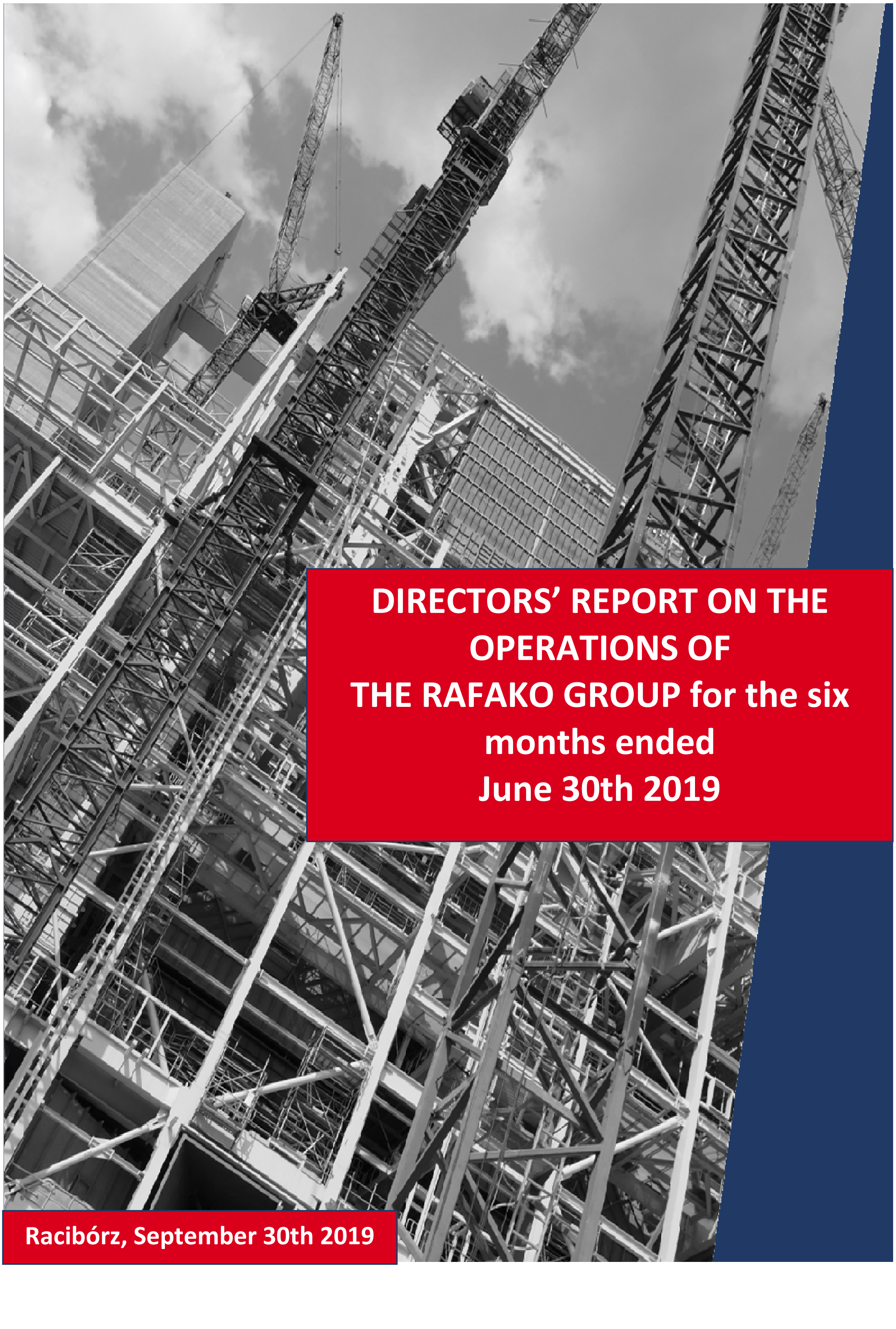
GRUPA PBG



DIRECTORS' REPORT ON THE OPERATIONS OF THE RAFAKO GROUP for the six months ended June 30th 2019

Racibórz, September 30th 2019

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I. General information

About us

RAFAKO S.A. (the parent) provides engineering, procurement and construction (EPC) services to the power sector and the oil and gas industry. As a general contractor for power generating units, the Company offers its proprietary technological solutions and is a leader in the manufacturing of energy generation equipment. Since November 2011, the RAFAKO Group has been part of the PBG Group.

The RAFAKO Group's key products and services include:

Complete power generating units	Heat and power steam generators	Air pollution control systems	Power equipment, machinery and	Natural gas, crude oil and fuels	Other
• consisting of a boiler (fired with fossil fuels or biomass) together with a turbine coupled with a generator and complete assembly necessary for proper operation of the unit	• fired with fossil fuels, biomass and waste • with stoker-fired, fluidised bed- and pulverised fuel furnaces • sub- and supercritical • manufacture and delivery of heat recovery steam generators	• manufacture and delivery of wet and semi-dry FGD units • manufacture and delivery of flue gas NOx reduction units, including SCR systems • manufacture and delivery of particles removal equipment (electrostatic precipitators, bag filters)	• manufacture of components for steam generators and precipitators • diagnostics, repairs, and upgrades of boiler equipment • design, advisory and maintenance services • manufacture of steel structures and other parts for the power generation industry	• surface installations for oil and gas production • installations for unloading, regasification and storage of LNG • oil and gas pipelines • fuel tanks • technical and sanitary installations	• construction and process design, urban planning • engineering and technical advisory services • supervision services for the construction, industrial and environment protection sectors • equipment assembly in the power and chemical industries • property management

The Group delivers these products and services in the EPC model (end-to-end project management including design, procurement, manufacture, assembly/construction, and commissioning) or on a non-EPC basis (design, procurement, manufacture, assembly/construction in various combinations, with procurement and manufacture as mandatory elements).

The parent operates its own production plants. The main plant with five production floors, manufacturing mainly high-pressure equipment, is located in Racibórz, along with the plant management office, design and technology offices. Electrostatic precipitators and their components are manufactured in Wyry. The parent's total target production capacity for 2019 is approximately 0.96m man-hours.

The parent has been present in the power sector since 1949. The parent's product offering, initially comprising mainly steam generators and their components, was gradually expanded to include complete flue gas desulfurisation units, particles removal units, NOx control systems, etc. From a typical manufacturer, the parent was transformed into a general contractor for power construction projects. In 2014, RAFAKO S.A. became one of the few companies offering and delivering power generation units under EPC contracts, when it launched, practically on a stand-alone basis, the construction of a 910 MW unit for the Jaworzno Power Plant (the "Jaworzno 910 MW Project"). Since 2018, the parent has also been offering transport and storage systems and tanks for natural gas, crude oil and other fuels.

Since its inception, the parent has been a leading supplier of steam generators for the domestic power and industrial sectors. The combined capacity of steam generators made by the parent accounts for a significant part of the total capacity installed in Polish commercial and industrial power plants. The most important facilities which use steam generators delivered by the parent include power plants in Bełchatów, Opole, Turów, Dolna

Odra, Rybnik (all owned by PGE), Pątnów-Adamów-Konin (all owned by ZE PAK), Kozienice (owned by Enea), and power plants owned by Tauron Wytwarzanie, as well as Warsaw CHP Plants – Elektrociepłownie Warszawskie (owned by PGNiG Termika), Wrocław CHP Plants – Zespół Elektrociepłowni Wrocławskich Kogeneracja, Łódź CHP Plants – Zespół Elektrociepłowni Łódź (owned by Veolia), and the Zielona Góra CHP Plant – Elektrociepłownia Zielona Góra (owned by PGE).

In 2008, a 464 MW unit was commissioned at the Pątnów II Power Plant for which RAFAKO S.A., in cooperation with SNC Lavalin, had supplied the steam generator and flue gas delsulfurisation (FGD) unit. The supercritical power generating unit at the Pątnów II Power Plant was the first project of this type in Poland, both in terms of the capital expenditure incurred and generating capacity delivered. It is a high-efficiency unit, which helps significantly reduce harmful gas emissions.

In 2011, an 858 MW unit was commissioned at the Bełchatów Power Plant for which a consortium made up of RAFAKO S.A. and Alstom had built the boiler island comprising a steam generator, electrostatic precipitator, and flue gas desulfurisation unit. The newly built unit in Bełchatów is the most powerful lignite-fired generating unit in Poland.

The parent has also delivered circulating fluidised bed (CFB) steam generators to the Żerań CHP Plant (owned by PGNiG Termika), Bielsko-Biała II CHP Plant (owned by Tauron Wytwarzanie), Siersza Power Plant (owned by Tauron Wytwarzanie), Zakłady Farmaceutyczne Polpharma Starogard Gdański, Synthos Dwory 7 in Oświęcim, and further two to Kirka Borax and Mersin Soda Plants in Turkey.

In 2012, a fluidised bed steam generator was commissioned at the Jaworzno Power Plant (the Tauron Group). The generator is fired with biomass only, as opposed to coal-fired or coal and biomass co-fired units already operated at the plant.

In 2014, a contract at the Stalowa Wola Power Plant for conversion of an existing PCC boiler into a biomass-fired unit was completed.

These innovative projects highlight the parent's established position as a supplier of renewable power generation technologies.

The parent is solidifying its position on the European market of waste incineration solutions. In 2011, RAFAKO S.A. supplied three heat recovery steam generators to a waste incineration facility in Turin, Italy, and further two heat recovery steam generators to Baku, Azerbaijan. In 2013, a steam generator was placed in service at a municipal waste incineration plant in Roskilde, Denmark.

In December 2017, a Thermal Waste Treatment Plant for the Szczecin Metropolitan Area was placed in service. The parent provided the process part for two lines of this plant.

The parent has also completed a number of contracts for the delivery of boilers for waste incineration plants in the United Kingdom.

- In 2014, it delivered a waste incineration boiler to Billingham, Cleveland;
- At the beginning of 2016, it supplied a municipal waste treatment boiler to Calvert, Buckinghamshire;
- In 2017, it delivered a waste incineration boiler (including assembly and start-up) to Hereford, Worcestershire;
- In 2018, it executed a project to deliver the pressure section for two boilers to a waste incineration plant in Kemsley.

The parent is a leading manufacturer of large environmental protection facilities in Poland. Such facilities have been delivered by the parent to the Jaworzno III Power Plant, Bełchatów Power Plant, Pątnów Power Plant, Ostrołęka B Power Plant, Dolna Odra Power Plant, Siekierki CHP Plant, Łódź CHP Plant, Siersza Power Plant, Skawina Power Plant, Trzebowice Power Plant (Czech Republic), Kozienice Power Plant, and Połaniec Power Plant.

In 2012, one of RAFAKO S.A.'s largest projects was commissioned: a wet flue gas desulfurisation unit for the Siekierki CHP Plant (owned by PGNiG Termika S.A.). The unit is one of the largest environmental projects in Poland.

In 2014, the parent completed the upgrade of the FGD systems on units 5 and 6 at the Bełchatów Power Plant. In 2015 and 2016, wet FGD units were placed in service in Gdańsk, Gdynia, Kraków and Wrocław, as part of the EDF Group's comprehensive plan to bring its generation assets in compliance with new environmental requirements.

The proprietary semi-dry flue gas desulfurization unit engineered by RAFAKO S.A. is more cost-efficient than the wet method.

- In 2007−2008, the parent commissioned high-efficiency semi-dry flue gas desulfurisation units at the Łódź CHP Plant and Skawina Power Plant;
- The same technology was also used for the construction of a new CHP plant for Grupa Azoty Zakłady Azotowe Kędzierzyn S.A., commissioned in 2017;
- In September 2017, a semi-dry flue gas desulfurisation unit was commissioned for K7 and K8 steam generators at the Białystok CHP Plant, and the final acceptance of the unit took place in March 2018.

In 2011, RAFAKO S.A. entered a new area of pro-environmental projects in the power sector, i.e. reduction of nitrogen oxides, as it commenced the manufacture of state-of-the-art SCR units on an EPC basis.

- Starting from June 2011, SCR systems were gradually deployed at units 4, 5, 6, 7 and 8 of the Kozienice Power Plant; the last system was commissioned in 2017;
- In 2012, a contract was signed with GDF SUEZ Energia Polska S.A. (currently ENEA Elektrownia Połaniec S.A.) for the delivery of SCR systems for power generating units at the Połaniec Power Plant; The SCR systems for units 2, 3, 6, 7 were commissioned in 2016, and an SCR system for unit 4 was commissioned in 2018;
- In 2014, a consortium of RAFAKO S.A. and OMIS S.A. signed a contract with ENERGA Elektrownie Ostrołęka S.A. for the construction of flue gas NOx reduction systems for units 1, 2 and 3 at Elektrownia Ostrołęka S.A.; the common system for all units was completed in 2016, the separate system for units 2 and 3 was commissioned in 2017, and the last part of the project – the system for unit 1 – in September 2018.

