Combined management report as at December 31, 2017

This management report is a combined report on STEAG GmbH and the STEAG Group (STEAG GmbH and its subsidiaries). Business development at STEAG GmbH is reported in a separate chapter. The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as applicable in the EU, while the individual financial statements have been drawn up in accordance with the provisions of the German Commercial Code (HGB), the German legislation on limited liability companies (GmbH-Gesetz) and the German Energy Act (EnWG).

Basic information on the STEAG Group

Business activities and corporate structure

Business activities

The STEAG Group operates in Germany and internationally, providing integrated solutions for its customers in the areas of power and heat generation, and technical services. Its core competencies include the planning, construction and operation of large power plants and distributed facilities, asset-based power trading, and related technical services. The Group's power and heat generating capacities are based on special fuels, fossil fuels and renewable energy sources.

Conventional energy generation

As one of Germany's largest electricity producers, the STEAG Group has total installed capacity of 7,600 megawatts (MW) electric, including around 5,500 MW in Germany.

In Germany, the STEAG Group operates power plants at eight sites and has more than 200 distributed facilities to generate energy from renewable resources and to serve industry and supply heat.

Outside of Germany the STEAG Group operates its own power plants in Colombia, the Philippines and Turkey, in close cooperation with local partners. The power plant in Iskenderun (Turkey) is the STEAG Group's largest foreign power plant with installed capacity of 1,320 MW.

Following the politically motivated turnaround in German energy policy, the energy sector is undergoing a far-reaching process of transformation. The preferential treatment given to driving the expansion of renewables has led to a drop in prices on electricity exchanges in recent years, which has led to enormous economic challenges for utility companies with conventional generating facilities. A review of their current business activities is therefore necessary. In particular, this involves examining the continued operation of individual power plants. The STEAG Group will only continue to operate power plants whose lasting profitability can be guaranteed. In line with this, in November 2016 the management of STEAG GmbH decided to shut down five power plants. The German regulator (Bundesnetzagentur) and the transmission network operator Amprion GmbH were notified of this without delay. The plan was for final decommissioning of the Herne 3 power plant on June 30, 2017 and of the West 1/2 power plant blocks on March 31, 2017. Further, the Bexbach and Weiher 3 plants in the Saar region were to be taken offline provisionally on June 30, 2017.

In January 2017, Amprion GmbH decided that the Weiher 3 and Bexbach power plants are systemically relevant and must continue to operate. These two plants, which were scheduled for shutdown, are necessary to ensure the security and reliability of the electricity supply system. This decision is valid until April 30, 2019.

By contrast, the West 1/2 and Herne 3 power plant blocks in the federal state of North Rhine-Westphalia are not classified as systemically relevant. These plants were decommissioned on March 31, 2017 and June 29, 2017 respectively.

In 2015, the RWE Group submitted a request to the STEAG Group to shut down the Voerde power plant, which was operated jointly by both groups. Therefore, RWE Generation SE and STEAG GmbH agreed that RWE Generation SE would be given independent business authority for the Voerde A and B blocks and would decide on this basis on the use, maintenance and continued period of operation. Both blocks were also decommissioned on March 31 2017.

In addition, STEAG GmbH and RWE Generation SE have joint stakes in the Bergkamen coal-fired power plant through Gemeinschaftskraftwerk Bergkamen A beschränkt haftende OHG. During the negotiations with the RWE Group, STEAG GmbH was granted the right to take over the shares in this company held by RWE Generation SE with effect from January 1, 2019. In October 2017, STEAG GmbH notified the regulator of its intention of taking over this stake from RWE Generation SE. STEAG GmbH assumes that the Bergkamen site will continue to operate in the mid term and that it will therefore strengthen its domestic business.

At present STEAG GmbH is developing the Herne 6 gas and steam turbine project with a view to taking a construction decision in the first half of 2019.

Renewable energies

Competition in the renewable energies sector, especially the market for wind energy projects and, above all, the development of advanced projects, has become far more intense as a consequence of the involvement of banks and insurance companies. In the light of this, the STEAG Group has adjusted its strategy. It identifies project opportunities at an early stage, drives them forward, and is prepared to take on further investors. In this way, additional capital can be obtained for growth while extending the portfolio.

STEAG enters projects at an early stage of development so that it can develop sites, e.g. wind farms, either on its own or in collaboration with project developers. As at December 31, 2017 the STEAG Group had total installed capacity of around 800 MW based on renewables and distributed generating facilities.

A competent trading partner

Based on many years of experience in the power, coal and CO_2 business, the STEAG Group has a broad portfolio of products and services, and extensive expertise in trading. This includes the procurement and marketing of electricity, fuel and CO_2 emission allowances, along with marketing of capacity and of electricity, heat and steam energy. In addition, the STEAG Group is one of Germany's leaders in the import and marketing of hard coal. It imports hard coal from the major producing nations for supply to STEAG power plants and third parties.

A professional service provider

Energy services are becoming increasingly important for the STEAG Group. Over the years the STEAG Group has accrued great expertise in modernizing power generation plants and is now regarded as one of the leading providers of solutions for customized energy supply that is both environment-friendly and profitable.

As well as being a pioneer in efficient technologies for power generation from hard coal, which contribute to the conservation of resources, it is a specialist in optimization of the entire value chain associated with power plants. In Europe the STEAG Group also has a strong position in the re-use and marketing of waste materials from hard coal power plants. For example, fly ash from hard coal can be used for a wide range of applications in the building supplies sector. Photoment®, which is used in the production of cement products (for example, concrete pavers), is an innovative additive with a photocatalytic effect that reduces the nitrogen oxide pollution.

In the European Union, the STEAG Group is a leader in the generation of electricity and heat from mine gas and in Germany it is a leading generator of heat from geothermal energy. It is also one of the largest suppliers of district heating and a contractor and operator of biomass plants in Germany.

Its competencies include professional engineering and operating solutions for every type of power generation. The engineers at the subsidiary STEAG Energy Services GmbH operate internationally, for example in Brazil, Botswana, Romania, Turkey, Switzerland, the USA, and India. STEAG Energy Services (India) Pvt. Ltd. has around 1,500 employees, making it the foreign subsidiary with the largest workforce. In all, around 6,500 MW are operated on behalf of third parties. In addition, operational management support is provided approximately 3,500 MW.

A partner for Germany's new energy policy

As an active partner for Germany's new energy policy, the STEAG Group stands for a holistic view of the transformation of the energy sector.

Alongside energy storage, for example, to compensate for fluctuations in grid voltage, efficient bundling and marketing of distributed facilities and systematic inclusion of the heating market in implementing the revised energy policy are key elements for its success. In Germany, the STEAG Group is focusing on these central issues.

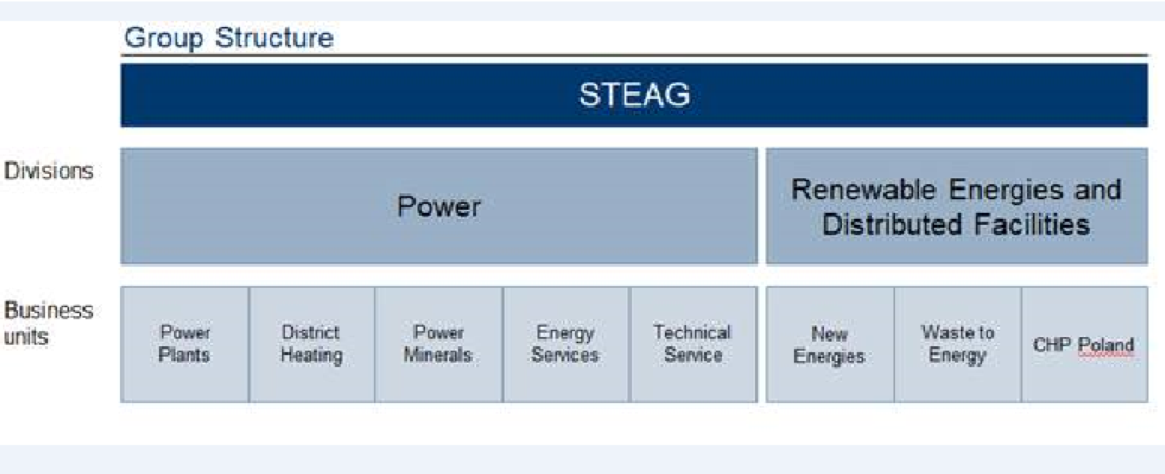
Since the completion and commercial start-up of the six large-scale battery systems with total capacity of 90 MW in 2016, steadily rising interest in storage technology and, in particular, in investing in battery storage systems for primary control power has been registered in Germany. The STEAG Group has sufficient suitable locations for the construction of further battery storage facilities to provide primary control power. This could allow meaningful use of otherwise unused sites and, above all, operational, servicing, maintenance and marketing synergies in conjunction with the existing large-scale battery systems.

Ownership structure

As at December 31, 2017, STEAG GmbH was wholly owned by KSBG Kommunale Beteiligungsgesellschaft GmbH & Co. KG (KSBG KG), Essen (Germany).

Integrated business model

STEAG GmbH, which is headquartered in Essen (Germany), is the parent company and head office of the STEAG Group. It holds the shares in the Group's subsidiaries, either directly or indirectly. STEAG GmbH is responsible for strategic and operational management of the STEAG Group's divisions, i.e. the Power division (comprising the Power Plants (generation and trading), District Heating, Power Minerals, Energy Services and Technical Service business units), and the Renewable Energies and Distributed Facilities division (New Energies, Waste to Energy and CHP Poland business units). This structure reflects the STEAG Group's integrated business model.



In the Power division, national and international projects are the basis for high-quality technical solutions for power plants. In the Power Plants business unit, the Trading & Optimization (T&O) department is responsible for marketing electricity, while the Generation department is responsible for operating the STEAG Group’s power plants.

In Germany, power generation is complemented by the activities of the District Heating business unit, which successfully markets the heat produced by co-generation plants.

The Power Minerals business unit markets waste materials from the German and foreign generating activities, mainly to the cement and construction industries.

For decades, the engineers and technicians in STEAG's Energy Services business unit have been developing concepts for plants for conventional and renewable fuels. They design and build the plants and offer services and IT solutions to optimize them, both in Germany and internationally.

The Technical Service business unit pools the service expertise gained over decades, especially in power plant maintenance and services for electricity grids.

The second division is Renewable Energies and Distributed Facilities. Activities associated with distributed energy generation (based on renewable energy sources and industrial and/or municipal supply concepts) are bundled in this division. The New Energies business unit specializes in custom-tailored distributed energy solutions based on efficient and sustainable concepts. Alongside conventional energy sources, the range covers wind power, bioenergy, mine gas and geothermal energy. District heating and the use of mine gas to generate energy are areas where the division is also scoring successes in other countries such as Poland.

Since 2017, this division has also included the Waste to Energy business unit, following the acquisition in January 2017 of all remaining shares in Thermische Abfallbehandlung Lauta GmbH & Co. oHG in Saxony (Germany) from the energy utility Vattenfall. In mid-year, the shares in IKW Rüdersdorf GmbH, near Berlin (Germany) were acquired. These acquisitions have given the STEAG Group a foothold in the waste incineration market. STEAG Waste to Energy GmbH was established to drive the strategic development of this business unit in Germany and internationally.

The STEAG Group is also successful with district heating and the use of mine gas to generate energy in other countries, especially Poland. Using its technical expertise and experience, the STEAG Group has extended its long-standing activities through acquisitions and sees good growth prospects for CHP Poland, which became a separate business unit in 2017.

Organizational changes

The optimization of organizational structures in the STEAG Group, which started in 2016, was continued with the reorganization of the Polish subgroup SFW Energia Sp. z o.o. in 2017. SFW Energia Sp. z o.o. operates in the Polish market for district heating and energy generation. It was spun off from STEAG New Energies GmbH to STEAG 2. Beteiligungs-GmbH retrospectively as at January 1, 2017, so in future the Polish district heating activities will be run directly from head office. This takes account of the stronger focus on growth through acquisitions and alliances.

Significant new contracts

The STEAG 2022 transformation program launched in 2016 includes divesting stakes in existing business activities to release funds to finance growth investments, in other words, for the necessary, business-oriented portfolio management. The divestment process started with competitive tender processes in 2017.

In July 2017, STEAG 2. Beteiligungs-GmbH sold its stake in STEAG Netz GmbH, which pools the 450 km regional power grid in the Saar region, to Creos Deutschland Holding GmbH retroactively as of January 1, 2017.

