliance with strict technical standards and performance of routine maintenance and inspections as well as safety inspections. Wherever economically viable, this entails in-built redundancy in critical areas. Equipment-related expenditures are subject to volatility, particularly when unforeseen events occur. In addition, WIEN ENERGIE also has extensive insurance cover with corresponding insurance management. Since the safety of its employees, customers and third parties has priority, occupational safety, fire and environmental protection are of particular importance to WIEN ENERGIE. In terms of new investments, particularly in forward-looking technologies,

project shifts may arise due to market conditions and other factors. Appropriate crisis management plans and corresponding organisational structures are in place to deal with any crises which may arise.

Finance, equity investments and asset valuation: Actively controlled by Treasury, Investment Management and Asset Management

This risk group includes those risks associated with short-term and long-term investments. Short-term working capital is optimised by a group-wide cash-pooling scheme. The long-term financial investment strategy is conservative in nature and is carried out in close cooperation with WIENER STADTWERKEN. Comprehensive group-level policies regulate the procedure and help mitigate risks. The use of letters of comfort and declarations of liability is regulated in a separate company policy. The risk of end customers defaulting on amounts owed is mitigated by means of constantly monitoring outstanding amounts and a multi-level dunning procedure. WIEN ENERGIE is involved in both domestic and selected international projects and undertakings. A policy document governs the handling of investments and serves to minimise risks. Representatives from WIEN ENERGIE diligently perform their supervisory obligations with respect to investments. The intrinsic value of investments is constantly monitored. Impairments of non-current assets and their reversal can have a significant impact on the key performance indicators.

IT risks: Mitigation of risk through an information security management system

The potential negative impacts of individual technical services, control systems and office IT services for each core process are evaluated by means of a business impact analysis in terms of confidentiality, integrity and availability. In the information security management system (ISMS), risks are periodically evaluated and necessary countermeasures are identified, technical security reviews and organisational measures are carried out on an ongoing basis and employees are trained with regard to the protection of personal data.

Market and procurement: Mitigation of risk through an attractive market presence and hedging transactions

WIEN ENERGIE mitigates price and competition-related risks in connection with sales activities by developing new products and services, optimising its sales structures, improving its market presence and entering into partnerships and collaborations. Risks associated with value drivers such as oil, gas, electricity and CO_2 prices affect the core business and can have a major impact on earnings. These price-related risks are mitigated by means of forward transactions and derivative financial instruments such as futures, swaps and supply contracts with performance options, etc. These instruments are used exclusively to hedge risks. Sufficient reserves of fuel are available. Temperature fluctuations cause a rise or drop in heating sales. A sophisticated portfolio management system constantly monitors market events and optimises energy production accordingly. The intrinsic value of supply contracts is continuously monitored. Counterparties in the energy sector are evaluated and subjected to monitoring and the potential risk is capped by means of a system of limits. Income from the disposal of hazardous waste fluctuates depending on market conditions, among other things.

Personnel and organisation: Monitoring factors influencing personnel expenses

Changes in external circumstances (e. g. legislation and interest rates) in particular can lead to deviations from forecast personnel expenses (e. g. changes related to pension provisions) and have a significant impact on WIEN ENERGIE's key performance indicators. The most important influencing factors are continuously monitored.

Law and data protection: Mitigation of risk by means of organisational and procedural measures

When dealing with sensitive legal issues, organisational and procedural measures, such as training, organisational guidelines, standard operating procedures, manuals and compliance policies, are implemented. Compliance-relevant risks are identified, assessed and evaluated separately by means of a dedicated risk analysis under the compliance management system as a means of developing appropriate risk mitigation action plans.

Strategy and environment: Mitigation of risk by means of continuous market monitoring and a comprehensive strategy process

Underlying political and legal conditions and the market environment can have a considerable impact on commercial success. These factors are continuously monitored to identify risks as early as possible and to react accordingly. Investment decisions taken by WIEN ENERGIE, sometimes involving external experts, aim to provide a realistic assessment of long-term market developments. The corporate strategy is a critical success factor for future commercial success. This strategy is therefore regularly reviewed.