In 2009, particles removal equipment, including electrostatic precipitators and bag filters, was added to the parent's product offering. In 2010−2013, a number of electrostatic precipitators were put in operation, including at units 10, 4, 3 and 8 at the Kozienice Power Plant; at a BB-1150 steam generator of units 4, 5 and 6 at the Bełchatów Power Plant; as well as at unit 6 at the Tuzla CHP Plant. In 2014, two electrostatic precipitators were installed by the parent at the Westfalen Power Plant in Germany, and further two at the Eemshaven Power Plant in the Netherlands. In December 2016, RAFAKO S.A. completed the upgrade of an electrostatic precipitator at the Morava CHP Plant in Serbia. In December 2018, the electrostatic precipitator at unit 1 at the Ostrołęka Power Plant (the last part of the project to upgrade electrostatic precipitators at units 1, 2 and 3 at Energa Elektrownia Ostrołęka S.A.) was placed in service.

2014 was a breakthrough year for the RAFAKO Group. A contract was signed for the construction of a 910 MW power generating unit at the Jaworzno III Power Plant, where the RAFAKO Group will execute this turn-key contract on a practically stand-alone basis and, in terms of technologies, will supply the entire boiler island.

In 2014, the long-awaited contract for the extension of the Opole Power Plant came into effect. Under the contract, two new supercritical 900 MW power generating units are being built in what is the largest project in the Polish power sector since 1989. The parent's entire scope of work and services under the contract was subcontracted to Alstom Power Sp. z o.o. (currently GE Power Sp. z o.o.). On May 31st 2019, generating unit 5 was commissioned at the Opole Power Plant.

In early 2017, RAFAKO delivered, on an EPC basis, a new CHP plant for Grupa Azoty Zakłady Azotowe Kędzierzyn S.A., comprising a coal-fired generating unit with a high-efficiency steam generator, state-of-the-art flue gas treatment technologies and a steam turbine.

Foreign sales account for a significant part of the parent's total sales. The largest steam generators manufactured by the parent for foreign customers operate in the power plants of the former Yugoslavian countries, and a number of large generators have also been delivered to the Czech Republic, China, Turkey, and India. The parent is also an important supplier of steam generator components in the European market. In 2019, the RAFAKO Group supplied such components to customers in Lithuania, Indonesia, Belgium, France, Finland and other countries.

The parent is currently engaged in the execution of two major foreign contracts:

- Construction of a ca. EUR 148m biofuel-fired co-generation unit in Vilnius (Lithuania),
- Construction of two coal-fired steam units (2x50 MW) on Lombok Island, Indonesia, worth ca. EUR 70m.

The parent provides after-sale support and servicing for all products and equipment supplied. RAFAKO S.A. also offers upgrades of existing equipment to enhance its operating parameters and mitigate negative environmental impacts.

In 2018, the parent decided to expand its business into EPC and general contractor services for the oil and gas sector in Poland and on foreign markets. These services are seen as a promising market given the expected multi-billion investments in this sector, mainly relating to the implementation of the energy policy objectives.

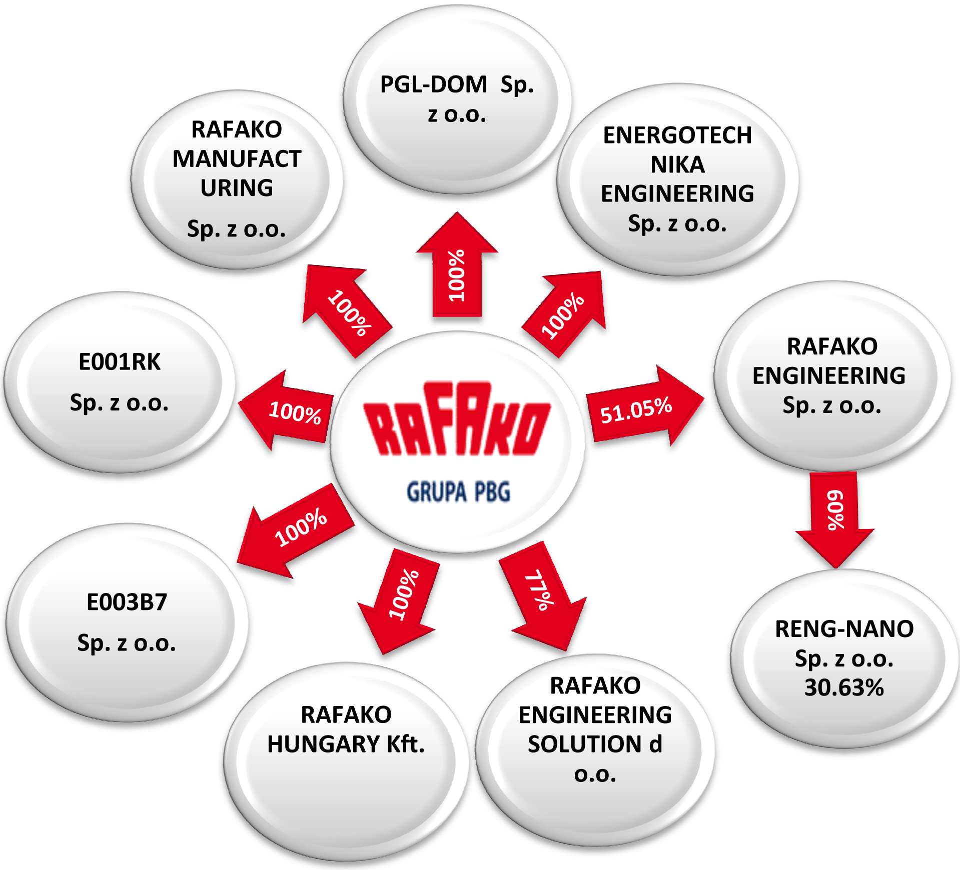
Certificates held by RAFAKO S.A. (EMAS, AD 2000-Merkblatt HP0, ASME CODE, EN 1090 and EN 3834-2) comply with the technical, quality, environmental and safety requirements of the ISO 9001:2015, ISO 14001:2015, PN-N 18001 standards, Directive 2014/68/EU and Regulation (EC) 1221/2009 of the European Parliament and of the Council applicable in Poland, the EU, and the US.

In 2011, RAFAKO S.A. joined the PBG Group, whose parent is PBG S.A. The PBG Group operates on the market for specialist construction services. The key segments of the Group's business currently include the construction of facilities and structures for the power, natural gas, crude oil and fuel sectors. From June 2012, PBG was in company voluntary arrangement. In August 2015, the meeting of PBG's creditors voted on and approved the arrangement. In October 2015, the arrangement was approved by the court. The arrangement became final on June 13th 2016.

The current shareholder structure is set out in section III.6.

II. Organisation of the RAFAKO Group

As at June 30th 2019, the following subsidiaries were consolidated in the Group's consolidated financial statements:



1. Structure of the Group, and its consolidated subsidiaries

As at June 30th 2019, the RAFAKO Group comprised the parent and nine subsidiaries operating in the power construction, services and trade sectors. As at June 30th 2019, in addition to the parent, the RAFAKO Group comprised:

- Przedsiębiorstwo Gospodarki Lokalami PGL-DOM Sp. z o.o. of Racibórz, Poland. The parent holds a 100% interest in the company's share capital and the same percentage of voting rights. Business activity:real property activities with own property;
- RAFAKO ENGINEERING Sp. z o.o. of Racibórz, Poland. The parent holds a 51.05% interest in the share capital of the company and the same percentage of voting rights. Business activity: engineering activities and related technical consultancy;
- ENERGOTECHNIKA ENGINEERING Sp. z o.o. of Gliwice. The parent holds a 100% interest in the share capital of the company and the same percentage of voting rights. Business activity: engineering activities and related technical consultancy;
- RAFAKO ENGINEERING SOLUTION doo. of Belgrade; The parent holds a 77% interest in the share capital of the company and the same percentage of the voting rights. Principal business activity: process design, including process consultancy and supervision related to construction industry, manufacturing and environmental protection;

- RAFAKO Hungary Kft. of Budapest, Hungary. The parent holds the entire share capital of the company and all voting rights. Principal business activity: equipment assembly services for the power sector and the chemical industry;
- E001RK Sp. z o.o. of Racibórz, Poland. The parent is the main shareholder of the company, holding 100% of its shares. Principal business activity: development of building projects; construction of roads and highways, railways and subways, bridges and tunnels; engineering activities and technical and scientific consultancy; production, repair and maintenance of machinery and equipment, generation and transmission of and trading in electricity. The company was established to carry out the Opole Project;
- E003B7 Sp. z o.o. of Racibórz, Poland. The parent is the main shareholder of the company, holding 100% of its shares. Principal business activity: development of construction projects, construction, engineering and process consultancy and design. The company has been established to carry out the Jaworzno 910 MW Project;
- RAFAKO MANUFAKTURING Sp. z o.o. of Racibórz, Poland. The parent holds a 100% interest in the company's share capital and the same percentage of voting rights. Business activity: Production of steam generators, excluding hot water central heating boilers;
- RENG-NANO Sp. z o.o. of Racibórz, Poland. A subsidiary of RAFAKO ENGINEERING Sp. z o.o., which holds a 60% interest in the share capital of the company and the same percentage of the voting rights. Business activity: Manufacture of metal structures and components, repair and maintenance of finished metal goods.

The parent holds 1,956 shares in SANBEI-RAFAKO Sp. z o.o. of Zhangjiakou, Hebei Province, China, representing 26.23% of the company's capital. SANBEI-RAFAKO Sp. z o.o.'s principal business activity is manufacture of small steam and water boilers and other power generation equipment. As at June 30th 2019, the parent's interest in the company's capital was not material to the assessment of the Group's assets, liabilities, profits or losses.

The RAFAKO Group's parent is PBG S.A., with its registered office at ul. Skórzewska 35, Wysogotowo, Poland.

2. Structure of the RAFAKO Group

In the six months ended June 30th 2019, there were a number of changes in the Group's structure.

On August 9th 2019, RAFAKO EBUS Sp. z o.o. was entered in the business register (RAFAKO S.A. is its sole shareholder; the share capital amounts to PLN 5,000).

3. Parent's governing bodies

General Meeting

The Annual General Meeting of RAFAKO S.A. was held on June 14th 2019. An Extraordinary General Meeting of RAFAKO S.A. held on July 23rd 2019:

1. reviewed and approved the Directors' Report on the parent's operations and the parent's financial statements for the financial year 2018,
2. reviewed and approved the Directors' Report on the RAFAKO Group's operations and the RAFAKO Group's consolidated financial statements for the financial year 2018,
3. approved the report on the activities of the parent's Supervisory Board in 2018,
4. granted discharge to members of the parent's Management Board in respect of their duties in 2018,
5. granted discharge to members of the parent's Supervisory Board in respect of their duties in 2018,
6. resolved to contribute the parent's profit for the financial year from January 1st to December 31st 2018 to statutory reserve funds,
7. resolved that the Supervisory Board would be composed of seven members.

Supervisory Board

The Supervisory Board exercises ongoing supervision over the parent's business.

On September 2nd 2019, Ms Helena Fic, Chair of the Supervisory Board, was delegated for a period of three months to temporarily perform the duties of President of the Management Board.

As at the date of this report, the composition of the Supervisory Board was as follows:

Helena Fic	Chair of the Supervisory Board
Małgorzata Wiśniewska	Deputy Chair of the Supervisory Board
Przemysław Schmidt	Secretary of the Supervisory Board (independent member)
Krzysztof Gerula	Member of the Supervisory Board (independent member)
Dariusz Szymański	Member of the Supervisory Board
Adam Szyszka	Member of the Supervisory Board (independent member)
Michał Sikorski	Member of the Supervisory Board

Management Board

The Management Board manages the parent's business and its day-to-day operations and represents the parent in dealings with third parties.

On August 19th 2019, the mandate of President of the Management Board expired following the unexpected passing of Mr Jerzy Wiśniewski.

On September 2nd 2019, the Supervisory Board removed Mr Jarosław Dusiło from his position as Vice President of the Company's Management Board and appointed Mr Jerzy Ciechanowski to the Company's Management Board as Vice President. Furthermore, Ms Helena Fic was delegated for a period of three months to temporarily perform the duties of President of the Management Board.