In addition, in October 2017 STEAG 2. Beteiligungs-GmbH divested a 49 percent stake in STEAG Fernwärme GmbH to MR Infrastructure Investment GmbH, a wholly owned subsidiary of Munich RE AG (MEAG), retroactively as of January 1, 2017. In 2017, STEAG Fernwärme GmbH sold 21 percent of the shares in Fernwärmeversorgung Niederrhein GmbH to Stadwerke Dinslaken GmbH. The other 5 percent of the shares held by STEAG Fernwärme GmbH were acquired by STEAG 2. Beteiligungs-GmbH, which has agreed a put-call option with Stadtwerke Dinslaken GmbH. This can be exercised at a fixed purchase price on December 31, 2023 at the earliest.

As part of the active portfolio management strategy, at the end of November 2017 STEAG New Energies GmbH and STEAG New Energies Beteiligungsgesellschaft mbH signed a contract to sell a stake in the French wind farm portfolio with total capacity of 94 MW to AREF II RENEWABLES INVESTMENT HOLDING S.À R.L., a subsidiary of Allianz Global Investors GmbH. This transaction will be reflected in the STEAG Group in the 2018 fiscal year. The purchaser is acquiring a 49 percent direct stake in PELCCE Energies SARL (Woelfing), Ferme Eolienne de Quesnoy-sur-Airaines SAS (Quesnoy 1), A4E2 SAS (Lanouee), A4E SARL (Guegon), Ferme Eolienne des Onze Muids SAS (Hauteville) and Ferme Eolienne de La Madeleine SAS (Cormainville) and a 19 percent stake in Ferme Eolienne de Coume SARL (Coume). The transaction takes effect economically retroactively from January 1, 2017.

STEAG Energy Services GmbH is successful in international competition for energy services and the management of power plants. In 2017, it took on the operational management of a large Indian power plant with three 660 MW coal-fired blocks in Banawala in the state of Punjab and drove forward the development of digital products for optimized operation of power plants.

Together with a partner, it established STEAG EOH Energy Services South Africa (Pty) Ltd. This joint venture is a leader in the electricity and power generating industry and offers a full range of energy services in South Africa. The Nuclear Technologies unit at STEAG Energy Service GmbH acquired a further project for services relating to the decommissioning of nuclear power plants. It will act as general planner for the extended design planning and cost estimation phase for a waste processing center.

In October 2017, STEAG SCR Tech Inc., an indirect joint venture of STEAG Energy Services GmbH and the world's leading service provider for the regeneration of SCR catalysts, acquired Cormetech Inc., the US market leader in SCR catalysts for flue gas scrubbing in coal- and gas-fired power plants. The purpose is to extend the portfolio and increase access to the growing market for gas turbine power plants in the USA and to flue gas scrubbing projects in Asia.

At the end of December 2017, STEAG Energy Services GmbH acquired the Krantz business unit, a specialist in heating, ventilation, cooling and clean room systems at Caverion Deutschland GmbH, from Caverion Corporation Oyj, Helsinki (Finland). The opportunity to acquire Krantz was identified as part of the STEAG 2022 growth measures. A key element in this program is acquisitions to extend business relating to the decommissioning of nuclear power plants.

To secure the existing business of STEAG Fernwärme GmbH in Essen (Germany) and open up new growth opportunities, the joint venture STEAG Fernwärme Essen GmbH & Co. KG was established with the municipal utility company Stadtwerke Essen AG to serve new district heating areas in Essen. The license agreement for the established area in Essen will be continued until 2030.

The present power supply agreement including physical delivery of coal to the 154 MW hard-coal power plant of Compañía Eléctrica de Sochagota S.A.E.S.P. in Paipa (Colombia) ends in January 2019., Long-term coal procurement agreements for flexible amounts of coal have been concluded with local coal suppliers. Part of the capacity has been marketed through a long-term (five-year) power supply agreement.

Strategy

Strategic development

The transformation of the energy industry resulting from the politically driven turnaround in energy policy in Germany is continuing. Like its peers throughout the energy sector, the STEAG Group has been confronted by a significant drop in earnings as a result of the difficult market situation since 2011. Through its “Dynamic” strategy project, the STEAG Group is systematically pursuing its strategic alignment as a national and international power and heat producer and service provider that is open to all technologies. The STEAG 2022 program gives clear priority to distributed generating facilities, the service business and investment in selected foreign markets.

The historically low wholesale prices in Germany are still putting growing pressure on the profitability of conventional power plants. This has led to an ongoing review of the cost-effectiveness of the STEAG Group's power generating capacity in Germany.

The situation on the German power plant market has deteriorated further as a result of the change in the political framework and the low electricity price. The Group-wide STEAG 2022 program was launched in 2016 to counter this situation more energetically and focus the STEAG Group for the future. Realization of this program has started successfully. Taking a holistic approach, all business activities, processes and cost structures have been reviewed on the basis of the market environment. Additional perspectives have been developed to compensate for business activities where earnings are declining. STEAG 2022 is a transformation program that is designed to position the STEAG Group as a viable going concern. Raising efficiency, portfolio adjustments and realizing growth projects will bring a lasting improvement in earnings by 2022, cut costs and provide headroom for investment in growth businesses.

Placing the business in Germany on a basis that is viable for the future

A key focus of the Group's strategic development is making the business in Germany viable for the future.

The STEAG Group is still focusing on continuous optimization of power plant processes and maximizing the flexibility of its power plants. Additional competitive advantages could be achieved by using lower cost fuels such as special grades of coal.

The Walsum 10 power plant operated by the STEAG Group is one of the most efficient hard coal power plants and most of its output has been marketed on a secure basis through long-term supply agreements. The economically successful operation and marketing of thermal power plants is one the STEAG Group's key competencies. The Group is a leader in this field. The aim is to maintain this position, based on the conviction that thermal power will remain crucial for permanent and reliable energy supply in the future. Integrating the heating market is also very important for the success of the shift in energy policy. As part of STEAG 2022 and active portfolio management, a 49 percent stake in STEAG Fernwärme GmbH was sold to MEAG.

Further, the Rhine-Ruhr district heating line project between Bottrop and Duisburg will connect the existing district heating lines in the Lower Rhine and Ruhr regions. The STEAG Group is the majority partner in this project, which also includes Fernwärmeversorgung Niederrhein GmbH and Energieversorgung Oberhausen AG. A further major milestone in this project was achieved with the submission of the zoning application to the District Commissioner in Düsseldorf. The federal state of North Rhine-Westphalia has earmarked € 100 million of its budget for this project and has obtained legal permission for the provision of this state aid. In addition, there is a possibility of applying for a grid extension subsidy of around € 70 million.

A major aim of this project is to diversify the generating portfolio. Heat from the STEAG Group’s co-generation plants, waste incinerators and industrial and biomass power plants should contribute to low-carbon heating supply in the Ruhr region of Germany.

Efficient pooling and marketing of distributed facilities is one of the major challenges of the new energy policy. Virtual power plants are one possible solution, which the STEAG Group has been actively using for many years. Distributed generating facilities and facilities based on renewable energy resources are connected to conventional heat generating facilities and new technologies such as battery storage systems and managed jointly. Joint marketing with the STEAG’s conventional power plants enables the utilization of synergies.

A further change in the energy sector is the increase in distributed energy supply, the desire for self-sufficiency combined with active management of energy costs and environmentally compatible local energy supply. Alongside local authorities that provide district heating, the main target group comprises industrial contractors for whom full, individual energy solutions are planned, financed and implemented. Based on its successes to date – recent examples are power and steam generation for Erfurt & Sohn KG and its wholly owned subsidiary German Paper Solutions GmbH & Co. KG at its headquarters in Wuppertal/Schwelm, the erection of a central energy plant for Ford in Saarlouis (22 MW electric power, 20 MW heat), the heating power plant at the Karlsberg brewery in Bad Homburg (3.4 MW co-generation plant), and extension and modernization of the energy supply facilities at Darmstadt Technical University by STEAG New Energies GmbH – the STEAG Group will continue to market its outstanding expertise aggressively on the market in order to gain long-term industrial customers and extend its distributed energy business. The main focus is on gaining access to additional market potential for small facilities and new customer groups, and effective marketing with competitive cost structures.

Diversification and openness to technology are key elements in the future viability of the STEAG Group on the German energy market. The strategic entry into the growing waste-to-energy market through the successful acquisition and operation of two waste incineration facilities from the Vattenfall Group is a step towards this. The post-merger integration process has been completed successfully and both facilities are making a stable contribution to earnings in a positive market environment.

Expansion of the service business

The STEAG Group is successful in the international competition to provide energy services and operate energy generating facilities. Planning, building and operating power plants for third parties on the basis of conventional and renewable energy sources is the core business of STEAG Energy Services GmbH. The STEAG Group has long-standing expertise in power plants, which it markets successfully to third parties in Germany and, above all, in foreign markets such as India, Brazil and Botswana. The proportion of renewables in the portfolio is increasing successively. The international activities are to be stepped up in the next few years.

Decommissioning of nuclear facilities offers further significant potential for the future. STEAG Energy Services GmbH has offered planning, consulting and other services for many decades, along with the development and supply of systems and components for decommissioning nuclear facilities and nuclear waste processing. The cooperation with nuclear technology specialist Kraftanlagen Heidelberg GmbH pools expertise and is a promising basis for national and international projects for the decommissioning of nuclear facilities. This cooperation and the acquisition of the Krantz business unit from Caverion Deutschland GmbH offer broadly based growth prospects in view of Germany's decision to exit nuclear power and on the international market.

As a service provider for industry and the construction sector, STEAG Power Minerals focuses on by-products from power plants, the production and supply of building materials, blasting agents and industrial minerals, and supplying secondary fuels and absorbents to power plants for flue gas scrubbing. The aim is to extend international business activities through partnerships in order to compensate for the decline in the fly ash business in Germany.

Portfolio strategy and new projects

Investor interest in grid-based infrastructure, district heating and wind and solar installations is increasing due to the sound returns. As part of its active portfolio management, the STEAG Group constantly analyzes the financial and strategic attractiveness of its plants and investments. In response to the market environment, investments may be (partially) divested or partners may be found to provide new growth impetus for attractive facilities and investments. The aim is also to generate liquidity for investment in new projects, especially to diversify the business in Germany and to invest in growth markets.

Another example is the heating market in Poland, which offers considerable growth potential. The STEAG Group extended its position in this market in 2016 by acquiring a majority stake in the district heating company Elektrocieplownia Mielec Sp. z o.o. Further projects are being examined. The opportunity offered by a long-standing local presence and recognition as a specialist should be utilized to step up our engagement. The STEAG Group can use its expertise to optimize the existing supply of heating and thus leverage potential.

By developing projects in selected countries and markets, opportunities for growth can be utilized without being tied by specific technologies. Local networks, a high degree of flexibility and proximity to the market allow timely identification of attractive projects and anticipation of market changes, thus generating competitive advantages.

Geothermal energy and wind power are important elements to raise the proportion of renewable energies in the STEAG Group's generating portfolio. Therefore, a subsidiary of STEAG GmbH is preparing to build a geothermal power plant in Indonesia with a local partner. The first exploratory drill started in December 2017. This was made possible by successful completion of a road to the first drilling location and preparation of the location at an altitude of around 2,000 meters. Further exploratory drills were scheduled to start in the first quarter of 2018 but will probably be delayed by difficulties in building a road to the planned location of the second drill. However, this should not have any impact on the overall timetable for the planned project: Start-up of the first unit is still planned for the fourth quarter of 2022.

Around 350 MW wind power capacity had been installed in Germany, France, Poland, Romania and Turkey by 2107, for example, through the Group's subsidiary STEAG New Energies GmbH.

As a result of massive investment by banks and insurance companies, there has been a significant change in the market situation in the wind power sector. In many cases, purchase prices in tenders have risen sharply as a result of historically low interest rates. As part of STEAG 2022 and active portfolio management, this led to the successful conclusion in November 2017 of a agreement on the sale of 49 percent of the wind farm portfolio in France. In view of the increased prices in the wind power sector, the STEAG Group refrained from investing in and acquiring new facilities. At the same time, new regulatory frameworks in some countries have reduced the profitability of these facilities.