The ICS mainly encompasses all process-related controlling mechanisms in the company and ensures that all material risks associated with all relevant business processes are systematically analysed, recorded and mitigated by means of regular checks, and that important documentation and responsibilities are transparently recorded and stored. The minimum standards for the ICS are laid down in a group-level policy document that also clearly defines roles and responsibilities within the ICS process. Compliance with all the relevant legal requirements is monitored and checked. The reliability of financial reporting is ensured. The accounting process is regulated by group-wide policies and regulations. A regular reporting obligation to management teams as well as the ICS coordinator at the Wiener Stadtwerke group ensures that the ICS is implemented as intended. The ICS continues to be developed by coordination bodies with the involvement of Wiener Stadtwerke GmbH as well as the risk management and compliance departments.

SUMMARY

As of 31 December 2019, WIEN ENERGIE is not aware of any risks that, either independently or in combination with other factors, could represent a risk or risks to the company's continued existence as an going concern.
By implementing a joint market access for the sales and production areas, synergies can be availed of. Also, all relevant risks for WIEN ENERGIE and Wien Energie Vertrieb GmbH in the area of trading (such as market liquidity risk and counterparty risk) can be centrally steered and controlled at WIEN ENERGIE.

8. Outlook

ENVIRONMENT AND GENERAL CONDITIONS

The European energy market will continue to be influenced by digitalisation, price volatility and increasing competition in 2020. In addition, decarbonisation and, associated with this, the achievement of the goals defined by the energy and climate strategies of the EU, Austria and the City of Vienna will also be major factors influencing **WIEN ENERGIE's** business operations.
The rate at which Vienna continues to grow is an important factor of influence. The population of Vienna is set to continue rising sharply in the period to 2030. New urban districts will be created, and e-mobility, car-sharing, bicycles and public transport will all be used more intensively. This is why the issues of energy, mobility and carbon neutrality are also central to Vienna's smart city strategy.
WIEN ENERGIE will make an important contribution to achieving these goals. The company will be able to sustainably benefit from urban growth through its active involvement in shaping urban development. This is why major investments in renewables, security of supply, innovation and e-mobility, as well as information and communication technologies, will continue in the years ahead. The aim here is to ensure, in international comparisons, that Vienna remains an attractive, clean and green city offering a high standard of living and quality of work.

VIENNA IS BECOMING A SOLAR ENERGY CITY

WIEN ENERGIE is Austria's largest solar power operator. The aim is to maintain and consolidate this position in the coming years. That is why a key focus of investment is on the expansion of photovoltaic installations. Other priorities include the construction of wind farms and the expansion of hydropower.
WIEN ENERGIE will increase its solar power capacity to 600 megawatts by 2030. With a total of 20,000 solar collectors on Vienna's roofs, solar power, in addition to wind and hydropower, will become the most important source of energy and will make **WIEN ENERGIE** synonymous with solar power.
The aim here is for these efforts not only to ensure security of supply in a growing city, but also to increase the share of electricity generated with renewables. The goal is to produce at least 35 per cent of electricity and at least 40 per cent of heating from renewable sources by 2030.

INNOVATION AS A DRIVING FORCE

WIEN ENERGIE will continue to develop in the direction of a service provider and, to this end, will exploit the opportunities offered by innovation and digitalisation. The company's digitalisation strategy ensures that communication with customers takes place via numerous digital channels and makes it possible to provide them with an end-to-end purchasing and service experience. The goal is to also bring out emotional, bundled and innovative products and services in the coming years so as to promote long-term customer loyalty. This will require **WIEN ENERGIE** to invest in collaborations with strategic partners, start-ups and industry newcomers.
In addition, the research and innovation projects ASCR 2.0 and the Urban Pioneers Community in Viertel Zwei are testing efficient, innovative and, above

all, customer-oriented energy solutions. It is against this backdrop that, among other things, innovative technologies (e. g. blockchain) will be tested and competitive advantages established in the future.

