

Annual Report 2019



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Actively tackling the challenges of the energy future



Adrian Bult



Yves Zurwald

Dear readers,

In 1958, the German, French and Swiss transmission grids were connected in Laufenburg am Rhein to form the “Star of Laufenburg” switching substation, marking the birth of European grid operations. Since then, the transmission grid has continued expanding in line with the use of electrical energy. Today, it extends across 30 countries and guarantees the supply of electricity to over 530 million people. It is this close network that makes secure grid operations possible in Europe.

Following a long period of stability, the electricity industry has changed rapidly in the past 20 years. Its fundamental transformation was triggered by the EU’s decision to liberalise the electricity markets. This liberalisation made electricity trading much more dynamic. For transmission system operators, the challenge is to make as much capacity as possible available for trade.

This change of circumstances has brought about an additional challenge for Swissgrid: the company now has only minimal influence on developments in the European electricity market, which also affects its ability to represent the country’s interests. Switzerland has always been an important partner to the European electricity sector. For example, as a founding member of ENTSO-E, the European Network of Transmission System Operators, Swissgrid made a contribution to establishing the inter-connected grid. Today, the country has close physical ties with Europe, with over 40 cross-border lines. However, a legal basis for cooperating with its partners in Europe – an electricity agreement – does not exist. Swiss and EU legislators are also drifting further and further apart. In contrast to Switzerland, the EU has consistently pursued the liberalisation and development of the internal electricity market.

As a consequence, Switzerland is unable to participate in the linked electricity markets, among other things, and is therefore also not considered in the European calculation of cross-border capacities that are available for electricity trading. This lack of involvement has a negative effect on grid operations: unscheduled electricity flows place a strain on the Swiss grid. To improve the situation, Swissgrid has significantly increased its involvement in the European committees and achieved some initial negotiating success in 2019. In close cooperation with the Swiss Federal Electricity Commission (EiCom), Swissgrid has been able to include a “Switzerland clause” in the new Synchronous Area Framework Agreement reached by the transmission system operators regarding collaboration on operational management. At the same time, the EU Commission and ACER, the Agency for the Cooperation of Energy Regulators, affirmed that Switzerland plays an important role in ensuring grid security in Europe and that cooperation at a technical level is welcome. This makes it possible for Swissgrid to open negotiations with the transmission system operators, which are pooled into capacity calculation regions, in order to participate in future cross-border coordination processes.

However, these important advancements should not blind us to the fact that Switzerland’s role in the European electricity market is unclear, and that it will become even less clear with the expansion and completion of the internal electricity market. Besides this, Swissgrid is also reaching the limits of the action it can take with the available technical solutions. Questions concerning the applicable laws, liability, dispute resolution and payment of costs are a constant feature of contract negotiations. These could be clarified by an overarching legal framework, an electricity agreement. In this respect, Swissgrid sees a need for action at the political level and by authorities to avert significant negative consequences for grid security and security of supply in the mid-term.

The liberalisation of the electricity markets did not just alter Europe’s trading conditions, it also paved the way for another radical change: energy reform. Liberalisation lowered the hurdles for new providers and therefore enabled the transition away from conventional towards renewable energy production. These fundamental changes in the generation structure place new demands on the traditional transmission grids, and therefore on the grid operators.

As part of its Strategy 2022, Swissgrid reorganised the business areas to make the company even more efficient and professional. Market and grid operations were bundled together to form the “Market” business unit, while the “Grid Infrastructure” business unit turned its focus to upgrading, expanding and maintaining the grid. In 2019, Swissgrid defined clear processes between market and grid operations, consistently advanced the development of its market products and introduced a new business model in plant management, among other things. Adrian Häslar, the new Head of “Grid Infrastructure”, took his seat on the Executive Board in April 2019.

As the national grid company, Swissgrid makes an important contribution to the security of supply. The company’s objective is to help shape the transformation of the European and Swiss energy system, as this is the only way to ensure that it can continue to deliver on its mandate in future.

Adrian Bult
Chairman of the Board
of Directors

Yves Zumwald
CEO

Year in review

2018 saw Swissgrid lay the foundation for its future development with a move to the new head office in Aarau and the launch of Strategy 2022. Over the past year, the company has focused entirely on implementation of this strategy. It has made great progress, particularly in the area of safety.

The company pursues an integrated approach to its safety policy, which enables specific technical safety topics to be aligned and associated synergies captured. In 2019, Swissgrid created the new role of Chief Safety & Security Officer to perform this task. Each of the existing domains of “physical safety”, “occupational safety”, “health, safety and environmental protection”, “information security” and “business continuity management” now has its own strategy. At the same time, Swissgrid introduced the new domain of “operational security”, which is focused on reliable grid operation. The company also implemented measures relating to “cyber security”, such as a campaign to raise awareness amongst employees.

As the owner and operator of critical infrastructure in Switzerland, Swissgrid strives to maintain a high level of security. The protection of plants, systems and data is absolutely critical to ensure the reliable operation of the transmission grid. This is all the more important as Swissgrid looks back on a challenging year in grid operation.

Temporary strain on grid operation in Switzerland and abroad

Transmission grid availability was very high in the year under review, despite short disruptions to supply around the municipalities of Fiesch, Scuol and Gondo. But 2019 was characterised by several periods of grid operations under strain, especially in the summer. A large number of line inspections are carried out at this time of year while, at the same time, Switzerland recorded very high domestic production as well as a high export volume along Switzerland’s northern border. Swissgrid was forced to temporarily restrict export capacities on the cross-border lines to Germany as a means to restore secure grid operation.

A similar situation on 20 May 2019 led to a grid security violation. High domestic production and high exports, especially to Germany, combined with unusually low exports to Italy and imports from France, led to unfavourable load flows for the transmission grid on the 220 kV lines. This was exacerbated by a sudden increase in production and load shifts due to topological measures in the transmission and distribution grid. These factors combined led to the overloading of a grid element as well as high n-1 violations. The grid element violations were not detected in time using the forecast tools, as the distribution grid is not mapped in the grid models and the production increase occurred too suddenly. Swissgrid was able to employ redispatch and other measures to rectify the overload and reduce the n-1 violations.

However, critical grid situations were an issue across the entire European grid, not just in Switzerland: on 10 January 2019, the European grid experienced its largest frequency deviation in 13 years. According to the investigation report released by ENTSO-E, the European Network of Transmission System Operators, this was caused by two incidents occurring simultaneously: a deterministic,

i.e. expected, frequency deviation due to hourly-based electricity trading as well as a measurement error on four lines between Germany and Austria. Thanks to the use of control energy and load shedding by the French transmission system operator’s large industrial consumers, the grid frequency was successfully normalised. However, ENTSO-E will review measures aimed at minimising these deterministic frequency deviations.

Germany reported several critical situations in the transmission grid in June caused by a major system imbalance. The German transmission system owners were able to restore balance through the use of domestic and international control energy. The Federal Network Agency applied for proceedings to be launched against six electricity producers and traders, as it suspected that their conduct was a contributing factor in this system imbalance.

These incidents highlight the increasing complexity of the work in grid control rooms. Swissgrid has set itself the goal of always being prepared for unusual situations in grid operation. To make sure that this is the case, the company relies on the latest information and communication technologies in the field of “business continuity management”, among others.

Ready for any emergency with two grid control rooms

Swissgrid equipped the grid control room in Prilly with the technology to ensure that, in an emergency, its operators can take over all functions from the control centre in Aarau. At the same time, the company constructed two georedundant data centres that hold the entire IT infrastructure, including all the critical applications for grid operation. Swissgrid also transferred the IT infrastructure, which was previously located in the old head office in Laufenburg, to these new data centres. Their removal marked the end of an era: the old grid control system, with which Swissgrid ensured grid operations for 20 years, is now switched off. The new system has been operating successfully since the end of 2018.

Swissgrid not only uses new technologies for grid operation – it also uses them in other business areas. In 2019, the company started developing a new geoinformation system (GIS), the central platform for analysing and displaying georeferenced data and information about the Swiss transmission grid. The system will be used in grid operation and in plant management as well as for vegetation and easement management, among other things. In future, the new GIS will be available as a mobile and 3D version, which will enable more flexible use and better visualisation of information.

These kinds of applications are an important basis for efficient plant management. The upgrading, expansion and maintenance of the Swiss transmission grid is Swissgrid’s number one priority. In 2015, the company defined its priority projects through “Strategic Grid 2025”.

Ongoing development of plant management – capacities expanded

With Strategy 2022, Swissgrid reinforced its ambition to advance grid modernisation and expansion. To this end, the company established the “Grid Infrastructure” business unit, which has been managed by Adrian Häsler, former Head of “Grid Delivery”, since April. This business unit is focused exclusively on plant management: for instance, in 2019 the company significantly expanded capacities by hiring over 30 new recruits for project planning, supervision of local construction and the area of substation automation systems (SAS), involving protection and station control technology. In future, Swissgrid wants to control all SAS services and perform all core SAS tasks itself. It is essential for us to continue developing plant management given that the past few years have shown mixed results in our grid projects. This was also the case in the year under review: a number of important construction projects progressed swiftly, but for many projects, approval and legal procedures are still pending.

Major maintenance work complete – project progress in Valais and Aargau

In the year under review, Swissgrid completed maintenance work on the damaged 380 kV lines in the Albula Pass. In 2018, gale-force winds brought down four overhead line pylons. Operations successfully resumed along the two affected connections, Filisur – Robbia and Pradella – Robbia – Sils on the important north-south axis, in mid-July as scheduled.

Swissgrid also made progress on grid projects in Valais, which are important for transporting hydropower to the consumption centres of the Arc Lémanique and the Swiss Plateau: Swissgrid brought the 380 kV line between Ernen and Ulrichen online in mid-October. The company will start construction of the new 380 kV line between Mörel and Ernen in 2021 now that the Federal Administrative Court has approved the plans. Construction on the important line section between Chamoson and Chippis is also well underway. Work on the Nant de Drance grid connection is nearing completion. The pumped storage power plant is already connected to the transmission grid.

Construction on the first section of underground cabling for the “Gäbihübel” 380 kV grid in the municipality of Bözberg is also progressing rapidly: the company drew 12 underground cables, each weighing 30 tonnes, into the cable conduits and constructed the two transition structures for connection to the new overhead line sections. This project is important for energy distribution and security of supply in Zurich, in central Switzerland and in the Swiss Plateau.

Swissgrid is supporting the large-scale and lengthy construction projects with numerous communication activities. It provided

information about the construction projects in Valais at the Foire du Valais trade fair in Martigny, as well as the Vifra trade fair in Visp. The company opened a visitors centre exploring the underground cable project in Bözberg in September 2019.

Switchgear and transformers – important elements in the “Strategic Grid 2025”

“Strategic Grid 2025” considers the expansion of lines as well as switching substations. In 2019, Swissgrid continued with the installation of modern, gas-insulated switchgear in the Innertkirchen and Regensdorf substations. Gas-insulated switchgear is much more compact than outdoor switching substations and takes up only a fraction of the space.

“Strategic Grid 2025” provides for additional transformer capacities so that Switzerland can import more energy in future, especially during the winter months when domestic production is unable to keep up with demand. Swissgrid was able to bring new transformers online in the Chippis, Bassecourt and Laufenburg substations. Construction of the transformer in Mühleberg will be completed in 2020.

Numerous grid projects in approval processes and legal proceedings

The voltage increase along the line between Bassecourt and Mühleberg, approved by the Swiss Federal Office of Energy, is currently the subject of proceedings before the Federal Administrative Court. This increase enables additional imports, which are necessary due to the shutdown of the Mühleberg nuclear power plant, if this is not offset by domestic production. This is particularly important in winter, when Switzerland is reliant on additional energy imports.

In 2019, Swissgrid publicly disclosed two projects as part of the planning approval procedure: It needs to modify a line in Grisons, between Pradella and La Punt, which is already under construction. A recalculation of the structural analysis of the pylons indicated that 50 pylons need to be replaced rather than reinforced. In Valais, the company is planning to increase the voltage in the existing line between Chippis and Mörel, which will be fed along a new route. It is already providing transparent information on the construction projects at this early stage: before its public disclosure of the projects, the company invited the general public to an information event.

In November, Swissgrid, together with the Swiss Federal Office of Energy, held a large event on the project between Niederwil and Obfelden. This is currently passing through the federal government’s sectoral plan process, during which the planning areas and suitable corridor variants are determined. The planned construction of a new 380 kV line is expected to take place as an under-

ground cable section, and will secure energy supply in the Aargau West region and in the Zurich and Zug metropolitan areas.

Efficient use of existing grid capacity

Swissgrid is not just focused on modernising the grid to ensure the reliable transmission of energy, it is also interested in market development. This is another area of focus in Strategy 2022: further developments in relevant markets as well as product innovations to help ensure the optimal utilisation of existing line capacities. This also helps the grid operator fulfil its mandate.

One such success story is the market for control energy: together with the transmission system operators 50Hertz, Amprion, APG, Elia, RTE, TransnetBW and TenneT, Swissgrid switched from weekly to daily procurement in the largest market for primary control energy and introduced a new remuneration system. These innovations give Swissgrid access to more providers of control energy and help it reduce procurement costs.

In the year under review, Swissgrid created better access to the Italian electricity market for Swiss traders. Together with the Italian transmission system operator Terna and power exchanges EPEX SPOT and GME, the company introduced a linked intra-day market at the border between Switzerland and Italy. Electricity traders can now automatically benefit from supply and demand on the Italian market without having to purchase cross-border capacity at auction. At the same time, better use is made of the available border capacity.

In 2019, Swissgrid succeeded in improving schedule management processes. Electricity traders and power plant producers – called balance groups – send all their trading activities to the grid control room on schedules. Swissgrid works with the neighbouring control rooms to check whether the cross-border lines can transmit the traded quantities to the balance groups. Swissgrid has standardised, accelerated and automated the process with foreign transmission system operators, thereby increasing security in grid operations.

In terms of voltage maintenance, Swissgrid introduced a new concept from 1 January 2020. Voltage maintenance takes place using reactive power, which is provided by the power plants, distribution system operators and end customers connected to the grid. Swissgrid has adjusted the remuneration model so that all participants receive financial incentives to support voltage maintenance in the transmission grid. At the same time, the company also improved the voltage maintenance process. Since mid-2019, the plan containing target voltages is updated and sent to the partners several times each day. This means that Swissgrid can use more current data to calculate the voltage plans and increase the quality of its forecasts, which leads to more efficient grid operation.

Besides the voltage maintenance concept, Swissgrid is working with the industry on another important document: the Transmission Code. This industry document governs the technical interfaces between Swissgrid and the distribution system and power plant operators, as well as the balance groups and providers of ancillary services. The revisions have primarily been driven by the changes in national regulations and new regulations from the EU, known as network codes.

Basis for cooperation in Europe established – challenges remain

Cooperation in Europe remained one of the company's major challenges in 2019. The network codes are implemented by the EU as part of the implementation of a European internal electricity market. They define and standardise numerous regulations for Europe's entire electricity grid, including the transmission system operators' international projects. The lack of any electricity agreement means that Swissgrid is increasingly excluded from these projects. For instance, Switzerland is not able to participate in the flow-based day-ahead and intra-day markets. It is therefore not part of the capacity calculation regions (CCR) and is not considered in the calculation of the border capacities provided for these electricity markets. This results in an increase in unscheduled flows through Switzerland – with negative consequences for grid security.

As a result, in Strategy 2022, Swissgrid focused on intensifying its committee work in Switzerland and Europe, and was able to register an important success in 2019: with the support of the Swiss Federal Electricity Commission (EiCom), Swissgrid was able to include a "Switzerland clause" in the new Synchronous Area Framework Agreement (SAFA) between Europe's transmission system operators. The company now has the opportunity to negotiate contracts with CCR members and participate in the calculation of cross-border capacities in future. To minimise unscheduled flows through the Swiss transmission grid, especially in winter, Swissgrid concluded an expanded agreement concerning redispatch measures with the German and French transmission system operators.

However, numerous uncertainties remain as regards cooperation in Europe: for instance, Swissgrid's access to important control energy partnerships is still at risk. The company is able to participate in the market for primary control energy, but a final agreement on participation in partnerships, such as TERRE, MARI or PICASSO, has still not been reached. The year under review also saw the introduction of the EU's Clean Energy Package, which provides for the establishment of Regional Coordination Centres (RCC). These RCC will coordinate part of grid operations in future. It is unlikely that Swissgrid will have the opportunity to represent Switzerland's interests as part of an RCC. The package also specifies that transmission system operators need to maximise the border

capacity made available to the electricity market and must increase this to at least 70 per cent. As a result, Swissgrid expects even more unscheduled flows in the Swiss grid, higher costs for redispatch, and restrictions on the import capacity available to Switzerland in future. This situation will be exacerbated by the expansion of the flow-based day-ahead market to other EU member states, which is scheduled to happen by 2024. Swissgrid will therefore continue to seek technical solutions with the European committees.

Influencing the overall context in Switzerland

In 2019, Swissgrid not only got involved in matters relating to changes in legal frameworks in Europe, but also to those in Switzerland. For example, the company drafted a statement on the revision of the Electricity Supply Act (StromVG), the consultation process for which finished at the end of January. This second step, towards deregulation, creates environment that encourages innovations, which will also benefit the transmission grid. The company is critical of the concept of a strategic reserve as set out in the draft legislation, since questions still exist concerning its design and effectiveness, among other things. In addition, Swissgrid would have to assume operational responsibility for the strategic reserve – a new role that would go beyond its current legal mandate and which the company therefore rejects.

Grid transfer almost finalised – bonds issued on the capital market

The Electricity Supply Act is the main legal basis for Swissgrid. The Act stipulates the founding of the national grid company, its mandate and responsibilities, as well as the takeover of the transmission grids from the previous owners. Swissgrid completed the majority of the grid transfer in 2013. In the years since, the company has continued to take over additional plants belonging to the transmission grid, as was also the case in 2019.

At the start of 2019, Swissgrid took over additional grid infrastructure valued at CHF 26.2 million. This allowed Swissgrid to come close to finalising the transfer of the transmission grids. Swissgrid remunerates the previous owners 30% in Swissgrid shares and 70% with a loan. To refinance part of this loan, Swissgrid placed bonds on the capital market in 2013 and 2015. Swissgrid issued more bonds totalling CHF 425 million in 2019 and at the start of 2020. The proceeds are being used to refinance the expiring bond from 2013 as well as to partially refinance convertible bonds, which the shareholders granted the company as part of the transmission grid transfer. All Swissgrid bonds are listed on the SIX Swiss Exchange and are part of the Swiss Bond Index.

In 2016, the Swiss Electricity Commission (ElCom) launched administrative procedures to systematically examine the calculation of capital costs between 2013 and 2015, as well as the volume- and tariff-related timing differences for the grid utilisation segment between 2013 and 2015 and the ancillary services segment between 2011 and 2015. In December 2019, it concluded this procedure with a ruling: the cumulative financial effects from the process adjustments to be performed for the years 2013 to 2019 will have a one-off negative impact of CHF 34.1 million on Swissgrid's 2019 annual result.

Attract and retain the best professionals

Swissgrid will continue to face stiff challenges in the coming years. To be in a position to help shape the transformation of the Swiss and European energy landscape, the company must attract and retain well-qualified staff and managers. Integrated employer-brand communication aims to promote the attractiveness of Swissgrid as an employer alongside the introduction of active candidate management. The company is also launching a roughly 18-month leadership and management training course for its managers in partnership with the University of St. Gallen. Since February 2019, the "Training Services" team has ensured the quality and efficiency of Swissgrid's numerous internal training activities in various areas, including system operation and occupational health and safety.

Swissgrid employees have the opportunity to help shape the future of electricity in Switzerland and Europe. A heartfelt thanks to all Swissgrid employees: your dedication and commitment made it possible for the company to continue growing in 2019 and will allow it to keep contributing to the non-discriminating, reliable and efficient supply of electricity in future.

Financial Report

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Management Report

This Management Report covers both the requirements pursuant to Art. 961c CO (Code of Obligations) in connection with the statutory financial statements as well as the provisions on the “Annual Report” relating to the financial statements in accordance with the Swiss GAAP FER (Swiss GAAP FER framework concept, paragraphs 7 and 34).

Regulatory business model

Legal and regulatory environment

The electricity industry’s value chain can basically be divided into the following areas: electricity generation, electricity transmission, electricity distribution and electricity consumption. As the owner and operator of Switzerland’s extra-high-voltage grid, Swissgrid is responsible for electricity transmission.

The high investments for the construction of the transmission system, rising economies of scale (in view of falling marginal costs) and high irreversible costs result in a natural monopoly in the area of electricity transmission. This has been structured as a legal monopoly by the legislator based on the Electricity Supply Act (StromVG) and the Electricity Supply Ordinance (StromVV).

The Federal Electricity Commission ECom oversees compliance with the Electricity Supply Act and the Electricity Supply Ordinance. It is the independent state regulatory authority in the electricity industry and is allowed to issue rulings where necessary, against which there is a right of appeal to the Federal Administrative Court with the possibility of appeal to the Federal Supreme Court.

Given the public interest in the secure national supply of electricity, the resulting legislation and relevant supervision by the regulator, Swissgrid’s business activities are overwhelmingly subject to strict regulation.

Business activity

As the National Grid Company, Swissgrid is responsible for the non-discriminatory, reliable and efficient operation of the transmission grid as well as its sustainable and efficient maintenance. The renovation and demand-driven expansion of Switzerland’s extra-high-voltage grid are also considered amongst the company’s most important tasks.

Swissgrid also provides additional services, such as balance group and congestion management or ancillary services (AS) as part of the European and Swiss grid operations. In addition to representing national interests, Swissgrid makes an important contribution to ensuring the secure supply of electricity for Switzerland.

Cost-plus regulation

Swissgrid’s legal mandate and business activities expose the company to costs that can be passed on to the lower grid levels and end consumers in the form of tariff revenues if the regulator deems the costs to be chargeable. ECom performs an ex post review of the chargeability of the costs for Swissgrid.

Chargeable costs include the operating and capital costs of maintaining a secure and efficient grid. Chargeable costs also include an adequate operating profit. As a result, this is referred to as “cost-plus” regulation: “cost” stands for the cost recovery principle and “plus” stands for the operating profit.

Chargeable operating and capital costs

Chargeable operating costs include the costs for services directly related to the operation of the grid. Examples include costs for maintaining the grid, costs for providing the ancillary services, personnel expenses, costs for materials and third-party supplies as well as direct income taxes.

Chargeable capital costs include depreciation/amortisation and imputed interest. The amount of imputed interest is directly dependent on the assets required to operate the grid (invested operating assets, IOA) and the applicable regulatory interest rate ($WACC_{t+0}$). $WACC_{t+0}$ means that the WACC specified for this year also applies to the current financial year.

In particular, the IOA consists of the transmission grid assets (including construction in progress), intangible assets as well as the net current assets determined on a monthly basis.

Volume- and tariff-related timing differences

Swissgrid calculates the required tariff revenues ex ante based on budgeted costs (operating and capital costs). Volume and price differences between the “actual” situation for a year and the “budgeted” situation for the same year regularly lead to differences between the actual costs and actual income for a year. These differences are referred to as volume- and tariff-related timing differences and are rectified over the coming years.