Nevertheless, renewables – especially wind power – remain a future-oriented market. Therefore, the STEAG Group intends to continue to focus on renewables on the basis of a revised business model. The altered market and investment conditions are creating a seller's market, which the STEAG Group aims to exploit. In future investments, the focus will no longer be on long-term ownership of the assets. Instead, the plans provide for early involvement in development of projects, operational management, the use of energy-related know-how, and more flexible sale of wind farms during development or upon completion.

Strategic partnerships

The STEAG Group has made a name for itself through its competence, innovation and experience in the construction and operation of power plants. Companies in Germany and beyond have put their trust in know-how from Essen for decades. Internationally, the STEAG Group has a reputation for reliable and efficient energy generation – for example in Colombia (since 1999), in Turkey (since 2003), and on the Philippines (since 2006). Precisely now, with operators of large fossil fuel power plants in Germany coming under considerable economic pressure as a result of the politically motivated expansion of renewable energies, international business is proving an important support for the STEAG Group.

Based on experience to date and with a view to international growth potential, In 2016 the Group set up Asian Power Development Platform Joint Venture PTE, Ltd. (APDP), a joint venture with the Australian investment company Macquarie Corporate Holdings Pty Limited. The aim is to obtain funding from investors to develop, realize and operate energy projects in Southeast Asia, especially Indonesia, Malaysia, Thailand, Vietnam and the Philippines. These emerging markets have a high or growing need for energy infrastructure and reliable energy supply. The STEAG Group is providing the technical know-how based on its long-standing experience. In addition, the STEAG Group can provide services for project development, realization and operational management and there is a possibility that it could take stakes in the projects to be realized. The technological focus of the platform will be conventional energy sources such as coal and gas, renewables (wind, solar and hydroelectric power), and on thermal treatment of waste. Having examined and secured an initial project pipeline, entry into the first projects based on renewable energies has taken place.

Research and development

Research and development 2017

In 2017, STEAG continued to focus on application-related research and development rather than basic research. This applies both to central research and development at STEAG GmbH and to operational topics at subsidiaries.

The focus on networks, storage and big data/digitalization defined in the previous year was continued an e-mobility was added in 2017. These are closely connected in STEAG's view. The focus is on investigating the interaction between networks and storage systems. The growth of e-mobility results in considerable additional loads and tasks for distribution grids. The additional load can only be served by extending the grid (installation of new, more powerful transmission lines) and, to some extent, by supplementary storage systems.

The storage technology itself and the knowledge gained by the construction of large-scale battery storage systems have led to optimization ideas in the STEAG Group. Further analysis of storage technologies, especially with a view to larger and thus longer storage periods, has made it clear that the technical and economic data on the storage technologies currently on the market are difficult to compare. As part of an orientation survey, a broad comparison of storage technologies was undertaken. Providers of various battery technologies and thermal storage systems were asked for data, based on 30 MW storage capacity for a period of eight hours. At the start of 2017, the “Designetz” project was launched with a total of 46 partners as part of the Federal Economics Ministry’s SINTEG initiative. “Designetz” maps power grids in local and regional energy areas. At the end of the year, the STEAG Group was able to achieve an important milestone in the Sector Coupling Flex 20+ subproject. The planned 20 MW electric boiler was taken into service and can be used to feed excess heat energy into the district heating network. That is very significant for sector coupling. As well as connecting the power and district heating networks, including an existing district heating storage facility, it links up the local mine gas network.

The long-term option of low-carbon generation at coal-fired power plants or combined gas and steam generators in the future has been discussed with the European Commission. The CO_2 would be used to synthesize fuel or CO_2-based chemicals. There are also plans to investigate, in particular, substitute fuels and fuel additives such as kerosene and ethanol as part of these new activities. Given the rise in e-mobility, liquid fuels could be of interest, especially for aviation or local public transport systems. One focus of the STEAG Group's research and development activities in the future will be digitalization. At present, work is being undertaken on “predictive maintenance” and key findings have already been gained in this area. Subsidiaries of STEAG GmbH have researched individual aspects such as the ongoing use of fly ash and optimization of biomass and wind power facilities. Together with IZES gGmbH[1], the future development of the timber-fired facilities in Germany, which currently qualify for renewable energy subsidies, is being investigated. Further projects concentrate on power generation from low-calorie mine gas, the development of a high-performance latent heat storage system and a special oil sensor.

[1] Institute for Future Energy and Material Flow Systems at the University of Applied Sciences in Saarbrücken (Germany).

Economic report

Economic background

General economic development[2]

Global economic growth accelerated appreciably in 2017. Global gross domestic product (GDP) increased by 4.2 percent (prior year: 3.5 percent). The economy developed positively in almost all major economies. Following only moderate growth at the start of the year, US gross domestic product (GDP) increased in the remainder of the year, driven by an upturn in investment and strong demand from private households. In Japan, the upswing was driven principally by exports, which benefited from the global economic upswing and the weakness of the yen. By contrast, economic growth in the euro zone was still mainly driven by domestic forces, with the improved labor market situation and favorable financing conditions boosting demand in the internal market.

Economic growth in the emerging markets has picked up again, principally as a result of the upturn in the economic development of raw material exporting countries which suffered badly from the drop in raw material prices in 2015 and 2016 and are now benefiting from the fact that prices are considerably higher again. The recession in Brazil has ended and the economy in Russia is pointing clearly upward again. In Asia as a whole growth remained strong. The pace of growth increased slightly in China, even though monetary stimulus was reduced and credit growth slowed (6.8 percent in 2017 compared with 6.7 percent in 2016). All in all, the emerging markets posted growth of 5.6 percent, which was strong than in the previous year (5.0 percent).

The economic upswing in Germany is continuing. While growth was driven mainly private and state consumer spending and investment in construction in the past, the sustained upswing is now also supported by exports and capital spending. This is due to higher capacity utilization as a result of the improved global economic situation, especially in the

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2 The comments in this section are based principally on the economic reports published by the Kiel Institute for the World Economy (IFW) Kiel, no. 37 (2017/Q4) on the global economy, and no. 38 (2017/Q4) on the German economy, the weekly report by the German Institute for Economic Research (DIW) Berlin, no. 50/2017, and the RWI - economic report 68 (2017) vol. 4 of the Leibniz Institute for Economic Research (RWI), Essen (Germany).

euro zone. The labor market is also benefiting from this. Employment increased considerably and the number of people without work dropped to the lowest level since German reunification. Despite this, wage rises and inflation have been moderate so far, although consumer price inflation has increased. However, this was mainly attributable to the year-on-year rise in the price of crude oil. All in all, the economic upswing is therefore continuing (2.2 percent in 2017 compared with 1.9 percent in 2016).

Energy consumption and energy generation[3]

In 2017 primary energy consumption in Germany was 0.8 percent higher than in 2016. The increase was mainly due to the positive economic development, but a long-term comparison shows that consumption is still low. Consumption of mineral oil increased by 3.0 percent year-on-year while consumption of natural gas was 5.2 percent higher. One reason for the higher consumption of natural gas was its increased use in power plants. Both hard coal and nuclear power registered a 10 percent reduction in consumption due to the decline in power generation from these sources. By contrast, lignite consumption only declined slightly, by 0.6 percent. The use of renewable energies increased significantly, by 6.1 percent year-on-year. The main reason for this was the 34 percent increase in electricity fed in from wind farms as a consequence of an increase in capacity and good wind conditions. In 2017, renewable energies accounted for 13.1 percent of energy consumption in Germany (prior year: 12.6 percent) and 33.1 percent of gross power generation in Germany (prior year: 29.0 percent). Energy-driven CO_2 emissions were unchanged from the prior year.

Power consumption

In 2017, overall consumption of electricity was 600.2 TWh, 0.8 percent higher than in 2016. Gross power generated also increased by 0.8 percent (2017: 654.2 TWh vs. 2016: 648.2 TWh). The export surplus was 54 TWh (2016: 55.5 TWh).

[3] All data on energy generation and consumption are provisional data from AG Energiebilanzen e.V. and the German water and energy industry association (BDEW). (As at December 2017)

Development of energy prices

A significant rise in prices on the international commodity markets was observed in 2017.

Oil prices have risen steadily since the North Sea oil grade Brent crude dropped to a low of US$ 27.88 per barrel (bbl) in 2016. The average price of Brent crude was US$ 54.85 per bbl in 2017, nearly 22 percent higher than in 2016 (US$ 45.11 per bbl). This trend was mainly attributable to OPEC: having announced production cuts at the end of 2016, on November 30, 2017 it agreed on further cuts up to the end of 2018. The sustained reduction in output is designed to normalize inventory levels and ensure an appropriate physical shortage of crude oil. This strategy can be regarded as a success in that the agreed production quotas have so far been observed and production was actually below the ceiling at times. The scale of the supply-side reaction by US shale oil producers is still unclear. With prices currently above US$ 60 per bbl, investing in new fields is profitable and there were 929 drilling rigs at year-end 2017, a rise of 271. It is considered realistic that production of shale oil could offset the reduction of nearly 1.8 million barrels a day by OPEC.

Compared with 2016, the API#2, the price index for hard coal that is relevant for Europe, rose by more than 40 percent. The average price for hard coal was US$ 60.10 per tonne in 2016. In 2017 the average price rose to US$ 84.49 per tonne. A large proportion of this price rise was due to production cuts by the Chinese government at the end of 2016. Further price rises were driven by high, weather-related demand in Asia, and a shortage of supply in South Africa, Indonesia and Australia.

Following negotiations over a number of years, at the end of 2017 a provisional agreement was reached on the upcoming reform of European emissions trading for the fourth trading period (2012-2030). This was finally adopted at the end of February 2018. The principal components of the reform aim to strengthen European emissions trading so that it regains its function as a key tool in EU climate protection policy. Therefore, the linear reduction factor, which reflects the annual reduction in the emissions ceiling, has been raised from 1.74 percent to 2.2 percent. In addition, the withdrawal rate for the market stability reserve will be increased from 12 percent to 24 percent in the period 2019 to 2024. This should bring a faster reduction in the present oversupply of allowances. The number of allowances in the market stability reserve will be limited to the previous year’s auction volume and any allowances above this level will be permanently withdrawn. In addition, individual countries can voluntarily withdraw allowances from the auction total through additional national measures when facilities are decommissioned. As well as strengthening EU emissions trading, the aim is to maintain the competitiveness of energy-intensive industries in the EU: To achieve this, measures include a 3.5 percent increase in the proportion of allowances allocated free of charge. In addition, sectors affected by carbon leakage will receive up to 100 percent of CO_2 allowances free of charge. Since it was clear from late summer that an agreement was likely, prices rose in the second half of the year. While the average price of CO_2 allowances was around € 5 per tonne in the first half of the year, it rose to € 6.68 per tonne in the second half of the year. The average price for the year was € 5.85 per tonne, just under 9 percent higher than in the previous year (€ 5.37 per tonne).

The previous years' downward trend in power prices was halted in 2017. EPEX spot, the average spot price on the electricity exchange, was € 34.05 per MWh (2016: € 29.01 per MWh), a significant year-on-year rise of more than 17 percent. The peak contract increased by 18 percent in 2017 to an annual average of € 37.91 per MWh (2016: € 32.05 per MWh). The price rise was due to the lower availability of French nuclear power plants at the start of the year and to the higher generating costs at both coal- and gas-fired power plants.

Earnings position

Performance in 2017

In 2017, the STEAG Group achieved a significant improvement in EBITDA and EBIT compared with the previous year.

STEAG Group: EBITDA and EBIT

in € million	**2017**	2016	Change in %
Sales	3,627.1	3,368.7	7.7
EBITDA	354.2	281.0	26.0
EBIT	197.3	122.7	60.8
EBITDA margin in %	**9.8%**	**8.3%**	
EBIT margin in %	**5.4%**	**3.6%**	

EBITDA and EBIT are used for internal management purposes and as indicators of the sustained earning power of the Group. EBITDA (earnings before interest, taxes, depreciation and amortization) and EBIT (earnings before interest and taxes) are both earnings parameters after adjustment for exceptional items (non-operating earnings).

To enhance the information on the earnings position of the STEAG Group, from 2017 sales and the cost of materials are presented on a net basis for certain types of energy-related trading activities, in other words, in each case only the margin is presented. The prior-year figures have been restated to enhance comparability.

EBIT was well above budget in 2017 at € 197.3 million and, as forecast, it was significantly higher than the 2016 figure of € 122.7 million. As a consequence, the EBIT margin (EBIT/sales) increased from 3.6 percent in 2016 to 5.4 percent in 2017.