As at the date of this report, the composition of the RAFAKO Management Board was as follows:

Helena Fic	Acting President of the Management Board
Jerzy Ciechanowski	Vice President of the Management Board
Agnieszka Wasilewska-Semail	Vice President of the Management Board

III. Economic and financial condition

1. External and internal factors relevant to the RAFAKO Group's financial performance and development prospects

External factors

- domestic and global economic situation
- situation in the domestic and global power and oil & gas sectors
- volatility of prices of materials used in the manufacturing processes and prices of services, including construction and assembly services
- competition on the Company's market
- financial condition and market position of the Company's customers, consortium partners, subcontractors
- timeliness of payments by the employers
- foreign exchange rates
- financial institutions' willingness to provide financing and guarantees for contracts performed by the Company
- the Company's limited ability to obtain guarantee facilities in view of PBG's arrangement proceedings
- changes in tax regulations applicable
- legislative changes concerning the capacity market
- financial condition of the Company's main shareholder

Internal factors

- timely delivery of contracts within budgeted costs
- conclusion and performance of material contracts
- maintaining financial liquidity of the Group
- performance of contracts in line with the schedules and quality requirements, based on the latest
- improvement of management processes at the Company, including management of long-term contracts and operating costs (fixed costs)
- formation of large, multi-industry teams for coordination of work on comprehensive power sector facilities
- high costs of maintaining and acquiring new highly-qualified staff for designing and production

2. Key risks and threats

The RAFAKO Group has identified the following risks and threats to the Group's operations in the near future:

Risks relating to macroeconomic conditions and the sector in which the RAFAKO Group operates:

- Risk factors relating to the macroeconomic situation, including the GDP growth rate, unemployment rate, salaries and wages, growth of the industrial and construction output, and capital expenditure;
- Risk relating to political environment, as well as energy policy and uncertainty over its future directions
- Currency risk
- Interest rate risk
- Competition risk
- Risk of an increase in market prices of subcontractors' services and materials
- Risk of the EU reducing subsidies in areas of the Group's principal business activity

Regulatory risks

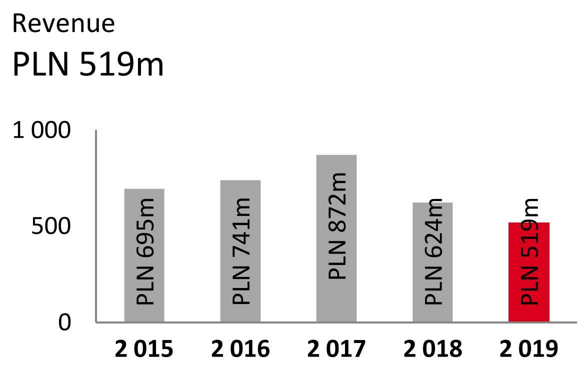
- Risk of changes in regulations in the power sector
- Risk related to changes in environmental laws
- Risk of changes in tax laws or their interpretation
- Risk inherent in related-party transactions
- Risk related to European Union requirements for coal policy

Risks specific to the Group

- Risk of delays in or improper performance of contracts
- Risk of non-payment or delayed payment of amounts due under contracts
- Risk associated with performance of high-value contracts and with the limited number of potential customers for products and services
- Risk of failure to correctly estimate contract costs
- Risk related to short tender submission deadlines
- Risk inherent in acquisition and execution of projects in cooperation with suppliers and subcontractors, as well as in consortia
- Risk related to non-repayment or partial repayment of receivables under PBG bonds
- Risk of failure to secure sufficient external financing on terms expected by the Group (insufficient liquidity may result in less favourable financing and business terms)
- Risk of restricted access to guarantee facilities in sufficient amounts limiting the ability to sign and perform contracts
- Risk of failure to implement the Group's strategy
- Reputational risk
- Risk related to the use of complex and innovative manufacturing technologies
- Lack of specialist qualifications and execution credentials
- The Company's day-to-day operations and growth depend on the competence of its senior management and ability to hire and retain highly-qualified personnel, particularly specialist production staff and engineers
- Risk of insufficient insurance cover
- Risk of consequences of accidents at work and occupational diseases
- Risk related to plant failure or to destruction or loss of assets
- Risk of failure or security breach relating to the Group's IT systems

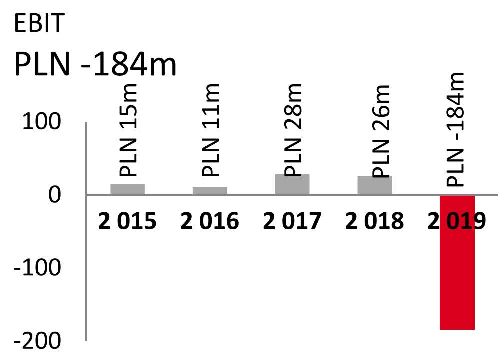
3. Analysis of key financial and economic data

3.1. Overview of 2019 half-year results (relative to prior years' half-year results)



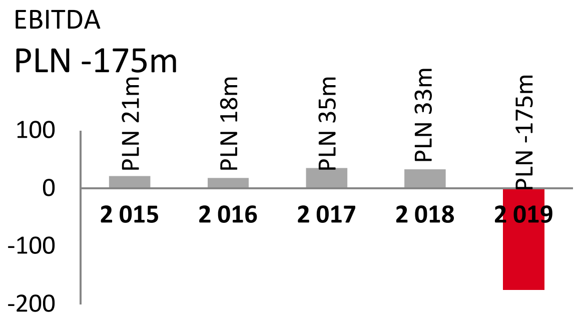
Definition: Total value of products, merchandise and materials sold, net of VAT.

Relative to the six months ended June 30th 2018: Revenue decreased by 16.8%, mainly as a consequence of lesser involvement in (based on the project schedule) and lower margin on the Jaworzno 910 MW Project.



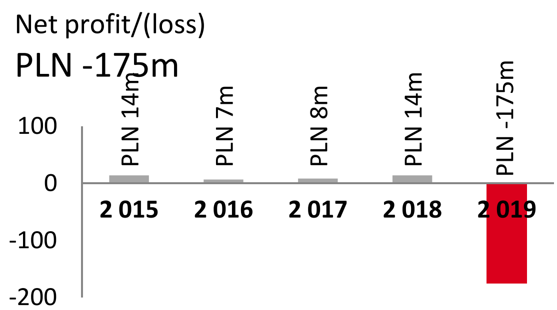
Definition: Profit/(loss) from continuing operations

Relative to the six months ended June 30th 2018: EBIT fell by PLN 209m, to PLN -184m. The decline was mainly attributable to a revision of estimated costs under significant long-term contracts.



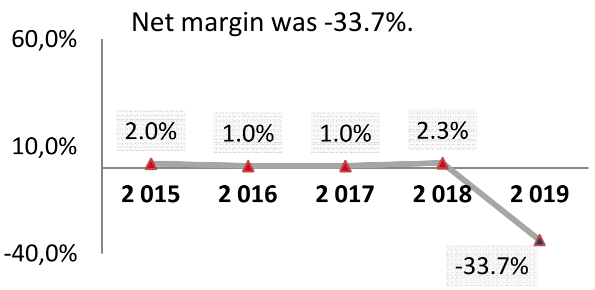
Definition: Total of profit/(loss) from continuing operations, depreciation and amortisation

Relative to the six months ended June 30th 2018: EBITDA fell from PLN 33m to PLN -175m, reflecting mainly the lower EBIT.



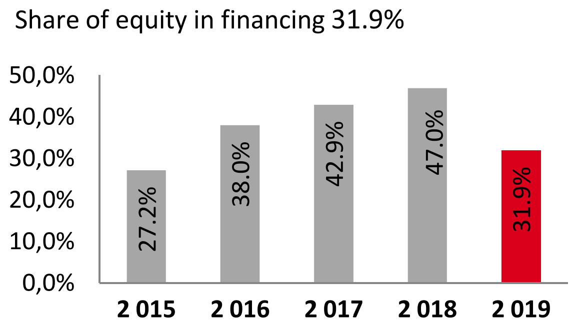
Definition: Excess that remains after deducting all costs. Difference between revenue and total costs.

Relative to the six months ended June 30th 2018: The Group generated net loss of PLN -175m, compared with net profit of PLN 14m earned in H1 2018.



Definition: Net margin: net profit/(loss)/net revenue from sale of products and merchandise

Relative to the six months ended June 30th 2018: Net margin fell significantly, to -33.7%.



Definition: Equity / total assets.

Relative to the six months ended June 30th 2018: Due to the recorded loss, the share of equity in financing of total assets fell to 31.9%.

3.2. Revenue: amount and structure

In the six months ended June 30th 2019, revenue from sale of products, merchandise and materials was PLN 519,169 thousand, having decreased by PLN 104,962 thousand (or -16.8%) year on year. Revenue from sale of products and services amounted to PLN 518,742 thousand, while revenue from sale of materials was PLN 427 thousand.

The revenue decrease in the six months ended June 30th 2019 was mainly attributable to lower revenue from the Jaworzno contract (construction of a 910 MW power generating unit at the Jaworzno III Power Plant). The Group's revenue recognised under the contract was PLN 82,246 thousand, down by PLN 247,157 thousand relative to the six months ended June 30th 2018. The year-on-year decrease in revenue in H1 2019 was mainly attributable to the lesser involvement in (based on the project schedule) and lower margin on the contract.

Apart from the Jaworzno contract, the decline in domestic revenue was mainly attributable to lower sales of air pollution control systems. Sales of such systems reached PLN 87,209 thousand, having contracted 42.2% relative to the six months ended June 30th 2018, when they amounted to PLN 150,924 thousand. The sales of air pollution control systems were driven down primarily by a revision in estimates related to the contract for delivery and installation of an SCR system and upgrade of electrostatic precipitators at the Kozienice Power Plant.

In line with the strategy objectives defined by the RAFAKO Group, revenue in the strategic gas and oil segment rose strongly to PLN 69,783 thousand in H1 2019, a level almost eight times higher than in H1 2018. The increase in the segment's revenue was mainly attributable to the construction of the DN700 Goleniów-Płoty gas pipeline for Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A.

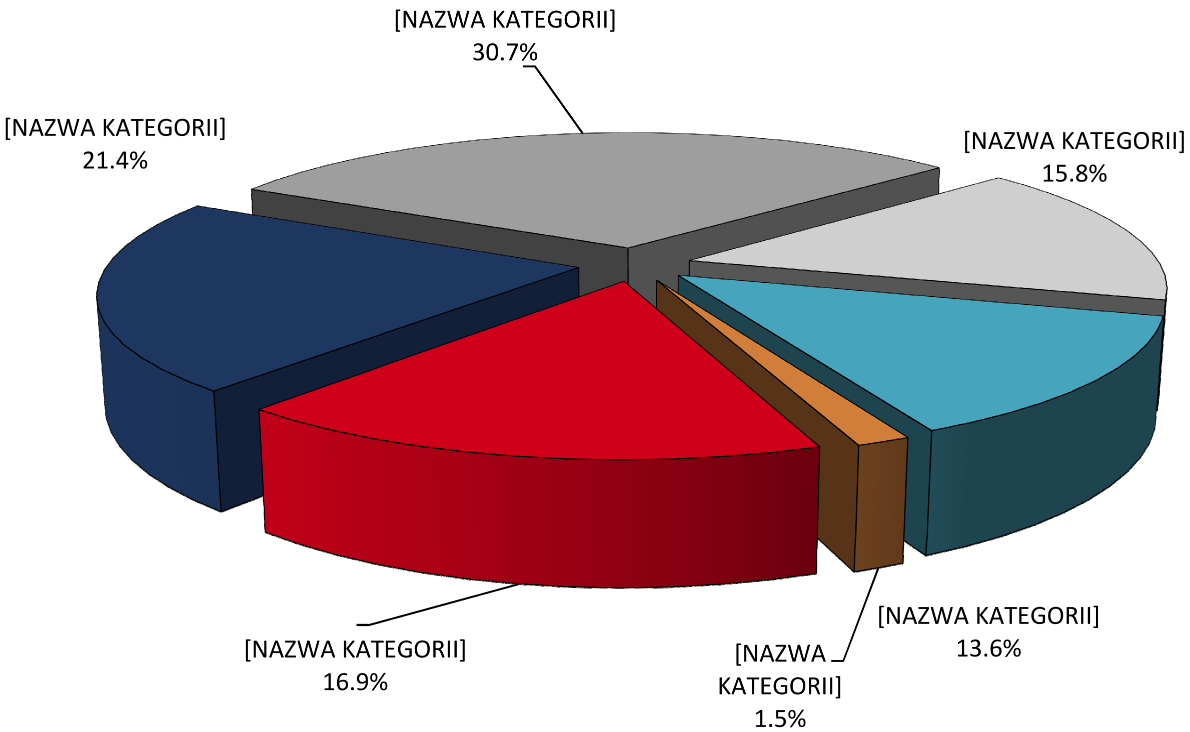
Sales of power equipment, machinery, components and associated services on the domestic market totalled PLN 53,122 thousand, having increased by PLN 50,839 thousand (vs PLN 2,283 thousand in the first six months of 2018). The contract to upgrade the K2 steam generator at the Bełchatów Power Plant for PGE GÓRNICTWO I ENERGETYKA KONWENCJONALNA was the largest contributor to revenue in 2019.

The share of export sales in total sales was 42.2%, up by 23.4pp year on year. In the six months ended June 30th 2019, revenue from export sales totalled PLN 218,840 thousand, an increase of 87.1% from PLN 116,975 thousand in the six months ended June 30th 2018.

The increase in export sales involved mainly power generating units and steam generators. Sales of these product lines totalled PLN 159,450 thousand, having increased more than twice (from PLN 47,097 thousand in the first six months of 2018). This growth was driven mostly by the construction of a biofuel-fired CHP unit in Vilnius, Lithuania (a ca. EUR 148m contract; sales in H1 2019: PLN 114,833 thousand, H1 2018: PLN 45,970 thousand).