If effective costs exceed the tariff revenues for the same year, this results in a deficit. This deficit can be eliminated over subsequent years by increasing the tariff. By contrast, if tariff revenues exceed effective costs for the same year, this results in a surplus, which must be used to reduce tariffs over subsequent years.

Volume- and tariff-related timing differences are also subject to interest at the WACC rate and have an impact on capital costs. In contrast to the IOA, volume- and tariff-related timing differences are subject to interest at $WACC_{t+2}$. Deficits increase capital costs, while surpluses reduce them.

Profit regulation

The legal framework in place for Swissgrid means that the EBI (earnings before interest) of the regulated business area is essentially a multiplication of the invested operating assets (IOA) with the capital cost rate ($WACC_{t+0}$) and the interest applied to the volume- and tariff-related timing differences ($WACC_{t+2}$). Additional profits may arise from Swissgrid’s unregulated business area.

The EBI is then used to compensate Swissgrid’s stakeholders via interest on liabilities and return on equity (dividends and/or profit retention). The cost-plus regulation therefore leads to a return in the amount of the capital cost rates to be applied.

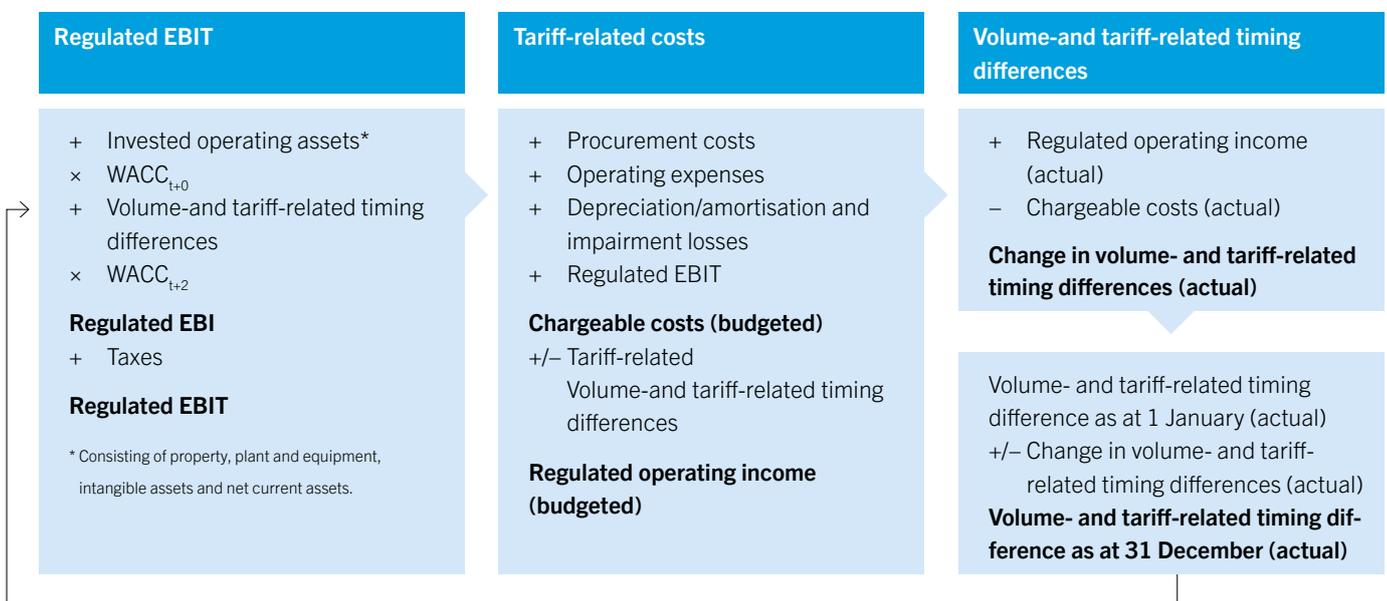
Imputed capital cost rate (WACC)

The WACC is an imputed interest rate defined annually based on the electricity supply legislation. It applies equally to all grid operators.

The WACC is calculated methodically taking account of the current Best Practice guidelines provided by the Federal Department of the Environment, Transport, Energy and Communications (DETEC). The methodology was developed specifically for the regulation of electricity grid operators and intends to ensure security of investment for these operators. With regard to the financing structure, the WACC calculation assumes an equity share of 40 per cent and a borrowed capital share of 60 per cent. Specific thresholds apply for the individual capital cost parameters.

As the WACC represents an imputed interest rate for the electricity industry, Swissgrid’s actual capital costs are not included in the tariff calculation. On the other hand, this means that Swissgrid is responsible for determining how the imputed interest received via the tariffs is distributed to shareholders and lenders.

Illustration of the regulatory business model



Business performance

(values pursuant to Swiss GAAP FER)

Procurement costs

At CHF 224.9 million, procurement costs are CHF 38.5 million lower than the previous year's value of CHF 263.4 million. This decrease is primarily due to the CHF 24.9 million reduction in costs for AS energy in the general ancillary services segment, and the CHF 18.1 million drop in procurement costs in the active power losses segment. By contrast, costs in the grid utilisation segment increased due to higher additional remuneration for operating and capital costs to former transmission system owners (CHF 15.6 million).

Operating expenses and depreciation/amortisation

Operating expenses amounted to CHF 200.9 million, CHF 16 million higher than the previous year's value of CHF 184.9 million.

CHF 9.6 million of the increase in operating costs is attributable to the materials and third-party supplies item, while personnel expenses account for CHF 7.1 million. By contrast, other operating expenses fell by CHF 0.7 million year-on-year.

The materials and third-party supplies item rose due to a one-off remuneration for easements and higher costs for mixed-use plants. The entry into force of the provisions under the federal law "Electricity Grid Strategy" on 1 June 2019 was accompanied by the entry into force of Art. 15, paragraph 2, letter c of the Federal Electricity Supply Act (StromVG), according to which one-off remuneration for easements is reported in operating expenses and can no longer be capitalised.

The increase in personnel expenses can be explained by workforce growth in the 2019 financial year. The annual average number of full-time equivalents amounts to 498 FTE (previous year: 460.8 FTE).

The scheduled depreciation/amortisation on property, plant and equipment and intangible assets amounted to CHF 156.9 million in the financial year, an increase of CHF 10.6 million on the previous year. While the scheduled depreciation/amortisation of intangible assets was similar to last year, the scheduled depreciation/amortisation of property, plant and equipment increased by CHF 8.9 million.

Besides scheduled depreciation/amortisation, Swissgrid had to recognise impairment losses of CHF 31.6 million in 2019. This is primarily due to ECom's ruling in the proceedings on the system audit (CHF 25.4 million) and a ruling by the Federal Administrative Court in relation to a third party (CHF 4.5 million), which is also relevant to Swissgrid.

Revenue and volume- and tariff-related timing differences

For the 2019 financial year, net turnover across all segments amounts to CHF 672.7 million. Net turnover of CHF 907.9 million was recorded in the previous year. The CHF 235.2 million decline in turnover is spread across the grid utilisation, general ancillary services and reactive energy segments. The largest drop was reported by the grid utilisation segment, with a decrease of CHF 184.9 million. The reasons for this are lower tariff revenues of CHF 89.8 million and lower income from auctions for the reduction of chargeable grid costs (CHF 88.6 million). Lower tariff revenue is also responsible for the fall in net turnover in the two other segments. By contrast, net turnover in the active power losses segment increased by CHF 29.5 million due to higher tariff revenue and higher income from ITC.

In the 2019 financial year, the operating business activities reported net deficits (cumulative deficits less cumulative surpluses) of CHF 18.4 million. In particular, the grid utilisation segment posted deficits of CHF 21.6 million in operating activities due to the fall in turnover. By contrast, volume- and tariff-related timing differences of CHF 33 million had to be reversed due to ECom's ruling in the proceedings on the system audit, while a further CHF 3.7 million in volume- and tariff-related timing differences had to be reversed due to other regulatory effects. As at 31 December 2019, a net surplus of CHF 52.8 million exists (previous year: CHF 34.5 million).

EBIT, financial income and net income

Earnings before interests and taxes (EBIT) from activities relating to the Federal Electricity Supply Act (StromVG) are equivalent to the interest applied to the assets required to operate the transmission system using the weighted average cost of capital rate (WACC) for the current year under review ($= WACC_{t+0}$) and the interest applied to the volume- and tariff-related timing differences using the weighted average cost of capital rate of $WACC_{t+2}$ plus income taxes. The weighted average cost of capital rates for 2019 ($WACC_{t+0}$) and 2021 ($WACC_{t+2}$) defined by the Federal Department of Environment, Transport, Energy and Communications (DETEC) for the 2019 financial year remain unchanged at 3.83%.

EBIT fell by CHF 17.0 million against 2018, to CHF 102.4 million, due to lower invested operating assets and higher net surpluses compared to the previous year.

The additional partial repayment of convertible loans at the start of the 2019 financial year, followed by refinancing under more favourable conditions in the autumn of 2019, once again led to lower financial expenses compared to 2018.

Net income in 2019 amounts to CHF 28.8 million, which is less than the CHF 65.6 million posted the previous year. This decrease in profit is due to adjustments for the years from 2011 and 2013 to 2019 in line with ECom's ruling of 12 December 2019 on the system audit, and to the financial impact of additional regulatory effects on net income.

Balance sheet and cash flow statement

Total assets (excluding fiduciary positions) fell by CHF 10.9 million compared to the previous year to CHF 2.994 billion. The absolute equity base was strengthened slightly by the grid takeover on 3 January 2019 and the positive net income less dividends paid. Adjusted for the balance sheet items held on a fiduciary basis and net volume- and tariff-related timing differences, the equity ratio on 31 December 2019 amounts to 38.3%, compared to 38.0% on 31 December 2018.

In 2019, cash flow from operating activities amounts to CHF 278.8 million, compared to the previous year's value of CHF 451.2 million, a decrease of CHF 172.4 million. This decrease is due to the lower net turnover year-on-year.

Cash flow from investing activities amounts to CHF 112 million in the year under review, a CHF 146.7 million decrease on the previous year. This is attributable to a CHF 101.4 million decline in investments in property, plant and equipment. In addition, Swissgrid was obliged to use income from auctions amounting to CHF 40.1 million for grid investments in 2019, as ordered by ElCom. No income from auctions had to be used for this purpose in the previous financial year.

Cash flow from financing activities decreased by CHF 115.8 million to CHF 95.3 million year-on-year. This is due to the placement of a CHF 125 million bond on 30 September 2019.

Risk assessment

Risk management is an integral part of effective and prudent corporate management for Swissgrid. Swissgrid's risk management covers the entire organisation, not including its subsidiaries and shareholdings. It is based on the established ISO 31000 and COSO ERM standards and meets the requirements of corporate governance as well as the requirements under Swiss law.

Objectives

The Risk Management unit assists managers at all tiers in consciously dealing with risks. This includes expedient and transparent reporting as well as managing and documenting an appropriate risk management system. Swissgrid fosters the deliberate management of risks at all levels of the company.

Organisation

The Board of Directors has defined the governance requirements for risk management and delegated its implementation to the CEO. The head of Enterprise Risk Management manages the risk management process, provides the methods and advises the operating units on risk management.

Process

The risk assessment takes place twice a year. The key risks are identified and assessed as part of a multi-stage process that includes the evaluation of risks based on the probability of their occurrence and the extent of their impact, as well as the definition of strategies to manage said risks. If Swissgrid identifies a material risk outside this regular process, the risk is assessed immediately. A risk strategy as well as necessary measures are defined.

Risk monitoring, including the effectiveness and level of implementation of the measures taken, is performed as part of regular risk updates. The Executive Board and the Board of Directors receive the results of the risk assessment and the risk updates in the form of a standardised report.

Risk situation

The risk profile for the 2019 financial year has not changed significantly compared to the previous year. After the 2019 balance sheet date, the impact on the risk profile has changed due to COVID-19. The other risk drivers are natural influences, the national and international political and regulatory environment as well as personnel and technical factors. Digitisation is enabling more efficient operation of the transmission grid, but also involves risks to grid and system security and therefore to the security of supply, given the increasing dependence on systems.

The key risk factors are:

European and regulatory environment

Swissgrid's role remains challenging at a national and international level. Due to the lack of an electricity agreement with the EU, the Swiss electricity system finds itself increasingly excluded from important processes affecting grid security in Europe. This leads to unscheduled flows of electricity through the Swiss grid and jeopardises both system stability and import capacity in the medium term. There is also the risk of exclusion from the planned European control energy partnerships as well as from ENTSO-E, the European Network of Transmission System Operators. Swissgrid is developing a technical solution to ensure the stability of the grid, but is reliant on political support in this respect. Although there have been some encouraging signals from the EU in this regard, success is not guaranteed as there are political factors to resolve that fall outside the control of Swissgrid and Switzerland.

Implementation of the "Strategic Grid 2025"

Important activities relating to the "Strategic Grid 2025" continue to be hampered by protracted approval processes and numerous objections. This makes it more difficult to eliminate grid congestion. Swissgrid is striving to establish dialogue, particularly with local residents, during the approval process. However, given the ever-decreasing acceptance of overhead lines, Swissgrid still has to factor in objections and delayed approval processes.

Security of supply

A wide-scale supply outage would cause enormous economic damage. As a result, Swissgrid must ensure that the transmission grid is available to supply electricity at all times. It is therefore essential to have an intact grid infrastructure and to secure the availability of IT and communication systems. Meeting these prerequisites can be jeopardised by, for example, technical problems, natural disasters, operating errors and criminal actions. Among other measures, Swissgrid mitigates these risks by implementing redundancies and processes to eliminate faults in grid systems and in system operations.

Adequate training and development of personnel ensures that employees respond appropriately.

Swissgrid takes precautions to adequately protect the infrastructure and plants against physical attacks. These include reinforcing buildings as well as access control and perimeter monitoring. This ensures that access is only granted to authorised persons.

The threat of cyber attacks is steadily rising due to the speed at which technology changes (which potential attackers also exploit), the countless possible modes of attack, as well as growing system integration across companies.

To reduce this risk, Swissgrid is continuously developing its processes and systems to detect cyber threats early and defend itself against them.

Security of supply also depends on the availability of control and redispatch services to balance short-term deviations between production and consumption, and to control grid congestion. Swissgrid therefore works continuously to optimise the Swiss market for ancillary services, and cooperates with transmission system operators in neighbouring countries to increase market liquidity.

Swissgrid has emergency procedures in place in the highly unlikely event that critical infrastructures or systems fail permanently or the grid can no longer be controlled.

Personnel safety

Swissgrid's operation and maintenance of the extra-high-voltage infrastructure involves risk to personnel safety. People can be seriously injured while performing their work. To minimise this risk to the greatest extent possible, Swissgrid systematically identifies present dangers, implements targeted protective measures, trains its own employees and instructs contractor employees so they can independently identify the dangers posed at plants and respond accordingly.

Systematic controls on construction sites help to ensure compliance with site safety precautions. A company-wide awareness campaign boosts awareness of the risks to personnel safety.

Financial risks

Swissgrid's activities mean that it is exposed to various financial risks. These include liquidity, foreign currency, interest rate and counterparty risks.

Liquidity is always ensured by continuous planning and monitoring of the funding requirements, maintenance of minimum liquidity levels and committed bank credit facilities.

Foreign currency risk is reduced through natural hedging and forward exchange transactions. The hedging strategy is reviewed periodically and updated as needed.

The risk of interest rate changes is reduced by staggering the maturities and establishing a balanced financing mix. Derivative financial instruments are deployed for further mitigation.

Financial counterparties are constantly reviewed, assigned individual limits and monitored. Operational counterparties are regularly monitored.

COVID-19 pandemic

The coronavirus pandemic puts the health of all Swissgrid employees at risk. Furthermore, there is a risk for the grid operation. Swissgrid has already taken the necessary measures at an early stage in order to ensure secure grid operation and best protect its

employees. Swissgrid assesses the current situation on an ongoing basis, taking into account the information and instructions issued by the competent authorities and follows a pandemic emergency plan.

Future prospects

Strategic outlook

As was the case in 2019, Swissgrid will continue to focus on implementing Strategy 2022 in the coming years. This defines four areas of focus: the safety of people, systems and the environment; integrated plant and system operation; the intelligent use of new technologies; and close cooperation with partners in Switzerland and Europe.

Swissgrid is focused on the following when it comes to safety and security: the company is consistently implementing its planned measures to deliver better physical protection of substations as well as in relation to cyber security, such as launching a campaign to raise awareness amongst employees. Swissgrid and all its service providers comply with high safety standards to ensure the protection of persons.

By integrating plant and system operation, Swissgrid is building the foundation for continued gains in efficiency and professionalism. This involves improving processes between the market and grid operation, while also implementing a new business model in plant management to increase capacities for upgrading, expanding and maintaining the grid.

Both transmission grid upgrades and the use of new technologies help secure the reliable transmission of energy. Digitisation and automation allow better use to be made of the existing grid infrastructure. In 2020, Swissgrid will also set up a new geoinformation system as a central platform for analysing and mapping georeferenced data and information on the grid. At the same time, the company is also working to optimise visualisation of the grid status and developing a crowd balancing platform.

The strategic focus placed on close cooperation with partners in Switzerland and Europe aims to ensure that Switzerland retains its access to the European internal electricity market. Swissgrid will continue to ramp up its committee work in 2020 to secure cooperation at the technical level: the company is committed to implementing the SAFA (Synchronous Area Framework Agreement), the framework agreement for European transmission system operators. Similarly, Swissgrid will be ready to participate in the TERRE control energy cooperation in 2020.

Research and development

Swissgrid collaborates with national and international research institutions to ensure that it can continue performing its duties safely and cost-effectively in the future. Its project portfolio is

aligned with its strategic goals, and consists of internal activities and projects being conducted in cooperation with universities and other national and international partners.

Financial outlook

Grid investments

Investment volumes are expected to remain high, ranging from CHF 150 million to CHF 250 million a year, due to the need to achieve a sustainable energy future and carry out the measures defined in the "Strategic Grid 2025" report. The budget has been assigned a lower likelihood of realisation due to persistent restrictions, particularly those regarding permits for power line construction and modification. As such, Swissgrid currently expects to invest approximately CHF 150 million to CHF 200 million a year in the grid over the medium term.

Operating costs

Swissgrid continues to implement its Strategy 2022, as communicated in the spring of 2018. This includes efficiency increases as well as measures to secure the supply of electricity and improve the safety of people, systems and the environment. Implementing these measures will lead to a rise in operating costs.

EBIT and net income

Based on the regulatory business model, EBIT is particularly dependent on the invested operating assets (IOA) and the weighted average capital cost rate (WACC). The WACC communicated by the Federal Department of Environment, Transport, Energy and Communications (DETEC) for 2020 remains unchanged at 3.83%. As a result, EBIT and net income for 2020 are expected to reach the level achieved in 2019, before the regulatory effects to be taken into account in 2019. In the long-run, in accordance with the dividend policy approved by the Board of Directors, the income generated will be retained on a pro rata basis depending on the equity ratio and the financing situation. This enables to safeguard Swissgrid's long-term financial stability. The financial impact of COVID-19 on Swissgrid currently cannot be assessed. However, due to the regulatory business model, no significant impact is expected on net income in 2020.

Grid acquisitions

The ElCom ruling issued on 20 October 2016 definitively established the method for determining the assessed value of the transmission system. The first remuneration based on this method was issued on 3 January 2017. The final remuneration owed under this method cannot be determined until all valuation proceedings have been finally adjudicated. The financial consequences are difficult to predict at this time. However, the outcome of the proceedings has no direct impact on Swissgrid's income.

Financial statements

Swiss GAAP FER

Income statement

In millions of CHF	Notes	2019	2018
Net turnover	4, 5	672.7	907.9
Other operating income	4, 6	13.0	12.8
Change in volume- and tariff-related timing differences	4, 16	18.4	-221.3
Capitalised self-constructed assets		12.6	14.6
Total operating income		716.7	714.0
Procurement costs	4, 5	224.9	263.4
Gross profit		491.8	450.6
Cost of materials and third-party supplies	7	82.5	72.9
Personnel expenses	8	89.7	82.6
Other operating expenses	9	28.7	29.4
Earnings before interest, income taxes, depreciation and amortisation		290.9	265.7
Depreciation on property, plant and equipment	14	125.1	116.2
Amortisation on intangible assets	14	31.8	30.1
Impairment losses	14	31.6	-
Earnings before interest and income taxes (EBIT)	4	102.4	119.4
Financial income	10	1.2	0.8
Financial expenses	11	33.6	39.3
Ordinary result		70.0	80.9
Extraordinary expenses	12	36.7	-
Earnings before income taxes		33.3	80.9
Income taxes	13	4.5	15.3
Net income		28.8	65.6

Earnings per share

CHF	2019	2018
Net income	28,821,764	65,636,044
Weighted average number of shares outstanding	319,374,832	318,134,905
Non-diluted earnings per share	0.09	0.21
Dilution from the conversion of the convertible loans	-	-0.03
Diluted earnings per share	0.09	0.18

The dilution arises from the potential conversion of the convertible loans to equity. Assuming that conversion had taken place on 1 January of the reporting year, the interest expense would have been reduced by CHF 21.9 million (previous year: CHF 27.5 million). Given that income taxes are chargeable in Swissgrid's regulated business model, the

conversion would have increased net income by CHF 21.9 million (previous year: CHF 27.5 million). At the same time, the average number of shares outstanding would also have increased by 165,521,412 units (previous year: 214,045,206 units). No dilution occurred in 2019 (previous year: potential dilution of CHF -0.03 per share).