EBITDA was € 354.2 million, which was € 53.3 million exceeded the budget and was also well above the 2016 figure of € 281.0 million. The EBITDA margin (EBITDA/sales) was considerably higher than in the prior year at 9.8 percent compared with 8.3 percent.

The main reasons why EBIT and EBITDA exceeded the budget were higher profits in connection resulting from the divestment of shareholdings and the revaluation of the shares in Thermische Abfallbehandlung Lauta GmbH & Co. oHG.

The following reconciliation from earnings before the financial result and income taxes to EBIT and EBITDA shows that exceptional items had a lower impact on these earnings parameters than in the prior year.

Reconciliation of EBIT and EBITDA for the STEAG Group

in € million	2017	2016
Earnings before the financial result and income taxes	181.3	-22.7
Non-operating effects from the STEAG 2022 transformation program	-16.5	153.4
Other non-operating impairment losses/reversal of impairment losses	28.9	-19.6
Other effects	3.6	11.6
EBIT	197.3	122.7
Depreciation/amortization and impairment losses	195.4	201.2
Reversal of impairment losses	-9.6	-68.5
plus non-operating effects	-28.9	25.6
EBITDA	354.2	281.0

In 2017, the non-operating measures bundled in the STEAG 2022 transformation program mainly comprised the reversal of provisions for restructuring at the Weiher and Bexbach power plants following the decision on their systemic relevance. The aim of the STEAG 2022 transformation program is to achieve a sustained improvement in EBIT of around € 120 million p.a. from 2021 onwards.

Income statement for the STEAG Group

in € million	2017	2016
Sales	3,627.1	3,368.7
Change in inventories of finished goods	-10.7	-4.1
Other own work capitalized	1.8	4.0
Other operating income	550.3	723.1
Cost of materials	-2,868.9	-2,620.9
Personnel expenses	-355.5	-501.3
Depreciation/amortization and impairment losses	-195.4	-201.2
Other operating expenses	-567.4	-791.0
Earnings before the financial result and income taxes	**181.3**	**-22.7**
Interest income	14.3	28.7
Interest expenses	-80.6	-121.4
Result from investments recognized at equity	0.9	6.6
Other financial income	0.9	5.3
Financial result	**-64.5**	**-80.8**
Income before income taxes	**116.8**	**-103.5**
Income taxes	-58.2	-117.3
Income after taxes	**58.6**	**-220.8**
thereof attributable to		
Non-controlling interests	44.0	55.4
Shareholders of STEAG GmbH (net income)	14.6	-276.2

External sales by division

in € million	2017	2016	Change in %
Power	3,271.1	3,107.1	5.3
Renewable Energies and Distributed Facilities	356.0	261.6	36.1
STEAG Group	**3,627.1**	**3,368.7**	**7.7**

Sales rose by 7.7 percent to € 3,627.1 million (prior year: € 3,368.7 million), mainly due to the increase in the electricity price in the Power division.

Since fiscal 2017, certain types of energy-related trading activities have been disclosed as net amounts directly in sales and the cost of materials due to their functional relationship to the core business. The corresponding prior-year amounts in sales, cost of materials, other operating income and other operating expenses have been restated to enhance comparability. The adjustment to the prior-year sales figure was € 497.1 million.

Total volume sales of energy from the Group's own facilities and those operated on behalf of its customers and from trading volumes purchased by the Power division declined by 31.2 percent year-on-year to 78,575 GWh_e[4] (prior year: 114,163 GWh_e). The significant drop in volume sales of energy was mainly due to lower generation following decommissioning of the Herne 3 and West 1/2 power plants and of the grid reserve operations at the Bexbach and Weiher 3 plants.

Volume sales of heat by the Renewable Energies and Distributed Facilities division increased by 7.8 percent to 2,460 GWh_{th} (prior year: 2,282 GWh_{th}), while the volume of power sold rose by 13.8 percent to 2,696 GWh_{el} (prior year: 2,369 GWh_{el}).
The sales growth in the Renewable Energies and Decentralized Facilities division was mainly due to the acquisition of the shares in Thermische Abfallbehandlung Lauta GmbH & Co. ohG, Essen (Germany), and IKW Rüdersdorf GmbH, Essen (Germany) in 2017.

The change in inventories of finished goods was minus € 10.7 million (prior year: minus € 4.1 million) and other own work capitalized declined to € 1.8 million (prior year: € 4.0 million).

The other operating income increased by € 172.8 million, from € 723.1 million in 2016 to € 550.3 million in 2017.

The year-on-year decline was principally due to lower income from the valuation of derivatives (excluding interest rate derivatives), which totaled € 397.5 million (prior year: € 519.8 million). This was caused by lower trading volume, coupled with fluctuations in market prices, and is also reflected in lower losses on the valuation of derivatives. The restated prior-year figure reflecting the net disclosure of certain types of energy-related trading activities is € 620.0 million lower. In addition, in the prior year there was a write-up of € 64.0 million for the property, plant and equipment at the Walsum 10 power plant.

The € 248 million rise in the cost of materials was mainly due to an increase in the price of power compared with the previous year. The adjustment to the prior-year figure for cost of materials was € 497.3 million.

[4] Energy sales in GWh_e comprise both electric and thermal energy; thermal energy has been converted into the equivalent amount of electric power.

Personnel expenses fell by € 145.8 million to € 355.5 million (prior year: € 501.3 million). This was mainly due to additions to provisions for restructuring in Germany totaling € 106.2 million in 2016 and corresponding income from the reversal of provisions in 2017. The decision on the systemic relevance of the Weiher and Bexbach power plants resulted in a partial reversal of personnel-related provisions for restructuring in the amount of € 27.9 million in the reporting period.

Depreciation, amortization and impairment losses totaled € 195.4 million (prior year: € 201.2 million) and included depreciation and amortization of property, plant and equipment, intangible assets and investment property amounting to € 148.4 million (prior year: € 152.7 million). In 2017, the non-current assets of foreign wind farms were written down by € 32.6 million, while biogas plants in Germany were written down by € 4.3 million.

The other operating expenses decreased by € 223.6 million from € 791.0 million in the prior year to € 567.4 million. The year-on-year reduction was principally due to lower losses on the valuation of derivatives (excluding interest rate derivatives), which totaled € 363.3 million (prior year: € 524.7 million). This was caused by a drop in trading volume, together with fluctuations in market prices, and is also reflected in lower income from the valuation of derivatives. An adjustment of € 619.8 million was made to the prior-year figure as a result of the recognition of certain types of energy-related trading activities on a net basis. In addition, the prior-year figure was mainly affected by higher expenses for additions to provisions totaling € 67.0 million. This mainly comprised an allocation of € 59.4 million to provisions for obligations to safeguard the Lünen and West power plant sites.

Income before the financial result and income taxes increased by € 204.0 million year-on-year to € 181.3 million.

The interest income contained in the financial result decreased by € 14.4 million in 2017. The interest expense contained in the financial result decreased by € 40.8 million in 2017. The main reasons for the reduction were the fact that the prior-year figure contained interest expense on non-period taxes of € 15.4 million resulting from fiscal proceedings at the subsidiary Iskenderun Enerji Üretim ve Ticaret A.S. (Turkey), and an adjusted credit volume.

The € 5.7 million reduction in the result from investments recognized at equity further reduced the financial result. The main reason for this decline was an increase in expenses for investments recognized at equity.

In addition, other financial income declined by € 4.4 million.

Income before income taxes increased from minus € 103.5 million to € 116.8 million.

Income tax expense decreased by € 59.1 million, from € 117.3 million in 2016 to € 58.2 million in 2017. The development of income tax payments in 2016 was dominated by non-period taxes of € 31.2 million resulting from fiscal proceedings at Iskenderun Enerji Üretim ve Ticaret A.S. (Turkey).

Financial position

Financial risk management

The central objectives of STEAG's financial management are to safeguard the financial independence of the STEAG Group and limit refinancing risks.

STEAG GmbH manages borrowing, guarantees and sureties for Group companies centrally. It has flexible means of meeting capital requirements for day-to-day business, investment and the repayment of financial debt.

Another important objective is ensuring that the covenants relating to STEAG GmbH's bonded loans and EFET contracts are met. The main covenants set out in the agreements comprise financial indicators to be calculated on the basis of the consolidated financial statements of STEAG GmbH. These comprise the net debt ratio, which is the ratio of net debt to adjusted EBITDA[5], and covenants in the EFET contracts on tangible net worth[6] and/or the equity ratio.

[5] As defined in the bonded loan agreements.
[6] As defined in the EFET contracts.

Financing policy

STEAG GmbH provides funding for the companies in the STEAG Group and manages surplus liquidity on their behalf on market terms. To a limited extent, non-project companies also borrow funds directly from banks and invest surplus liquidity with banks. In these cases, borrowing is secured by STEAG GmbH. The projects companies' liability is secured through their cash flows and assets and financing is generally non-recourse. In these cases, no recourse to the parent company STEAG GmbH is possible. For example, non-recourse project financing has been agreed for the two foreign power plants in Mindanao and Termopaipa.

In Germany, cash pooling is managed by STEAG GmbH. To minimize external borrowing, surplus liquidity in Germany is placed in a cash pool at Group level which is used to optimize overall financing requirements in the Group.

Financing structure

The main components of financial assets are receivables from finance leases totaling € 296.7 million (prior year: € 376.9 million), including current receivables of € 73.3 million (prior year: € 69.8 million).

As at December 31, 2017, STEAG had financial liabilities of € 2,153.5 million (prior year: € 2,398.1 million) and cash and cash equivalents of € 449.2 million (prior year: € 536.9 million). In addition, € 160.1 million (prior year: € 86.6 million) were held in short-term deposits.

A considerable proportion of non-current financial liabilities amounting to € 1,220.6 million (prior year: € 1,328.1 million) comprises liabilities to banks, especially for the Walsum 10 power plant and foreign power plant companies. In addition, liabilities include the bonded loan amounting to € 400.0 million taken out by STEAG GmbH in 2014. STEAG GmbH has also arranged other credit facilities with banks to increase the available liquidity. These currently exceed needs.

€ 45.0 million of the € 932.9 million (prior year: € 55.0 million of the € 1,070.0 million) in current financial liabilities relate to the liability to KSBG KG under the profit and loss transfer agreement, including the corresponding share of taxes.

The STEAG Group has no off-balance-sheet financing instruments that could have a material impact on its present or future earnings, assets and financial position.

The STEAG Group's liquidity is secure.

Capital expenditure

The STEAG Group uses selective investment projects to maintain its good competitive position and expand into business activities and markets where it sees potential for sustained profitable growth and opportunities to generate appropriate returns. Every project undergoes detailed strategic and economic analyses, including sensitivity analyses and scenario analyses to reflect major risks. Projects have to meet business-specific and risk-adjusted minimum return requirements.

Capital expenditure and financial investments

in € million	2017	2016	Change in %
Power	83.1	111.5	-25.5
Renewable Energies and Distributed Facilities	176.5	91.5	92.9
Other	3.2	20.1	-84.1
STEAG Group	**262.8**	**223.1**	**17.8**

Capital expenditure totaled € 262.8 million (prior year: € 223.1 million), well above depreciation, which amounted to € 148.4 million (prior year: € 152.7 million). In 2017 capital expenditure for property, plant and equipment declined by 31.5 percent to € 110.5 million (prior year: € 161.2 million).

The largest share of capital expenditure for property, plant and equipment (64.9 percent) was allocated to the Power division (€ 71.7 million; prior year: € 100.8 million). The biggest investment was for the DeNOx plant for the Iskenderun power plant in Turkey. A further 31.5 percent of capital expenditure for property, plant and equipment was allocated to the Renewable Energies and Distributed Facilities division (€ 34.8 million; prior year: € 59.5 million). Here, the biggest single investment is a geothermal project in Indonesia.

Regionally, investment in property, plant and equipment in the STEAG Group was focused mainly on Germany, which accounted for 57.2 percent (€ 63.2 million; prior year: € 96.5 million), Turkey, which accounted for 22.0 percent (€24.4 million; prior year: € 9.7 million), and Indonesia, which accounted for 10.9 percent (€ 12.1 million; prior year: € 6.5 million).

The Group has commitments of € 18.6 million (prior year: € 19.3 million) to purchase property, plant and equipment. € 4.9 million of this relates to a geothermal project in Indonesia.