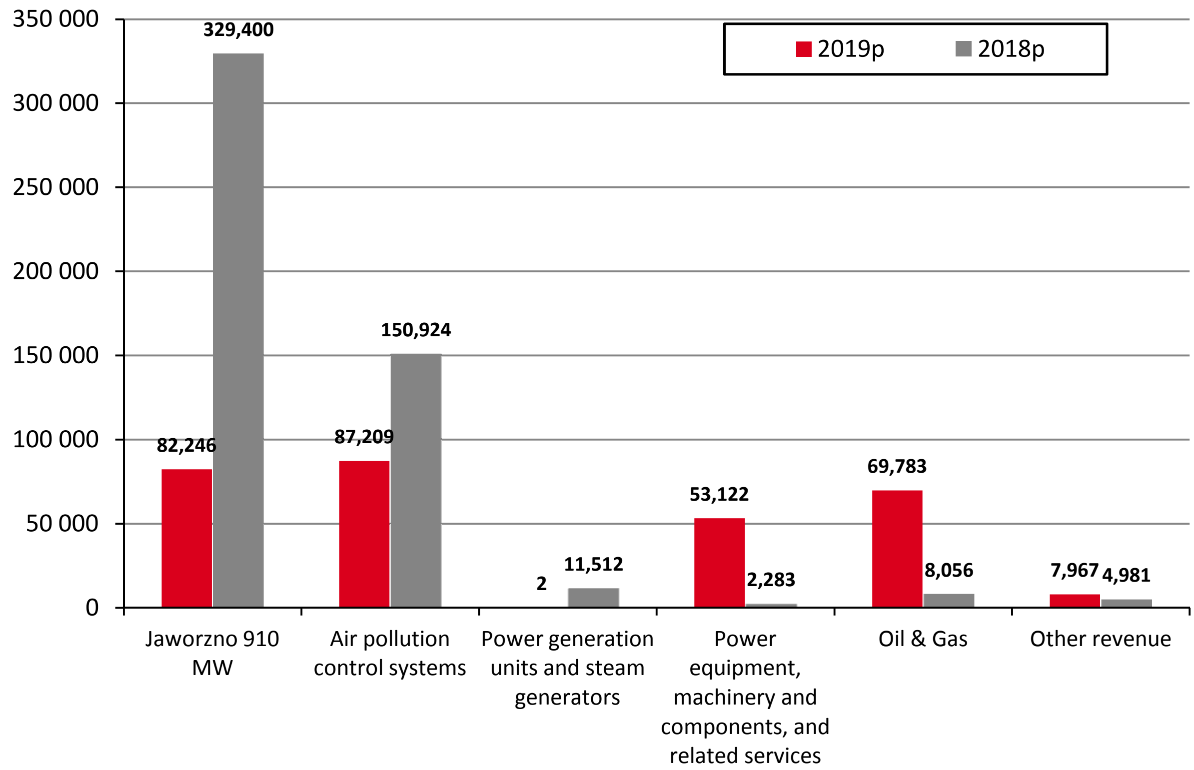
Revenue from sales of power equipment, machinery, components and associated services on foreign markets totalled PLN 58,179 thousand, down by 11.4% relative to the six months ended June 30th 2018, when it came to PLN 65,694 thousand.

The Group's sales structure for the six months ended June 30th 2019 was as follows:

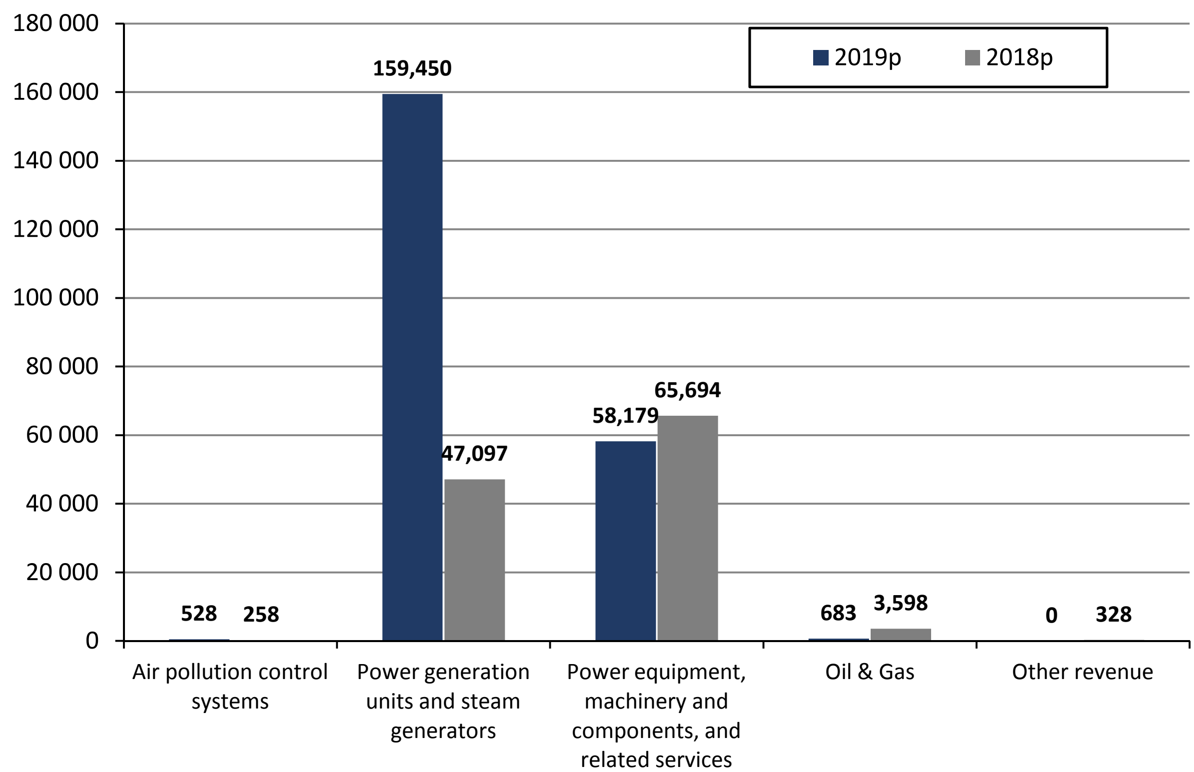


Sales by market:

Domestic market (six months ended June 30th 2019: PLN 300,329 thousand; H1 2018: PLN 507,156 thousand):

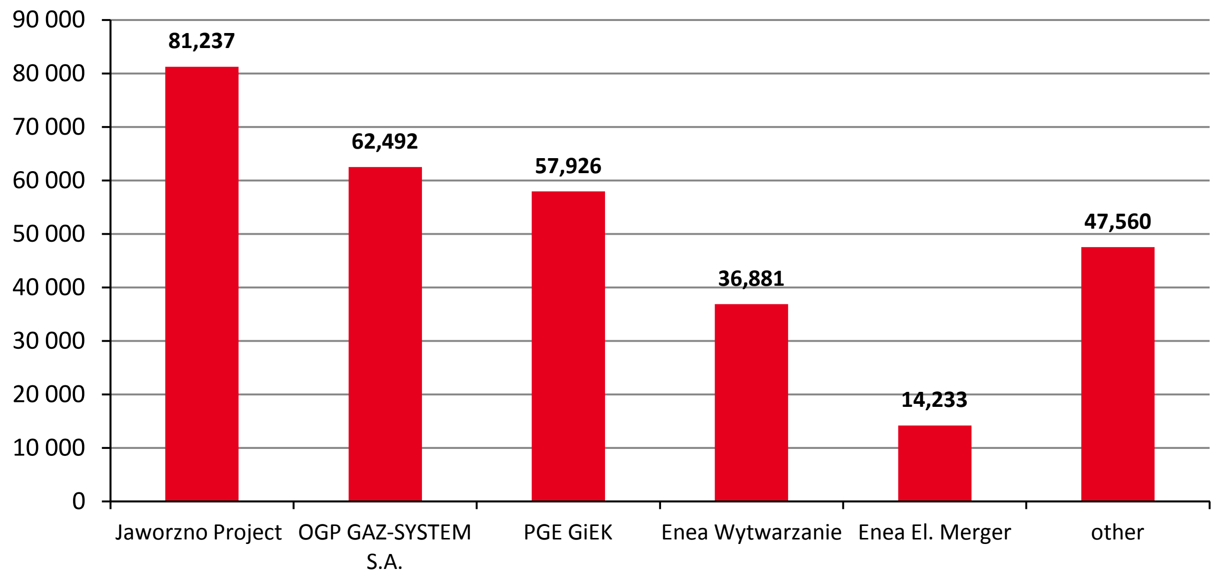


Foreign market (six months ended June 30th 2019: PLN 218,840 thousand; H1 2018: PLN 116,975 thousand):



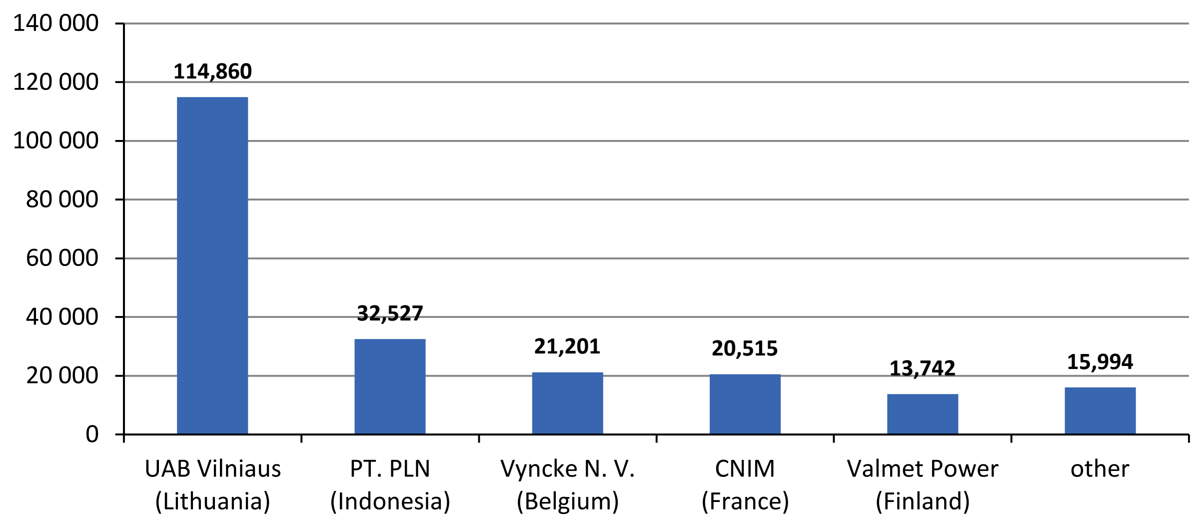
In the six months ended June 30th 2019, the RAFAKO Group's major customers included:

On the domestic market (PLN 300,329 thousand in total):



In the six months ended June 30th 2019, Nowe Jaworzno Grupa TAURON Sp. z o.o. was the Group's main customer, accounting for 15.6% of total sales (52.9% in the six months ended June 30th 2018). Revenue attributable to this customer was generated mostly in connection with the construction of a 910MW supercritical power generating unit at the Jaworzno Power Plant.

On foreign markets (PLN 218,840 thousand in total):



RAFAKO S.A.'s key export customer was UAB VILNIAUS KOGENERACINE JEGAINE based in Lithuania, with a 22.1% share in total sales. Sales to this customer involve the construction of a biofuel-fired CHP plant unit made up of fluidised-bed boilers and a biofuel transport and feeding system.

The presented revenue data includes revenue frm construction contracts accounted for using the percentage of completion method.

3.3. Procurement, services and purchases of production materials

In the six months ended June 30th 2019, the value of purchases rose 11.4% year on year. The Group procured supplies mainly from domestic sources.

PLN '000				
	H1 2019		*H1 2018*	
Source	**Value**	**Share in total purchases**	**Value**	**Share in total purchases**
Domestic suppliers	467,523	86.91%	429,374	88.9%
Foreign suppliers	70,390	13.09%	53,404	11.1%
TOTAL	537,913	100.00%	482,779	100.0%

In the six months ended June 30th 2019, none of the suppliers accounted for more than 10% of total purchases. The supplier structure was highly fragmented.

The Group relies on external suppliers for various services – delivery and assembly of machinery and equipment, construction and installation services and transport, as well as pipes, metal sheets, shaped materials, welding materials and specialist equipment. The range of purchases depends on the nature and requirements of individual projects (customised production). As a result of changes in the market environment of industrial construction, higher prices of materials, labour and services, as well as the limited number of available subcontractors, the Group companies faced difficulties associated with the availability and prices of materials and subcontractor services. Suppliers are chosen based on their ability to provide materials and equipment that meet the relevant technical and quality standards by specified deadlines and in the most cost-effective manner. The procurement process is based on market analysis, with the pool of suppliers including only manufacturers recognised for the quality of their products and compliance with the safety, environmental and other relevant standards.

With some contracts, the list of potential manufacturers and service providers must be approved by the Group's employers.