Balance sheet

Assets

In millions of CHF	Notes	31.12.2019	31.12.2018
Property, plant and equipment	14	2,338.1	2,372.1
Intangible assets	14	150.9	166.3
Financial assets	15	8.8	10.7
Long-term deficits arising from volume- and tariff-related timing differences	16	62.0	91.8
Non-current assets		2,559.8	2,640.9
Assets held on a fiduciary basis	17	14.8	17.9
Short-term deficits arising from volume- and tariff-related timing differences	16	35.0	3.9
Inventory		1.2	1.3
Trade accounts receivable	18	119.0	142.7
Other receivables	19	1.7	1.5
Prepaid expenses and accrued income	20	48.2	57.0
Cash and cash equivalents		229.1	157.6
Current assets		449.0	381.9
Assets		3,008.8	3,022.8

Equity and liabilities

In millions of CHF	Notes	31.12.2019	31.12.2018
Share capital		320.4	318.1
Capital reserves		410.0	404.5
Retained earnings		379.5	383.5
Total equity		1,109.9	1,106.1
Non-current financial liabilities	21	1,040.5	1,425.6
Non-current provisions	22	26.8	30.0
Non-current surpluses arising from volume- and tariff-related timing differences	16	120.2	123.9
Non-current liabilities		1,187.5	1,579.5
Liabilities held on a fiduciary basis	17	14.8	17.9
Current financial liabilities	21	519.2	145.2
Trade accounts payable		67.2	70.0
Other liabilities	23	5.0	6.4
Accrued expenses and deferred income	24	72.3	88.9
Current provisions	22	3.3	2.5
Current surpluses arising from volume- and tariff-related timing differences	16	29.6	6.3
Current liabilities		711.4	337.2
Total liabilities		1,898.9	1,916.7
Equity and liabilities		3,008.8	3,022.8

Cash flow statement

In millions of CHF, excluding balance sheet items held on fiduciary basis	Notes	2019	2018
Net income		28.8	65.6
Financial expenses	11	33.6	39.3
Financial income	10	-1.2	-0.8
Current income taxes	13	7.1	17.0
Depreciation and amortisation	14	156.9	146.3
Impairment losses	14	31.6	-
Other expenses not affecting revenue and expenditure		38.6	-
Gains/losses on disposal of non-current assets		-0.2	-
Change in provisions	22	-2.4	-3.2
Change in inventory		0.1	0.8
Change in trade accounts receivable		23.7	15.5
Change in other receivables		-0.2	1.0
Change in prepaid expenses and accrued income		8.8	-7.5
Change in volume- and tariff-related timing differences	4, 16	-18.4	221.3
Change in trade accounts payable		-2.8	16.5
Change in other current liabilities		-1.4	-7.0
Change in accrued expenses and deferred income		-3.4	-29.0
Income taxes paid		-20.4	-24.6
Cash flow from operating activities		278.8	451.2
Gross investments in property, plant and equipment		-136.8	-238.2
Congestion proceeds received for grid investments		40.1	-
Net investments in property, plant and equipment	14	-96.7	-238.2
Divestment in property, plant and equipment		0.2	1.0
Investments in intangible assets	14	-16.2	-26.1
Divestment in intangible assets		-	3.9
Investments in financial assets		-0.2	-
Divestment in financial assets		-	0.1
Dividends received		0.9	0.6
Cash flow from investing activities		-112.0	-258.7
Change in current financial liabilities		-154.4	-143.1
Issuing of bonds		125.0	-
Interest paid		-33.1	-38.6
Dividends paid		-32.8	-29.4
Cash flow from financing activities		-95.3	-211.1
Change in cash and cash equivalents		71.5	-18.6
Composition			
Cash and cash equivalents at beginning of period		157.6	176.2
Cash and cash equivalents at end of period		229.1	157.6
Change in cash and cash equivalents		71.5	-18.6

Other expenses not affecting revenue and expenditure

This item is comprised of the reversal of the volume- and tariff-related timing differences (CHF 36.7 million) reported in the income statement and the share of the employer contribution reserve used in 2019 (CHF 1.9 million).

Investing and financing activities not affecting cash

The purchase consideration of CHF 26.2 million for the transfer of additional parts of the transmission grid was settled 30% in Swissgrid shares and 70% in loans (cf. Note 14).

Statement of changes in equity

In millions of CHF	Share capital	Capital reserves	Retained earnings	Total equity
Balance at 31.12.2017	317.9	404.0	347.3	1,069.2
Allocation	–	–	–	–
Dividends paid	–	–	–29.4	–29.4
Capital increases (minus transaction costs)	0.2	0.5	–	0.7
Net income 2018	–	–	65.6	65.6
Balance at 31.12.2018	318.1	404.5	383.5	1,106.1
Allocation	–	–	–	–
Dividends paid	–	–	–32.8	–32.8
Capital increases (minus transaction costs)	2.3	5.5	–	7.8
Net income 2019	–	–	28.8	28.8
Balance at 31.12.2019	320.4	410.0	379.5	1,109.9

The share capital consists of 320,398,149 (prior year: 318,141,670) fully paid-up registered shares with a par value of CHF 1 per share. As at 31 December 2019, Swissgrid has conditional share capital of a maximum of CHF 127,036,489, divided into 127,036,489 registered shares with a par value of CHF 1 per share (previous year: CHF 128,400,912, divided into 128,400,912 registered shares with a par value of CHF 1).

Capital increase based on contributions in kind

The share capital was increased by CHF 0.9 million to enable the transfer of additional parts of the transmission grid as of 3 January 2019. The issue price was CHF 3.0 million.

Capital increase from conditional capital

The change to the Articles of Association to create conditional share capital of CHF 127.0 million was entered into the commercial register on 3 January 2019. The conditional capital was created to exercise conversion rights to be assigned to creditors of convertible loans. In November 2019, conditional share capital was used to perform a capital increase with a nominal value of CHF 1.4 million (valuation adjustment 1). The issue price was CHF 4.8 million. The amount of the capital increase corresponds to the value after recognising the equity transaction costs (CHF 0.02 million) as a reduction in capital reserves.

Notes

1. Accounting principles

General information

The 2019 financial statements of Swissgrid Ltd (hereinafter: Swissgrid) have been prepared in accordance with Swiss GAAP FER. The financial statements provide a true and fair view of the company's assets, financial position and results of operations.

Changes in accounting estimates ECom concluded the administrative proceedings on the system audit launched in 2016 by issuing a ruling in 2019. In particular, ECom ruled that Swissgrid is required to adjust the methodology for calculating and applying interest to volume- and tariff-related timing differences. This results in lower imputed interest of CHF 1.1 million for the 2019 financial year compared to the previous calculation methodology.

The entry into force of the provisions of the "Electricity Grid Strategy" federal law on 1 June 2019 was accompanied by the entry into force of Art. 15, paragraph 2, letter c of the Federal Electricity Supply Act (StromVG), according to which one-off remuneration for easements is reported in operating expenses and can no longer be capitalised in intangible assets. As a result of this legal provision, easements of CHF 8.6 million were assigned to operating costs from 1 June 2019.

In a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values for replacement plants. In response to this decision, Swissgrid adapted its capitalisation process.

Conversion of foreign currency items

The accounting records are maintained in local currency (Swiss francs, CHF). All monetary assets and liabilities recognised in foreign currencies are converted at the exchange rate as of the balance sheet date. Transactions in foreign currencies are converted at the exchange rate on the day the transaction took place. Foreign exchange gains and losses resulting from transactions in foreign currencies are recognised in the income statement and are presented in the same line item as the underlying transaction.

Cash flow statement

Cash and cash equivalents form the basis for the presentation of the cash flow statement. The cash flow from operating activities is calculated using the indirect method.

Revenue recognition

Revenue is recognised in the income statement upon performance of Swissgrid's obligations. For activities regulated under the Federal Electricity Supply Act (StromVG), the measurement of performance is based mainly on energy volumes directly metered on the transmission grid or reported from downstream grid levels.

For certain revenue and procurement items, initial billing values are available six weeks after delivery at the earliest, thereby rendering accruals necessary based on historical and statistical data, as well as on estimates.

Activities according to StromVG

Volume- and tariff-related timing differences (surpluses and deficits) According to Art. 14 of the Electricity Supply Act (StromVG), grid utilisation costs must be allocated to users on a user-pays basis. The tariffs for a financial year are determined based on planned costs. Due to price and volume deviations, actual expenses and income vary from the tariff calculation on both the revenue and procurement side. This results in surpluses or deficits, i.e. the tariff revenues from a financial year are higher or lower than the actual expenses incurred during the same period. These volume- and tariff-related timing differences are transferred to the balance sheet and taken into account in cost and revenue calculations for future tariff periods. The expected reduction in volume- and tariff-related timing differences within 12 months of the balance sheet date is recognised as short-term surpluses or deficits arising from volume- and tariff-related timing differences in the balance sheet.

EBIT regulated under StromVG Earnings before interest and taxes (EBIT) from activities related to the Federal Electricity Supply Act (StromVG) are defined in Article 13 of the Electricity Supply Ordinance (StromVV) and are equivalent to the interest applied to the assets required to operate the transmission system with the weighted average cost of capital rate (WACC) for the current year under review (= $WACC_{t+0}$) and the interest applied to the volume- and tariff-related timing difference with the weighted average cost of capital rate of $WACC_{t+2}$ plus income taxes.

Invested operating assets consist of net current assets calculated on a monthly basis as well as the property, plant and equipment and intangible assets as at the end of the financial year. The weighted average cost of capital rate (WACC) is based on the current international practice of the WACC capital cost concept with reference to the Capital Asset Pricing Model (CAPM). Besides considering the findings of financial market theory, the regulatory framework conditions in Switzerland and the current situation in the money and capital market are also taken into account. The official weighted average cost of capital rates for 2019 ($WACC_{t+0}$) and 2021 ($WACC_{t+2}$) based on this method of calculation are unchanged from the 3.83% used in the previous year.

The chargeability of Swissgrid's operating and capital costs for tariff-setting purposes is subject to approval by ECom, which takes place ex post. In case of an ex post cost adjustment, an appeal can be lodged with the Federal Administrative Court with the possibility of appeal to the Federal Supreme Court. A cost adjustment impacting Swissgrid's operating result is applied whenever no appeal is lodged, or whenever an appeal's prospects for success are judged to be less than 50% on the basis of a reappraisal, or whenever a legally binding ruling is issued.

Property, plant and equipment

Property, plant and equipment are recognised at the cost of acquisition or production less accumulated amortisation and any impairment losses. Significant spare parts which are likely to be used for a longer period and whose use only takes place in connection with a non-current asset item are recognised in non-current assets and depreciated over the remaining useful life of the relevant asset.

Depreciation/amortisation is calculated using the straight-line method on the basis of the estimated useful technical and economic service life. The service life is determined as follows:

- Lines: 15 to 60 years
- Substations: 10 to 35 years
- Buildings and expansions: 5 to 50 years
- Other property, plant and equipment: 3 to 8 years
- Construction in progress and properties: only applicable in the case of an impairment loss

Intangible assets

Intangible assets are recognised at the cost of acquisition or production less accumulated amortisation and any impairment losses. Depreciation/amortisation is calculated using the straight-line method on the basis of the estimated useful technical and economic service life.

The service life is determined as follows:

- Rights of use: contract term
- Software and technical regulations: 3 to 5 years
- Intangible assets under development: only applicable in the case of an impairment loss

Impairment losses

The value of property, plant and equipment and intangible assets is reviewed annually. If there is an indication of an impairment loss, the book value is reduced to the realisable value and an impairment loss is charged to the results of the period.

Construction in progress/intangible assets under development

Construction in progress and intangible assets under development are non-current assets that are not yet completed or not yet operational. All items of property, plant and equipment and intangible assets, including self-constructed assets, are classified as non-current assets. As of each balance sheet date, a review is performed to determine whether any construction in progress or intangible assets under development have to be impaired. These are recognised as impairment losses in the year of completion. Ordinary depreciation or amortisation of these assets begins once they are completed or ready for operation.

Financial assets

Financial assets are measured at acquisition costs less any impairment losses. These include shareholdings with a capital share of over 20%, but which do not have a significant impact on the financial statements, as well as shareholdings with a capital share of less than 20%. Employer contribution reserves without conditional renounced use are also recognised in financial assets.

Inventory

Inventory includes waste material for maintaining the grid systems. Inventory is measured at the lower of acquisition cost or market price.

Accounts receivable

Accounts receivable are reported at their nominal value less any impairment losses required for business reasons.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, cash at banks and deposits at banks maturing in 90 days or less. They are recognised at their nominal value.

Bonds

Bonds issued on the capital market are recognised at their nominal value. Deviations from the nominal value in the case of below- or above-par issues are recognised as accruals and deferrals and are reversed on a straight-line basis over the term of the bond.

Liabilities

Liabilities are recognised at their nominal value.

Provisions

Provisions are recognised if there is an obligation based on an event that took place prior to the balance sheet date, the amount and/or due date of which is uncertain but capable of being estimated.

Contingent liabilities

Contingent liabilities are measured as at the balance sheet date. A provision is reported if a cash outflow without a usable countervalue is probable and assessable. Otherwise, contingent liabilities are disclosed in the notes to the financial statements.

Interest on borrowed capital

Interest on borrowed capital is recognised as an expense in the period in which it arises.

Employee pension plan

Swissgrid is a member of an industry-wide retirement benefit plan (PKE, Pensionskasse Energie). This is a legally independent pension fund. All permanent employees of the company are included in this pension fund from 1 January of the year in which they turn 18. They are insured for disability and death. From 1 January of the year in which they turn 25, employees are also covered by retirement insurance.

Economic benefits arising from a pension fund surplus (e.g. in the form of a positive impact on future cash flows) are not capitalised, since the prerequisites for this are not met and the company does not intend to use such benefits to reduce employer contributions. Any benefits arising from freely available employer contribution reserves are recognised as an asset.

An economic obligation (e.g. in the form of negative effects on future cash flows due to a pension fund deficit) is recognised if the prerequisites for the creation of a provision are met. Accrued contributions for the period, the difference between the annually calculated economic benefit from pension fund surpluses and

obligations, as well as the change in the employer contribution reserves are recognised in the income statement as personnel expenses.

Transactions with related parties

Related parties are organisations and persons that can have a significant influence, either directly or indirectly, on Swissgrid's financial or operational decisions. Shareholders holding at least 20% of the voting rights in Swissgrid, either alone or together with others, are considered to be related parties. As regards shareholders, other criteria in addition to the proportion of voting rights held are also taken into account (including representation in committees and the possibility of exerting influence due to the shareholder structure). Subsidiaries of related shareholders as well as partner plant companies whose shares are 100% owned by related shareholders, or which are controlled by a related shareholder, are also considered to be related parties, as are Members of the Board of Directors and the Executive Board. Provided they exist and are significant, relations with related parties are disclosed in the notes to the financial statements. All transactions are conducted at arm's length.

Segment information

Segmentation is based on tariff groups as defined in the Electricity Supply Act and is aligned with Swissgrid's internal reporting structure.

Income taxes

Current income taxes are calculated based on the taxable results on an accruals basis.

The annual accrual of deferred taxes is based on a balance sheet perspective (balance sheet method) and considers all future income tax effects (comprehensive method).

Derivative financial instruments

Swissgrid uses derivative financial instruments to hedge against currency, interest rate and market price risks. If the conditions are met, Swissgrid will apply hedge accounting to hedge expected future cash flows.

The instruments used for this purpose will be disclosed in the notes to the financial statements until the underlying transaction is realised.

2. Estimation uncertainty

Financial-statement reporting requires estimates and assumptions to be made that may have a significant impact on Swissgrid's financial statements. With respect to assets and liabilities recognised in the balance sheet, accruals and deferrals (prepaid expenses and accrued income/acrued expenses and deferred income) and volume- and tariff-related timing differences in particular are based on various assumptions and estimates that may necessitate significant adjustments. This is due to specific volumes not being available for certain revenue and procurement items when the financial statements are prepared, as well as regulatory uncertainties. The volume- and tariff-related timing differences are also influenced by estimates in the allocation of operating expenses to the segments.

For more information on this, the reader is referred to the notes in the sections on "Revenue recognition" and "Activities according to StromVG" in Note 1, as well as the comments in the following section.

3. Legal proceedings

EICom proceedings on the system audit

EICom concluded the administrative proceedings on the system audit launched in 2016 and issued its ruling on 12 December 2019. The object of these proceedings was to calculate the capital costs from 2013 to 2015, the volume- and tariff-related timing differences in the grid utilisation segments from 2013 to 2015, and the ancillary services from 2011 to 2015.

The focus of EICom's very first system audit was to investigate the compatibility of the processes and procedures for calculating capital costs and volume- and tariff-related timing differences with electricity supply legislation. These proceedings did not examine the amount of the costs. However, any corrections ordered by EICom can have an impact on costs.

In December 2018, EICom submitted an audit report on the system audit for Swissgrid to provide an opinion, which Swissgrid submitted in June 2019. A statement as to whether, and the extent to which, this system audit will result in a reduction of Swissgrid's chargeable costs was only possible upon receipt of the ruling on 12 December 2019. The Swissgrid Board of Directors decided not to appeal against the ruling.

In its ruling, EICom ordered Swissgrid to adapt the method for calculating and applying interest to the volume- and tariff-related timing differences with retroactive effect from 2011 and 2013 respectively. The cumulative financial effects of the necessary adjustments for the years from 2011 and from 2013 to 2019 as a result of the ruling place a total burden of CHF 34.1 million on Swissgrid's 2019 net income.

Of this amount, CHF 1.1 million is attributable to 2019 (cf. Note 1, Changes in accounting estimates) and CHF 33 million relates to the years from 2011 and from 2013 to 2018 (cf. Note 12, Extraordinary expenses).

Additionally, in its ruling, EICom decided that Swissgrid had to derecognise transaction costs capitalised in the previous years (CHF 23.4 million) and components of self-constructed assets not chargeable as capital costs (CHF 2 million) of CHF 25.4 million

from non-current assets (cf. Note 14, Non-current assets). This decision delivered new and important findings and is the reason for Swissgrid's derecognition of the aforementioned transaction costs and components of self-constructed assets not chargeable as capital costs in the amount of CHF 25.4 million from non-current assets by way of a value adjustment (cf. Note 14, Non-current assets).

Matters derived from the ECom proceedings on the system audit

Matters derived from, but not directly associated with, ECom's ruling in the proceedings on the system audit have placed an additional burden on net income in the amount of CHF 2.9 million (cf. Note 12, Extraordinary expenses). Firstly, the imputed interest recorded in the past on costs to be included in the formation of provisions, was adjusted (CHF 2.6 million). ECom's requirements state that costs may only be recognised once they have effectively accrued. For provisions, this is the time at which the provision is effectively used, not the time it is formed. Secondly, the other income assigned to the regulatory segments and the other activities in the previous years was also adjusted, which has an additional negative effect of CHF 0.3 million.

Federal Administrative Court ruling for a third party regarding the chargeability of dismantling costs

In a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values for replacement plants. This decision provided new and important findings with regard to the regulatory treatment of dismantling costs. From a regulatory perspective, dismantling costs cannot be recognised as capital costs, which means that no imputed interest can be assigned. Swissgrid consequently adjusted the imputed interest based on the capitalised dismantling costs of CHF 0.8 million that were declared in the past (in the years between 2013 and 2018), and recognised these in the income statement (cf. Note 12, Extraordinary expenses). In addition, Swissgrid derecognised the capitalised dismantling costs of CHF 4.5 million from property, plant and equipment by way of a value adjustment (cf. Note 14, Non-current assets).

ECom proceedings to calculate volume- and tariff-related timing differences for 2011 and 2012

In its letter dated 23 August 2019, ECom reopened proceedings to calculate the volume- and tariff-related timing differences for 2011 and 2012. ECom has not yet initiated any proceedings to examine the volume- and tariff-related timing differences for the years from 2013 to 2019. These proceedings will examine the chargeability of Swissgrid's capital and operating costs. The outcome of these proceedings could result in a reduction of Swissgrid's chargeable costs.

As at 31 December 2019, Swissgrid estimates the cumulative risk for non-chargeable costs at CHF 75 million. As at 31 December 2018, the cumulative risk was estimated at CHF 110 million. The updated estimate at the end of 2019 took account of financial effects from the adjustments made after the ECom ruling on the system audit and other regulatory effects. Swissgrid's equity situation is therefore not jeopardised, even in the event that the maximum risk of CHF 75 million occurs.

Swissgrid's Board of Directors and Executive Board believe that all costs for the years 2011 to 2019 were incurred within the framework of Swissgrid's legal mandate and should therefore qualify as chargeable. Based on this assessment, Swissgrid has treated all operating and capital costs as chargeable and consequently recognised them in full in the volume- and tariff-related timing differences. If, contrary to Swissgrid's assessment, the costs claimed are ruled to be non-chargeable, this would be reflected in future financial statements.

Third-party proceedings

The financial impact of third-party proceedings in which Swissgrid is involved are included in Swissgrid's financial statements if the Swiss GAAP FER criteria for recognition have been met. However, they have no direct impact on Swissgrid's results as they are included in the volume- and tariff-related timing differences.

4. Segment reporting

For segment reporting, the costs of capitalised self-constructed assets are deducted from operating expenses and are therefore not included in total operating income.

Eliminations: active power losses are a separate internal balance group. As a result, internal transactions occur between the general ancillary services/balance energy and active power losses segments.

Segment report 2019

In millions of CHF	Total	Grid utilisation	General ancillary services/ balance energy	Active power losses (individual ancillary services)	Reactive energy (individual ancillary services)	Eliminations	Total activities according to StromVG	Further activities
Net turnover	672.7	434.5	176.1	63.8	2.0	-3.7	672.7	-
Other operating income	13.0	1.6	0.1	-	-	-	1.7	11.3
Change in volume- and tariff-related timing differences	18.4	21.6	4.0	-7.7	0.5	-	18.4	-
Total operating income	704.1	457.7	180.2	56.1	2.5	-3.7	692.8	11.3
Procurement costs	-224.9	-18.8	-157.7	-50.5	-1.6	3.7	-224.9	-
Gross profit	479.2	438.9	22.5	5.6	0.9	-	467.9	11.3
Operating expenses	-188.3	-159.5	-17.3	-2.6	-0.1	-	-179.5	-8.8
Depreciation/amortisation and impairment losses	-188.5	-180.6	-5.4	-0.4	-	-	-186.4	-2.1
Earnings before interest and income tax (EBIT)	102.4	98.8	-0.2	2.6	0.8	-	102.0	0.4

Volume- and tariff-related timing differences: negative figures represent surpluses, and positive figures deficits.

Movement in volume- and tariff-related timing differences per segment

In millions of CHF	Total	Grid utilisation	General ancillary services/ balance energy	Active power losses (individual ancillary services)	Reactive energy (individual ancillary services)	Eliminations	Total activities according to StromVG	Further activities
Net turnover	672.7	434.5	176.1	63.8	2.0	-3.7	672.7	-
Other operating income	13.0	1.6	0.1	-	-	-	1.7	11.3
Procurement costs	-224.9	-18.8	-157.7	-50.5	-1.6	3.7	-224.9	-
Operating expenses	-188.3	-159.5	-17.3	-2.6	-0.1	-	-179.5	-8.8
Depreciation/amortisation and impairment losses	-188.5	-180.6	-5.4	-0.4	-	-	-186.4	-2.1
Imputed interest and income taxes (EBIT)	-102.4	-98.8	0.2	-2.6	-0.8	-	-102.0	-0.4
Change in volume- and tariff-related timing differences	-18.4	-21.6	-4.0	7.7	-0.5	-	-18.4	-

Volume- and tariff-related timing differences: positive figures represent surpluses, and negative figures deficits.

Segment report 2018

In millions of CHF	Total	Grid utilisation	General ancillary services/ balance energy	Active power losses (individual ancillary services)	Reactive energy (individual ancillary services)	Eliminations	Total activities according to StromVG	Further activities
Net turnover	907.9	619.4	228.1	34.3	32.6	-6.5	907.9	-
Other operating income	12.8	2.3	0.3	0.1	0.1	-	2.8	10.0
Change in volume- and tariff-related timing differences	-221.3	-219.3	-62.8	39.3	21.5	-	-221.3	-
Total operating income	699.4	402.4	165.6	73.7	54.2	-6.5	689.4	10.0
Procurement costs	-263.4	-3.2	-147.8	-68.6	-50.3	6.5	-263.4	-
Gross profit	436.0	399.2	17.8	5.1	3.9	-	426.0	10.0
Operating expenses	-170.3	-143.1	-14.6	-2.2	-2.5	-	-162.4	-7.9
Depreciation/amortisation and impairment losses	-146.3	-139.7	-4.3	-0.3	-0.3	-	-144.6	-1.7
Earnings before interest and income tax (EBIT)	119.4	116.4	-1.1	2.6	1.1	-	119.0	0.4

Volume- and tariff-related timing differences: negative figures represent surpluses, and positive figures deficits.