The financial investments of € 152.3 million in 2017 (prior year: € 61.9 million) contain the acquisition of shares in Thermische Abfallbehandlung Lauta GmbH & Co. oHG, Essen (Germany) and in IKW Rüdersdorf GmbH, Essen (Germany). In addition, the Krantz business unit was acquired from Caverion Deutschland GmbH at the end of December 2017.

In 2016, the financial investments mainly comprised the shares in Elektrocieplownia Mielec Sp. z o.o. (Poland).

Cash flow

Cash flow statement for the STEAG Group (condensed version)

in € million	2017	2016
Cash flow from operating activities	246.1	262.0
Cash flow from investing activities	-259.5	-83.8
Cash flow from financing activities	-61.0	-218.7
Changes in exchange rates and other changes in the value of cash and cash equivalents	-13.3	4.1
Cash and cash equivalents as at December 31	449.2	536.9

The cash flow from operating activities was € 246.1 million, which was below the prior-year figure of € 262.0 million and mainly comprised the increase in income before the financial result and income taxes and changes in other assets and liabilities on the reporting date. The increase in depreciation/amortization, impairment losses and reversals of impairment losses in the continuing operations mainly result from the reversal of impairment losses in connection with the Walsum 10 power plant in 2016. The reduction inventories also had a positive effect. This was mainly due to a price- and volume-driven reduction in emission allowances and lower coal inventories.

The cash outflow for investing activities was € 259.5 million, which was far higher than the outflow of € 83.8 million in the previous year. The year-on-year change was mainly caused by higher outflows for investment in shareholdings. These principally comprised the acquisition of shares in Thermische Abfallbehandlung Lauta GmbH & Co. oHG, Essen (Germany) and IKW Rüdersdorf GmbH, Essen (Germany). In addition, the Krantz business unit was acquired from Caverion Deutschland GmbH at the end of December 2017. This effect was countered by higher inflows from the divestment of shareholdings than in the prior year.

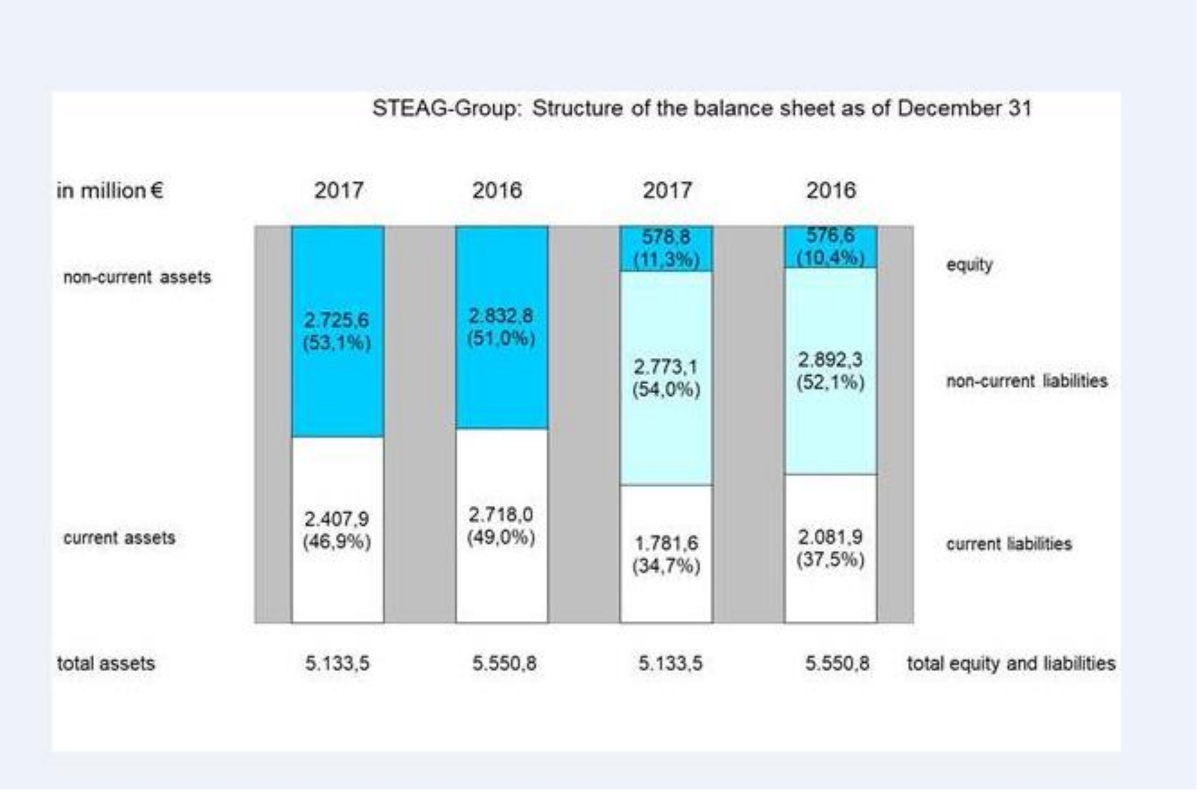
As at the reporting date, cash and cash equivalents totaling € 160.1 million (prior year: € 86.6 million) were held in short-term deposits. The year-on-year change of € 73.5 million is shown in the cash flow from investing activities in cash outflows relating to securities, deposits and loans.

There was a cash outflow for financing activities of € 61.0 million, which was below the outflow of € 218.7 million in the prior year. This was principally due to higher repayment of financial debt in the prior year and a cash inflow from the divestment of a stakes in subsidiaries without loss of control. This mainly comprised the divestment of 49 percent of the shares in STEAG Fernwärme GmbH.

The carrying amount of cash and cash equivalents pledged as collateral amounted to € 60.0 million (prior year: € 45.6 million).

Asset structure

Structure of the balance sheet



Total assets decreased by € 417.3 million from € 5,550.8 million as at December 31, 2016 to € 5,133.5 million as at December 31, 2017. Non-current assets decreased by € 107.2 million to € 2,725.6 million (prior year: € 2,832.8 million). The decline was mainly due to the repayment of the non-current receivable under the finance leases for the three foreign power plants and the reduction in receivables from derivatives. At the same time, goodwill increased by € 20.0 million due to the initial consolidation of companies in 2017.

Capital expenditure for property, plant and equipment was € 110.5 million (prior year: € 161.2 million), while depreciation and amortization of intangible assets, property, plant and equipment and investment property totaled € 148.4 million (prior year: € 152.7 million) and impairment losses were € 39.6 million (prior year: € 42.1 million). Further, there was a reversal of impairment losses on property, plant and equipment of € 8.2 million (prior year: € 67.2 million). This was mainly due to the reversal of an impairment loss on a biomass power plant in 2017. In 2016, the reversal of impairment losses mainly related to the Walsum 10 power plant. Non-current assets accounted for 53.1 percent of total assets (prior year:

51.0 percent). Coverage of non-current assets by non-current capital was 123.0 percent (prior year: 122.5 percent).

Current assets totaled € 2,407.9 million (prior year: € 2,718.0 million), a drop of € 310.1 million compared with year-end 2016. This was principally because current receivables from derivatives decreased by € 158.3 million to € 675.5 million (prior year: € 833.8 million). This was due to the lower trading volume, together with fluctuations in market prices. Further, trade accounts receivable increased by € 8.0 million to € 542.8 million (prior year: € 534.8 million). Current assets exceeded current liabilities by 35.2 percent (prior year: 30.6 percent).

Equity increased slightly by € 2.2 million to € 578.8 million (prior year: € 576.6 million). The increase in the equity ratio from 10.4 percent to 11.3 percent was mainly due to the reduction in total equity and liabilities.

Non-current liabilities decreased by € 119.2 million or 4.1 percent to € 2,773.1 million (prior year: € 2,892.3 million). Provisions for pensions rose by € 13.7 million to € 1,107.5 million (prior year: € 1,093.8 million). The parameters used to value pension obligations were unchanged from the previous year: an interest rate of 1.8 percent, expected future salary rises of 2.1 percent and expected pension increases of 1.5 percent. Non-current liabilities to banks were € 62.6 million lower at € 975.8 million (prior year: € 1,038.4 million).

Current liabilities decreased by € 300.3 million to € 1,781.6 million (prior year: € 2,081.9 million). Further, current liabilities from derivatives rose by € 150.5 million to € 679.2 million (prior year: € 829.7 million). These result from fluctuations in market prices. Further, trade accounts payable declined by € 84.9 million to € 397.1 million (prior year: € 482.0 million). Similarly, other provisions were € 75.7 million lower at € 248.8 million (prior year: € 324.5 million). This was mainly because provisions for restructuring in connection with the STEAG 2022 transformation program were utilized in 2017 and to the reversal of some of these provisions.

Performance of STEAG GmbH

STEAG GmbH, which is headquartered in Essen (Germany), is the parent company of the STEAG Group. It holds the shares in the Group's subsidiaries, either directly or indirectly. STEAG GmbH is responsible for strategic and operational management of the Group's business activities. In addition, it is the largest single company in the Group with sales of € 2,322.7 million and total assets of € 3,288.3 million. The main subsidiaries in Germany are linked to it through control and profit and loss transfer agreements.

The annual financial statements of STEAG GmbH have been prepared in accordance with the accounting principles set out in the German Commercial Code (HGB), in the version applicable for these financial statements, and with the provisions of the German Energy Act (EnWG).

Income statement for STEAG GmbH

in € million	2017	2016
Sales	2,322.7	2,477.4
Change in inventories, own work capitalized	0.1	-0.4
Other operating income	105.7	166.0
Cost of materials	-2,199.9	-2,353.8
Personnel expenses	-154.3	-234.8
Depreciation/amortization and impairment losses	-18.7	-47.6
Other operating expenses	-104.1	-173.5
Financial income/expense	95.9	226.3
Income taxes	-0.8	-3.6
Income after taxes	**46.6**	**56.0**
Other taxes	-1.6	-1.4
Profit and loss transfer	-45.0	-54.6
Net income	**0.0**	**0.0**

In 2017, STEAG GmbH's sales decreased by € 154.7 million year-on-year to € 2,322.7 million (prior year: € 2,477.4 million). This was mainly due to the reduction in the supply of energy and other media, and to lower sales from the gas business, while sales from coal trading increased.

In the reporting period sales mainly comprised € 1,885.9 million (prior year: € 1,999.1 million) from the supply of energy and other media, € 271.0 million (prior year: € 235.1 million) from the supply of coal, revenues of € 7.8 million (prior year: € 93.5 million) from the gas business, and € 105.2 million (prior year: € 108.1 million) from operating and management fees. Revenues were generated with customers in Germany, other European countries and North and South America.

Since fiscal 2017, sales and the cost of materials for certain types of energy-related trading activities have been recognized on a net basis. The corresponding prior-year values have been restated to enhance comparability. The adjustment to the prior-year figures for sales and the cost of materials was € 516.0 million in each case.

The other operating income of € 105.7 million (prior year: € 166.0 million) contains income of €66.5 million (2016: 49.1 million) from the reversal of provisions, especially from the reversal of provisions for restructuring measures at the Weiher and Bexbach power plant locations as a result of the decision on their systemic relevance and the reduction in provisions for impending losses from power marketing in connection with the Walsum 10 project.

The year-on-year drop in the cost of materials basically mirrored the reduction in sales revenues.

Personnel expenses were considerably lower than in the prior year at € 154.3 million (prior year: € 234.8 million), principally because the prior-year figure included restructuring expenses of € 69.4 million.

The other operating expenses of € 104.1 million (prior year: € 173.5 million) mainly comprise other selling and administrative expenses, legal and consulting fees, and expenses for the establishment of provisions for risks relating to pending transactions. The other main items included in other operating expenses are rents and leases, trading-related transportation costs and insurance premiums. The year-on-year reduction in other operating expenses is mainly due to the addition to provisions for obligations to safeguard the Lünen and West sites in the prior year.

The company's financial result was positive at € 95.9 million in the reporting period (prior year: € 226.3 million). This resulted principally from income from profit transfers of € 126.5 million (prior year: € 103.6 million) and income from investments of € 67.8 million (prior year: € 249.4 million). A counter-effect came from the fact that the interest result declined to minus € 77.9 million (prior year: minus € 45.2 million) – mainly due to interest on pension obligations and other non-current provisions and interest expense for non-current loans. The write-downs of financial assets and current loans totaling € 39.5 million (prior year: € 96.7

million) mainly comprised the write-down of € 27.3 million on the loan to the Romanian wind farm.