3.4. Operating expenses: amount and structure; gross profit/(loss)

In the six months ended June 30th 2019, cost of sales totalled PLN 656,453 thousand which, with PLN 519,169 thousand in revenue, translated into gross loss of PLN -137,284 thousand. Compared with H1 2018, when the Group generated gross profit of PLN 66,333 thousand, the figure deteriorated by PLN 203,617 thousand.

The loss was mainly attributable to a revision of estimated costs of the following three significant contracts:

- Delivery and installation of an SCR system and upgrade of electrostatic precipitators for AP-1650 steam generators 9 and 10 at ENEA Wytwarzanie Sp. z o.o. (effect on the RAFAKO Group's consolidated result for H1 2019: PLN -52.9m),

  The additional cost of the contract, as estimated by RAFAKO S.A., amounts to PLN 52.9m, due mainly to an extraordinary increase in market prices during the contract performance and to work which, in the Company's opinion, went beyond the contract's scope, including in particular an increase in costs under contracts settled based on unit rates, claims raised in 2019 by major subcontractors, resulting from some necessary additional work, costs related to longer than assumed execution of the contract, resulting from additional work performed, as well as additional services and deliveries related to an electrostatic precipitator. At the same time, the parent estimated its claims against the employer for the reasons indicated above at PLN 67.8m.

- Construction of a biofuel-fired co-generation unit consisting of fluidised bed boilers, biofuel storage and feeder systems, and a flue gas treatment system in Vilnius, Lithuania (effect on the RAFAKO Group's consolidated result for H1 2019: PLN -35.5m).

  The additional cost of the contract, as estimated by RAFAKO S.A., amounts to PLN 61m, due mainly to extraordinary price increases during the Vilnius Project performance, work which, in the parent's opinion, went beyond the project's scope and longer than assumed execution of the project (through no fault of RAFAKO), due in particular to delays in the employer's performance under the contract resulting in delayed orders for deliveries and services, whose prices increased dramatically owing to the expiry of relevant bids. The parent also estimated additional costs related to changes in the contract's scope introduced by the employer, resulting in the need to perform some additional work. At the same time, the parent estimated its claims for the reasons indicated above at PLN 60.7m.

- Construction of a supercritical 910 MW power generation unit at Jaworzno III Power Plant – Power Plant II: steam generator, turbine generator set, main building, electrical and I&C systems (effect on the RAFAKO Group's consolidated result for H1 2019: PLN -65.9m).

  A change in the overall result on the contract for the first half of 2019 was PLN 83.7m, reflecting a change in total estimated revenue and expenses. The contractor's analysis of changes in prices applicable to subcontracts (excluding the contract with Siemens companies) shows that the difference between the actual cost and the forecast was PLN 99,302,336.64. Taking into account the risk assumed in the contractor's bid, the difference between the actual cost and the forecast was PLN 65,974,380.23. In the parent's and the SPV's opinion, the above circumstances give grounds for increasing the contractor's remuneration due to an extraordinary change in relations. Having completed the above work, on March 19th 2019 the parent and the SPV submitted to the employer a request for increasing the contract price by PLN 65,974,380.23.

For a detailed presentation of overall results on the contracts and pursuit of the related claims, see Notes 10.1.1, 10.1.3 and 10.1.4 to the interim condensed consolidated financial statements for the six months ended June 30th 2019.

Administrative expenses totalled PLN 26,428 thousand, having decreased slightly (by PLN 129 thousand) year on year.

Distribution costs totalled PLN 12,351 thousand in H1 2019, also having fallen slightly (by PLN 500 thousand) year on year.

3.5. Other income and expenses and net finance income/costs

3.5.1.Net other income/(expenses)

In the six months ended June 30th 2019, the Group recorded net other expenses of PLN 2,396 thousand (six months ended June 30th 2018: net other income of PLN 2,616 thousand), attributable to:

		PLN '000
1.	impairment losses on other receivables	(1,449)
2.	donations and grants	(827)
3.	input VAT	(487)
4.	impairment losses on trade receivables	(442)
5.	reversal of impairment losses on property, plant and equipment and	348

	intangible assets	
6.	compensation received	341
7.	other expenses	120

3.5.2.Research and development costs

In H1 2019, the Group's cost of technology advancement was PLN 5,278 thousand, down PLN 1,354 thousand year on year.

3.5.3.Net finance income/costs

In the six months ended June 30th 2019, the Group recorded net finance income of PLN 170 thousand (vs. PLN 3,111 thousand in net finance expenses in the six months ended June 30th 2018), attributable to:

		PLN '000
1.	discount of long-term accounts receivable and payable	4,153
2.	negative balance of interest on financial instruments	(1,292)
3.	foreign exchange losses	(1,067)
4.	recognition of impairment losses (mainly on loans)	(717)
5	loan commission	(511)
6.	interest on lease liabilities	(329)
7.	other finance costs	(67)

3.6. Results: amounts and structure

In H1 2019, the RAFAKO Group recorded losses across all levels of the statement of profit or loss:

- gross loss of PLN -137,284 thousand, compared with gross profit of PLN 66,333 thousand for H1 2018,
- operating loss of PLN -183,737 thousand, relative to operating profit of PLN 25,617 thousand in H1 2018,
- net loss of PLN -174,755 thousand, against net profit of PLN 14,485 thousand in H1 2018.

The Group did not publish any financial forecasts or profit guidance for the six months ended June 30th 2019.

Structure of and changes in consolidated profit/(loss) before tax in the first half of 2019, in 2018 and in the first half of 2018 are presented in Appendix 4.

3.7. Margins, return on equity and return on assets

In H1 2019, the Group's gross profit margin was negative at -26.4% (vs 10.6% for H1 2018), while operating profit margin was -35.4% (compared with 4.1% for H1 2018).

With net loss of PLN -174,755 thousand, the Group's return on equity (ROE) for the six months ended June 30th 2019 was -41.4%. In the six months ended June 30th 2016, ROE was 2.5%.

Return on assets (ROA) for H1 2019 was -13.2% (vs 1.2% for H1 2018), driven by the loss incurred.

Profitability ratios for the first half of 2019, 2018 and the first half of 2018 are presented in Appendix 1.

3.8. Financial liquidity

As at the end of June 2019, the current ratio (current assets to current liabilities) decreased to 1.27, from 1.56 at the end of 2018.

Relative to 2018, the average collection period (days) for the gross amount due from customers for contract work increased by 44 days in the six months ended June 30th 2019 (to 152 days), mainly as a result of more costs incurred than invoiced under several of the Group's major contracts. The average collection period for trade receivables shortened to 76 days as at the end of June 2019, from 82 days as at the end of 2018.

As at the end of June 2019, the average payment period for the gross amount due to customers for contract work increased by 17 days relative to 2018, to 71 days. The relatively long average payment period for trade payables shortened to 91 days as at the end of June 2019, from 96 days as at the end of 2018.

The above data confirms that liquidity position across the construction industry is rather poor.

The parent is able to meet its obligations when due. In the six months ended June 30th 2019, liabilities to the Social Security Institution (ZUS), State Treasury and employees were settled in a timely manner, however, there were delays in payments to suppliers. The Group was able to maintain its financial liquidity chiefly due to the rigorous and consistent application of its rules of payment to subcontractors and efficient collection of receivables from customers. In 2019, the Company used bank loans and long-term financing in the form of lease contracts.

The parent continued its multi-purpose credit facility agreement with PKO BP S.A., whereby the bank granted to the Company a multi-purpose credit facility for the financing of its day-to-day operations. In H1 2019, an annex to the credit facility agreement was signed, extending the availability period of the facility. In the same period, annexes were also signed to the bank guarantee facility agreements with the Polish Branch of HSBC France.

For detailed information on the amendments, see section IV.4 'Other material events'.

In 2019, the Company used a bank credit facility and long-term lease contracts with interest rates based on the 1M WIBOR reference rate plus margin. However, it did not use any commercial loans. Therefore, any potential changes in interest rates on such instruments, or changes involving higher margins on credit instruments offered by banks, affected the level of the Company's finance costs, but did not pose any threat to its business in that period.

The Company does not use any financial instruments to hedge the identified risks, as it believes that the effect of such hedges on net profit (loss) and liquidity would be immaterial.

In terms of financial liquidity, the need to engage substantial cash to secure contract bonds (performance bonds and advance payment guarantees), provided mainly by banks, is a significant burden on the parent.

The Group is also exposed to currency risk. Changes in PLN exchange rates, especially if frequent and significant, may materially affect both the profitability of contracts and the amount of currency translation differences on assets and liabilities denominated in foreign currencies and translated into PLN.

The currency risk management strategy adopted by the Group companies involves reducing the currency exposure to the Company's most important currency pair, that is EUR/PLN, by matching the currency structure of costs and income. The Company mainly uses natural hedging. Currency is sold or bought on an ongoing basis.

As at June 30th 2019, the parent did not have any open FX hedging transactions. The Company does not apply hedge accounting.

The objectives and policies of financial risk management have not changed relative to those published in the most recent consolidated full-year financial statements for 2018.

For the Group to continue as a going concern, a key prerequisite is to maintain financial liquidity. A significant increase in the cost of performance of key contracts, as estimated by the parent, poses a material threat to RAFAKO S.A.'s ability to continue as a going concern. The Management Board believes that negotiations with the parent's key customers undertaken with a view to increasing the contract sums will help mitigate that risk.

The Group's current order book requires the Group to commit working capital, including from internally generated funds. The committed funds will be released gradually as contracts are completed and consecutive milestones are reached, in accordance with contractual provisions, schedules and budgets. The Group will be able to use the released funds as additional working capital required for new projects.

Access to external financing is a major factor in ensuring liquidity. In June 2019, the parent and PKO BP S.A. signed an annex to the multi-purpose credit facility agreement; under the annex, RAFAKO S.A. will have access to credit and guarantee facilities totalling PLN 200m until the end of June 2020.

Access to new bank/insurance guarantees will be of major importance for the Group to be able to maintain liquidity. Unavailability of sufficient guarantee limits may restrict the Group's ability to win new revenue-generating contracts.

In 2019, the parent secured new guarantee limits of approximately PLN 116m (PLN 41.5m from mBank, PLN 40m from Alior Bank S.A., ca. PLN 14.5m from Lev Ins, PLN 5m from AXA, PLN 5m from UNIQA, and PLN 10m from KUKE), which allowed it to enter into significant contracts and improved liquidity, for instance by obtaining advance payments from customers.

The credit and guarantee facilities currently available to RAFAKO S.A. are used on an as-needed basis and, given the plans to expand the order book, the Company is seeking additional guarantee and credit facilities.

It should also be noted that despite the significant net loss incurred in H1 2019, the financial ratios as at June 30th 2019, including the share of equity in financing of assets (31.9%) and equity financing of non-current assets (149.6%), remained at levels considered safe.

In the Management Board's opinion, a release of significant working capital as several large contracts (including Jaworzno 910 MW) are nearing completion, combined with the secured credit and guarantee facilities as well as negotiations to increase the sums of certain major contracts, should allow the Group to maintain liquidity in the near term.

3.9. Debt

In H1 2019, the RAFAKO Group's liabilities towards its creditors increased by PLN 140,219 thousand. As at June 30th 2019, non-current and current liabilities totalled PLN 900,405 thousand, compared with PLN 760,186 thousand as at December 31st 2018.

In the six months ended June 30th 2019, current liabilities went up by PLN 131,291 thousand, to PLN 821,946 thousand. This was mainly due to an increase of PLN 86,147 thousand in gross amount due to customers for contract work (from PLN 173,499 thousand as at December 31st 2018), an increase of PLN 24,821 thousand in short-term trade payables (from PLN 306,511 thousand as at December 31st 2018), and an increase of PLN 16,464 thousand in other short-term provisions (from PLN 15,151 thousand as at the end of 2018).

Relative to December 31st 2018, non-current liabilities increased by PLN 8,928 thousand, to PLN 78,459 thousand as at June 30th 2019.

As at June 30th 2019, the Group's assets not encumbered with on-balance-sheet (non-current and current) liabilities totalled PLN 422,450 thousand (vs. PLN 597,335 thousand as at December 31st 2018).

The debt (non-current and current liabilities) to assets ratio rose to 68.1% as at June 30th 2019, from 56.0% as at the end of 2018.

The ratio does not take into account the Group's contingent liabilities under bank and insurance guarantees (mainly performance bonds and advance payment guarantees provided on the Group's instructions; such guarantees are typically used in contracts on the market for power generation equipment), letters of credit and promissory notes issued as security.

The debt ratio (non-current and current liabilities to total equity) was 213.1% as at June 30th 2019, having increased by 85.9% from the end of December 2018. This was due to a 29.3% drop in equity coupled with 18.4% growth in liabilities.

Equity financing of non-current assets changed as well, down by 62.2% to 149.6% relative to the end of December 2018.

For information on the liquidity and debt ratios in the six months ended June 30th 2019, in 2018 ,and in the six months ended June 30th 2018, see Appendix 1.