Movement in volume- and tariff-related timing differences per segment

In millions of CHF	Total	Grid utilisation	General ancillary services/ balance energy	Active power losses (individual ancillary services)	Reactive energy (individual ancillary services)	Eliminations	Total activities according to StromVG	Further activities
Net turnover	907.9	619.4	228.1	34.3	32.6	-6.5	907.9	-
Other operating income	12.8	2.3	0.3	0.1	0.1	-	2.8	10.0
Procurement costs	-263.4	-3.2	-147.8	-68.6	-50.3	6.5	-263.4	-
Operating expenses	-170.3	-143.1	-14.6	-2.2	-2.5	-	-162.4	-7.9
Depreciation/amortisation and impairment losses	-146.3	-139.7	-4.3	-0.3	-0.3	-	-144.6	-1.7
Imputed interest and income taxes (EBIT)	-119.4	-116.4	1.1	-2.6	-1.1	-	-119.0	-0.4
Change in volume- and tariff-related timing differences	221.3	219.3	62.8	-39.3	-21.5	-	221.3	-

Volume- and tariff-related timing differences: positive figures represent surpluses, and negative figures deficits.

Earnings before interest and tax (EBIT) per segment within the StromVG-regulated activities correspond to the capital costs on the invested operating assets and the volume- and tariff-related timing differences plus taxes (cf. Note 1). The individual expense and income positions assigned to the four segments within the StromVG-regulated activities are listed in Note 5.

Grid utilisation The grid utilisation segment is predominantly financed by various charges for use of the grid. This segment is also assigned the income from auctioning bottleneck capacities at the national borders to reduce the chargeable grid costs, provided that this purpose is approved by ECom. This segment also includes part of the compensation for international transit flows (ITC); the other part flows to the active power losses segment.

Net turnover in this segment amounts to CHF 434.5 million in the 2019 financial year, CHF 184.9 million below the previous year. Lower tariff revenues (CHF 89.8 million) as well as lower income from auctions for the reduction of chargeable grid costs (CHF 88.6 million) are responsible for this decline on the previous year.

Procurement costs in the 2019 financial year of CHF 18.8 million are higher than the previous year (CHF 3.2 million), which is due to an increase in additional remuneration for operating and capital costs to former transmission system owners.

Swissgrid had to recognise impairment losses of CHF 31.6 million in 2019. This is primarily due to ECom's ruling in the proceedings on the system audit (CHF 25.4 million) and a ruling by the Federal Administrative Court in relation to a third party (CHF 4.5 million), which is also relevant to Swissgrid (cf. Note 3, Legal proceedings).

Lower net turnover and higher costs resulted in a deficit of CHF 21.6 million in the 2019 financial year.

General ancillary services/balance energy In 2019, lower tariff revenue and income from the balance group/balance energy led to a decline in net income from CHF 228.1 million to CHF 176.1 million.

The largest expense item for this segment is control power provision, i.e. the reservation of power plant capacity in the interests of balancing energy consumption and energy feed-in. The procurement costs of CHF 157.7 million in this segment are CHF 9.9 million higher than in 2018 due to the prorated costs of control power provision that are borne by this segment. ECom's ruling in the proceedings on the system audit mean that control power provision costs will be almost entirely borne by this segment as of the 2019 financial year. Accordingly, expenditure on control power increased by CHF 41.8 million in this segment year-on-year. By contrast, the costs for grid enhancements and ancillary services (AS) energy fell by CHF 31.9 million compared to the previous year.

In 2019, costs slightly exceeded net turnover, resulting in a deficit of CHF 4.0 million.

Active power losses (individual ancillary services) This segment reports expenses and income for active power losses in the transmission grid. In addition to tariff revenues, part of the income from ITC flows into this segment. The procurement of energy to offset active power losses takes place on the spot market and via tenders.

Net turnover of CHF 63.8 million in this segment is higher than in the previous year (CHF 34.3 million). This increase is due to higher tariff revenues (CHF 19.4 million) and higher income from ITC assigned to this segment (CHF 10.1 million).

In the financial year, this segment recorded procurement costs of CHF 50.5 million (previous year: CHF 68.6 million).

In 2019, revenue exceeded costs, resulting in a surplus of CHF 7.7 million.

Reactive energy (individual ancillary services) The supply of reactive energy to maintain the required operating voltage is ensured by means of contractual agreements with several power plants.

Both net turnover and procurement costs decreased significantly due to ECom's ruling in the proceedings on the system audit. ECom ruled that the reactive energy segment cannot be assigned a share of general AS tariff revenue as of the 2019 financial year. In addition, the control power provision costs to be borne by this segment are considerably lower than in previous years.

In the 2019 financial year, lower revenue and costs led to a deficit of CHF 0.5 million.

5. Net turnover and procurement costs according to StromVG

In millions of CHF	Segment	2019	2018
Tariff income for grid utilisation	A	344.6	434.4
Net income from ITC	A/C	22.7	19.1
Income from auctions for the reduction of chargeable grid costs	A	81.5	170.1
Tariff income for general ancillary services (AS) and income from unintentional deviation	B/D	136.5	183.3
Income from balance group/balance energy	B	39.6	90.7
Tariff income for active power losses	C	49.5	30.1
Tariff income for reactive energy	D	2.0	-13.3
Eliminations		-3.7	-6.5
Net turnover		672.7	907.9
Operating expenses for transmission system	A	6.6	1.8
Capital expenses for transmission system	A	12.2	1.4
Expenses for AS control power provision and unintentional deviation	B	120.8	79.0
Expenses for automatic start-up/island operation capability	B	1.1	1.1
Expenses for grid enhancement	B	13.5	20.5
Expenses for AS energy	B	22.3	47.2
Expenses for compensation of active power losses	C	50.5	68.6
Expenses for reactive energy/voltage maintenance	D	1.6	50.3
Eliminations		-3.7	-6.5
Procurement costs		224.9	263.4

Letters used for segment allocation:

- A = Grid utilisation
- B = General ancillary services/balance energy
- C = Active power losses (individual ancillary services)
- D = Reactive energy (individual ancillary services)

Segment reporting is provided in Note 4.

Income from ITC consists of the following:

- Compensation for grid utilisation (A) CHF 8.4 million (previous year: CHF 14.9 million)
- Compensation for active power losses (C) CHF 14.3 million (previous year: CHF 4.2 million)

The ITC compensation for grid utilisation and active power losses corresponds to net income. Supervision charges paid to EICOM and to the Swiss Federal Office of Energy (SFOE) in the amount of CHF 4.4 million (previous year: CHF 4.8 million) are deducted from the gross income of CHF 10.0 million for grid utilisation (previous year: CHF 18.6 million) and CHF 17.1 million for active power losses (previous year: CHF 5.3 million).

The tariff income for general AS and income from unintentional exchange are split as follows:

- General AS (B): CHF 136.5 million (previous year: CHF 137.4 million)
- Reactive energy (D): CHF 0.0 million (previous year: CHF 45.9 million)

As a result of EICOM's ruling in the proceedings on the system audit, the reactive energy segment may not be assigned any general AS revenue as of the 2019 financial year.

Eliminations: active power losses are a separate internal balance group. As a result, internal transactions occur between the general ancillary services/balance energy and active power losses segments.

6. Other operating income

In millions of CHF	2019	2018
Congestion management clearing	11.2	10.0
Other	1.8	2.8
	13.0	12.8

7. Materials and third-party supplies

In millions of CHF	2019	2018
Grid maintenance	21.3	24.6
Grid system control	0.5	4.2
Other services in the grid area	23.8	8.7
Expenses for projects, advisory and non-cash benefits	26.6	25.5
Hardware/software maintenance	10.3	9.9
	82.5	72.9

The entry into force of the provisions under the federal law "Electricity Grid Strategy" on 1 June 2019 was accompanied by the entry into force of Art. 15, paragraph 2, letter c of the Federal Electricity Supply Act (StromVG), according to which one-off remuneration for easements is reported in operating expenses and can no longer be capitalised. In addition, higher costs for mixed-use assets were reported in 2019 than in 2018, which led to an increase in the "Other services in the grid area" item compared to the previous year.

By contrast, lower costs were reported for grid maintenance due to lower maintenance costs and for substation control services due to the connection of additional substations to Swissgrid's grid control system in comparison to the previous year.

8. Personnel expenses

In millions of CHF	2019	2018
Salaries, bonuses, allowances	72.7	67.2
Employee insurance	13.3	12.1
Other personnel expenses	3.7	3.3
	89.7	82.6
Headcount at 31.12.		
Permanent employment:		
Number of employees	542	482
expressed as full-time equivalents:	513.7	464.0
Fixed-term employment:		
Number of employees	9	8
expressed as full-time equivalents:	7.1	7.0

Other personnel expenses include, in particular, the costs of training and further education, recruitment, lump-sum expenses as well as allowances for external catering for employees.

Executive Board remuneration

In millions of CHF	2019	2018
Fixed remuneration (incl. lump-sum expenses)	1.46	1.25
Variable remuneration	0.81	0.64
Non-cash benefits ¹	0.02	0.01
Pension benefits ²	0.39	0.25
Total remuneration to the Executive Board	2.68	2.15
Of which to the highest-earning member of the Executive Board		
Fixed remuneration (incl. lump-sum expenses)	0.44	0.43
Variable remuneration	0.22	0.22
Pension benefits ²	0.11	0.11
Total remuneration to the highest-earning member of the Executive Board	0.77	0.76

¹ Non-cash benefits include the private use of business vehicles.

² Pension benefits contain employer contributions to social security and the employee pension plan.

Further information on the members of the Executive Board can be found in the Corporate Governance Report.

9. Other operating expenses

In millions of CHF	2019	2018
Rental and occupancy costs	9.1	9.4
Ground rents	4.5	4.1
Rental costs for communication equipment/telecommunication expense	3.3	4.0
Board of Directors' fees and expenses, incl. social costs	0.8	0.8
Actual expenses for travel and subsistence for employees and third parties	2.2	2.0
Fees, dues and licences	4.5	5.0
Insurance	1.6	1.5
Other administrative costs	2.7	2.6
	28.7	29.4

Board of Directors' fees and expenses represent fixed gross remuneration. The remuneration paid to the Chairman of the Board of Directors amounted to CHF 250,000, including lump-sum expenses (previous year: CHF 250,000). The remaining members of the Board of Directors received remuneration of between CHF 55,000 and CHF 65,000 pro rata temporis for 2019, including lump-sum expenses (previous year: CHF 55,000 to CHF 65,000).

Further information on the members of the Board of Directors can be found in the Corporate Governance Report.

10. Financial income

In millions of CHF	2019	2018
Other financial income	1.2	0.8
	1.2	0.8

Other financial income includes a dividend of CHF 0.9 million (previous year: CHF 0.6 million) from Holding des Gestionnaires de Réseau de Transport d'Électricité SAS (HGRT).

11. Financial expenses

In millions of CHF	2019	2018
Bond interest	10.3	10.3
Loans and convertible loans interest	22.3	27.6
Commitment fees	0.5	0.5
Other financial expenses	0.5	0.9
	33.6	39.3

The next partial repayment of convertible loans of CHF 145.2 million took place at the start of the 2019 financial year. The interest expense for convertible loans and loans declined accordingly.

12. Extraordinary expenses

The cumulative financial effects on net income resulting from ECom's ruling of 12 December 2019 on the system audit amount to CHF 33 million, due to the adjustments to be made for the years from 2011 and from 2013 to 2018.

Matters derived from, but not directly associated with, ECom's ruling in the proceedings on the system audit have placed an additional burden on net income in the amount of CHF 2.9 million. Firstly, the imputed interest recorded in the past on costs to be included in the formation of provisions was adjusted (CHF 2.6 million). Secondly, the other income assigned to the segments and the other activities was also adjusted, which resulted in an additional negative effect of CHF 0.3 million.

Moreover, in a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values of replacement plants. As a result of this decision, Swissgrid adjusted the imputed interest based on the capitalised dismantling costs of CHF 0.8 million that were declared in the years between 2013 and 2018, and recognised these in the income statement.

For further information see Note 3, Legal proceedings.

13. Income taxes

In millions of CHF	2019	2018
Current income taxes	7.1	17.0
Change in deferred taxes	-2.6	-1.7
	4.5	15.3

The lower income taxes compared to the previous year are a consequence of the lower net income in 2019 in relation to 2018. An average rate of 18.7% (previous year: 19.1%) was used to calculate the current income taxes and, in 2019, deferred taxes were calculated based on an expected rate of 18% (previous year: 19.1%).

The effective average tax rate based on earnings before income tax amounts to 13.5% (previous year: 18.9%). This difference from the aforementioned rates is particularly due to the higher reversal of deferred taxes as a consequence of the revaluation of deferred taxes based on the lower tax rate.

14. Non-current assets

Summary of property, plant and equipment – 2019

In millions of CHF	Advances and construction in progress	Substations	Lines	Properties and buildings	Other property, plant and equipment	Total
Acquisition cost at 1.1.2019	355.6	1,997.0	2,536.0	234.2	58.6	5,181.4
Additions	91.3	13.5	11.4	3.7	3.0	122.9
Disposals	–	–50.2	–19.6	–7.9	–7.7	–85.4
Reclassification	–75.1	35.7	22.7	3.1	11.9	–1.7
Acquisition cost at 31.12.2019	371.8	1,995.8	2,550.5	233.1	65.8	5,217.0
Accumulated depreciation and amortisation at 1.1.2019	4.9	1,165.4	1,518.4	72.2	48.4	2,809.3
Depreciation and amortisation	–	67.0	42.2	6.8	8.9	124.9
Impairment losses	0.5	12.1	16.6	0.9	–	30.1
Disposals	–	–50.4	–19.6	–7.9	–7.7	–85.6
Reclassification	–	–	–	–	–	–
Accumulated depreciation and amortisation at 31.12.2019	5.4	1,194.3	1,557.6	72.0	49.6	2,878.9
Net book value at 1.1.2019	350.7	831.6	1,017.6	162.0	10.2	2,372.1
Net book value at 31.12.2019	366.4	801.5	992.9	161.1	16.2	2,338.1

Summary of property, plant and equipment – 2018

In millions of CHF	Advances and construction in progress	Substations	Lines	Properties and buildings	Other property, plant and equipment	Total
Acquisition cost at 1.1.2018	303.9	1,932.3	2,490.5	175.5	60.6	4,962.8
Additions	151.9	18.1	17.2	48.2	5.2	240.6
Disposals	–	–1.3	–0.5	–10.0	–10.0	–21.8
Reclassification	–100.2	48.3	29.1	20.6	3.0	0.8
Acquisition cost at 31.12.2018	355.6	1,997.0	2,536.0	234.2	58.6	5,181.4
Accumulated depreciation and amortisation at 1.1.2018	4.9	1,103.6	1,476.7	76.7	53.0	2,714.9
Depreciation and amortisation	–	63.1	42.2	5.5	5.4	116.2
Impairment losses	–	–	–	–	–	–
Disposals	–	–1.7	–0.8	–10.1	–10.2	–22.8
Reclassification	–	–	–	–	–	–
Accumulated depreciation and amortisation at 31.12.2018	4.9	1,165.4	1,518.4	72.2	48.4	2,809.3
Net book value at 1.1.2018	299.0	828.7	1,013.8	98.8	7.6	2,247.9
Net book value at 31.12.2018	350.7	831.6	1,017.6	162.0	10.2	2,372.1

In 2019, Swissgrid acquired additional tangible assets as part of the transmission grid amounting to CHF 26.2 million (previous year: 2.4 million) and remunerated this amount with 30% in shares and 70% in loans.

Gross investments in property, plant and equipment amounted to CHF 136.8 million (previous year: CHF 238.2 million). Of this, CHF 40.1 million (previous year: CHF 0.0 million) was financed by proceeds from the auctioning of bottleneck capacities for cross-border supplies.

Property, plant and equipment of CHF 9.5 million (previous year: CHF 20.0 million) were purchased from related parties in 2019.

As a result of EICOM's ruling in the proceedings on the system audit and a ruling by the Federal Administrative Court in relation to a third party, Swissgrid was forced to adjust the value of, in particular, capitalised transaction costs (CHF 23.4 million), components of self-constructed assets not chargeable as capital costs (CHF 0.8 million) and capitalised dismantling costs (CHF 4.5 million) as at 31 December 2019.

Summary of intangible assets – 2019

In millions of CHF	Intangible assets under development			Usage rights		
	Purchased	Self-constructed	Total	Purchased	Self-constructed	Total
Acquisition cost at 1.1.2019	17.6	11.7	29.3	151.6	–	151.6
Additions	4.7	1.9	6.6	3.3	–	3.3
Disposals	–	–	–	–0.2	–	–0.2
Reclassification	–12.0	–10.7	–22.7	3.7	–	3.7
Acquisition cost at 31.12.2019	10.3	2.9	13.2	158.4	–	158.4
Accumulated depreciation and amortisation at 1.1.2019	–	–	–	64.6	–	64.6
Depreciation and amortisation	–	–	–	5.3	–	5.3
Impairment losses	0.3	–	0.3	–	–	–
Disposals	–	–	–	–0.2	–	–0.2
Reclassification	–	–	–	–	–	–
Accumulated depreciation and amortisation at 31.12.2019	0.3	–	0.3	69.7	–	69.7
Net book value at 1.1.2019	17.6	11.7	29.3	87.0	–	87.0
Net book value at 31.12.2019	10.0	2.9	12.9	88.7	–	88.7

Summary of intangible assets – 2018

In millions of CHF	Intangible assets under development			Usage rights		
	Purchased	Self-constructed	Total	Purchased	Self-constructed	Total
Acquisition cost at 1.1.2018	19.9	9.2	29.1	144.7	–	144.7
Additions	9.6	5.4	15.0	4.3	–	4.3
Disposals	–	–	–	–	–	–
Reclassification	–11.9	–2.9	–14.8	2.6	–	2.6
Acquisition cost at 31.12.2018	17.6	11.7	29.3	151.6	–	151.6
Accumulated depreciation and amortisation at 1.1.2018	–	–	–	59.3	–	59.3
Depreciation and amortisation	–	–	–	5.3	–	5.3
Impairment losses	–	–	–	–	–	–
Disposals	–	–	–	–	–	–
Reclassification	–	–	–	–	–	–
Accumulated depreciation and amortisation at 31.12.2018	–	–	–	64.6	–	64.6
Net book value at 1.1.2018	19.9	9.2	29.1	85.4	–	85.4
Net book value at 31.12.2018	17.6	11.7	29.3	87.0	–	87.0

Gross investments in intangible assets amounted to CHF 16.2 million (previous year: CHF 26.1 million). Of this, no investments were financed by proceeds from the auctioning of bottleneck capacities for cross-border supplies, as was the case in the previous year.

In 2019, services for intangible assets of CHF 0.1 million (previous year: CHF 0.6 million) were purchased from related parties.

As a result of EICOM's ruling in the proceedings on the system audit, Swissgrid was forced to adjust the value of, in particular, components of self-constructed assets not chargeable as capital costs (CHF 1.2 million) as at 31 December 2019.

Project costs of CHF 1.7 million were reclassified from construction in progress to intangible assets under development in the year under review (previous year: CHF 0.8 million from intangible assets under development to construction in progress).

Software			Total intangible assets		
Purchased	Self-constructed	Total	Purchased	Self-constructed	Total
124.1	43.5	167.6	293.3	55.2	348.5
3.9	2.4	6.3	11.9	4.3	16.2
-3.0	-0.2	-3.2	-3.2	-0.2	-3.4
9.5	11.2	20.7	1.2	0.5	1.7
134.5	56.9	191.4	303.2	59.8	363.0
89.9	27.7	117.6	154.5	27.7	182.2
17.3	9.2	26.5	22.6	9.2	31.8
-	1.2	1.2	0.3	1.2	1.5
-3.0	-0.2	-3.2	-3.2	-0.2	-3.4
-	-	-	-	-	-
104.2	37.9	142.1	174.2	37.9	212.1
34.2	15.8	50.0	138.8	27.5	166.3
30.3	19.0	49.3	129.0	21.9	150.9

Software			Total intangible assets		
Purchased	Self-constructed	Total	Purchased	Self-constructed	Total
127.9	41.0	168.9	292.5	50.2	342.7
5.3	1.6	6.9	19.2	7.0	26.2
-18.3	-1.3	-19.6	-18.3	-1.3	-19.6
9.2	2.2	11.4	-0.1	-0.7	-0.8
124.1	43.5	167.6	293.3	55.2	348.5
87.8	20.7	108.5	147.1	20.7	167.8
16.8	8.0	24.8	22.1	8.0	30.1
-	-	-	-	-	-
-14.7	-1.0	-15.7	-14.7	-1.0	-15.7
-	-	-	-	-	-
89.9	27.7	117.6	154.5	27.7	182.2
40.1	20.3	60.4	145.4	29.5	174.9
34.2	15.8	50.0	138.8	27.5	166.3

15. Financial assets

In millions of CHF	31.12.2019	31.12.2018
Shareholdings	8.7	8.7
Employer contribution reserves	0.1	2.0
	8.8	10.7

Swissgrid has the following shareholdings, which are recognised in the balance sheet as financial assets:

		Share capital in m.	Share in %
Joint Allocation Office (JAO)	B	0.100	5.0
TSCNET Services GmbH	C	0.033	7.7
Holding des Gestionnaires de Réseau de Transport d'Electricité SAS (HGRT)	D	52.119	5.0
Pronovo AG	E	0.100	100.0
ecmt AG	F	0.100	20.0
AET NE1 SA	A	0.100	100.0
ALENA Aletsch Energie Netz AG	A	0.100	100.0
Alpiq Netz AG Gösigen/Aarau	A	0.100	100.0
Alpiq Réseau SA Lausanne/Aarau	A	0.100	100.0
BKW Übertragungsnetz AG	A	0.100	100.0
CKW Grid AG	A	0.100	100.0
EGL Grid AG	A	0.100	100.0
ewb Übertragungsnetz AG	A	0.100	100.0
ewz Übertragungsnetz AG	A	0.100	100.0
FMV Réseau SA	A	0.100	100.0
Kraftwerke Hinterrhein Netz AG	A	0.100	100.0
LENA Lonza Energie Netz AG	A	0.100	100.0
Nordostschweizerische Kraftwerke Grid AG	A	0.100	100.0
Ofible Rete SA	A	0.100	100.0
Ofima Rete SA	A	0.100	100.0
Repower Transportnetz AG	A	0.100	100.0
SN Übertragungsnetz AG	A	0.100	100.0
Übertragungsnetz Basel/Aarau AG	A	0.100	100.0

Letters used for locations and currencies:

A = Aarau (formerly Laufenburg, CH) | Currency CHF

B = Luxembourg (Lux) | Currency EUR

C = Munich (D) | Currency EUR

D = Paris (F) | Currency EUR

E = Frick (CH) | Currency CHF

F = Embrach (CH) | Currency CHF

In September 2019, Swissgrid acquired a holding in ecmt AG, headquartered in Embrach (CH). ecmt AG uses the Management Seismograph application to support its customers in integral risk, disaster and business continuity management (BCM), as well as with status and situational monitoring.