The reduction in income tax expense to € 0.8 million (prior year: € 3.6 million) was mainly due to lower income taxes outside Germany. Due to a change in the calculation process, there was no income tax allocation to KSBG KG prior year: € 0.4 million).

Income after income taxes and other taxes of € 45.0 million for the reporting period will be transferred to KSBG KG under the profit and loss transfer agreement.

Balance sheet for STEAG GmbH

Assets

in € million	**Dec. 31, 2017**	**Dec. 31, 2016**
Intangible assets	7.8	7.5
Property, plant and equipment	148.4	222.6
Financial assets	1,792.5	1,730.2
Non-current assets	**1,948.7**	**1,960.3**
Inventories	100.7	186.4
Receivables and other assets	836.4	925.6
Securities	19.7	19.7
Cash and cash equivalents	379.6	413.2
Current assets	**1,336.4**	**1,544.9**
Deferred items	**3.2**	**4.1**
Total assets	**3,288.3**	**3,509.3**

Equity and liabilities

in € million	**Dec. 31, 2017**	**Dec. 31, 2016**
Issued capital	128.0	128.0
Capital reserve	77.5	77.5
Profit reserves	272.8	272.8
Equity	**478.3**	**478.3**
Special items for investment subsidies for property, plant and equipment	0.1	0.3
Provisions	**992.7**	**1,067.5**
Liabilities	**1,810.7**	**1,955.7**
Deferred items	**6.5**	**7.5**
Total equity and liabilities	**3,288.3**	**3,509.3**

Total assets of STEAG GmbH contracted by € 221.0 million to € 3,288.3 million. Non-current assets declined by a total of € 11.6 million to € 1,948.7 million (prior year: € 1,960.3 million). Capital expenditure for intangible assets reported as non-current assets and for property, plant and equipment was € 9.2 million in the reporting period (prior year: € 71.7 million). Capital expenditure was below depreciation and amortization, which was € 12.4 million. The ratio of depreciation and amortization on property, plant and equipment and intangible assets reported in non-current assets (cumulative depreciation and amortization relative to the historical cost of acquisition or production) was 92.2 percent (prior year: 89.1 percent).

The € 62.3 million rise in financial assets to € 1,792.5 million (prior year: € 1,730.2 million) came from an increase of € 31.4 million in shares in affiliated companies and a rise of € 33.9 million in loans to affiliated companies. The increase in shares in affiliated companies mainly comprised an allocation of € 39.0 million to the capital reserve of STEAG Beteiligungsgesellschaft mbH by waiving the repayment of a capital receivable from STEAG Battery System GmbH that had been sold to STEAG Beteiligungsgesellschaft mbH. This was countered by impairment losses of € 7.7 million in total on investments in Turkey. The principal changes in loans to affiliated companies were credit lines drawn by STEAG Waste Energy GmbH, STEAG PE GmbH and STEAG New Energies Beteiligungsgesellschaft mbH, and interest on the upstream loan to the shareholder KSBG KG. By contrast, there was a partial write-down of € 27.3 million on financial receivables from Crucea Wind Farm S.A.

Current assets contracted by € 208.5 million to € 1,336.4 million (prior year: € 1,544.9 million). Inventories decreased by € 85.7 million to € 100.7 million (prior year: € 186.4 million). This reduction was mainly due to the volume-driven drop in emission allowances of € 62.4 million and to lower inventories of coal.

Receivables and other assets were € 89.2 million lower than in the previous year. Alongside the € 16.7 million drop in trade accounts receivable as at the reporting date, the reduction mainly resulted from the reduction of € 40.4 million in receivables from affiliated companies. This principally comprised receivables from loans and financial account agreements and receivables in connection with profit and loss transfer agreements. In addition, the collateral included in other assets decreased by € 9.7 million and income taxes were € 9.1 million lower.

On the asset side of the balance sheet, there was only a slight reduction in deferred items to € 3.2 million (prior year: € 4.1 million).

There was no change in equity compared with the prior year. As a consequence of the change in total equity and liabilities, the equity ratio is now 14.5 percent (prior year: 13.6 percent). Equity coverage of non-current assets is 24.5 percent (prior year: 24.4 percent).

Provisions dropped by € 74.8 million to € 992.7 million (prior year: € 1,067.5 million). Provisions for pensions and other post-employment obligations increased by € 25.4 million to € 555.3 million (prior year: € 529.9 million), mainly because of higher interest accruals.

Pension provisions accounted for 55.9 percent and thus the largest share of provisions (prior year: 49.6 percent).

The other provisions decreased by € 100.6 million compared with the prior year to € 428.8 million (prior year: € 529.4 million). The main reasons for this were the net reduction of € 52.5 million in provisions for restructuring as a result of reversal and utilization, the € 35.0 million reduction in provisions for obligations to surrender emission allowances and the net reduction of € 27.1 million in provisions to cover impending losses from future marketing of power from the Walsum 10 project.

Liabilities contracted by € 145.0 million to € 1,810.7 million (prior year: € 1,955.7 million). The change was mainly due to lower liabilities to banks (€ 415.7 million; prior year: € 443.0 million), a reduction in trade accounts payable (€ 288.5 million; prior year: € 319.3 million) and the reduction in advance payments and financial liabilities from power pre-payment contracts (€ 43.2 million; prior year: € 73.3 million).

Further, liabilities to affiliated companies dropped by € 41.3 million to € 915.6 million (prior year: € 956.9 million). This was mainly due to lower liabilities from financial arrangements in connection with cash pooling activities and the lower profit transfer obligation to KSBG KG. This resulted in a liability of € 45.0 million (prior year: € 55.0 million). The reduction in other liabilities (€ 146.5 million; prior year: € 162.0 million) was mainly due a reduction in collateral and lower obligations to pay in equity.

Non-financial performance indicators

Employees

Headcount

At the end of 2017, the STEAG Group had 6,493 employees, Worldwide, the proportion of female employees was 11 percent and the average age of the workforce was 42. Almost 49 percent were employed outside Germany.

The number of employees in the Group increased by around 389 year-on-year. This was due to the following changes: the headcount in the Power division increased by 300. The main change here was an increase of 574 in the number of employees in the Energy Services business unit due to the higher headcount for plant management projects at STEAG Energy Services (India) Pvt. Ltd (+507 employees) and at STEAG Energy Services do Brasil Ltda. (+129 employees). This was countered by reduction of 39 in the number employees at the Energy Services' subsidiary in Botswana. The divestment of STEAG Netz GmbH reduced the headcount by a further 25 employees. The headcount in the Generation business unit declined by 184. The lower headcount is mainly due to the shutdown of the Herne 3 power plant, the West 1/3 power plant blocks and the Voerde A and B power plant blocks in Voerde.

In the Renewable Energies and Distributed Facilities division, the headcount increased by 111, mainly because of the consolidation of Thermische Abfallbehandlung Lauta GmbH & Co. oHG (+ 55 employees) and IKW Rüdersdorf GmbH (+ 37 employees) as part of the STEAG Group (Waste to Energy business unit).

Employees by division	Dec. 31, 2017	Dec. 31, 2016
Power	4,957	4,657
Renewable Energies and Distributed Facilities	1,052	941
Administration	484	506
STEAG Group	6,493	6,104

In 2017, the headcount reductions resulting from the decommissioning of power plants and from the STEAG 2022 transformation process were achieved in a socially acceptable manner, i.e. without dismissals for business-related reasons, on the basis of the agreed redundancy plan for the Group and the framework for the reconciliation of interests. This process will be continuing in the coming years.

Apprenticeships

In December 2017, 229 apprentices were being trained in various occupations, giving a training ratio of 3.7 percent for the STEAG Group and 11.6 percent for STEAG GmbH. The STEAG Group provides attractive, high-quality vocational training.

Personnel development

In 2017, the General Management Program (GMP) supported a further 15 potentials in their personal development to prepare them for management and leadership roles. This program is aligned to the strategic framework of the STEAG Group and facilitates joint learning based on the STEAG competency model.

The STEAG Group is also continuing its in-house Energy Development Program (EDP): the ninth group embarked on this in-house development program in 2017. So far 115 employees have successfully taken part in this program.

Both programs are embedded in the STEAG development landscape, which includes additional modules geared to individual development, management development, and continuing professional training and development.

Occupational health and safety and environmental protection

The accident indicator fell from 3.5 accidents per 1 million working hours in 2016 to 3.3 accidents per 1 million working hours in 2017.

The number of accidents in the workplace increased by 2.7 percent from 37 to 38, while the number of commuting accidents dropped by 33.3 percent from 18 to 12. Special mention should be made here of the Mindanao power plant in the Philippines, where there has not been an accident for 11 years. In addition, there have not been any accidents at STEAG Fernwärme GmbH for more than four years and at Compañía Eléctrica de Sochagota S.A.E.S.P. (Colombia) for two years. Intensified implementation of the “VISION ZERO – Colleagues protect colleagues” occupational safety campaign with its six success factors was successfully driven forward. Focuses include responsibility for occupational safety and raising awareness of preventing dangerous situations in order to avoid accidents.

The establishment of validated occupational health and safety management systems in conformance with the requirements of the Occupational Health and Safety Assessment Series (OHSAS) 18001: 2007 in Germany since 2008 has had a positive effect. Successful recertification of all sites and companies by the employer's liability insurance association in the past few years is evidence of continuous improvement, reflecting our very high standard of occupational health and safety. Seven sites and companies have been recertified.

In addition to its existing certificates from the employers’ liability insurance association, in 2017 around 160 employees at STEAG Technischer Service GmbH were awarded the SCC/SCP safety certificates for contractors/staffing providers. Our foreign sites also achieved the same high, certified standard of occupational health and safety in 2017 and are audited regularly.

Our environmental protection management system and observance of the associated regulations were audited by the authorities in ten site inspections in accordance with the Industrial Emissions Directive (IED) and the Hazardous Incidents Ordinance. No shortcomings were identified at the power plants and heating power plants inspected.

Workplace health management

The “Ste-aktiv” program introduced in 2016 is a recognized program for collaboration between the STEAG Group, various social security institutions and providers of preventive health services. This program enables employees to participate voluntarily in a long-term preventive health program under professional supervision. The aim is to empower participants to take responsibility for sustained preventive health measures.

The important link between occupational safety and occupational health management was rewarded in 2017 by the award of the “Systematic Safety” certificate by the responsible employers’ liability insurance association.

Implementation of the legally required assessment of mental health risks is supplemented on a voluntary basis by a stress analysis in agreement with the Group Works Council. 75.9 percent of employees addressed responded to the survey conducted.

Company suggestion program

In 2017, STEAG employees submitted more than 1,000 suggestions on how to make operating processes and workflows more efficient, improve occupational and plant safety and save materials and energy. The suggestions evaluated brought a net annual benefit of €2 million for the STEAG Group. In addition, presentation of the “Ideas Award” by the Ideas Management Center at the German Institute for Ideas and Innovation Management honors management responsibility for ideas management in the STEAG Group.

Declaration on corporate governance with regard to gender quotas

The German law on equal participation of men and women in management positions in the public and private sectors came into effect on May 1, 2015. The following overview shows the targets and target attainment:

	Target for June 30, 2017	Target attainment as at June 30, 2017
Supervisory Board	5 percent	5 percent
Board of Management	0 percent	0 percent
1st management level	12 to 16 percent	19.2 percent
2nd management level	18 to 20 percent	17.3 percent

The first management level at STEAG GmbH mainly comprises the heads of organizational units, while the second management level mainly comprises heads of department and heads of power plants.

The targets for the second management level were narrowly missed as a result of staff changes in the wake of restructuring and, in particular, promotions to the first management level.

The Supervisory Board and Board of Management have adopted the following targets:

The target for the percentage of women on the Supervisory Board of STEAG GmbH has been set at a minimum of 10 percent by spring 2022 at the latest.

The target number for the percentage of women on the Board of Management of STEAG GmbH has been set at 0 percent as at June 30, 2020.

For the first management level at STEAG GmbH, the target is 19-22 percent women by June 30, 2022 at the latest, while the target set for the second management level is 18-21 percent women.

Corporate governance

Within the STEAG Group, the work of the Board of Management and Supervisory Board is guided by the principles of the German Corporate Governance Code in the current version of February 7, 2017.

The objective of the German Corporate Governance Code is to make the German corporate governance system transparent and understandable, and to promote the confidence of national and international investors, customers, employees and the general public in the management and supervision of German companies.