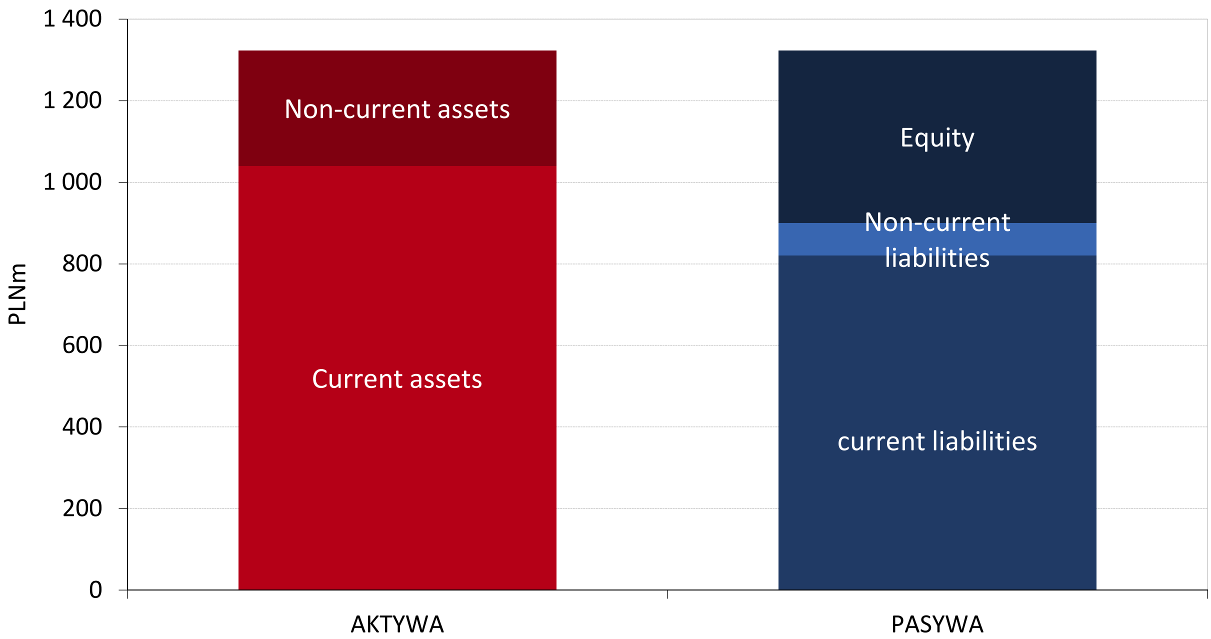
3.10. Off-balance-sheet items

As at June 30th 2019, the Group's contingent liabilities under bank and insurance guarantees, letters of credit and promissory notes issued as security were PLN 1,748,868 thousand. The main item was PLN 1,182,207 thousand in sureties issued mainly for the benefit of financial institutions which provided performance bonds for the Jaworzno Project SPV's obligations under the Jaworzno Project; the sureties were used in connection with financial guarantee agreements. In the six months ended June 30th 2019, banks and insurance companies acting on the parent's instructions provided guarantees (performance bonds of PLN 125,515 thousand, advance payment guarantees of PLN 46,299 thousand, and bid bonds of PLN 18,243 thousand) to the Group's trading partners.

In connection with its running contracts, the Group also had contingent receivables, which as at June 30th 2019 amounted to PLN 752,914 thousand (PLN 778,913 thousand as at December 31st 2018). The main item of these receivables were bank and insurance guarantees totalling PLN 697,729 thousand.

For details of changes in contingent receivables and liabilities, see Note 21 to the interim condensed consolidated financial statements for the six months ended June 30th 2019.

3.11. Assets financing structure



ASSETS	AKTYWA
EQUITY AND LIABILITIES	PASYWA

As at June 30th 2019, total assets were PLN 1,322,855 thousand, PLN 34,666 thousand (2.6%) less than as at December 31st 2018. Because of the losses incurred in the first half of 2019, the share of equity in the financing of total assets decreased by 12.1pp relative to December 31st 2018, to 31.9%.

Long-term capital (equity plus non-current liabilities) covered the full amount of non-current assets and 21% of current assets.

As at June 30th 2019, the structure of assets financing was as follows:

1. non-current assets of PLN 282,389 thousand were fully financed with long-term capital,
2. current assets and non-current assets held for sale of PLN 1,040,466 thousand were financed with:

long-term capital	21.0%
trade and other payables	34.3%
amounts due to customers for construction contract work	25.0%
short-term borrowings	11.0%
other current liabilities	8.7%

3.12. Non-current assets

3.12.1. Structure of non-current assets

The structure of non-current assets changed as a result of execution of investment projects, sale of assets, retirement or disposal of redundant property, plant and equipment, remeasurement of assets, and changes in the deferred tax asset. As at June 30th 2019 and December 31st 2018, it was as follows:

	Jun 30 2019	*Dec 31 2018*
1. Property, plant and equipment, including:	53.0%	57.2%
• land and buildings	37.6%	38.5%
• plant and equipment	14.2%	15.8%
• vehicles	0.9%	2.6%
• property, plant and equipment under construction	0.1%	0.1%
• other	0.2%	0.2%
2. Intangible assets	5.9%	6.1%
3. Right-of-use assets	6.5%	0.0%
4. Trade and other receivables	13.8%	14.3%
5. Shares	0.5%	0.5%
6. Other financial assets	0.0%	5.0%
7. Deferred tax assets	18.3%	14.9%
8. Long-term accruals and deferrals	2.0%	2.0%

The largest item of non-current assets was land and buildings, which accounted for 37.6% of non-current assets. Other significant items were deferred tax assets, trade receivables and plant and equipment. As at the end of June 2019, their share in non-current assets was 18.3%, 13.8% and 14.2%, respectively. Plant and equipment include mostly machinery, equipment and apparatuses used in manufacturing processes, as well as computer hardware.

In the six months ended June 30th 2019, non-current assets increased by PLN 367 thousand (0.1%) compared with the end of 2018. Under non-current assets, the highest increase was recorded for right-of-use assets (up by PLN 18,290 thousand compared with the end of 2018). The most significant decrease was seen in other non-current financial assets, down by PLN 14,066 thousand relative to the end of December 2018.

3.12.2. Key investments in property, plant and equipment

In the six months ended June 30th 2019, the RAFAKO Group incurred capital expenditure on non-financial non-current assets of PLN 8,737 thousand, including:

- PLN 8,592 thousand on property, plant and equipment,
- PLN 145 thousand on intangible assets.

Capital expenditure on property, plant and equipment involved mainly the need to recognise nearly all leases in the statement of financial position (IFRS 16), purchases of vehicles, IT hardware, plant and equipment, and upgrades to buildings and structures.

The expenditure was financed with internally generated funds and finance leases.

3.13. Current assets

In the six months ended June 30th 2019, current assets decreased by PLN 34,986 thousand, to PLN 1,040,338 thousand. The change in this asset category resulted from a PLN 69,334 thousand decrease in trade receivables (PLN 219,693 thousand as at the end of June 2019). Cash and cash equivalents, retentions under construction contracts and other receivables fell by, respectively, 22.1%, 17.4% and 37.4%. In the six months ended June 30th 2019, the gross amount due from customers for contract work increased by PLN 57,615 thousand, to PLN 438,967 thousand.

3.14. Equity amount and structure

As at June 30th 2019, RAFAKO S.A.'s equity stood at PLN 422,450 thousand and included:

1. Share capital of PLN 254,864 thousand, comprising 127,431,998 Series A, B, C, D, E, F, G, H, I, J and K ordinary shares. In the six months ended June 30th 2019, there were no changes in the amount of the share capital;
2. Parent's share premium of PLN 165,119 thousand;
3. Reserve funds of PLN 215,219 thousand;
4. Retained earnings / accumulated losses of PLN -220,990 thousand;
5. Translation reserve, negative at PLN -112 thousand;
6. Equity attributable to non-controlling interests of PLN 8,350 thousand.

In the six months ended June 30th 2019, the Group companies did not acquire their own shares.

4. Workforce at the RAFAKO Group

As at the end of June 2019, the RAFAKO Group's headcount of employees was 1,930, down by 28 on the end of 2018.

	Jun 30 2019	Dec 31 2018
Employment structure at end of period	**1930**	**1958**
production	684	781
design and engineering office	403	406
quality control	95	93
maintenance	63	71
other employees (financial and accounting, sales and procurement staff)	685	607

The parent's Management Board attaches great importance to effective management of the staff competences and experience across the Group and to the implementation of its HR strategy. As more than 90% of job positions at the Company require specialist knowledge, persons with specialist university degrees are given priority in the recruitment process. As at June 30th 2019, the Group's employees with university degree or secondary school diplomas accounted for 73.8% of the personnel (as at December 31st 2018: 72.3%). As at June 30th 2019, university graduates accounted for 50.2% of the personnel (up by 1.2% on December 31st 2018). The Vocational Training Centre at RAFAKO S.A. guarantees a constant inflow of blue-collar workers, educating future locksmiths and welders in cooperation with the Vocational Technical High School for Mechanical Studies of Racibórz.

Employment structure at the Group at the end of June 2019	1,930
RAFAKO S.A.	1492
RAFAKO Engineering Sp. z o.o.	163
E003B7 Sp. z o.o.	128
Energotechnika Engineering Sp. z o.o.	100
Przedsiębiorstwo Gospodarki Lokalami PGL-DOM Sp. z o.o.	23
RAFAKO Hungary Kft.	10
RAFAKO Engineering Solution doo.	9
RENG – NANO Sp. z o.o.	3
E001RK Sp. z o.o.	2

Over the last 6 months, the workforce structure has slightly changed in terms of employee age and length of service.

Age distribution in the workforce: the share of employees aged 30 or below declined from 11.8% as at December 31st 2018 to 10.3%. There was also a slight decrease in the share of employees aged between 31 and 40, from 23.8% as at December 31st 2018 to 23.4%, while the share of employees aged between 41 and 50 remained unchanged at 27.4%. The share of employees above 50 years of age grew by 1.8% to 38.9% as at the end of June 2019.

Length of service: a slight decline was noted in the number of employees with up to 10 years of service, who represented 23.2% of the Group's total workforce as at June 30th 2019 (vs 23.0% as at December 31st 2018). The share of employees who had worked for the Group for 11–20 years went down by 0.5%, to 22.6%, while the share of employees with a length of service of 21–30 years went up by 0.7%, to 17.3% at the end of June 2019.

The share of employees with over 30 years of service decreased slightly (by 0.3%), to 36.9% as at June 30th 2019. The Group's staff has a long-standing and unique professional experience.

5. Number of RAFAKO shares or rights to RAFAKO shares held by the management and supervisory staff as at the date of issue of the half-year report

According to the information available to the Company, as at the date of this report, the holdings of RAFAKO shares by the management and supervisory staff of the consolidated Group companies did not change in the period from the issue of the previous consolidated quarterly report and were as follows:

	As at May 28 2019	*Increase*	*Decrease*	*As at Sep 30 2019*
Supervisory personnel of RAFAKO S.A.	–	–	–	–
Management personnel of RAFAKO S.A.	**104,245**	**–**	**44,000**	**60,245**
- Agnieszka Wasilewska-Semail – Vice President of the Management Board	60,245	–	–	60,245
Jarosław Dusiło– Vice President of the Management Board*	44,000	–	44,000	

* On September 2nd 2019, the Supervisory Board of RAFAKO S.A. removed Mr Jarosław Dusiło from the position of Vice President of the Management Board.

6. Shareholders holding 5% or more of total voting rights at the parent as at the date of issue of the half-year report

Shareholder	*Number of shares*	*Number of voting rights*	*Ownership interest*	*% of total voting rights at GM*
PBG S.A., Multaros Trading Company Ltd. and Fundusz Inwestycji Polskich Przedsiębiorstw Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych, in accordance with the agreement of October 24th 2017 referred to in Art. 87.1.6) of the Public Offering Act (*), of which:	***55,081,769***	***55,081,769***	***43.22%***	***43.22%***
PBG S.A.[1] **including:**	**42,466,000**	**42,466,000**	**33.32%**	**33.32%**
held directly:	*7,665,999*	*7,665,999*	*6.02%*	*6.02%*

held indirectly through Multaros Trading Company Limited[1] (a subsidiary of PBG S.A.)	*34,800,001*	*34,800,001*	*27.31%*	*27.31%*
Fundusz Inwestycji Polskich Przedsiębiorstw Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych [2]	**12,615,769**	**12,615,769**	**9.90%**	**9.90%**
Nationale-Nederlanden Otwarty Fundusz Emerytalny managed by Powszechne Towarzystwo Emerytalne S.A. [3]	**12,582,710**	**12,582,710**	**9.87%**	**9.87%**
Other	**59,767,519**	**59,767,519**	**46.90%**	**46.90%**
TOTAL	**127,431,998**	**127,431,998**	**100.00%**	**100.00%**

[1] *Number of shares based on PBG's and Multaros's notifications of December 28th 2017.*
[2] *Number of shares based on a notification of January 3rd 2018 received from Fundusz Inwestycji Polskich Przedsiębiorstw Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych.*
[3] *Number of shares estimated based on the annual asset structure published by Nationale-Nederlanden Otwarty Fundusz Emerytalny (as at December 29th 2017).*

In the six months ended June 30th 2019 and as at the date of this report, there were no changes in major holdings of shares after the issue of the previous quarterly report.