Swissgrid is not legally obliged to prepare consolidated financial statements. Either the control principle necessary to prepare a consolidated financial statement (FER 30) is not met, or the subsidiaries do not have a material influence on Swissgrid's financial statements. In particular, Pronovo AG is regulated by the Swiss Federal Office of Energy (SFOE) and is explicitly excluded from any consolidation with Swissgrid based on Art. 64 (5) of the Energy Act (EnG).

Otherwise, the information is unchanged from the previous year.

16. Volume- and tariff-related timing differences

In millions of CHF	Grid utilisation	General ancillary services/ balance energy	Active power losses (individual ancillary services)	Reactive energy (individual ancillary services)	Total volume- and tariff-related timing differences	Thereof surpluses	Thereof deficits
Balance at 31.12.2017	223.2	-84.9	29.9	18.6	186.8	-84.9	271.7
Change in 2018	-219.3	-62.8	39.3	21.5	-221.3		
Reclassification	-	17.5	-	-17.5	-		
Balance at 31.12.2018	3.9	-130.2	69.2	22.6	-34.5	-130.2	95.7
Reversals	-10.0	-23.6	-2.8	-0.3	-36.7		
Change in 2019	21.6	4.0	-7.7	0.5	18.4		
Balance at 31.12.2019	15.5	-149.8	58.7	22.8	-52.8	-149.8	97.0
Current portion	-	-29.6	35.0	-	5.4	-29.6	35.0

Negative figures represent surpluses, and positive figures deficits.
Further information on volume- and tariff-related timing differences (function, estimation uncertainties and current legal proceedings) can be found in Notes 1, 2 and 3.

Explanations on the reversals item are provided in Note 12, Extraordinary expenses.

17. Balance sheet items held on a fiduciary basis

On the basis of a statutory mandate, Swissgrid coordinates the auctioning of bottleneck capacities for cross-border supplies and maintains accounting records and bank accounts on a fiduciary basis for this purpose.

Assets held on a fiduciary basis

In millions of CHF	31.12.2019	31.12.2018
Trade accounts receivable	4.0	6.4
Other receivables	–	0.2
Prepaid expenses and accrued income	0.4	–
Cash and cash equivalents	10.4	11.3
	14.8	17.9

Liabilities held on a fiduciary basis

In millions of CHF	31.12.2019	31.12.2018
Trade accounts payable	13.8	9.9
Accrued expenses and deferred income	1.0	8.0
	14.8	17.9

The revenues and the manner in which they are used are as follows:

In millions of CHF	2019	2018
Share of revenue Switzerland	127.7	151.1
Congestion management clearing	–12.3	–11.5
Net proceeds	115.4	139.6
Used for reduction of the chargeable grid costs	–74.4	–132.6
Used for grid investments	–40.1	0.0
Undistributed income from auctions	0.9	7.0

Pursuant to the EICOM letter of approval issued on 18 January 2018, income from auctions of CHF 114.5 million (previous year: CHF 132.6 million) was paid to Swissgrid in 2019.

To partially hedge the EUR/CHF currency risk from expected future income in euros, derivative financial instruments (futures) in the nominal amount of EUR 70.1 million exist as at the balance sheet date. The positive replacement values as at 31 December 2019 amount to CHF 1.5 million (previous year: positive replacement values of CHF 1.7 million).

18. Trade receivables

In millions of CHF	31.12.2019	31.12.2018
Trade receivables	119.0	142.7
Specific valuation allowances	–	–
	119.0	142.7

19. Other receivables

In millions of CHF	31.12.2019	31.12.2018
Security deposits on blocked bank accounts	1.1	1.1
Other	0.6	0.4
	1.7	1.5

20. Prepaid expenses and accrued income

In millions of CHF	31.12.2019	31.12.2018
Accrued revenue for supplies made	45.6	54.1
Other	2.6	2.9
	48.2	57.0

In particular, other prepaid expenses and accrued income contains the discount on bond issues and financing and issue costs, which are amortised over the term of the financing instrument.

21. Financial liabilities

In millions of CHF	31.12.2019	31.12.2018
Bonds	975.0	850.0
Convertible loans	584.6	720.7
Loans	0.1	0.1
Total financial liabilities	1,559.7	1,570.8
Current portion	519.2	145.2

Bonds

Nominal amount in CHF	Interest rate	Term	Expiry at nominal value
350 million	1.000%	2013–2020	30.01.2020
350 million	1.625%	2013–2025	30.01.2025
150 million	0.625%	2015–2030	21.02.2030
125 million	0.050%	2019–2050	30.06.2050

Convertible loans and loans

Convertible loans have a term of nine years and one-fifth of the loans become payable annually from year five. As a result, the next partial repayment of convertible loans, amounting to CHF 145.2 million, was made at the start of the 2019 financial year. Moreover, loans are also assigned a conversion right by Swissgrid in the event of occurrence of contractually defined events and an associated conversion obligation by the creditors. Creditors are compensated by a premium on the interest rate for the conversion right assigned to Swissgrid. Convertible loans are recognised in full in liabilities.

The interest conditions and maturities of convertible loans and loans are as follows:

Category	Interest rate p.a. (range)	Up to 1 year	2–5 years	More than 5 years
Convertible loans	3.36–3.93%	169.2	404.4	11.0
Loans	0.00%	–	–	0.1

Convertible loans and loans are assessed at their nominal value.

Lines of credit

The committed lines of credit total CHF 310 million and remain unclaimed as at 31 December 2019.

22. Provisions

In millions of CHF	Restructuring	Dismantling	Employee incentive plan	Procedural costs	Deferred taxes	Total provisions
Balance at 31 December 2017	1.7	6.7	0.4	2.7	24.2	35.7
Provisions raised	–	–	0.2	0.5	–	0.7
Provisions used	0.8	0.1	0.2	0.2	1.7	3.0
Reversals	0.4	0.1	–	0.4	–	0.9
Balance at 31 December 2018	0.5	6.5	0.4	2.6	22.5	32.5
Provisions raised	–	–	0.2	1.9	–	2.1
Provisions used	0.3	0.3	0.3	0.2	2.6	3.7
Reversals	0.2	0.1	–	0.5	–	0.8
Balance at 31 December 2019	–	6.1	0.3	3.8	19.9	30.1
Current portion	–	–	0.3	3.0	–	3.3

Procedural costs

With the grid takeovers on 3 January 2013 and 5 January 2015 and the associated spin-offs of the procedural companies from the grid companies, contractual regulations mean that Swissgrid is responsible for the costs of proceedings attributable to the procedural companies.

The provision corresponds to Swissgrid's expected future expenses for party, court and legal costs that may arise for the procedural companies as part of their administrative procedures in conducting proceedings.

The provision amount also includes the estimated compensation payable to parties and the court costs imposed on Swissgrid due to the administrative procedures in conducting proceedings.

The large number of proceedings, as well as their complex subject matters, mean that numerous reassessments are required over time that will influence the provision amount as well as the provisions raised, reversed and the expected current portion within the statement of provisions.

23. Other liabilities

In millions of CHF	31.12.2019	31.12.2018
Value-added tax	3.6	4.6
Security deposits on blocked bank accounts	0.8	0.8
Other	0.6	1.0
	5.0	6.4

The "Other" item contains outstanding obligations towards PKE Vorsorgestiftung Energie of CHF 0.4 million (previous year: CHF 0.9 million) as at the cut-off date.

24. Accrued expenses and deferred income

In millions of CHF	31.12.2019	31.12.2018
Accrued expenses for supplies made	52.8	54.8
Personnel expenses and employee insurance scheme	7.5	6.8
Accrued interest and premium from issued bonds	10.6	10.7
Taxes	1.4	16.6
	72.3	88.9

25. Contingent receivables

Billing method for the ancillary services (AS) surcharge

EICom defined the billing method for the AS surcharge in its 4/2018 directive. Under this method, Swissgrid and the distribution system operators wait until the subsequent year to finally settle payments of AS tariffs for the previous financial year.

The settlement will result in receivables owed to Swissgrid by the distribution system operators. However, since the amount of these receivables could not be reliably determined when the financial statements were prepared, they were recognised as contingent receivables.

26. Other off-balance-sheet commitments

Grid costs

As stipulated by EICom, the former owners are entitled to chargeable operating and capital costs from the period between 2009 until the transfer date for the grid elements included in the transmission system. Several proceedings are pending in this respect.

For that reason, no final cost can be specified on the balance sheet date. Swissgrid has recognised the grid costs stipulated for each year in its annual financial statements. A reliable assessment of the additional grid costs is not possible. The operating and capital costs to be remunerated could range between CHF 10.0 million and CHF 50.0 million.

Any subsequent changes to the amount of cost compensation are taken into account in the annual tariff calculation and will be reflected in costs in the subsequent billing periods.

They do not have any direct impact on Swissgrid's results.

Assessed transaction value for the transmission system

The EICom ruling issued on 20 October 2016 definitively established the method for determining the assessed value of the transmission system. The first remuneration based on this method was issued on 3 January 2017. The final remuneration owed under this method cannot be determined until all valuation proceedings have been finally adjudicated. The financial consequences are difficult to predict at this time. However, the outcome of the proceedings has no direct impact on Swissgrid's income.

Joint Allocation Office

As a shareholder of the Joint Allocation Office (JAO), Swissgrid is contractually obliged to assume its share of the annual costs.

TSCNET Services GmbH

As a shareholder of TSCNET Services GmbH, Swissgrid is contractually obliged to assume its share of the annual costs.

Long-term rental contracts

Long-term rental contracts with fixed terms exist with several parties. These result in the following obligations:

In millions of CHF	Up to 1 year	Year 2–10	More than 10 years	Total
31.12.2019	6.0	39.3	72.1	117.4
31.12.2018	7.4	40.4	74.2	122.0

The long-term rental obligations primarily include the rental commitments for Swissgrid's head office in Aarau.

Off-balance-sheet lease commitments

Swissgrid has the following off-balance-sheet lease commitments for vehicles and office equipment:

In millions of CHF	Up to 1 year	2–5 years	Total
31.12.2019	0.7	0.6	1.3
31.12.2018	0.7	1.2	1.9

27. Derivative financial instruments

As at the balance sheet date, derivative financial instruments exist to hedge the risk of a change in interest rates for future borrowing. The nominal amount of these instruments is CHF 275 million, with negative replacement values of CHF 22.1 million as at 31 December 2019 (previous year: negative replacement values of CHF 5.8 million).

Swissgrid made use of derivative financial instruments to partially hedge against market price risk from future procurement costs. The nominal amount of these instruments is EUR 14.2 million (previous year: EUR 0.0 million), with negative replacement values of EUR 0.3 million as at 31 December 2019 (previous year: EUR 0.0 million).

28. Employee pension plan

Employer contribution reserve	Nominal value	Renounced use	Balance sheet	Formation of ECR	Balance sheet	Result from ECR in personnel expenses	
	In millions of CHF 31.12.2019	pro 2019	31.12.2019	pro 2019	31.12.2018	2019	2018
Pension fund (PKE)	0.1	–	0.1	–	2.0	–1.9	–
Total	0.1	–	0.1	–	2.0	–1.9	–

Economic benefit/economic obligation and retirement benefit plan expenses	Shortfall/surplus funding		Economic share of the organisation	Change compared with previous year/affecting income in FY	Accrued amounts	Pension benefit expenses within personnel expenses	
	In millions of CHF 31.12.2019	31.12.2019	31.12.2018			2019	2018
Pension fund without shortfall/surplus funding (PKE)	–	–	–	–	7.5	7.5	6.9
Total	–	–	–	–	7.5	7.5	6.9

In this financial year, CHF 1.9 million of the employer contribution reserve was used to pay monthly employer contributions.

Swissgrid is affiliated to a collective plan by the pension fund PKE Vorsorgestiftung Energie. Therefore, an economic benefit or economic obligation cannot be determined on the basis of the individual contract. The coverage ratio of the collective plan is 109.2% as at 31 December 2019 (previous year: 104.4%).

29. Transactions with related parties

Transactions with related parties in millions of CHF	2019	2018
Total operating activities		
Net turnover	293.5	373.6
thereof grid utilisation	221.1	282.5
thereof general ancillary services/ balance energy	38.3	59.2
thereof active power losses	32.4	19.9
thereof reactive energy	1.7	12.0
Other operating income	0.6	0.3
Procurement costs and operating expenses		
Procurement costs	93.0	125.6
thereof grid utilisation	0.6	2.9
thereof general ancillary services/ balance energy	51.7	87.4
thereof active power losses	5.2	6.8
thereof reactive energy	35.5	28.5
Cost of materials and third-party supplies	10.2	15.8
Other operating expenses	6.8	4.4
Financial result		
Financial expenses	9.7	11.8

Unsettled balances at balance sheet date with related parties in millions of CHF	2019	2018
Assets		
Trade receivables	56.6	68.7
Prepaid expenses and accrued income	8.7	17.2
Liabilities		
Convertible loans and loans	259.6	312.3
Trade accounts payable	21.5	24.2
Accrued expenses and deferred income	4.7	13.2

The conditions relating to related parties are described in Note 1.

30. Events after the balance sheet date

Swissgrid placed two additional bonds with a total volume of CHF 300 million on the capital market on 13 January 2020. Each of the bonds is worth CHF 150 million with one coupon of 0.00% and a term of 8.4 years, and one coupon of 0.20% and a term of 12.4 years. The bonds are listed on the SIX Swiss Exchange. The CHF 275 million in interest hedging entered into here (cf. Note 27, Derivative financial instruments) was released in January. The resulting present value will be capitalised and depreciated over the term of the bonds on a straight-line basis.

The financial impact of COVID-19 on Swissgrid currently cannot be assessed. However, due to the regulatory business model, no significant impact is expected on net income in 2020.

Otherwise, there are no events after the balance sheet date that would require disclosure or recognition in the 2019 financial statements.

On 22 April 2020, the Board of Directors of Swissgrid Ltd approved the 2019 financial statements for submission to the General Assembly and for publication.



Independent Auditor's Report

To the General Meeting of Swissgrid Ltd, Aarau

Opinion

We have audited the financial statements of Swissgrid Ltd, which comprise the balance sheet as at 31 December 2019, the statement of income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion the financial statements (pages 20 to 46) give a true and fair view of the financial position of the Company as at 31 December 2019, and its results of operations and its cash flows for the year then ended in accordance with Swiss GAAP FER.

Basis for Opinion

We conducted our audit in accordance with Swiss Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Report on Key Audit Matters based on the circular 1/2015 of the Federal Audit Oversight Authority



Accuracy of the calculation of the regulated EBIT and volume- and tariff-related timing differences



Completeness and accuracy of the net turnover and procurement costs

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



Accuracy of the calculation of the regulated EBIT and volume- and tariff-related timing differences

Key Audit Matter

For the 2019 financial year Swissgrid reports an EBIT (earnings before interest and taxes) of CHF 102.4 million. The change in volume- and tariff-related timing differences amounts to CHF +18.4 million.

The EBIT presented in Swissgrid's financial statements is legally defined as the multiplication of the invested operating assets (regulatory asset base, "RAB") and volume- and tariff-related timing differences by the applicable regulatory interest rates plus taxes. The RAB consists of the transmission grid assets (incl. construction in progress), the intangible assets and the net current assets determined on a monthly basis.

Cost and volume variances between the actual costs and income for a year and the costs and income pre-determined in advance at tariff level for the same year lead to so-called volume- and tariff-related timing differences. These are deferred separately as surpluses or deficits in the balance sheet and must be amortized over the coming years. The yearly change is recorded separately in the income statement under "Change in volume- and tariff-related timing differences".

There is a risk that the EBIT and the volume- and tariff-related timing differences are not calculated according to the applicable legal and regulatory provisions and that, consequently, the EBIT and the volume- and tariff-related timing differences are not presented correctly in the financial statements.

For further information on the calculation of the regulated EBIT and volume- and tariff-related timing differences refer to the notes of the financial statements Swiss GAAP FER under note "1. Accounting principles" (paragraphs Changes in accounting estimates and Activities according to StromVG), under note "3. Legal proceedings" and under note "4. Segment reporting" (paragraph Change in volume- and tariff-related timing differences per segment) as well as under note "12. Extraordinary expenses".

Our response

We have performed mainly the following audit procedures:

- Identification of the key controls and verification of their effectiveness using sampling;
- Reconciliation of the method used for calculating the regulated EBIT and volume- and tariff-related timing differences with the legal, administrative and regulatory requirements;
- Recalculation of the interest on the various components of the RAB and volume- and tariff-related timing differences using the interest rates according to the legal base (StromVG/StromVV) as well as to the decisions and directives of the Swiss Federal Electricity Commission (ElCom) and comparison with the recorded values;
- Evaluation of the completeness and transparency of the disclosures presented in the financial statements.



Completeness and accuracy of the net turnover and procurement costs

Key Audit Matter

For the 2019 financial year Swissgrid reports a net turnover of CHF 672.7 million and the procurement costs amount to CHF 224.9 million.

The calculation of the net turnover (performance) and procurement costs is based mainly on the energy data directly metered on the transmission system or reported from downstream grid levels. For the measurement of performance, regulated tariffs must mainly be taken into account; for the procurement costs the applicable market prices.

Swissgrid's regulated activities are characterized by a high volume of IT-based transactions.

For certain turnover and procurement costs positions, no volume base exists at the closing date yet, which requires to make estimates and assumptions.

Due to the transaction volume, the various IT interfaces and the estimates / assumptions, there is a risk that the performance and costs are not calculated completely and correctly.

For further information on the net turnover and the procurement costs refer to the notes of the financial statements Swiss GAAP FER under note "2. Estimation uncertainty" and under note "4. Segment reporting" (paragraph Segment report 2019) as well as under note "5. Net turnover and procurement costs according to the electricity supply act (StromVG)".

Our response

We have analyzed the process relative to the calculation of the net turnover and procurement costs and we have determined whether the energy data have been recorded completely and correctly. In this respect, we have among others identified the key controls and we have then verified their effectiveness using sampling. We have considered the high degree of integration of the provision and recording of services by the various IT systems by testing the effectiveness of the general IT controls and application controls of the relevant IT systems for accounting purposes with the assistance of our IT specialists.

In order to assess the completeness and accuracy, we have also critically examined the main assumptions and evaluated the accuracy of the forecasts regarding the presented accruals, in particular by comparing retrospectively the accrued amounts and the actual amounts.

Furthermore, we have assessed the appropriateness of the disclosures in the financial statements concerning the corresponding positions of the balance sheet and income statement.



Responsibility of the Board of Directors for the Financial Statements

The Board of Directors is responsible for the preparation of the financial statements that give a true and fair view in accordance with Swiss GAAP FER, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

KPMG AG

Rolf Hauenstein
Licensed Audit Expert

Beatriz Vazquez
Licensed Audit Expert

Basel, 22 April 2020

KPMG AG, Viaduktstrasse 42, PO Box 3456, 4002 Basel

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Statutory financial statements

Income statement

In millions of CHF	Notes	2019	2018
Net turnover	3	672.7	907.9
Other operating income	4	13.2	12.9
Change in volume- and tariff-related timing differences		21.0	-219.6
Capitalised self-constructed assets		12.6	14.6
Total operating income		719.5	715.8
Procurement costs	3	224.9	263.4
Gross profit		494.6	452.4
Cost of materials and third-party supplies	5	82.5	72.9
Personnel expenses	6	89.7	82.6
Other operating expenses	7	28.7	29.4
Earnings before interest, income taxes, depreciation and amortisation		293.7	267.5
Depreciation on property, plant and equipment		121.0	110.1
Amortisation on intangible assets		40.0	38.2
Impairment losses	8	31.6	-
Earnings before interest and income taxes (EBIT)		101.1	119.2
Financial income		1.2	0.8
Financial expenses		33.3	39.1
Ordinary result		69.0	80.9
Extraordinary expenses	9	36.7	-
Profit for the year before taxes		32.3	80.9
Income taxes		7.1	17.0
Profit for the year		25.2	63.9

Balance sheet

Assets

In millions of CHF	Notes	31.12.2019	31.12.2018
Cash and cash equivalents		229.1	157.6
Trade accounts receivable	10	119.0	142.7
Other receivables		1.7	1.5
Inventory		1.2	1.3
Prepaid expenses and accrued income	11	48.2	57.0
Short-term deficits arising from volume-and tariff-related timing differences		35.0	–
Assets held on a fiduciary basis	12	14.8	17.9
Current assets		449.0	378.0
Financial assets	13	0.1	2.0
Shareholdings	14	8.7	8.4
Property, plant and equipment	15	2,249.6	2,279.2
Intangible assets	16	257.8	281.4
Long-term deficits arising from volume-and tariff-related timing differences		46.6	91.8
Non-current assets		2,562.8	2,662.8
Assets		3,011.8	3,040.8

Equity and liabilities

In millions of CHF	Notes	31.12.2019	31.12.2018
Trade accounts payable	17	67.2	70.0
Current financial liabilities	20	519.2	145.2
Other liabilities	18	5.0	6.4
Accrued expenses and deferred income	19	72.3	88.9
Current provisions	21	3.3	2.5
Current surpluses arising from volume-and tariff-related timing differences		29.6	6.3
Liabilities held on a fiduciary basis	12	14.8	17.9
Current liabilities		711.4	337.2
Non-current financial liabilities	20	1,040.5	1,425.6
Non-current provisions	21	6.9	7.5
Non-current surpluses arising from volume-and tariff-related timing differences		124.7	142.5
Non-current liabilities		1,172.1	1,575.6
Liabilities		1,883.5	1,912.8
Share capital	22	320.4	318.1
Legal capital reserves		409.0	403.4
Reserves from capital contributions		409.0	403.4
Legal retained earnings		1.6	1.6
General legal reserves		1.6	1.6
Voluntary retained earnings		397.3	404.9
Available earnings		397.3	404.9
Results carried forward		372.1	341.0
Profit for the year		25.2	63.9
Equity		1,128.3	1,128.0
Equity and liabilities		3,011.8	3,040.8

Cash flow statement

In millions of CHF, excluding balance sheet items held on fiduciary basis	Notes	2019	2018
Profit for the year		25.2	63.9
Financial expenses		33.3	39.1
Financial income		-1.2	-0.8
Current income taxes		7.1	17.0
Depreciation and amortisation		161.0	148.3
Impairment losses		31.6	-
Other expenses not affecting revenue and expenditure		38.6	-
Gains/losses on disposal of non-current assets		-0.4	-0.1
Change in provisions		0.2	-1.5
Change in inventory		0.1	0.8
Change in trade accounts receivable		23.7	15.5
Change in other receivables		-0.2	1.0
Change in prepaid expenses and accrued income		8.8	-7.5
Change in volume- and tariff-related timing differences		-21.0	219.6
Change in trade accounts payable		-2.8	16.5
Change in other current liabilities		-1.4	-7.0
Change in accrued expenses and deferred income		-3.4	-29.1
Income taxes paid		-20.4	-24.6
Cash flow from operating activities		278.8	451.1
Gross investments in property, plant and equipment		-136.8	-238.2
Congestion proceeds received for grid investments		40.1	-
Net investments in property, plant and equipment		-96.7	-238.2
Divestment in property, plant and equipment		0.2	1.1
Investments in intangible assets		-16.2	-26.1
Divestment in intangible assets		-	3.9
Investments in shareholdings		-0.2	-
Divestment in shareholdings		-	0.1
Dividends received		0.9	0.6
Cash flow from investing activities		-112.0	-258.6
Change in current financial liabilities		-154.4	-143.1
Issuing of bonds		125.0	-
Interest paid		-33.1	-38.6
Dividends paid		-32.8	-29.4
Cash flow from financing activities		-95.3	-211.1
Change in cash and cash equivalents		71.5	-18.6
Composition			
Cash and cash equivalents at beginning of period		157.6	176.2
Cash and cash equivalents at end of period		229.1	157.6
Change in cash and cash equivalents		71.5	-18.6

Other expenses not affecting revenue and expenditure

This item is comprised of the reversal of the volume- and tariff-related timing differences (CHF 36.7 million) reported in the income statement and the share of the employer contribution reserve used in 2019 (CHF 1.9 million).