It is regarded as a statutory requirement for publicly listed companies. Many other companies such as STEAG GmbH are guided by its principles, which define nationally and internationally recognized standards of good and responsible corporate governance. The Code highlights the obligation of the Board of Management and Supervisory Board to ensure the continued existence of the company and sustainable value creation in line with the principles of the social market economy. As well as formal compliance with the law, these principles require ethically sound and responsible behavior. They are based on the concept of the “reputable business person”.

The current version explicitly highlights the management’s responsibility for compliance. That means that the Board of Management is responsible for ensuring that all provisions of the law and in-house policies are met and that it endeavors to ensure that Group companies comply with them. Further, it is responsible for ensuring appropriate measures reflecting the company's risk position through a compliance management system.

At STEAG GmbH, this is achieved by the STEAG Code of Conduct, a system of guidelines that are defined centrally in STEAG's organizational manual, and by the Group's compliance management system.

Building on the Group-wide risk analyses, every two years anticorruption training is organized for specific target groups. Since 2016 this has also included training in antitrust and competition law. New managers at foreign companies take part in talks in small groups with a direct link to their business area. These discussions also include information on various aspects of our corporate world. Alongside general information on preventing white-collar crime, which has to be viewed in the context of the applicable criminal law, discussion of different business cultures and the related general compliance-related corporate conduct plays an increasingly important part in these events. In addition, in the last reporting period, new local rules were drawn up a foreign sites to supplement the STEAG Code of Conduct, which is applicable worldwide, and the guidelines in the STEAG organizational handbook.

In areas requiring specialist knowledge, risk prevention and measures to avoid violations of these principles are supported by specialist personnel in the STEAG Group and are defined annually with the Compliance department. In the year under review, the specialist departments and the Compliance department agreed and defined possible violations in the areas of foreign trade and sanctions, insider trading and money laundering.

In addition, there is an increasing overlap between compliance and corporate responsibility issues in the operating business. As a result of increasing legislation on sustainability in many countries, e.g. in France, and in the banking sector, banks and future financing partners increasingly require data on how corporate responsibility is put into practice. The formal observance of the law and legislation, i.e. compliance in the narrower sense of the term, is only one - albeit mandatory - part of this. In Germany as well, an EU Directive on the disclosure of non-financial information by large corporations (CSR reporting obligation), has been transposed into national law. Although the STEAG Group is outside the mandatory scope of this directive, reporting at STEAG is guided by these rules so that the company can respond to questions from local authority and other public-sector shareholders, customers and other business partners. Alongside the annual progress report as part of our participation in the Global Compact, the STEAG Group is preparing to extend reporting by generating a statement of conformance with the German Sustainability Code in 2018.

The STEAG Group regards the activities and measures outlined here as components of good corporate management.

Events after the reporting period

The following events affecting the situation of the STEAG Group and STEAG GmbH occurred in fiscal 2018:

On March 2, 2017, plans to shut down the Lünen 6 and 7 power plant blocks were submitted to the Federal Network Agency. Shutdown is scheduled for March 2, 2109. In response to an application by the transmission network operator Amprion GmbH, the Federal Network Agency now has to decide on the systemic relevance of the blocks. In addition, the STEAG Group plans to take power plant block 7 in Lünen off line temporarily from the start of April until the end of September 2018. Seasonal operation of the waste incineration power generator at the Völklingen-Fenne site in the Saar region of Germany is also planned for this year and next.

The above processes have no material financial consequences for the STEAG Group that are not already reflected in the consolidated financial statements. This also applies analogously for the annual financial statements of STEAG GmbH.

Opportunity and risk report and forecast

Risk report

Risk strategy

Opportunities and risks constantly arise for the STEAG Group through its diverse business activities. Risk management is therefore a central element in the management of the company and is geared specifically to securing present and future potential for success, especially by avoiding and reducing risks and their consequences. Early identification and utilization of opportunities can heighten the success of the Group.

Due to its fields of activity, the STEAG Group is exposed to constantly changing political, social, demographic, legal and economic operating conditions. The resultant risks are addressed by monitoring and analyzing the entire operating environment and anticipating market developments. The findings are used to systematically develop STEAG's portfolio in accordance with the strategy for the Group.

Structure and organization of risk management

The basis of operational risk management in the STEAG Group is an internal, Group-wide management system that focuses equally on risks arising from potentially negative deviations from objectives and on positive deviations by highlighting opportunities.

The structure of the risk management is decentralized. The organizational units bear prime responsibility for the early identification of risks, estimating their implications, introducing suitable preventive and control measures and for the related internal communication of opportunities and risks. Risk officers in the organizational units are responsible for coordinating the relevant risk management activities. The Corporate Controlling department coordinates and oversees the processes and systems in the STEAG Group. It is the contact for all risk officers and is responsible for information, documentation and coordination at Group level. Further responsibilities include ongoing development of the methodology used by the risk management system. Alongside organizational measures and an internal control system, risk management is supported by the Audit department as a process-unrelated controlling and consulting body.

Risk management is a central element in controlling processes at all levels of the STEAG Group. That includes strategic and operational planning, preparations for investment decisions, monthly reporting and projections, and, from a certain level, immediate reporting of risks. The organizational units conduct an extensive annual inventory of opportunities and risks in connection with the mid-term planning process. All relevant factors are systematically identified and documented and the probability of the risks occurring and the potential damage are evaluated. All organizational units are required to provide details of action to be taken with regard to the opportunities and risks identified in the risk inventory and their implementation is monitored. The inventory, which looks at opportunities and risks over a short-term period of one year and a mid-term period of at least five years, is supplemented by monthly reports on changes in the opportunities and risk factors previously identified and newly identified opportunities and risks relating to the current year.

Overall risk assessment

Based on all identified risks (divided into strategic, operational, financial and other risks), as of the present date no risks to the position of the STEAG Group as a going concern could be identified – either on a stand-alone basis or taking into account interdependencies between risks and measures that are planned or have already been initiated.

Strategic risks

Changes in the present regulatory framework could have a significant impact on planned investments and the earnings position of the STEAG Group. The Group's business activities are exposed to strong and dynamic competition which cause volume and price risks.

The altered market conditions in Germany will result in a decline in conventional power generating capacity on economic grounds. This is driven first and foremost by the promotion of renewable energies, which is unrelated to demand, and the priority given to feeding such power into the grid. The present subsidy regime is hampering market and systems integration of renewable energies and driving out highly efficient co-generation plants as well as lignite and hard coal power plants. In addition, there is a political debate about a fixed, government-imposed date for ending power generation from fossil fuels in Germany as a contribution to countering global climate change. The final outcome of this debate cannot be predicted at present.

Political risks in the countries where STEAG operates its foreign power plants (the Iskenderun, Mindanao and Termopaipa plants) are secured through investment guarantees from the Federal Republic of Germany. This means that loss of the STEAG Group's capital investment is essentially excluded.

Operational risks

Preventive risk management is particularly important in the power plant business on commercial, societal, political, technological and environmental grounds. In view of the high capital intensity and long-term nature of the business, careful analysis of market conditions and the general framework, astute management of the relevant risks through a balanced and systematic risk policy, the use of high-quality technology and acceptance of the facilities by the local community are central elements in proactive and sustained efforts to ensure that the company remains a going concern. Trustful, in other words, open and transparent, communication with customers, suppliers and neighbors, and operation of the plants in conformance with the highest environmental and safety standards are self-evident for the STEAG Group and form the basis for long-term success.

Policies that are agreed internally provide a framework for managing financial risks relating to trading prices (commodity prices, exchange rates) and the related counterparty default and liquidity risks. Corresponding indicators such as position limits, loss limits and value-at-risk are used to remain within the limits set. While price risks relating to the use of derivatives can be managed with the aid of appropriate financial models, with regard to counterparty default risk the focus is on careful examination of the creditworthiness of contractual partners, the appropriateness of the underlying master agreements, and continuous monitoring of the associated credit lines. In the trading business, compliance with all relevant indicators is monitored by the trading back office. An extensive update of the risk framework for trading activities is carried out regularly, most recently in the third quarter of 2016.

In connection with forward marketing, STEAG GmbH concludes trading agreements, some of which contain financial covenants that have to be fulfilled; if the indicators are below the level set, the contractual party has a right to additional collateral. Not all agreed covenants were met as of December 31, 2017. The total risk to STEAG GmbH of non-fulfillment of these covenants is classified as low.

Risk factors for the STEAG Group arise from the regulatory framework for the operation of power plants. The environmental protection requirements for the operation of power plants are met in full. Further risks arise from the energy policy framework, which could affect the Group's business performance.

In view of their long-term nature and the large amount of capital involved, investment decisions involve complex and wide-ranging risks. The planned investment in realization of a geothermal power plant in Indonesia entails the risk that there is no commercially viable geothermal system. The STEAG Group has therefore defined structured responsibilities and approval procedures for the preparation and implementation of such decisions.

Regulatory changes also influence the STEAG Group’s business activities outside Germany. For example, intervention by the Romanian government in the market for renewable energy certificates has resulted in oversupply of such certificates. This negatively affects the ability to market the certificates for the Crucea wind farm.

In August 2016, Turkey introduced a levy on imported coal. Operators of hard coal power plants are impacted by this if they import coal from certain countries. The levy is equal to the amount by which the reference price is undercut. This will only affect the STEAG Group when the present power supply agreement for the Iskenderun power plant expires in 2019.

Financial risks

The STEAG Group's earnings may be affected by fluctuations in interest rates and exchange rates.

Market interest rates affect refinancing costs and the assessment of the credit standing of the STEAG Group. This is also determined in part by the market situation for conventional power plants. The result could be a deterioration in the assessment of creditworthiness, resulting in higher borrowing costs.

The assessment of provisions is also affected by market interest rates. Declining interest rates increase the level of provisions and vice versa.

Foreign currency risks mainly relate to the procurement and pricing of fuel requirements. They are hedged using suitable financial instruments.

For details of risk reporting on the use of financial instruments, please refer to the relevant section in the notes to the consolidated financial statements.

Planned dividend payments by the Group's foreign companies outside the eurozone are hedged in a structured manner against fluctuations in exchange rates. In addition, at

Compañía Eléctrica de Sochagota S.A.E.S.P. (Colombia), costs in Colombian pesos are hedged against fluctuations in the exchange rate versus the US dollar.

By contrast, the “translation risks” arising from translation of the annual financial statements of foreign subsidiaries into euros at actual exchange rates compared with budgeted exchange rates cannot be hedged against changes in exchange rates.

Other risks

The STEAG Group is exposed to normal legal risks arising in the course of business from contractual relationships with customers and business partners, and technical risks relating to the operation of plants, especially large-scale plants. Adequate provisions are recognized for these risks in consultation with the relevant specialist departments.

One specific example is the legal dispute in connection with the Walsum 10 power plant. The original plan was for this plant Duisburg-Walsum to come into service in 2010. However, this was not possible because during construction of the Walsum 10 power plant, it was necessary, for example, to replace boiler components, which put construction work behind the original schedule. This led to risks in the form of additional expenditures, delayed earnings resulting from late start-up and the need for bridge financing. The proceedings resulted in a partial arbitration award based on the rules of the International Chamber of Commerce (ICC), Paris, in November 2016 which decided in favor of the joint project company STEAG-eVN Walsum 10 Kraftwerksgesellschaft mbH on the most important economic claims. In view of the failure to meet contractually agreed performance indicators in the operation of the power plant, at the end of 2015 STEAG-EVN Walsum 10 Kraftwerksgesellschaft mbH initiated further arbitration proceedings against the consortium of general contractors.

Another legal risk was terminated in the year under review. In August 2014, the debt collection company Alster & Elbe GmbH, representing the interests of the ODS group of companies, filed a claim for compensation of € 750 million against STEAG GmbH and five other companies with the regional court in Karlsruhe. Essentially, the case rested on the allegation that a revised value-added tax declaration by a subsidiary of STEAG GmbH in 2002/2003 had led to the collapse of the ODS group of companies in 2007/2008. STEAG GmbH's lawyers considered the case to be unfounded from the outset. This was confirmed at the end of July 2017 by the judgment of Karlsruhe regional court, which dismissed the case. At the start of November 2017, the plaintiff withdrew its initial appeal. The judgment is legally enforceable.