In 2011, RAFAKO S.A. joined the PBG Group, whose parent is PBG S.A.

The PBG Group operates on the market for specialist construction services. The key segments of itss business currently include the construction of facilities and structures for the power, natural gas, crude oil and fuel sectors.

From June 2012, PBG was in company voluntary arrangement. In August 2015, the meeting of PBG's creditors voted on and approved the arrangement. In October 2015, the arrangement was approved by the court. The arrangement became final on June 13th 2016.

IV. Key events and developments in the six months ended June 30th 2019 and after the reporting date

The key events and developments related to the activities of RAFAKO S.A. are presented below.

1. Contract with TAURON (Jaworzno Power Plant)

On April 17th 2014, RAFAKO S.A., acting as the leader of a consortium with Mostostal Warszawa S.A., executed a contract with Tauron Wytwarzanie S.A. for the construction of a power generating unit at the Jaworzno III Power Plant - Power Plant II. The value of the contract is approximately PLN 4.5bn. The contract provides for the design and delivery, on a turn-key basis, of a supercritical 910 MW power generating unit consisting of a steam generator, turbine generator set, main building, and electrical and I&C systems.

The coal-fired unit will be one of the most advanced facilities of this kind.

Key parameters
Supercritical pulverised-fuel, tower-type, once-through steam generator, Unit's nominal output (gross) – 910 MW, Generator's rated thermal input – 1,832 MWt, Rated capacity – 2,390 t/h, Temperature of steam at outlet (live/superheated) – 603/621°C, Pressure of live steam at outlet – 28.5 MPa, Pressure of superheated steam at outlet – 6.2 MPa, Efficiency in standard conditions >95%, Availability > 95%, Net generation efficiency > 45.91 %.

Unit's components
Superheated steam generator, Steam turbine powering the electricity generator, Feed water pump system, Systems designed to meet the sulfur dioxide, nitric oxide and dust emission standards specified in the Industrial Emissions Directive (IED), Systems for disposal of combustion waste, as well as for delivery and preparation of various auxiliary media.

The Jaworzno unit will be a high-efficiency base-load electricity generation facility operating within the power system. The operating life of the unit will be at least 200 thousand hours or 30 years.

Environmental implications:

According to the project owner's estimates, once the project is complete, sulfur dioxide emissions will be sixteen times lower than from the 120 MW units which are to be decommissioned, nitric oxide emissions will be more than five times lower, and dust emissions will be reduced eleven times. Carbon dioxide emissions will be cut by nearly two million tonnes a year.

Key developments in 2019

	2019
February	Completion of installation of an FGD unit
June	Closing the operation of plant and machinery to enable steam blasting of the boiler
July	Execution of annex 6 to the master contract and the subcontractor agreement; under the annex, the contract sum was increased by PLN 15,428,571.95, exclusive of VAT. In addition, certain contract milestones were sub-divided and their completion deadlines were changed based on the most recent knowledge.
September	Entry into negotiations with the employer concerning changes to the guaranteed technical specifications of the power generating unit to reduce emissions of certain harmful substances into the air, and changes to the parameters of fuel suitable for burning by the unit. The employer's consent to potential extension of the scope of work could affect the overall unit construction schedule and the contract sum.

In its separate financial statements, RAFAKO S.A. recognises only revenue and expenses related to its own scope of work, i.e. 11.3% of the total scope of work on the Jaworzno Project. In its separate financial statements, the Company does not recognise revenue and expenses related to the portion of work performed by E003B7 Sp. z o.o. − they are reported in the separate financial statements of E003B7 Sp. z o.o. and the consolidated financial statements of the RAFAKO Group. By June 30th 2019, 83.4% of the contract's total value had been invoiced.

For rules of accounting for the contract, see Note 10.1.1 to the interim condensed consolidated financial statements for the six months ended June 30th 2019.

2. Contract with PGE Elektrownia Opole

In February 2012, the parent, acting as the leader of a consortium comprising RAFAKO S.A., Polimex-Mostostal S.A. and Mostostal Warszawa S.A., executed a PLN 9.4bn contract with PGE Elektrownia Opole S.A. (currently PGE Górnictwo i Energetyka Konwencjonalna S.A. − the "employer") for turn-key design, delivery, construction, assembly, start-up and performance of all related services with respect to a facility consisting of power unit 5 and power unit 6 at Elektrownia Opole, together with equipment and devices as well as all related buildings and structures. The units, each with a capacity of 900 MW, will be fired with hard coal.

The subsidiary E001RK Sp. z o.o. ("SPV-Rafako") was appointed by RAFAKO S.A. as its subcontractor in charge of the entire scope of work and services related to the construction of the power generating units at Elektrownia Opole. SPV-RAFAKO's consideration for the performance of the work and services is PLN 3.96bn.

On October 26th 2013, E001RK Sp. z o.o. (a company dedicated to the Opole Project, wholly-owned of RAFAKO S.A.) entered into a subcontractor agreement with Alstom. Under the agreement, E001RK Sp. z o.o. appointed Alstom as its subcontractor responsible for 100% of the work and services making up the parent's scope of work under the Opole Project.

On January 31st 2014, the consortium received from the employer a notice to proceed with the project execution.

On October 10th 2018, RAFAKO S.A., Polimex-Mostostal S.A., Mostostal Warszawa S.A., and GE Power signed with PGE Górnictwo i Energetyka Konwencjonalna S.A. annex No. 9 (the "Annex") to the contract for the construction of power generating units 5 and 6 at the Opole Power Plant of PGE GiEK S.A. (the "Project"), performed by the Consortium and GE Power sp. z o.o., the general designer and consortium leader managing the execution of the Project.

Under the Annex, the deadlines for commissioning units 5 and 6 were changed.

Unit 5 was commissioned on May 31st 2019,

while unit 6 is scheduled for commissioning on September 30th 2019.

By June 30th 2019, PLN 3,063,108 thousand (95% of the total contract sum) was invoiced in relation to the Opole Project.

As part of subcontracting E001RK Sp. z o.o.'s scope of work, all legal consequences of the contract between RAFAKO S.A. and the employer, in particular those relating to performance bonds and, consequently, any potential liquidated damages resulting from, inter alia, failure to comply with the project schedule, passed to GE Power.

For rules of accounting for the contract, see Note 10.1.2 to the interim condensed consolidated financial statements for the six months ended June 30th 2018.

3. Other significant contracts

February 15th 2019

- A consortium comprising RAFAKO S.A. PBG oil and gas Sp. z o.o. (consortium member) signed a contract with Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A. of Warsaw for construction work under the project to build the Kędzierzyn Compressor Station.
- The VAT-exclusive value of the contract is PLN 168.7m, with the Company's share accounting for 95% of this amount.
- The time for performing the contract is 25 months from its date.

April 16th 2019

- RAFAKO S.A. signed a contract for the construction of St. John Paul II MEMORY AND IDENTITY Museum in Toruń.
- Contract sum: PLN 117.7m (VAT exclusive).
- The project completion deadline is 100 months from the contract date.

April 17th 2019

- RAFAKO S.A. and TAURON Wytwarzanie S.A. executed a contract for the 'Construction of Flue Gas Desulfurisation Systems on power generating units 2 and 3 at the Jaworzno III Power Plant - Power Plant II branch".
- The contract price is PLN 84,950,000, VAT exclusive.
- The contract completion deadline is April 17th 2021.

June 12th 2019

- RAFAKO S.A. and JSW KOKS S.A. signed a contract for 'Improvement of energy efficiency at JSW KOKS S.A. – Construction of a coke gas power generation unit' at JSW KOKS S.A. KKZ Branch - Radlin Coking Plant.
- Contract sum: PLN 289m (VAT exclusive).
- The project completion deadline is 29 months from the contract date.

September 5th 2019

- RAFAKO S.A. and PGE Górnictwo i Energetyka Konwencjonalna S.A. signed a contract for 'Comprehensive upgrade of the Flue Gas Desulfurisation Systems on units 8–12 at the Bełchatów Power Plant of PGE GiEK S.A.'.
- Contract sum: PLN 244,940,000 (VAT exclusive).
- The time to complete the contract is 28 months from its date.

4. Other material events

April 25th 2019

- RAFAKO S.A. and HSBC France, Poland Branch of Warsaw, executed an annex to the bank guarantee facility agreement, extending the term of the facility until April 24th 2020 and extending the validity period of guarantees issued under the agreement until April 24th 2025.
- Pursuant to the Agreement, the Bank has provided RAFAKO with a bank guarantee facility, under which RAFAKO may instruct the Bank to issue guarantees within a facility limit of EUR 24,475,000. The facility may only be used to finance RAFAKO's day-to-day operations related to the performance of contracts by the Company, in the form of guarantees issued upon RAFAKO's instructions. The following types of guarantees may be issued under the facility: bid bonds, advance payment bonds, performance bonds and warranty bonds.
- The facility is a revolving facility, which means that whenever a guarantee issued by the Bank expires, the available facility amount is increased by the amount of the expired guarantee.

June 28th 2019

- RAFAKO S.A. executed an annex to a credit facility agreement with Powszechna Kasa Oszczędności Bank Polski S.A. of Warsaw. Under the annex, the multi-purpose credit facility limit was set at PLN 200m, including an overdraft facility of up to PLN 70m (from February 1st 2020 – up to PLN 50m), a working capital facility – depending on the Company's current cash requirements, and a bank guarantee facility of up to PLN 150m (from February 1st 2020 – up to PLN 170m). The annex extended the facility's term and maturity date until June 30th 2020.
- If the Company fails to meet the planned target value of new contracts signed in 2019 of PLN 900,000,000, VAT exclusive, the Bank may reduce the amount of the overdraft facility by the percentage by which the new order book falls short of the target value, rounded to the nearest million. The planned value of the order book will be reviewed on the basis of the Company's representation and a contract list to be submitted to the Bank by January 31st 2020.
- The other terms and conditions of the credit facility agreement were not materially amended under the annex.
- For more details on the credit facility agreement, see Note 31 to the financial statements.

5. Pending litigation, arbitration or administrative proceedings

For information on material disputes and litigation, see Note 22 to the interim condensed consolidated financial statements of the Group.

6. Related-party transactions concluded by the issuer or any of its subsidiaries

In the six months ended June 30th 2019 and 2018, the parent and its subsidiaries did not enter into any material related-party transactions on non-arm's length terms.

For a detailed list of related-party transactions executed in the six months ended June 30th 2019, see Note 25 to the interim condensed consolidated financial statements of the Group for the six months ended June 30th 2019.

7. Loan sureties or guarantees provided by the parent or its subsidiaries

In the first half of 2019, neither the parent nor its subsidiaries granted or provided any loan sureties or guarantees to a single entity or its subsidiaries where the aggregate amount of such sureties or guarantees would represent 10% or more of the parent's or its subsidiaries' equity.

For a description of changes in contingent assets and liabilities, see Note 21 to the interim condensed consolidated financial statements of the Group for the six months ended June 30th 2018.

V. Growth prospects for 2019

1. Energy policy

The energy market

The energy market, both in Poland and abroad, is the core market for the Group.

This market, and its commercial segment in particular, are heavily regulated in terms of their current organisation, future development and structure in the context of the increasingly stringent environmental protection standards. The regulated nature of the industry follows from the power market's strategic importance to the energy security of every country, with environmental protection and reduced CO_2 emissions becoming a global priority in international relations. Such regulations include both the legislative framework and general objectives of the national and EU-level energy policies in terms of environmental protection.

Because of the introduction of more stringent environmental protection standards, businesses generating flue gases, such as CHP plants and power plants, are required to upgrade their existing units and install new equipment to reduce air emissions. As a result, the number of new projects in the power segment is growing, including construction of low-emission, high-efficiency power plants and upgrades to the existing energy sources to ensure their compliance with the strict environmental requirements imposed under EU laws, which stimulates demand for the products and services offered by the RAFAKO Group.

The EU's energy policy is formulated by Member States as well as EU institutions. The legal basis for the energy policy is the Treaty on the Functioning of the European Union. Under the Treaty of Lisbon, key objectives of the EU's energy policy are to:

- Ensure the functioning of the energy market;
- Ensure security of energy supply in the Union;
- Promote energy efficiency and energy saving and the development of new and renewable forms of energy;
- Promote the interconnection of energy networks.

The current energy policy provides for a comprehensive and integrated approach to energy and climate policy. In 2014, the heads of EU Member States and governments set the following goals:

- Greenhouse gas emissions reduction by 2030 by at least 40% compared with 1990;
- Increasing the share of renewable energy to at least 27% of the EU's energy consumption;
- Increasing energy efficiency by at least 27% (indicative) in 2030.