Investing and financing activities not affecting cash

The purchase consideration of CHF 26.2 million for the transfer of additional parts of the transmission grid was settled 30% in Swissgrid shares and 70% in loans.

Notes

1. Accounting principles

General information

The financial statements for Swissgrid Ltd, Aarau, have been prepared in accordance with the Swiss Law on Accounting and Financial Reporting (Title 32 of the Swiss Code of Obligations). The valuation principles applied are described below.

Changes in accounting estimates ECom concluded the administrative proceedings on the system audit launched in 2016 by issuing a ruling in 2019. In particular, ECom ruled that Swissgrid is required to adjust the methodology for calculating and applying interest to volume- and tariff-related timing differences. This results in lower imputed interest of CHF 1.1 million for the 2019 financial year compared to the previous calculation methodology.

The entry into force of the provisions under the federal law “Electricity Grid Strategy” on 1 June 2019 was accompanied by the entry into force of Art. 15, paragraph 2, letter c of the Federal Electricity Supply Act (StromVG), according to which one-off remuneration for easements is reported in operating expenses and can no longer be capitalised in intangible assets. As a result of this legal provision, easements of CHF 8.6 million were assigned to operating costs from 1 June 2019.

In a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values for replacement plants. In response to this decision, Swissgrid adapted its capitalisation process.

Conversion of foreign currency items

The accounting records are maintained in local currency (Swiss francs, CHF). All short-term monetary assets and liabilities recognised in foreign currencies are converted at the exchange rate as of the balance sheet date. Transactions in foreign currencies are converted at the exchange rate on the day the transaction took place. Foreign exchange gains and losses resulting from transactions in foreign currencies are recognised in the income statement and are presented in the same line item as the underlying transaction.

Cash flow statement

Cash and cash equivalents form the basis for the presentation of the cash flow statement. The cash flow from operating activities is calculated using the indirect method.

Revenue recognition

Revenue is recognised in the income statement upon performance of Swissgrid’s obligations. For activities regulated under the Federal Electricity Supply Act (StromVG), the measurement of performance is based mainly on energy volumes directly metered on the transmission grid or reported from downstream grid levels.

For certain revenue and procurement items, initial billing values are available six weeks after delivery at the earliest, thereby rendering accruals necessary based on historical and statistical data, as well as on estimates.

Activities according to StromVG

Volume- and tariff-related timing differences (surpluses and deficits) According to Art. 14 of the Electricity Supply Act (StromVG), grid utilisation costs must be allocated to users on a user-pays basis. The tariffs for a financial year are determined based on planned costs. Due to price and volume deviations, actual expenses and income vary from the tariff calculation on both the revenue and procurement side. This results in surpluses or deficits, i.e. the tariff revenues from a financial year are higher or lower than the actual expenses incurred during the same period. These volume- and tariff-related timing differences are transferred to the balance sheet and taken into account in cost and revenue calculations for future tariff periods. The expected reduction in volume- and tariff-related timing differences within 12 months of the balance sheet date is recognised as short-term surpluses or deficits arising from volume- and tariff-related timing differences in the balance sheet.

EBIT regulated under StromVG Earnings before interest and taxes (EBIT) from activities related to the Federal Electricity Supply Act (StromVG) are defined in Article 13 of the Electricity Supply Ordinance (StromVV) and are equivalent to the interest applied to the assets required to operate the transmission system with the weighted average cost of capital rate (WACC) for the current year under review (= $WACC_{t+0}$) and the interest applied to the volume- and tariff-related timing difference with the weighted average cost of capital rate of $WACC_{t+2}$ plus income taxes.

Accordingly, invested operating assets consist of net current assets calculated on a monthly basis as well as the property, plant and equipment and intangible assets as at the end of the financial year. The weighted average cost of capital rate (WACC) is based on the current international practice of the WACC capital cost concept with reference to the Capital Asset Pricing Model (CAPM). Besides considering the findings of financial market theory, the regulatory framework conditions in Switzerland and the current situation in the money and capital market are also taken into account. The official weighted average cost of capital rates for 2019 ($WACC_{t+0}$) and 2021 ($WACC_{t+2}$) based on this method of calculation are unchanged from the 3.83% used in the previous year.

The chargeability of Swissgrid’s operating and capital costs for tariff-setting purposes is subject to approval by ECom, which takes place ex post. In case of an ex post cost adjustment, an appeal can be lodged with the Federal Administrative Court with the possibility of appeal to the Federal Supreme Court. A cost adjustment impacting Swissgrid’s operating result is applied whenever no appeal is lodged, or whenever an appeal’s prospects for success are judged to be less than 50% on the basis of a reappraisal, or whenever a legally binding ruling is issued.

Property, plant and equipment

Property, plant and equipment are recognised at the cost of acquisition or production less accumulated amortisation and any impairment losses. Significant spare parts which are likely to be used for a longer period and whose use only takes place in

connection with a non-current asset item are recognised in non-current assets and depreciated over the remaining useful life of the relevant asset.

Depreciation/amortisation is calculated using the straight-line method on the basis of the estimated useful technical and economic service life.

The service life is determined as follows:

- Lines: 15 to 60 years
- Substations: 10 to 35 years
- Buildings and expansions: 5 to 50 years
- Other property, plant and equipment: 3 to 8 years
- Construction in progress and properties: only applicable in the case of an impairment loss

Intangible assets

Intangible assets are recognised at the cost of acquisition or production less accumulated amortisation and any impairment losses. Depreciation/amortisation is calculated using the straight-line method on the basis of the estimated useful technical and economic service life.

The service life is determined as follows:

- Rights of use: contract term
- Software and technical regulations: 3 to 5 years
- Intangible assets under development: only applicable in the case of an impairment loss

The merger losses (goodwill) resulting from the mergers on 3 January 2013 and 5 January 2015 are also recognised in this item. Goodwill is depreciated on a straight-line basis over 20 years and is reviewed annually for impairments.

Impairment losses

The value of property, plant and equipment and intangible assets is reviewed annually. If there is an indication of an impairment loss, the book value is reduced to the realisable value and an impairment loss is charged to the results of the period.

Construction in progress/intangible assets under development

Construction in progress and intangible assets under development are non-current assets that are not yet completed or not yet operational. All items of property, plant and equipment and intangible assets, including self-constructed assets, are classified as non-current assets. As of each balance sheet date, a review is performed to determine whether any construction in progress or intangible assets under development have to be impaired. These are recognised as impairment losses in the year of completion. Ordinary depreciation or amortisation of these assets begins once they are completed or ready for operation.

Financial assets

Financial assets are measured at acquisition costs less any impairment losses. Employer contribution reserves without conditional renounced use are also recognised in financial assets.

Shareholdings

Shareholdings are measured at acquisition costs less any impairment losses. These include shareholdings with a capital share of over 20%, but which do not have a significant impact on the financial statements, as well as shareholdings with a capital share of less than 20% that do have a significant impact.

Inventory

Inventory includes waste material for maintaining the grid systems. Inventory is measured at the lower of acquisition cost or market price.

Accounts receivable

Accounts receivable are reported at their nominal value less any impairment losses required for business reasons.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, cash at banks and deposits at banks maturing in 90 days or less. They are recognised at their nominal value.

Bonds

Bonds issued on the capital market are recognised at their nominal value. Deviations from the nominal value in the case of below- or above-par issues are recognised as accruals and deferrals and are reversed on a straight-line basis over the term of the bond.

Liabilities

Liabilities are recognised at their nominal value.

Provisions

Provisions are recognised if there is an obligation based on an event that took place prior to the balance sheet date, the amount and/or due date of which is uncertain but capable of being estimated.

Contingent liabilities

Contingent liabilities are measured as at the balance sheet date. A provision is reported if a cash outflow without a usable countervalue is probable and assessable. Otherwise, contingent liabilities are disclosed in the notes to the financial statements.

Interest on borrowed capital

Interest on borrowed capital is recognised as an expense in the period in which it arises.

Income taxes

Current income taxes are calculated based on the taxable results on an accruals basis.

Derivative financial instruments

Swissgrid uses derivative financial instruments to hedge against currency, interest rate and market risks. If the conditions are met, Swissgrid will apply hedge accounting to hedge expected future cash flows.

The instruments used for this purpose will be disclosed in the notes to the financial statements until the underlying transaction is realised.

2. Estimation uncertainty

Financial-statement reporting requires estimates and assumptions to be made that may have a significant impact on Swissgrid's financial statements. With respect to assets and liabilities recognised in the balance sheet, accruals and deferrals (prepaid expenses and accrued income/accrued expenses and deferred income) and volume- and tariff-related timing differences in particular are based on various assumptions and estimates that may necessitate significant adjustments. This is due to specific volumes not being available for certain revenue and procurement items when the financial statements are prepared, as well as regulatory uncertainties. The volume- and tariff-related timing differences are also influenced by estimates in the allocation of operating expenses to the segments.

For more information on this, the reader is referred to the notes in the sections on "Revenue recognition" and "Activities according to StromVG" in Note 1 as well as the comments in Note 26.

3. Net turnover and procurement costs

Net turnover

For the 2019 financial year, net turnover across all segments amounts to CHF 672.7 million. Net turnover of CHF 907.9 million was recorded in the previous year. The CHF 235.2 million decline in turnover is spread across the grid utilisation, general ancillary services and reactive energy segments. The largest drop was reported by the grid utilisation segment, with a decrease of CHF 184.9 million. The reasons for this are lower tariff revenue of CHF 89.8 million and lower income from auctions for the reduction of chargeable grid costs (CHF 88.6 million). Lower tariff revenue is also responsible for the fall in net turnover in the two other segments. By contrast, net turnover in the active power losses segment increased by CHF 29.5 million due to higher tariff revenue and higher income from ITC.

Procurement costs

At CHF 224.9 million, procurement costs are CHF 38.5 million lower than the previous year's value of CHF 263.4 million. This decrease is primarily due to the CHF 24.9 million reduction in costs for ancillary services energy in the general ancillary services segment, and the CHF 18.1 million drop in procurement costs in the active power losses segment. By contrast, costs in the grid utilisation segment increased due to higher additional remuneration for operating and capital costs to former transmission system owners (CHF 15.6 million).

More detailed comments on the individual segments, including the effects on the volume- and tariff-related timing differences, can be found in Note 4 to the financial statements in accordance with Swiss GAAP FER.

In millions of CHF	2019	2018
Congestion management clearing	11.2	10.0
Other	2.0	2.9
	13.2	12.9

4. Other operating income

In millions of CHF	2019	2018
Grid maintenance	21.3	24.6
Grid system control	0.5	4.2
Other services in the grid area	23.8	8.7
Expenses for projects, advisory and non-cash benefits	26.6	25.5
Hardware/software maintenance	10.3	9.9
	82.5	72.9

5. Materials and third-party supplies

The entry into force of the provisions under the federal law "Electricity Grid Strategy" on 1 June 2019 was accompanied by the entry into force of Art. 15, paragraph 2, letter c of the Federal Electricity Supply Act (StromVG), according to which one-off remuneration for easements is reported in operating expenses and can no longer be capitalised. In addition, higher costs for mixed-use assets were reported in 2019 than in 2018, which led to an increase in the "Other services in the grid area" item compared to the previous year.

By contrast, lower costs were reported for grid maintenance due to lower maintenance costs and for substation control services due to the connection of additional substations to Swissgrid's grid control system in comparison to the previous year.

6. Personnel expenses

In millions of CHF	2019	2018
Salaries, bonuses, allowances	72.7	67.2
Employee insurance	13.3	12.1
Other personnel expenses	3.7	3.3
	89.7	82.6

Other personnel expenses include, in particular, the costs of training and further education, recruitment, lump-sum expenses as well as allowances for external catering for employees.

The average number of full-time equivalents exceeded 250 in the reporting period, as was the case the previous year.

7. Other operating expenses

In millions of CHF	2019	2018
Rental and occupancy costs	9.1	9.4
Ground rents	4.5	4.1
Rental costs for communication equipment/telecommunication expense	3.3	4.0
Board of Directors' fees and expenses, incl. social costs	0.8	0.8
Actual expenses for travel and subsistence for employees and third parties	2.2	2.0
Fees, dues and licences	4.5	5.0
Insurance	1.6	1.5
Other administrative costs	2.7	2.6
	28.7	29.4

Board of Directors' fees and expenses represent fixed gross remuneration. The remuneration paid to the Chairman of the Board of Directors amounted to CHF 250,000, including lump-sum expenses (previous year: CHF 250,000). The remaining members of the Board of Directors received remuneration of between CHF 55,000 and CHF 65,000 pro rata temporis for 2019, including lump-sum expenses (previous year: CHF 55,000 to CHF 65,000).

Further information on the members of the Board of Directors can be found in the Corporate Governance Report.

8. Impairment losses

As a result of ECom's ruling in the proceedings on the system audit as well as a ruling by the Federal Administrative Court of relevance for Swissgrid in relation to a third party, Swissgrid was forced to adjust the value of, in particular, capitalised transaction costs (CHF 23.4 million), components of self-constructed assets not chargeable as capital costs (CHF 2.0 million) and dismantling costs (CHF 4.5 million) as at 31 December 2019.

For further information see Note 26, Legal proceedings.

9. Extraordinary expenses

The cumulative financial effects on net income resulting from ECom's ruling of 12 December 2019 on the system audit amount to CHF 33 million, due to the adjustments to be made for the years from 2011 and from 2013 to 2018.

Matters derived from, but not directly associated with, ECom's ruling in the proceedings on the system audit have placed an additional burden on net income in the amount of CHF 2.9 million. Firstly, the imputed interest recorded in the past on costs to be included in the formation of provisions was adjusted (CHF 2.6 million). Secondly, the other income assigned to the segments and the other activities was also adjusted, which resulted in an additional negative effect of CHF 0.3 million.

Moreover, in a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values of replacement plants. As a result of this decision, Swissgrid adjusted the imputed interest based on the capitalised dismantling costs of CHF 0.8 million that were declared in the years between 2013 and 2018, and recognised these in the income statement.

For further information see Note 26, Legal proceedings.

10. Trade receivables

As at 31 December 2019, trade receivables include CHF 15.3 million (previous year: CHF 27.5 million) in relation to companies with a direct or indirect shareholding in Swissgrid.

11. Prepaid expenses and accrued income

In millions of CHF	31.12.2019	31.12.2018
Accrued revenue for supplies made	45.6	54.1
Other	2.6	2.9
	48.2	57.0

In particular, other prepaid expenses and accrued income contains the discount on bond issues and financing and issue costs, which are amortised over the term of the financing instrument.

12. Balance sheet items held on a fiduciary basis

Pursuant to the ECom letter of approval issued on 18 January 2018, income from auctions of CHF 114.5 million (previous year: CHF 132.6 million) was paid to Swissgrid in 2019.

To partially hedge the EUR/CHF currency risk from expected future income in euros, derivative financial instruments (futures) in the nominal amount of EUR 70.1 million exist as at the balance sheet date. The positive replacement values as at 31 December 2019 amount to CHF 1.5 million (previous year: positive replacement values of CHF 1.7 million).

13. Financial assets

In this financial year, CHF 1.9 million of the employer contribution reserve was used to pay monthly employer contributions.

14. Shareholdings

		Share capital in m.	Share in %
Joint Allocation Office (JAO)	B	0.100	5.0
TSCNET Services GmbH	C	0.033	7.7
Holding des Gestionnaires de Réseau de Transport d'Electricité SAS (HGRT)	D	52.119	5.0
Pronovo AG	E	0.100	100.0
ecmt AG	F	0.100	20.0
AET NE1 SA	A	0.100	100.0
ALENA Aletsch Energie Netz AG	A	0.100	100.0
Alpiq Netz AG Gösgen/Aarau	A	0.100	100.0
Alpiq Réseau SA Lausanne/Aarau	A	0.100	100.0
BKW Übertragungsnetz AG	A	0.100	100.0
CKW Grid AG	A	0.100	100.0
EGL Grid AG	A	0.100	100.0
ewb Übertragungsnetz AG	A	0.100	100.0
ewz Übertragungsnetz AG	A	0.100	100.0
FMV Réseau SA	A	0.100	100.0

Kraftwerke Hinterrhein Netz AG	A	0.100	100.0
LENA Lonza Energie Netz AG	A	0.100	100.0
Nordostschweizerische Kraftwerke Grid AG	A	0.100	100.0
Ofible Rete SA	A	0.100	100.0
Ofima Rete SA	A	0.100	100.0
Repower Transportnetz AG	A	0.100	100.0
SN Übertragungsnetz AG	A	0.100	100.0
Übertragungsnetz Basel/Aarau AG	A	0.100	100.0

Letters used for locations and currencies:

A = Aarau (formerly Laufenburg, CH) | Currency CHF

B = Luxembourg (Lux) | Currency EUR

C = Munich (D) | Currency EUR

D = Paris (F) | Currency EUR

E = Frick (CH) | Currency CHF

F = Embrach (CH) | Currency CHF

In September 2019, Swissgrid acquired a holding in ecmt AG, headquartered in Embrach (CH). ecmt AG uses the Management Seismograph application to support its customers in integral risk, disaster and business continuity management (BCM), as well as with status and situational monitoring.

Swissgrid is not legally obliged to prepare consolidated financial statements. Either the control principle necessary to prepare a consolidated financial statement (Art. 963 Code of Obligations (OR)) is not met, or the subsidiaries do not have a material influence on Swissgrid's financial statements. In particular, Pronovo AG is regulated by the Swiss Federal Office of Energy (SFOE) and is explicitly excluded from any consolidation with Swissgrid based on Art. 64 (5) of the Energy Act (EnG).

Otherwise, the information is unchanged from the previous year.

15. Property, plant and equipment

The book values of the individual categories are as follows:

In millions of CHF	31.12.2019	31.12.2018
Construction in progress	366.4	350.7
Substations	781.2	809.5
Lines	929.4	951.6
Properties and buildings	156.4	157.2
Other property, plant and equipment	16.2	10.2
	2,249.6	2,279.2

16. Intangible assets

The book values of the individual categories are as follows:

In millions of CHF	31.12.2019	31.12.2018
Intangible assets under development	12.9	29.3
Usage rights	86.7	84.8
Software	49.3	50.0
Merger losses (goodwill)	108.9	117.3
	257.8	281.4

17. Trade accounts payable

As at 31 December 2019, trade accounts payable include CHF 20.2 million (previous year: CHF 23.1 million) in relation to companies with a direct or indirect shareholding in Swissgrid. Liabilities amounting to CHF 5,924 (previous year: CHF 10,770) exist in relation to the external auditor as at 31 December 2019.

18. Other liabilities

In millions of CHF	31.12.2019	31.12.2018
Value-added tax	3.6	4.6
Security deposits on blocked bank accounts	0.8	0.8
Other	0.6	1.0
	5.0	6.4

The "Other" item contains obligations towards PKE Vorsorgetiftung Energie of CHF 0.4 million (previous year: CHF 0.9 million) as at 31 December 2019.

19. Accrued expenses and deferred income

In millions of CHF	31.12.2019	31.12.2018
Accrued expenses for supplies made	52.8	54.8
Personnel expenses and employee insurance scheme	7.5	6.8
Accrued interest and premium from issued bonds	10.6	10.7
Taxes	1.4	16.6
	72.3	88.9

20. Financial liabilities

In millions of CHF	31.12.2019	31.12.2018
Bonds	975.0	850.0
Convertible loans	584.6	720.7
Loans	0.1	0.1
Total financial liabilities	1,559.7	1,570.8
Current portion	519.2	145.2

Bonds

Nominal amount in CHF	Interest rate	Term	Expiry at nominal value
350 million	1.000%	2013–2020	30.01.2020
350 million	1.625%	2013–2025	30.01.2025
150 million	0.625%	2015–2030	21.02.2030
125 million	0.050%	2019–2050	30.06.2050

Convertible loans and loans

Convertible loans have a term of nine years and one-fifth of the loans become payable annually from year five. As a result, the next partial repayment of convertible loans, amounting to CHF 145.2 million, was made at the start of the 2019 financial year. Moreover, loans are also assigned a conversion right by Swissgrid in the event of occurrence of contractually defined events and an associated conversion obligation by the creditors. Creditors are compensated by a premium on the interest rate for the conversion right assigned to Swissgrid. Convertible loans are recognised in full in liabilities.

The interest conditions and maturities of convertible loans and loans are as follows:

Category	Interest rate p.a. (range)	Up to 1 year	2–5 years	More than 5 years
Convertible loans	3.36–3.93%	169.2	404.4	11.0
Loans	0.00%	–	–	0.1

Convertible loans and loans are assessed at their nominal value.

As at 31 December 2019, convertible loans of CHF 343.3 million (previous year: CHF 400.5 million) exist towards companies with a direct or indirect shareholding in Swissgrid.

21. Provisions

In millions of CHF	31.12.2019	31.12.2018
Restructuring	–	0.5
Dismantling	6.1	6.5
Employee incentive plan	0.3	0.4
Procedural costs	3.8	2.6
Total provisions	10.2	10.0
Current portion	3.3	2.5

Procedural costs

With the grid takeovers on 3 January 2013 and 5 January 2015 and the associated spin-offs of the procedural companies from the grid companies, contractual regulations mean that Swissgrid is responsible for the costs of proceedings attributable to the procedural companies. The provision corresponds to Swissgrid's expected future expenses for party, court and legal costs that may arise for the procedural companies as part of their administrative procedures in conducting proceedings.

The provision amount also includes the estimated compensation payable to parties and the court costs imposed on Swissgrid due to the administrative procedures in conducting proceedings.

22. Share capital and reserves from capital contributions

The share capital consists of 320,398,149 (previous year: 318,141,670) fully paid-up registered shares with a par value of CHF 1 per share.

23. Derivative financial instruments

As at the balance sheet date, derivative financial instruments exist to hedge the risk of a change in interest rates for future borrowing. The nominal amount of these instruments is CHF 275 million, with negative replacement values of CHF 22.1 million as at 31 December 2019 (previous year: negative replacement values of CHF 5.8 million).

Swissgrid made use of derivative financial instruments to partially hedge against market price risk from future procurement costs. The nominal amount of these instruments is EUR 14.2 million (previous year: EUR 0.0 million), with negative replacement values of EUR 0.3 million as at 31 December 2019 (previous year: EUR 0.0 million).

24. Contingent receivables

Billing method for ancillary services (AS)

EICom defined the billing method for the AS surcharge in its 4/2018 directive. Under this method, Swissgrid and the distribution system operators wait until the subsequent year to finally settle payments of AS tariffs for the previous financial year.