TELECOMMUNICATIONS AND E-MOBILITY FOR THE FUTURE

WIEN ENERGIE firmly believes that energy, telecommunications and mobility will coalesce to form a common infrastructure. For this reason, in the coming years the company will not only upgrade its infrastructure to handle the energy transition but will also invest heavily in e-mobility and its fibre-optic network.

In the area of telecommunications, WIEN ENERGIE will continue to accelerate the expansion of its infrastructure to encompass new urban development areas and increase the density of its fibre-optic network. In the interest of providing a comprehensive range of products, the company will also offer new products and services related to information and communication technology to corporate and residential customers in the coming years.

Electric mobility is another area in which WIEN ENERGIE can grow in the future. The company sees itself as a pioneer here by systematically pressing ahead with the expansion of the infrastructure of EV charging stations in 2020. A total of 1,000 EV charging stations will be in place in all 23 districts of Vienna by the end of the year. Together with Wiener Stadtwerke, the company is also working on a holistic mobility concept. This entails developing new services related to e-mobility and drafting implementation concepts.

#1 HEAT PROVIDER

The annual demand in Vienna for new systems in the low-temperature heating market is projected to be 260 megawatts per year. This includes systems for new builds as well as replacement investments for existing buildings. WIEN ENERGIE aims to be the market leader in its core segment (excluding gas floor-heating systems and single-family homes).

Heat production will become more decentralised in the near future. Energy will increasingly be tapped from local-level sources, such as geothermal and heat pumps, and fed into the existing grid. The existing well-developed district heating network provides the opportunity to concentrate supply. This makes it possible to acquire new customers with low investment. By the same token, the supply of cooling will also be increased. WIEN ENERGIE will increase its total installed output to 200 megawatts by 2020. In the next five years, the company plans to invest around EUR 65 million in the expansion of district cooling. Construction is due to begin in 2020 on a new district cooling centre in Vienna's 1st district on the Stubenring that will deliver cooling from April 2021.

CONCLUSION

WIEN ENERGIE is continuing to evolve and grow. As Austria's largest energy services provider, the company centres its activities on its customers, wins them over with its expertise and meets the challenges of the new market with entrepreneurial foresight. Going forward, WIEN ENERGIE is expected to continue to generate a stable, high level of net income that will lead to a steady increase in the equity ratio over the coming years as a basis for the projected growth.

Its clear customer focus combined with an agile and process-oriented organisational structure will enable the company to respond rapidly and flexibly to changing customer demands in the future as well. The focus on innovation and digitalisation, as well as the exploitation of new technologies, will help WIEN ENERGIE to achieve its defined targets in the areas of renewable energy, security of supply, e-mobility and telecommunications. With its stable, broad customer base, WIEN ENERGIE boasts a strong regional presence and has a crucial competitive advantage in the Greater Vienna area; services such as electricity, gas, heating and cooling, but also e-mobility and telecommunications are offered from a single source along with personalised advice. This will enable the company to remain competitive in a hard-fought market and make a key contribution through its products and services, ensuring that Vienna remains the world's most liveable city.

The Corona virus outbreak (COVID-19) and the connected containment measures are expected to compromise global economic development, lead to depressed and volatile financial and commodity markets and have a corresponding impact on the economic situation. Possible consequences for Wien Energie GmbH are currently not reliably rateable and therefore not included in the above outlook.

Vienna, April 2020

For the Management Board:
Dipl.-Ing. Mag. Michael Strebl e. h.
Dipl.-Ing. Karl Gruber e. h.

WIEN ENERGIE,
A PARTNER OF
ENERGIEALLIANZ AUSTRIA.

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Mo–Fr: 7.30 a.m.–6.00 p.m.
0800 500 700 (Heat)
Mo–Fr: 7.30 a.m.–4.00 p.m.

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