Risks relating to STEAG GmbH

As the parent company and head of the STEAG Group, STEAG GmbH, which is based in Essen (Germany), has control and profit and loss transfer agreements with most subsidiaries in Germany. It therefore manages the Group's principal risks in Germany. At the same time, it is the largest single company in the Group. The risk situation for the STEAG Group outlined above therefore essentially applies to STEAG GmbH as well.

Opportunity report

In its 80-year history, the STEAG Group has obtained a significant position in conventional power generation, both nationally and internationally, and has also positioned itself in renewables, distributed energy generation and related services. The aim now is to extend these activities.

Securing the future viability of the business operations in Germany is linked to a large extent to continuous optimization of the existing power plants to increase their technical and organizational flexibility. This will raise the cost-efficiency of the sites and maximize the lifecycle of the power plants – taking into account the altered and constantly changing framework in the context of the shift in German energy policy.

Further selected growth in Germany, especially in distributed energy generation, entering the area of waste incineration through the newly established subsidiary STEAG Waste to Energy GmbH, and expansion of renewables are opening up new sources of revenue for the Group. Other opportunities are seen in the ongoing development of heat and power co-generation plants, district heating and, to some extent, in conventional energy generation in Germany.

The ongoing development and expansion of trading activities should stabilize and develop the domestic and foreign business and also drive forward growth.

Based on its long-standing expertise of projects in, e.g. Colombia, Turkey and the Philippines, the STEAG Group sees realization of high-earning foreign projects as a further opportunity to stabilize and improve its earnings position. This includes driving forward the development of both conventional power plants and renewables. One example is the realization of a geothermal power plant in Indonesia to further diversify the generating portfolio.

The Group's portfolio of material future opportunities also includes potential to increase services (in Germany and abroad, especially through STEAG Energy Services GmbH, STEAG Power Minerals GmbH, and STEAG Technischer Service GmbH).

The above (market-related) initiatives will be accompanied by optimization programs focusing on internal structures, processes and systems. In addition, in 2016 the STEAG 2022 program launched a transformation that made a considerable contribution to a sustained improvement in earnings in 2017 and will continue to do so in the future. The focus is on extensive measures to leverage efficiency and on portfolio and growth initiatives.

Opportunities for STEAG GmbH

Analogously to the risk-related situation, as the parent company of the STEAG Group, STEAG GmbH also manages all of the Group's material opportunities. The above presentation of the opportunities in the STEAG Group therefore also covers the main opportunities for STEAG GmbH.

Outlook

General economic development

According to the German Bundesbank’s latest macro-economic forecast, the German economy is in a strong upswing. Driven by buoyant demand from abroad, industry is reporting dynamic growth and the strong upturn in capital spending is continuing. Consumer spending and investment in residential construction are still benefiting from the excellent labor market situation.

In view of this, a calendar-adjusted rise in real German GDP of 2.5 percent is expected for 2018.

The 2017 annual report of the German Council of Economic Experts supports this assessment. It should be noted that anticipated risks to the upswing in the developed economies have not materialized or have weakened. For example, the People’s Republic of China managed to provisionally check the outflow of capital and continue its high growth. In the USA, extensive protectionist measures have not yet been introduced. The United Kingdom’s plans to leave the European Union and the associated negotiations have not yet provoked a serious economic downturn. The economic situation has improved in many emerging markets. In the oil-exporting countries this is due to the stabilization of crude oil prices.

Together with the favorable financing conditions, the high capacity utilization in many areas, an expansionary fiscal policy and the stable oil price, this has led to rising investment and an associated upturn in global trade.

It is therefore assumed that this upswing will continue in fiscal 2018.

Looking further ahead, the pace of growth is expected to decline again, principally as a result of gradual supply-side restrictions. This is attributable to slower growth in production potential and to a significant drop in employment growth as a result of demographic factors and migration, which will exacerbate the skills shortage that is already becoming apparent in some sectors. Deutsche Bank estimates that in 2018 there will be a further significant increase in the present significant output gap. Macro-economic capacity utilization will probably be as high as in 2007, at the peak of the last economic cycle.

Development of the energy sector

The business performance of the STEAG Group is still dominated by the specific (energy policy) situation affecting both the German business and international business operations.

The German government's energy policy aims to make the country one of the world's most environmentally compatible and energy-saving economies – with competitive energy prices and a high level of prosperity. The main pillars of this energy policy, which looks ahead to 2050, is expanding renewable energies as an alternative to nuclear power and fossil fuel generation. Until now, the goal was to raise the proportion energy consumption generated from the sun, wind and other regenerative sources to 40-45 percent of total consumption by 2025 and to 55-60 percent by 2035. The latest political objectives envisage even faster growth in renewables, provided that the additional volume of power generated from renewable resources can be integrated efficiently into the energy system. The second pillar of Germany's new energy policy is energy efficiency. Here the focus is on the refurbishment of buildings, expansion of co-generation and heating networks, more efficient use of power and direct use of power in the transportation sectors and buildings.

The increase in the generation of power from renewables and the related overcapacity running in to many annual hours at conventional generating facilities, combined with moderate commodity prices, mean that prices on the electricity exchange will remain low. Analysts and traders expect this situation to change in the mid term, as a further approx. 9 Gigawatts of nuclear power used for the base load will be taken off the market by 2022.

Nevertheless, highly flexible gas and hard coal power plants remain under economic and technological pressure. Nevertheless, hard coal power plants will remain vital for the foreseeable future to ensure reliability of supply and flexibly offset the fluctuating, weather-related supply of wind and solar power while keeping prices competitive internationally. If the shift in energy policy is to prove successful, the German government needs to consider how to balance environmental compatibility, reliability of supply and the cost-efficiency of the entire energy system.

Internationally, a close eye needs to be kept on the implications of the Paris Climate Agreement for the expansion and restructuring of the global energy system. This will depend on the extent to which the agreement is translated into national energy policy, especially in the G20 states, and on the extent to which the promises made about financing and technology transfer – especially for the energy-hungry developing countries and emerging markets – are kept.

At the end of 2017 the Council of the EU member states and the EU Parliament agreed on a extensive reform of the European emissions trading system. Among other things, this provides for excess CO_2 allowances to be permanently withdrawn from the market from 2023. The aim is that all emitters covered by the European emissions trading system should deliver on their share of the promises under the Paris Agreement to reduce greenhouse gas emissions in the EU by 40 percent by 2030 (reference base 1990).

Strategic and operational challenges

The energy market in Germany is still dominated by considerable upheaval. As a result of subsidized expansion of renewables and poor accountability for the system, installed generating capacity has increased strongly in recent years and there has been a sharp drop in electricity prices on the wholesale markets. On the other hand, political decisions have a major influence on the profitability of generating facilities. Since margins have been falling for years, the operation of many thermal power plants is no longer viable.

As a matter of principle, the STEAG Group decides on the shutdown of power plants at the latest possible point in time. However, in 2016 it was forced to finally shut down three power plant blocks in North Rhine-Westphalia and submit notification of the provisional shutdown of power plants in the Saar region. At the start of 2017, the power plants in the Saar region were defined as being of systemic relevance. Consequently, capacity at these plants must be kept available, with most of the cost of maintaining this capacity being borne by the grid operator. In May 2018, two further power plant blocks were earmarked for decommissioning in North Rhine-Westphalia.

In this context, the STEAG Group is still of the opinion that hard coal power plants play an important role in the reliability and, above all, flexibility of supply and therefore contribute to cost-effective, environmentally compatible and reliable energy generation. Europe will need hard coal power plants to secure supply in the future.

The shortage of capacity resulting from the decommissioning of unprofitable power plants and the planned exit from nuclear power in Germany by 2022 will improve the market situation in the mid term. The STEAG Group is preparing systematically and extensively for this period and has power plant capacity that can provide significant support for the triple energy policy goals and for responsible realization of the turnaround in German energy policy.

In view of this, asset-based power trading is being driven forward successively to optimize marketing of power generated in the company's own power plants in Germany and abroad.

This is becoming especially important as the power supply agreements for two foreign power plants, Iskenderun Enerji Üretim ve Ticaret A.S. (Turkey) and Compañía Eléctrica de Sochagota S.A.E.S.P. (Colombia), expire in 2019. Both were realized as build, operate, own

(BOO) projects and are therefore still owned by the STEAG Group. In Colombia, some of the power generated was marketed via a long-term power supply agreement in 2017. In Turkey the follow-on marketing of the power plant is currently in preparation.

The market for renewable energies, especially wind power, is also becoming increasingly difficult. The STEAG Group has around 350 MW installed wind power capacity in Germany, France, Poland, Romania and Turkey. Alongside geothermal facilities, wind power is a key element in achieving a significant increase in the proportion of renewables in the generating portfolio. However, returns have deteriorated as a result of massive investment by banks and insurers. In addition, altered regulatory conditions, for example, the recent changes in Spain and Romania, have implications for the cost-efficiency of the facilities operated. In this context, the STEAG Group is systematically analyzing ways of optimizing its portfolio.

To take account of these developments, the Board of Management launched the STEAG 2022 transformation program at the start of 2016. The aim of STEAG 2022 is to safeguard the Group's economic viability and develop a mid-term growth perspective. This Group-wide process is based on three pillars: leveraging efficiency – managing the portfolio – driving growth topics. Efficiency enhancements mainly come from cost-cutting initiatives and from focusing and optimizing specific activities (for example, optimizing procurement and focusing project development). Measures to ensure active portfolio management include divesting selected biomass/biogas activities of STEAG New Energies GmbH, which resulted in book gains in 2017, with the prospect of further book gains in 2018. The divestment of further shareholdings is also planned. In this context, STEAG GmbH or subsidiaries should remain the majority shareholder with a stake of 51 percent. The growth investments principally comprise entering the waste-to-energy segment, expanding district heating activities in Poland, and acquisitions in the field of nuclear technology.

Operating performance

Sales were € 3.6 billion in the reporting period, about 7.7 percent higher than in the prior year. This was due to a significant rise in the electricity price in the first and fourth quarters of the year, and to the higher volatility of short-term electricity trading. These trends were mainly due to low solar and wind power during the “dark” period at the start of the year and a successive rise in the price of commodities that influence the electricity price, especially hard coal and emission allowances, as a result of a rise in demand on the global markets and the political discussions about the future of the emissions trading system.

EBIT (earnings before interest and taxes) was well above budget and the prior-year level. This was mainly due to divestment gains resulting from portfolio measures in the grid and district heating activities and to valuation effects.

Sales are expected to decline to € 2.9 billion in 2018. The principal factors here will be a volume- and price-driven drop in revenue from the operation and marketing of the reduced domestic power plant portfolio and the contractual and accounting-related decline in revenues from foreign power plants.

The STEAG Group's EBIT for 2018 is expected to be about a third lower than in 2017. The drop in EBITDA is expected to be considerably lower. In this context, the one-off and temporary effects that dominated earnings in 2017 need to be taken into account.

Capital expenditure – another significant factor for the future development of the Group – should be nearly € 278 million in 2018

Around € 163 million of this amount has been earmarked for current and new growth projects. The main drivers here are the (present) project to build a geothermal power plant in Indonesia, plans for selective acquisitions for the strategic expansion of energy-related services, especially in the field of nuclear technology, and expansion of heat generating capacity in Poland.

With regard to capital expenditures for existing infrastructure, the construction of a flue gas denitrification (DeNOx) plant at the Iskenderun power plant in Turkey is the biggest individual project in the coming fiscal year. To meet legal requirements, it must be completed by mid-2019. Within the established business, selective investments will be channeled to raising the operating efficiency of power plants that already ensure high availability.

General information on expected developments

The STEAG Group assumes that the opportunities arising from its strategic focus and, in particular, the planned investment in growth areas will help it maintain a good position in the energy market. In parallel with this, the risks associated with the Group's business environment and activities are systematically identified, managed and monitored through its risk strategy.

Expected development of STEAG GmbH

The profit to be transferred by STEAG GmbH to its sole shareholder, KSBG kommunale Beteiligungsgesellschaft GmbH & Co. KG, for fiscal 2018 is expected to stabilize at the same level as for fiscal 2017.

Essen, March 21, 2018
STEAG GmbH
Board of Management

Rumstadt Baumgärtner Dr. Cieslik Geißler

This report contains forward-looking statements based on the present expectations, assumptions and forecasts made by the Board of Management and the information available to it. These forward-looking statements do not constitute a guarantee of future developments and earnings expectations. Future performance and developments depend on a wide variety of factors which contain a number of risks and unforeseeable factors and are based on assumptions that may prove incorrect.