The settlement will result in receivables owed to Swissgrid by the distribution system operators. However, since the amount of these receivables could not be reliably determined when the financial statements were prepared, they were recognised as contingent receivables.

25. Other off-balance-sheet commitments

Grid costs

As stipulated by EICom, the former owners are entitled to chargeable operating and capital costs from the period between 2009 until the transfer date for the grid elements included in the transmission system. Several proceedings are pending in this respect.

For that reason, no final cost can be specified on the balance sheet date. Swissgrid has recognised the grid costs stipulated for each year in its annual financial statements. A reliable assessment of the additional grid costs is not possible. The operating and capital costs to be remunerated could range between CHF 10.0 million and CHF 50.0 million.

Any subsequent changes to the amount of cost compensation are taken into account in the annual tariff calculation and will be reflected in costs in the subsequent billing periods.

They do not have any direct impact on Swissgrid's results.

Assessed transaction value for the transmission system

The EICom ruling issued on 20 October 2016 definitively established the method for determining the assessed value of the transmission system. The first remuneration based on this method was issued on 3 January 2017.

The final remuneration owed under this method cannot be determined until all valuation proceedings have been finally adjudicated. The financial consequences are difficult to predict at this time. However, the outcome of the proceedings has no direct impact on Swissgrid's income.

Joint Allocation Office (JAO)

As a shareholder of the Joint Allocation Office (JAO), Swissgrid is contractually obliged to assume its share of the annual costs.

TSCNET Services GmbH

As a shareholder of TSCNET Services GmbH, Swissgrid is contractually obliged to assume its share of the annual costs.

Off-balance-sheet lease commitments

Swissgrid has the following off-balance-sheet lease commitments for vehicles and office equipment:

In millions of CHF	Up to 1 year	2–5 years	Total
31.12.2019	0.7	0.6	1.3
31.12.2018	0.7	1.2	1.9

Long-term rental contracts

Long-term rental contracts with fixed terms exist with several parties. These result in the following obligations:

In millions of CHF	Up to 1 year	Year 2–10	More than 10 years	Total
31.12.2019	6.0	39.3	72.1	117.4
31.12.2018	7.4	40.4	74.2	122.0

The long-term rental obligations primarily include the rental commitments for Swissgrid's head office in Aarau.

26. Legal proceedings

EICom proceedings on the system audit

EICom concluded the administrative proceedings on the system audit launched in 2016 and issued its ruling on 12 December 2019. The object of these proceedings was to calculate the capital costs from 2013 to 2015, the volume- and tariff-related timing differences in the grid utilisation segments from 2013 to 2015, and the ancillary services from 2011 to 2015.

The focus of EICom's very first system audit was to investigate the compatibility of the processes and procedures for calculating capital costs and volume- and tariff-related timing differences with electricity supply legislation. These proceedings did not examine the amount of the costs. However, any corrections ordered by EICom can have an impact on costs.

In December 2018, EICom submitted an audit report on the system audit for Swissgrid to provide an opinion, which Swissgrid submitted in June 2019. A statement as to whether, and the extent to which, this system audit will result in a reduction of Swissgrid's chargeable costs was only possible upon receipt of the ruling on 12 December 2019. The Swissgrid Board of Directors decided not to appeal against the ruling.

In its ruling, EICom ordered Swissgrid to adapt the method for calculating and applying interest to the volume- and tariff-related timing differences with retroactive effect from 2011 and 2013 respectively. The cumulative financial effects of the necessary adjustments for the years from 2011 and from 2013 to 2019 as a result of the ruling place a total burden of CHF 34.1 million on Swissgrid's 2019 net income.

Of this amount, CHF 1.1 million is attributable to 2019 (cf. Note 1, Changes in accounting estimates) and CHF 33 million relates to the years from 2011 and from 2013 to 2018 (cf. Note 9, Extraordinary expenses).

Additionally, in its ruling, ECom decided that Swissgrid had to derecognise transaction costs capitalised in the previous years (CHF 23.4 million) and components of self-constructed assets not chargeable as capital costs (CHF 2 million) of CHF 25.4 million from non-current assets (cf. Note 8, Impairment losses). This decision delivered new and important findings and is the reason for Swissgrid's derecognition of the aforementioned transaction costs and components of self-constructed assets not chargeable as capital costs in the amount of CHF 25.4 million from non-current assets by way of a value adjustment (cf. Note 8, Impairment losses).

Matters derived from the ECom proceedings on the system audit

Matters derived from, but not directly associated with, ECom's ruling in the proceedings on the system audit have placed an additional burden on net income in the amount of CHF 2.9 million (cf. Note 9, Extraordinary expenses). Firstly, the imputed interest recorded in the past on costs to be included in the formation of provisions, was adjusted (CHF 2.6 million). ECom's requirements state that costs may only be recognised once they have effectively accrued. For provisions, this is the time at which the provision is effectively used, not the time it is formed. Secondly, the other income assigned to the regulatory segments and the other activities in the previous years was also adjusted, which has an additional negative effect of CHF 0.3 million.

Federal Administrative Court ruling for a third party regarding the chargeability of dismantling costs

In a ruling issued to a third party in 2019, the Federal Administrative Court decided that dismantling costs for old plants are not part of the regulatory asset values for replacement plants. This decision provided new and important findings with regard to the regulatory treatment of dismantling costs. From a regulatory perspective, dismantling costs cannot be recognised as capital costs, which means that no imputed interest can be assigned. Swissgrid consequently adjusted the imputed interest based on the capitalised dismantling costs of CHF 0.8 million that were declared in the past (in the years between 2013 and 2018), and recognised these in the income statement (cf. Note 9, Extraordinary expenses). In addition, Swissgrid derecognised the capitalised dismantling costs of CHF 4.5 million from property, plant and equipment by way of a value adjustment (cf. Note 8, Impairment losses).

ECom proceedings to calculate volume- and tariff-related timing differences for 2011 and 2012

In its letter dated 23 August 2019, ECom reopened proceedings to calculate the volume- and tariff-related timing differences for 2011 and 2012. ECom has not yet initiated any proceedings to examine the volume- and tariff-related timing differences for the years from 2013 to 2019. These proceedings will examine the chargeability of Swissgrid's capital and operating costs. The outcome of these proceedings could result in a reduction of Swissgrid's chargeable costs.

As at 31 December 2019, Swissgrid estimates the cumulative risk for non-chargeable costs at CHF 75 million. As at 31 December 2018, the cumulative risk was estimated at CHF 110 million. The updated estimate at the end of 2019 took account of financial

effects from the adjustments made after the ECom ruling on the system audit and other regulatory effects. Swissgrid's equity situation is therefore not jeopardised, even in the event that the maximum risk of CHF 75 million occurs.

Swissgrid's Board of Directors and Executive Board believe that all costs for the years 2011 to 2019 were incurred within the framework of Swissgrid's legal mandate and should therefore qualify as chargeable. Based on this assessment, Swissgrid has treated all operating and capital costs as chargeable and consequently recognised them in full in the volume- and tariff-related timing differences. If, contrary to Swissgrid's assessment, the costs claimed are ruled to be non-chargeable, this would be reflected in future financial statements.

Third-party proceedings

The financial impact of third-party proceedings in which Swissgrid is involved are included in Swissgrid's financial statements if the Swiss GAAP FER criteria for recognition have been met. However, they have no direct impact on Swissgrid's results as they are included in the volume- and tariff-related timing differences.

27. Audit fees

In 2019, the fees for audit services amount to CHF 0.22 million (previous year: CHF 0.18 million) and CHF 0.02 million (previous year: CHF 0.09 million) for other services.

28. Events after the balance sheet date

Swissgrid placed two additional bonds with a total volume of CHF 300 million on the capital market on 13 January 2020. Each of the bonds is worth CHF 150 million with one coupon of 0.00% and a term of 8.4 years, and one coupon of 0.20% and a term of 12.4 years. The bonds are listed on the SIX Swiss Exchange. The CHF 275 million in interest hedging entered into here (cf. Note 23, Derivative financial instruments) was released in January. The resulting present value will be capitalised and depreciated over the term of the bonds on a straight-line basis.

The financial impact of COVID-19 on Swissgrid currently cannot be assessed. However, due to the regulatory business model, no significant impact is expected on net income in 2020.

Otherwise, there are no events after the balance sheet date that would require disclosure or recognition in the 2019 financial statements.

On 22 April 2020, the Board of Directors of Swissgrid Ltd approved the 2019 financial statements for submission to the General Assembly and for publication.

Proposed appropriation of retained earnings

The Board of Directors proposes to the General Assembly that the retained earnings be appropriated as follows:

CHF	2019	2018
Balance carried forward from the previous year	372,091,648.69	340,932,702.88
Profit for the year	25,208,873.03	63,976,968.02
Retained earnings	397,300,521.72	404,909,670.90
Appropriation to the general legal reserves	–	–
Dividend payment	31,485,288.01	32,818,022.21
Balance to be carried forward	365,815,233.71	372,091,648.69
Total appropriation	397,300,521.72	404,909,670.90

Since legal capital reserves and legal retained earnings have reached 50% of the share capital, no more funds will be allocated to these accounts.

Aarau, 22 April 2020

For the Board of Directors:
Adrian Bult, Chairman



Statutory Auditor's Report

To the General Meeting of Swissgrid Ltd, Aarau

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Swissgrid Ltd, which comprise the balance sheet as at 31 December 2019, the income statement and statement of cash flow for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion the financial statements (pages 52 to 63) for the year ended 31 December 2019 comply with Swiss law and the company's articles of incorporation.

Basis for Opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Report on Key Audit Matters based on the circular 1/2015 of the Federal Audit Oversight Authority



Accuracy of the calculation of the regulated EBIT and volume- and tariff-related timing differences



Completeness and accuracy of the net turnover and procurement costs

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



Accuracy of the calculation of the regulated EBIT and volume- and tariff-related timing differences

Key Audit Matter

For the 2019 financial year Swissgrid reports an EBIT (earnings before interest and taxes) of CHF 101.1 million. The change in volume- and tariff-related timing differences amounts to CHF +21.0 million.

The EBIT presented in Swissgrid's financial statements is legally defined as the multiplication of the invested operating assets (regulatory asset base, "RAB") and volume- and tariff-related timing differences by the applicable regulatory interest rates plus taxes. The RAB consists of the transmission grid assets (incl. construction in progress), the intangible assets and the net current assets determined on a monthly basis.

Cost and volume variances between the actual costs and income for a year and the costs and income pre-determined in advance at tariff level for the same year lead to so-called volume- and tariff-related timing differences. These are deferred separately as surpluses or deficits in the balance sheet and must be amortized over the coming years. The yearly change is recorded separately in the income statement under "Change in volume- and tariff-related timing differences".

There is a risk that the EBIT and the volume- and tariff-related timing differences are not calculated according to the applicable legal and regulatory provisions and that, consequently, the EBIT and the volume- and tariff-related timing differences are not presented correctly in the financial statements.

For further information on the calculation of the regulated EBIT and volume- and tariff-related timing differences refer to the notes of the financial statements under note "1. Accounting principles" (paragraphs Changes in accounting estimates and Activities according to StromVG) and under note "9. Extraordinary expenses" as well as under note "26. Legal proceedings".

Our response

We have performed mainly the following audit procedures:

- Identification of the key controls and verification of their effectiveness using sampling;
- Reconciliation of the method used for calculating the regulated EBIT and volume- and tariff-related timing differences with the legal, administrative and regulatory requirements;
- Recalculation of the interest on the various components of the RAB and volume- and tariff-related timing differences using the interest rates according to the legal base (StromVG/StromVV) as well as to the decisions and directives of the Swiss Federal Electricity Commission (ElCom) and comparison with the recorded values;
- Evaluation of the completeness and transparency of the disclosures presented in the financial statements.



Completeness and accuracy of the net turnover and procurement costs

Key Audit Matter

For the 2019 financial year Swissgrid reports a net turnover of CHF 672.7 million and the procurement costs amount to CHF 224.9 million.

The calculation of the net turnover (performance) and procurement costs is based mainly on the energy data directly metered on the transmission system or reported from downstream grid levels. For the measurement of performance, regulated tariffs must mainly be taken into account; for the procurement costs the applicable market prices.

Swissgrid's regulated activities are characterized by a high volume of IT-based transactions.

For certain turnover and procurement costs positions, no volume base exists at the closing date yet, which requires to make estimates and assumptions.

Due to the transaction volume, the various IT interfaces and the estimates / assumptions, there is a risk that the performance and costs are not calculated completely and correctly.

For further information on the net turnover and the procurement costs refer to the notes of the financial statements under note "2. Estimation uncertainty" and under note "3. Net turnover and procurement costs".

Our response

We have analyzed the process relative to the calculation of the net turnover and procurement costs and we have determined whether the energy data have been recorded completely and correctly. In this respect, we have among others identified the key controls and we have then verified their effectiveness using sampling. We have considered the high degree of integration of the provision and recording of services by the various IT systems by testing the effectiveness of the general IT controls and application controls of the relevant IT systems for accounting purposes with the assistance of our IT specialists.

In order to assess the completeness and accuracy, we have also critically examined the main assumptions and evaluated the accuracy of the forecasts regarding the presented accruals, in particular by comparing retrospectively the accrued amounts and the actual amounts.

Furthermore, we have assessed the appropriateness of the disclosures in the financial statements concerning the corresponding positions of the balance sheet and income statement.



Responsibility of the Board of Directors for the Financial Statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Swiss law and Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.



We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

KPMG AG

Rolf Hauenstein
Licensed Audit Expert
Auditor in Charge

Beatriz Vazquez
Licensed Audit Expert

Basel, 22. April 2020

KPMG AG, Viaduktstrasse 42, PO Box 3456, 4002 Basel

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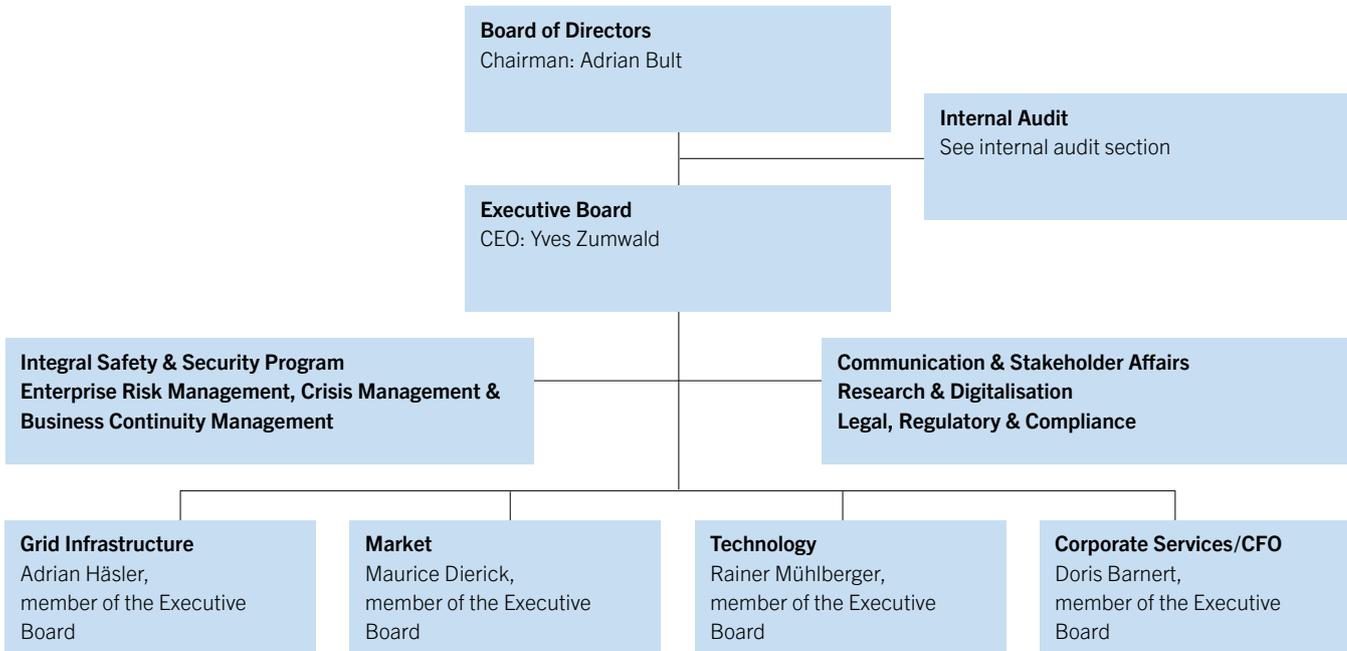
Corporate Governance

The Board of Directors and Executive Board of Swissgrid Ltd (Swissgrid) place great importance on good corporate governance. The following statements are based on the Swiss Code of Best Practice for Corporate Governance. All information relates to the reporting date of 31 December 2019, unless specified otherwise.

Corporate structure and shareholders

Corporate structure

Swissgrid's operational structure is shown below:



The shareholdings of Swissgrid are listed in paragraph 14 of the notes on the statutory financial statements. Swissgrid holds 100% of the shares in the non-consolidated subsidiary Pronovo AG. In accordance with Art. 64 of the Energy Act, Pronovo AG is the responsible enforcement agency for guarantees of origin, the feed-in tariff system (FTS and CRF), one-off remuneration activities and additional cost financing. It is also responsible for the collection of grid premiums in this respect. Pronovo AG prepares separate annual reports, which can be accessed at www.pronovo.ch.

Shareholders

The following companies are Swissgrid shareholders as at 31 December 2019: Aare Versorgungs AG (AVAG), AEK Energie AG, Alpiq Suisse SA, Axpo Power AG, Axpo Solutions AG, Azienda elettrica ticinese, Aziende Industriali di Lugano (AIL) SA, BKW Netzbeteiligung AG, Centralschweizerische Kraftwerke AG, Elektrizitätswerk der Stadt Zürich, Elektrizitätswerk Obwalden, Electra-Massa AG, En-Alpin AG, Engadiner Kraftwerke AG, FMV SA, Forces Motrices Hongrin-Léman S.A. (FMHL), Forces Motrices de Mauvoisin SA, General Electric Technology GmbH, Grande Dixence SA, IWB Industrielle Werke Basel, Kraftwerke Hinterrhein AG, Kraftwerke Linth-Limmern AG (KLL), Kraftwerke Mattmark AG, Kraftwerke Oberhasli AG, Kraftwerke Sarganserland AG (KSL), Kraftwerke Vorderrhein AG (KVR), Nant de Drance SA, Officine Idroelettriche della Maggia SA, Officine idroelettriche di Blenio SA, Repower AG, SIRESO Société d'Inves-

tissement de Suisse occidentale SA and SN Energie AG. Together, they hold 100% of Swissgrid's share capital as at 31 December 2019. Swissgrid is directly or indirectly majority-owned by the cantons and the municipalities. The current shareholder structure can be viewed online at www.swissgrid.ch.

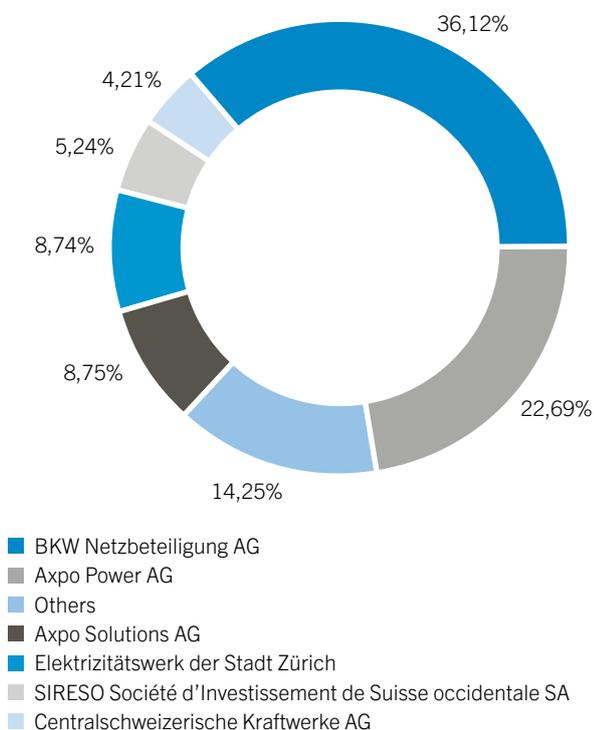
Cross shareholdings

No cross shareholdings currently exist.

Swissgrid ownership structure

As at 31 December 2019

All figures rounded



Others:

1.87%	Kraftwerke Hinterrhein AG	0.40%	Kraftwerke Mattmark AG
1.66%	Azienda elettrica ticinese	0.15%	Elektrizitätswerk Obwalden
1.57%	Officine Idroelettriche della Maggia SA	0.12%	Engadiner Kraftwerke AG
1.53%	Kraftwerke Linth-Limmern AG (KLL)	0.12%	Kraftwerke Vorderrhein AG (KVR)
1.29%	SN Energie AG	0.09%	General Electric Technology GmbH
1.11%	FMV SA	0.02%	Kraftwerke Sarganserland AG (KSL)
0.78%	IWB Industrielle Werke Basel	0.01%	AEK Energie AG
0.76%	Forces Motrices de Mauvoisin SA	< 0.01%	Aare Versorgungs AG (AVAG)
0.74%	EnAlpin AG	< 0.01%	Alpiq Suisse SA
0.70%	Nant de Drance SA	< 0.01%	Electra-Massa AG
0.45%	Officine idroelettriche di Blenio SA	< 0.01%	Forces Motrices Hongrin-Léman S.A. (FMHL)
0.44%	Kraftwerke Oberhasli AG	< 0.01%	Grande Dixence SA
0.44%	Aziende Industriali di Lugano (AIL) SA	< 0.01%	Repower AG

In accordance with the resolution taken at Swissgrid's extraordinary General Assembly on 5 December 2018, Swissgrid carried out an ordinary capital increase on 3 January 2019 and took over additional transmission grid assets. The former owners of these systems were remunerated 30% in Swissgrid shares and 70% in loans, for which purpose new Swissgrid shares (half A registered shares and half B registered shares) with a nominal value of CHF 900,000 were created. In addition, the first valuation adjustment to these transmission grid assets transferred to Swissgrid on 3 January 2019, following the provision of the relevant ECom ruling, led to a positive value adjustment overall for which the former owner is remunerated for the contribution of their transmission grid assets to the amount of 30% in Swissgrid shares and to the amount of 70% with a loan receivable from Swissgrid. As a result, new Swissgrid shares (half A registered shares and half B registered shares) with a nominal value of CHF 1,364,423 were issued within the scope of the existing conditional capital and entered in the commercial register on 6 January 2020.

No authorised capital exists. According to Art. 18 Para. 5 of the Electricity Supply Act, the company's shares may not be listed on a stock exchange. The Board of Directors maintains a share register listing the names and addresses of the owners and beneficiaries. Only shareholders or beneficiaries listed in the share register are recognised by the company and are authorised to exercise their shareholder rights. The status of the entries in the share register on the 20th day prior to the General Assembly is decisive for determining entitlement to participation and representation at the General Assembly. According to Art. 18 Para. 3 of the Electricity Supply Act, the majority of the share capital and the associated voting rights must be directly or indirectly held by the cantons and municipalities. In the event of share transfers (sale, gift, exercise of pre-emption rights and purchase rights, etc.), these majorities must be retained. If an intended transaction breaches one of these majority ownership requirements, the Board of Directors must not grant its approval.

There are no participation or profit-sharing certificates and no options were issued.

Capital structure

Capital and restriction on transferability

The ordinary share capital as at 31 December 2019 consists of 320,398,149 registered shares with a nominal value of CHF 1 per share (divided into 160,199,075 A registered shares and 160,199,074 B registered shares). The conditional share capital as at 31 December 2019 consists of a maximum of 127,036,489 fully paid-up registered shares (half A registered shares and half B registered shares), each with a nominal value of CHF 1. The conditional share capital relates to received convertible bonds that Swissgrid used to finance the transfer of the transmission grid. Creditors can exercise conversion rights over a maximum of 20 years. Shareholders have no pre-emptive rights. Shareholder advance subscription rights are also excluded, as the convertible bonds are financing the takeover of grid companies transferred as contributions in kind or individual system elements, or the simple and rapid improvement of Swissgrid's capital resources.

Capital changes

Further information on the share capital and capital changes in the last two years is shown in the statement of changes in equity in the Swiss GAAP FER financial statements.

Board of Directors

Members of the Board of Directors, additional activities and affiliations



From top left to bottom right: Adrian Bult, Marcel Frei, Dominique Gachoud, Markus Kägi, Kerem Kern, Isabelle Moret, Claude Nicati, Ronald Trächsel, Regula Wallimann

Adrian Bult

Chairman, independent member
Born in 1959, Swiss

Adrian Bult, lic. oec., has been a member of the Swissgrid Board of Directors since 2006 and its Chairman since 2012. From 2007 to 2012, he was a member of the Executive Board (COO) at Avaloq Evolution AG. Until 2007, he was the Head of IT Telecom PTT and was later a member of the Group management of Swisscom, initially as CIO, then as CEO Swisscom Fixnet and finally as CEO Swisscom Mobile. Before this, he sat on the Executive Board of IBM Switzerland.

Affiliations President of the Bank Council at Basler Kantonalbank; Chairman of the Board of Directors at AdNovum AG, Garaio AG, Regent Beleuchtungskörper AG and Amrop Executive Search AG; member of the Board of Directors at Alfred Müller AG and SWICA.

Marcel Frei

Board of Directors, industry representative
Born in 1959, Swiss

Marcel Frei, a Swiss-certified expert in accounting and financial controlling, has been a member of the Swissgrid Board of Directors since 2012. He has been the Director of ewz (the electric power supplier to the City of Zurich) since 2012. Before this, he was the CFO and, from 2009 onwards, also the Deputy Director of ewz.

Affiliations Chairman of the Board of Directors at Energie Naturelle Mollendruz SA; Vice Chairman of the Board of Directors at AKEB Aktiengesellschaft für Kernenergie-Beteiligungen Luzern and LaZur Energie SA; member of the Board of Directors at Kernkraftwerk Gösgen-Däniken AG, Kraftwerke Oberhasli AG and EFA Energie Freiamt AG; Director of ewz (Deutschland) GmbH; member of the Executive Board at asut (Swiss Telecommunications Association) as well as at Glasfasernetz Schweiz (Swiss Fibre Optic Network).

Dominique Gachoud

Board of Directors, industry representative
Born in 1954, Swiss

Dominique Gachoud, electrical engineer (EPFL), has been a member of the Swissgrid Board of Directors since 2017. From 1 July 2012 to 31 October 2019, he was the CEO/General Director of Groupe E. Prior to this, he managed the Energy Distribution division at Groupe E. From 1982 to 2005, he held various managerial roles at Entreprises Electriques Fribourgeoises (Groupe E from 2005).

Affiliations Chairman of the Board of Directors at Groupe E Celsius SA and ftth fr SA; member of the Board of Directors at Alpiq Holding SA, EOS Holding SA, Gaznat SA, Unigaz SA, Fingaz SA, Swiss Gas Invest AG, SIRESO SA, Capital Risque Fribourg SA and the Neuchâtel Chamber of Commerce and Industry; Chairman of the regioGrid association; Vice Chairman of the Association of Swiss Electricity Companies (VSE).

Markus Kägi

Board of Directors, cantonal representative
Born in 1954, Swiss

Markus Kägi, member of the Zurich Notary Bar, has been a member of the Swissgrid Board of Directors since 2019. From 2007 to 2019, he served as a Councillor of the Canton of Zurich and Head of the Building Department. In 2012/2013 and 2017/2018, he also served as President of the Zurich State Government. Prior to this, from 1996 to 2007, he was the ombudsman for the canton of Zurich and, from 2005 to 2007, Chairman of the European Ombudsman Institute. From 1991 to 1996, he was a member of Zurich's cantonal council, taking over as Chairman in 1995/1996.

Affiliations None.

Kerem Kern

Board of Directors, industry representative
Born in 1974, Swiss

Kerem Kern, Dr. iur., lawyer, has been a member of the Swissgrid Board of Directors since 2017. He has headed the Corporate Regulatory Management and Legal Grid division at Axpo Holding AG since 2012. Prior to this, he was employed as Legal Counsel at Axpo Holding AG. From 2007 to 2010, he worked as a lawyer at the Baur Hürlimann law firm in Zurich.

Affiliations Board member of the Association of Swiss Electricity Companies (VSE).

Isabelle Moret

Vice Chair, independent member
Born in 1970, Swiss

Isabelle Moret, lic. jur., LL.M, lawyer, has been a member of the Swissgrid Board of Directors since 2012. She runs her own law firm. She has been a member of the National Council since 2006 and is currently its Chairwoman. Prior to this, she was a member of the Grand Council of the Canton of Vaud and from 2008 to April 2016 Vice Chairwoman of the liberal party FDP.

Affiliations Member of the Board of Directors at Interregionale Blutspende SRK AG, member of the Executive Committee of economiesuisse (Swiss Business Federation), Chairwoman of the Federation of Swiss Food Industries (fial) and of H+, the association of Swiss hospitals; foundation board member at EPFL-WISH Foundation.

Claude Nicati

Board of Directors, cantonal representative
Born in 1957, Swiss

Claude Nicati, lic. iur., lawyer, has been a member of the Swissgrid Board of Directors since 2014. He works as an independent lawyer at the Etude d'avocat-e-s NVB (Nicati, Vara, Bigler) law firm. From 2009 to 2013, he served as Councillor of the Canton of Neuchâtel and Head of the Regional Planning department. From 1997 to 2001, he was the examining magistrate for the Canton of Neuchâtel and finally, from 2001 to 2009, Deputy Federal Public Prosecutor. Before this, he held various senior positions in municipal and cantonal police departments.

Affiliations Board member at Caritas, Fondation "Aide aux enfants", Fondation PlanetSolar and the Ordre des Avocats Neuchâtelois; Vice Chairman of the Criminal Commission of the International Union of Lawyers.

Ronald Trächsel

Board of Directors, industry representative
Born in 1959, Swiss

Ronald Trächsel, lic. rer. pol., has been a member of the Swissgrid Board of Directors since 2015. He has served as the CFO of BKW AG since 2014. He was CFO of the Sika Group from 2008 to 2014. Before this, he served as CEO and CFO of vitra for eight years. From 1995 to 1999, he was CFO of Ringier International. Prior to this, he held various positions at Ciba-Geigy and BDO/Visura.

Affiliations Member of the Board of Directors at Kraftwerke Oberhasli AG, AEK Onyx AG, ContourGlobal plc (London), Wyss Samen und Pflanzen AG, Création Baumann AG, BKW Energie AG and BKW Building Solutions AG.

Regula Wallimann

Board of Directors, independent member
Born in 1967, Swiss

Regula Wallimann, lic. oec. HSG, has been a member of the Swissgrid Board of Directors since 2017. She has been an independent financial advisor since April 2017. Prior to this, she worked for KPMG AG for 24 years. Between 2003 and 2017, she was the Global Lead Partner responsible for auditing international companies and managed audit teams in the areas of tax, IT and treasury and compliance, among others.

Affiliations Member of the Board of Directors at Straumann Holding AG, Adecco Group AG, Helvetia Holding AG, Helvetia Schweizerische Lebensversicherungsgesellschaft AG and Helvetia Schweizerische Versicherungsgesellschaft AG; member of the Executive Committee of the Institute for Accounting, Controlling and Auditing ACA-HSG at the University of St. Gallen.

New elections in the reporting period

Markus Kägi, on 6 May 2019

Election and term of office

The Board of Directors is comprised of at least three elected members. The majority of members and the Chairman must meet independence requirements in accordance with Art. 18 Para. 7 of the Electricity Supply Act. As a rule, the Board of Directors is elected at the Annual General Assembly for one year at a time. The term of office for the members of the Board of Directors ends on the day of the next Annual General Assembly. All cantons together have the right to delegate and recall two members to/from the company's Board of Directors (Art. 18 Para. 8 of the Electricity Supply Act). The members of the Board of Directors can be re-elected at any time. The Board of Directors is self-constituting. It nominates its Chairman, Vice Chairwoman and the Secretary, who does not have to be a member of the Board of Directors.

Internal organisation

The Board of Directors is responsible for the overall management of the company and for supervising the management of the company. It represents the company externally and takes care of all matters that are not assigned to another corporate body according to law, regulations or the Articles of Incorporation. The Board of Directors can, subject to the legal guidelines on independence (Art. 18 Para. 7 of the Electricity Supply Act), transfer the management of the company or individual parts thereof as well as the representation of the company to one or more persons, members of the Board of Directors or third parties, who do not have to be shareholders. It issues the organisational regulations and arranges the corresponding contractual relationships. The powers of the Board of Directors and the Executive Board are defined in the organisational regulations. The members of the Board of Directors do not exercise any executive roles within Swissgrid. The Board of Directors met eleven times during the last financial year.

Board committees

In order to incorporate the specialist knowledge and broad range of experience of the individual members in the decision-making process, or to report as part of its supervisory duty, the Board of Directors formed three committees to assist in management and control activities in close collaboration with the Executive Board: the Strategy Committee, the Finance and Audit Committee, and the Staff and Compensation Committee. The tasks and powers of the Board committees are set out in detail in the organisational regulations.

Strategy Committee The Strategy Committee supports the Board of Directors in the strategy process. It advises on the strategic principles on behalf of the Board of Directors and reviews the strategy for the Board of Directors on a regular basis. The committee presents its view on proposals that relate to strategic issues. The Strategy Committee met five times during the last financial year.

Members:

- Adrian Bult (Chairman, since 2012)
- Marcel Frei (since 2 May 2017)
- Kerem Kern (since 2 May 2017)
- Claude Nicati (since 2014)

Changes in the reporting period: None.

Finance and Audit Committee The Finance and Audit Committee supports the Board of Directors in its supervisory role, i.e. with regard to the integrity of the accounts, the fulfilment of legal provisions, and the competence and services of the external auditors. The Finance and Audit Committee assesses the suitability of financial reporting, the internal control system and the general monitoring of business risks. It ensures that there is ongoing communication with the external auditors concerning the financial position and the course of business. It supervises the Internal Audit division's work. It makes the necessary preparations relating to the appointment or discharge of external auditors and the organisation and management of the Internal Audit division. The Finance and Audit Committee met five times during the last financial year.

Members:

- Regula Wallimann (Chairwoman, since 2 May 2017)
- Dominique Gachoud (since 2 May 2017)
- Ronald Trächsel (since 2015)

Changes in the reporting period: None.

Staff and Compensation Committee The Staff and Compensation Committee draws up principles for all compensation components of the members of the Board of Directors, the CEO and the members of the Executive Board, and submits a proposal to the Board of Directors accordingly. The committee defines the remuneration of the CEO and the members of the Executive Board. The basis for this decision is the compensation concept approved by the Board of Directors. The committee presents its view on the changes to the Executive Board that are proposed by the CEO. It also ensures that succession planning is in place for the Board of Directors and the Executive Board. The Staff and Compensation Committee met four times during the last financial year.

Members:

- Isabelle Moret (Chairwoman, since 2014)
- Adrian Bult (since 2012)
- Kerem Kern (since 15 May 2018)

Changes in the reporting period:

- Markus Kägi (newly elected on 6 May 2019)

Ad hoc committees The Board of Directors may appoint ad hoc committees for specific tasks. It did not set up any such committee in the last financial year.

Information and control instruments with regard to the Executive Board

Information and control instruments The Board of Directors has the following instruments for monitoring and supervising the Executive Board:

- At Board meetings, the Executive Board presents and comments on business performance and submits all important issues for discussion or resolution.
- A report to the Board of Directors is compiled quarterly, and contains key figures on business performance together with comments from the Executive Board.
- The written CEO report is submitted at every ordinary Board meeting and also deals with recurring issues, such as the ancillary services reports, grid construction projects and key performance indicators (KPI).
- Additional, periodically recurring information instruments for the Board of Directors are the risk report and the reports on developments in the energy sector in Switzerland and Europe.
- The auditor issues an annual written report for the Board of Directors (see also the comments in the auditor section).

Internal control system The internal control system has an important role as part of corporate management and monitoring, and covers all procedures, methods and measures mandated by the Board of Directors and the Executive Board that serve to ensure the correct execution of the business processes with regard to financial management and accounting at Swissgrid. The internal operational controls are integrated into the operating procedures. They are implemented while work is being carried out or take place immediately before or after a procedure. Internal checks do not come under a separate function, but are integrated into the processes. The internal control system at Swissgrid is implemented at all levels of the organisation and demands a high level of personal responsibility from employees.

Internal Audit The Internal Audit division reports to the Board of Directors, while its activities are monitored by the Finance and Audit Committee. The Internal Audit division supports the Board of Directors and, in particular, the Finance and Audit Committee with independent audits. It gives the Board of Directors and the Finance and Audit Committee assurance that corporate governance and processes are complied with and that weaknesses are identified. The Internal Audit division's method of operation is regulated in separate regulations.

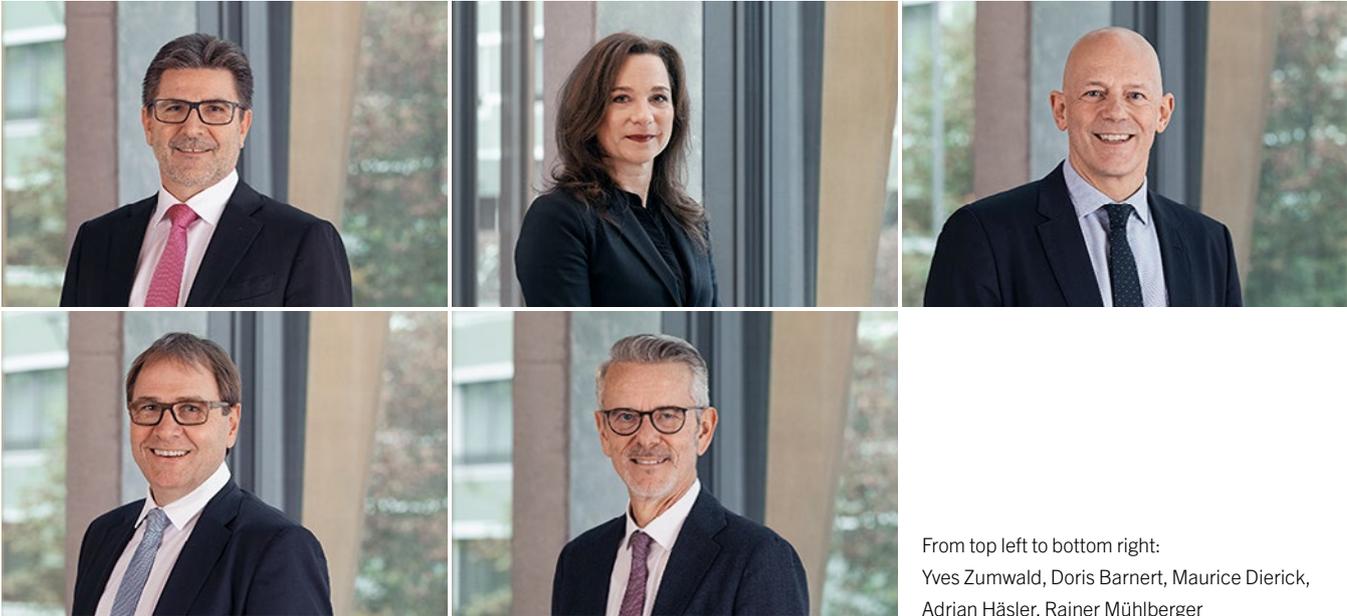
The Board of Directors approves the Internal Audit division's audit planning annually upon request by the Finance and Audit Committee. The Internal Audit division pursues a risk-based audit approach. The Internal Audit division's audit results are dealt with at the Finance and Audit Committee meetings on an ongoing basis. The Finance and Audit Committee is informed of findings as well as any associated measures at the meetings. In addition, the Internal Audit division submits an annual activity report to the Board of Directors.

The Internal Audit division performed eight audits and one special assignment during the year under review. The Head of Internal Audit may use co-sourcing and appoint an audit company independent from the external audit to perform the audits.

Risk management Risk management is an integral part of effective and prudent corporate management for Swissgrid. Swissgrid's risk management covers the entire organisation, not including its subsidiaries and shareholdings, takes account of established standards (ISO 31000, COSO Enterprise Risk Management Framework) and satisfies the internal requirements of corporate governance as well as the requirements under Swiss law. Additional information on the implementation of the risk assessment can be found in the Management Report.

Executive Board

Members of the Executive Board, additional activities and affiliations



From top left to bottom right:
Yves Zumwald, Doris Barnert, Maurice Dierick,
Adrian Häsler, Rainer Mühlberger

Yves Zumwald

CEO

Born in 1967, Swiss

Yves Zumwald, Dipl.-Ing., dipl. NDS EPF in energy, has been CEO of Swissgrid since March 2016. From 2014 to March 2016, he was a member of the Executive Board and Head of Grid Infrastructure. From 2009 to 2014, he was a Board member and Director of the Sales division at the Romande Énergie Group. Before this, he worked at EOS Holding (Énergie Ouest Suisse), where he was responsible for grid usage and grid access, before serving as a member of the Executive Board with responsibility for the Infrastructure department at EOS Réseau. Early on in his professional career, he worked at EOS and Orange Communications.

Affiliations Board member of the European Network of Transmission System Operators (ENTSO-E), a member of the Supervisory Board and Compensation Committee of EPEX SPOT SE; Chairman of the Board of Directors of the procedural companies (see also paragraph 14 of the notes on the statutory financial statements).

Doris Barnert

CFO, Head of Corporate Services

Born in 1969, Swiss

Doris Barnert, architect (ETH Zurich), holds a master's degree in Corporate Finance from the Institute of Financial Services Zug (IFZ) and an Executive MBA from the University of St. Gallen (HSG), and has been a member of the Executive Board since April 2017. From 2008 to 2017, she was the CFO and member of the Executive Board of Solothurner Spitäler AG. From 2006 to 2008, she was the Head of Finances for the Western Switzerland route in the SBB's Infrastructure division. Prior to this, she managed various projects in the Infrastructure division. She began her professional career in architecture.

Affiliations Member of the Supervisory Board at TSCNET Services GmbH; member of the Board of Directors of the procedural companies (see also paragraph 14 of the notes on the statutory financial statements).

Maurice Dierick

Head of Market
Born in 1964, Dutch

Maurice Dierick, Dipl.Ing. Maschinenbau (graduate mechanical engineer), has been a member of the Executive Board since June 2016. Prior to this, he was the Head of the Grid Infrastructure department at Swissgrid. From 2012 to 2015, he worked on behalf of Ernst & Young at Western Power in Australia, among others. From 2004 to 2012, he worked as an independent consultant, sometimes in cooperation with consulting companies such as Pöyry, supporting various transformation projects in the field of asset management at German, French and Swiss power supply companies. Before this, he worked as an engineer at major industrial companies in France and Germany until he switched to consulting in 1998, finally for Cap Gemini Ernst & Young in the Netherlands.

Affiliations None.

Adrian Häsler

Head of Grid Infrastructure
Born in 1966, Swiss

Adrian Häsler, Dipl. Elektroingenieur (graduate electrical engineer) HTL, Executive MBA HSG, has been a member of the Executive Board since April 2019. Prior to this, he was the Head of the Grid Delivery department at Swissgrid. From 2007 to 2017, he was a member of the Hydropower Division management at Axpo Power AG and Head of the Technical Support business unit, which was responsible for planning, building and servicing hydropower plants. Prior to this, he headed the Secondary Systems department at Nordostschweizerische Kraftwerke AG for seven years. He started his career at Kraftwerke Oberhasli AG as the Head of Operational Management.

Affiliations Deputy Chairman of the Specialist Commission for High Voltage Issues.

Rainer Mühlberger

Head of Technology
Born in 1958, Swiss and German

Rainer Mühlberger, Dipl.-Ing. Maschinenbau (graduate mechanical engineer), has been a member of the Executive Board since 2013. Initially, he was in charge of the Strategy & Development department before being appointed Head of the new Technology department in February 2016. He joined Swissgrid in 2011 as Head of Strategy. From 2008 to 2011, he was CEO of Swisscom Directories Ltd. From 2002 to 2007, he served as a member of the Executive Board at Swisscom Fixnet AG – first as Head of Business Development and finally as Head of IT. Before this, he served as Project Manager for Corporate Strategy at Swisscom AG.

Affiliations Member of the Board of Directors at JAO S.A.; Chairman of the Board of Directors at ecmt AG.

Appointments in the reporting period

Adrian Häsler, Head of Grid Infrastructure, on 1 April 2019

Remuneration

The members of the Board of Directors receive a fixed remuneration (fees and expenses) based on a sliding scale for the Chairman and the other Board members. Remuneration for the members of the Executive Board consists of a basic salary (including per diem expenses) and a variable salary component that is dependent on achieving company and personal targets. The amount of remuneration for members of the Executive Board is defined by the Staff and Compensation Committee within the framework defined by the Board of Directors. Payments to the Executive Board and the Board of Directors are disclosed in paragraphs 8 and 9 of the notes to the Swiss GAAP FER financial statements.

Rights of participation

Shareholders' rights to assets and rights of participation are governed by law and the Articles of Incorporation. The Articles of Incorporation can be viewed online at www.swissgrid.ch. There are no statutory regulations that differ from the legal provisions.

Auditor

Mandate and fees

KPMG AG, Basel, acts as the statutory auditor for Swissgrid Ltd. The audit mandate was first awarded to KPMG for the 2005/2006 financial year (long year). The auditor in charge, Rolf Hauenstein, has been in this role since the 2015 financial year. The auditor is appointed at the General Assembly for a one-year term. For its function as auditor, KPMG received remuneration of CHF 219,000 for the last financial year. The total remuneration for additional services amounted to CHF 16,000.

Information instruments

Every year, the Finance and Audit Committee evaluates the effectiveness of the auditor. The members of the committee use their knowledge and experience garnered from holding similar positions in other companies to evaluate the audit. They also base their evaluation on the documents provided by the auditor, such as the comprehensive report and the verbal and written statements on individual aspects in connection with accounting, the internal control system and the audit.

Impressum

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