In November 2016, the European Commission presented a package of measures (Winter Package) to keep the European Union competitive as the clean energy transition is changing the energy markets.

In July 2017, the European Commission issued a communication on Best Available Techniques for large combustion plants (BAT LCP), i.e. those whose capacity is above or equal to 50 MW. BAT conclusions will be binding for a number of power plants and CHP plants in Europe, and thus in Poland. BAT conclusions provide a reference for setting emission and monitoring standards in integrated permits under which combustion plants operate. The deadline for ensuring compliance with the BAT conclusions is four years from the date of their publication in the Official Journal of the European Union, i.e. mid-2021.

The key legal act regulating the operation of the Polish energy sector is the Energy Law. It lays down the rules governing the development of the energy policy, the rules and conditions for the supply and use of fuels and energy, including heat, and operation of energy companies.

Poland's Energy Policy until 2040, prepared by the Ministry of Economy, plays a major role in setting the development directions for the energy sector. The objectives set out in the draft document include:

- 60% share of coal in electricity generation by 2030;

- 21% share of RES in final gross energy consumption by 2030;
- implementation of nuclear power generation by 2033;
- 30% reduction in CO2 emissions by 2030 (relative to the 1990 level);
- 23% increase in energy efficiency by 2030 (relative to the 2007 primary energy forecast).

The need to diversify the structure of electricity generation will contribute to reducing the share of coal in Poland's energy mix, but in absolute (quantitative) terms a major shift in the use of coal as a fuel by commercial power plants in the next decade or so is unlikely.

Utilisation of non-agricultural waste for energy generation should increase, With sludge, industrial waste meeting the statutory definition of hazardous waste (including hospital waste) and municipal waste offering the biggest potential.

At the beginning of January 2016, a Transitional National Plan (TNP) was introduced in Poland under a regulation of the Minister of Environment of July 2015. The Plan is designed to implement the provisions of the Industrial Emissions Directive of the European Parliament and of the Council of November 2010 (IED) into the Polish legal system. The Directive introduces mechanisms that make it possible to postpone compliance with the obligation to apply new emission limits for sulfur dioxide, nitrogen oxides and dust (derogations). Derogations provide the operators of energy installations with time to complete investment projects designed to technically adapt them to the more stringent emission requirements. One of the mechanisms introduced by the IED is the Transitional National Plan, applicable in the period from January 1st 2016 to June 30th 2020. During that period, the installations covered by the Plan will have to meet the relevant emission ceilings set for each year.

In 2016, the President of Poland signed the Energy Efficiency Act, which implements EU regulations into Polish law to further improve the energy efficiency of the Polish economy. Under the Act, certain entities are required to conduct an energy efficiency audit every four years. The energy efficiency audit is a procedure whose purpose is to carry out detailed and validated calculations with regard to proposed implementation of projects contributing to an improvement in energy efficiency and to provide information on potential energy savings.

In December 2017, the Sejm (lower house of the Polish parliament) enacted the Capacity Market Act. The capacity market is expected to guarantee the availability of sufficient demand-driven capacities of electricity-generating sources. The purpose of the new legislation is to address the generation capacity shortages resulting from an expected increase in peak demand for capacity and electricity on the one hand, and from considerable number of generating units scheduled for decommissioning on the other hand. The Act introduces a new model for a centralised capacity market. In this model, a central buyer (the transmission system operator) acquires an obligation from capacity providers to provide, and keep ready to provide the system with sufficient capacity in certain situations. This capacity obligation is offered by capacity providers: generators, energy storage facilities and some electricity consumers, as well as entities representing groups of generators or consumers (so-called aggregators), in auctions.

On June 29th 2018, the President of Poland signed a government bill to amend the Renewable Energy Sources Act. The new provisions egulationsare expected to enable a more effective utilisation of renewable energy sources and meeting of international obligations. The main objective of the amendment is to ensure full compatibility between the provisions of the Renewable Energy Sources Act of February 20th 2015 and state aid legislation, to which Poland has committed itself to the European Commission in the notification procedure, and to bring the regulations in line with EU requirements.

Oil and gas market

In line with its strategy adopted in early 2018, the RAFAKO Group also intends to focus on the oil and gas sector, both in Poland and on an international scale. This is seen as a promising market in view of the expected multi-billion investments in this sector, mainly relating to the implementation of Poland's energy policy objectives. The projects include but are not limited to the construction of gas stations, transmission pipelines, underground gas storage facilities, and gas compressor stations for the construction of natural gas and oil production facilities.

The demand for natural gas will be growing as it can be used as fuel in power plants and generates lower emissions relative to other fossil fuels. In 2018, sales of high-methane and nitrogen-rich gas to end users totalled 206,161,845 MWh. Gas consumption increased relative to 2017.

The gas market in Poland is regulated by the Energy Regulatory Office. In line with its decision, Gaz-System S.A. has been and will be the Transmission System Operator in Poland from October 2010 until the end of 2030. Its main task is to develop the existing transmission system to ensure the long-term ability of the gas system to meet the legitimate needs for transmission of gas fuels in domestic and cross-border trade by expanding the system and, where applicable, by expanding interconnections with other gas systems.

Diversification of gas supply directions and sources is to be achieved through the following two key projects:

- construction of the Northern Gate,
- expansion of connections with the neighbouring countries.

This will create favourable conditions for developing a gas transmission and trade centre in Poland for CEE and Baltic countries.

An expansion of the national network and storage infrastructure is also necessary. The expansion of the national gas transmission system in the coming years (until 2022, with a perspective until 2027) focuses on developing the network:

- in the western, southern and south-eastern parts of Poland (from Świnoujście to connections with the Czech Republic, Slovakia and Ukraine),
- in the north-eastern part of Poland (to the connection with Lithuania).

Another aspect of the national network development is the expansion of distribution facilities. At present, Poland's gas grid coverage is 58%. The rate is planned to be increased to 61% by 2022. Particular emphasis has been placed on covering the areas which are currently off the gas grid. In the long term, the distribution network will be developed and upgraded in line with market needs. Where it would be unreasonable to lay a gas pipeline, LNG regasification stations will be used to supply gas to distribution zones off the grid.

Currently, seven underground gas storage facilities cooperating with the existing transmission system are used in Poland, Gas Storage Poland Sp. z o.o., wholly-owned by PGNiG S.A., acts as the storage system operator for all storage facilities.

Additionally, Gaz-System S.A. owns 15 gas compressor stations, which are linked to the transmission network and located all over Poland. Five more compressor stations are located on the Polish section of the Yamal pipeline and operated by EuRoPol GAZ S.A.

In the coming years, the infrastructure in this area is going to be expanded both in Poland and in Europe.

The oil market involves mostly crude oil transmission, storage, distribution and trading.

Most fuel pipelines in Poland are owned by PERN S.A., a state-owned joint-stock company. In the near future, further development of the pipeline network and expansion of crude oil storage capacities are to be expected.

On February 22nd 2019, the Sejm (lower house of the Polish parliament) passed a special act on preparing and implementing strategic projects in the oil sector. The new act, which simplifies the procedures for obtaining the necessary administrative approvals, is designed to facilitate the preparation and, consequently, the implementation of the projects strategic to Poland's energy security, such as the construction and upgrade of oil and fuel pipelines.

2. Investment plans

According to the conclusions from forecast analyses performed for the purposes of Poland's Energy Policy until 2040, demand for electricity in Poland is expected to grow. Poland's economy consumes nearly 170 TWh of electricity, with imports and exports used for balancing purposes. In 2018, gross electricity consumption in Poland was 170,932 GWh, up by 1.66% on 2017. In 2018, installed capacities in the Polish power system were

45,939 MW, while maximum capacities amounted to 45,650 MW, up 5.8% and 5.4% on 2017, respectively. Average annual demand for power was 23,322.7 MW, while maximum demand was 26,447.6 MW, an increase of, respectively, 1.5% and 0.8% relative to 2017. Power was generated largely from conventional fuels (hard coal and lignite). In the next dozen or so years (especially after 2029) a significant part of the currently operated generating units will be decommissioned. This process is driven by the wear and tear of power generating units and tightening of the EU environmental standards. The increase in demand for electricity will be covered by sources other than conventional hard coal- and lignite-fired power plants. To meet the growing demand for electricity, in view of the significant decommissioning prospects, the capacity market has been implemented as an investment stimulus to ensure the stability of supplies.

Given the expected phase-out of existing capacities in the Polish power system, a capacity decline is expected for coal-fired power plants, while the capacities of renewable energy power plants (mainly wind, biogas and biomass-fired power plants) and nuclear power plants are expected to increase.

The PGE Group is implementing two major investment projects: construction of new units at the Opole Power Plant (2x900MW), with unit 5 having been commissioned in late May 2019, and construction of a 450 MW lignite-fired unit at the Turów Power Plant. In June 2019, the company launched a tender procedure for the construction at the Dolna Odra Power Plant of two CCGT units each with a total capacity of 1,400 MW. The value of the turn-key contract is estimated at approximately PLN 4bn.

The Tauron Group has been building a 910MW unit at the Jaworzno Power Plant and a 450MW combined-cycle unit at the Stalowa Wola CHP Plant. In addition, new strategic directions for the Tauron Group are based on developing clean energy sources, as a foundation for creating the Tauron Group's value. By 2025, the Tauron Group plans to invest in the construction of onshore wind farms (a capacity addition of 900 MW), photovoltaic sources (a capacity addition of 300 MW) and offshore wind projects. Once completed, these projects will increase the share of low- and zero-emission sources in the volume of electricity generated by the Tauron Group to nearly 30% in 2025 and more than 65% in 2030. In line with its strategy, the Tauron Group is running a programme to build photovoltaic farms on Tauron's land not currently put to economic use. In September 2019, Tauron purchased five wind farms with a total capacity of 180 MW. The farms are located in northern Poland, in Śniatowo, Mogilno, Inowrocław, Dobrzyń, and Gołdap. The newly purchased assets will almost double the Group's installed wind capacity. After their acquisition by special purpose vehicles, the total installed capacity of the TAURON Group's onshore wind farms will be 380.75 MW. The total installed RES capacity will increase to 619 MW.

The Enea Group and the Energa Group are building the 1,000 MW Ostrołęka C Power Plant. Moreover, Enea is carrying out a feasibility study for the construction of a 540 MW IGCC unit near Bogdanka. Enea is also working on a feasibility study for an RDF-fired power generation unit which would replace the existing 200 MW unit in Połaniec, for which derogation has been obtained. The Group's expenditure on upgrading production assets in 2019−2023 is projected to reach approximately PLN 1bn, of which approximately PLN 500m will be spent on harmonisation with BAT conclusions. In 2019−2023, power generating units with a total capacity of 4,700 MW are to be upgraded, of which 2,046 MW are to be upgraded in 2019−2021. Under its business growth plan for 2020–2025, Enea Operator expects to allocate a total of PLN 7.8bn to capital expenditure. More than 90% of that amount is to be used for upgrading and expanding the power network, including smart grids.

Apart from the construction of Unit C at the Ostrołęka power plant, the Energa Group announced an invitation to tender for the construction of a new 450–750 MW CCGT unit in Grudziądz. In addition, the Energa Group is expanding its onshore wind capacities and developing photovoltaic projects, while its long-term plans are to engage in offshore wind projects.

The programme for construction of municipal waste incineration plants, launched in 2007 and included on the Indicative List of the Ministry of Regional Development under the Operational Programme Infrastructure and Environment, envisaged the construction of 12 municipal waste incineration plants: in Szczecin, Koszalin, Poznań, Gdańsk, Olsztyn, Białystok, Bydgoszcz, Łódź, Warsaw, Kraków and two facilities in Silesia. Currently, there are already 7 waste incineration plants in operation in Poland (in Warsaw, Białystok, Bydgoszcz, Konin, Kraków, Poznań, Szczecin). Further local governments (including but not limited to those in Gdańsk, Olsztyn, and Wrocław) are contemplating the construction of such facilities.

Also the PGNiG Group has plans to invest (through Polska Spółka Gazownictwa). Some of the funds will be allocated for the connection of new users, construction of new and upgrades of existing gas distribution networks, connection of new areas to the gas network, investments in infrastructure accompanying the development of gas distribution networks, such as communication, metering, ICT. The projects will include the construction of LNG regasification stations in the Grajewo, Mońki, Augustów, Czyżew and Hajnówka municipalities. Further, the Białystok gas pipeline will be redeveloped and a gas distribution network will be built in Bielsko Podlaskie. In 2019, PGNiG plans to allocate PLN 6,626m to capital expenditure, including PLN 2,579m in exploration and production, PLN 221m in trading and storage, PLN 1,994m in distribution, PLN 1,859m in generation and PLN 195m in other segments. PGNiG's plans also include expansion of gas storage capacities.

Gaz-System plans capital expenditure of PLN 11bn in 2019–2022. In the 2020–2029 Development Plan, Gaz-System envisages more than 30 major projects, which will increase the length of the national transmission network from 11,000 km to approximately 14,800 km. The document sets two time horizons: until 2023 and until 2029. In the first one, the ongoing investment programmes defined in the previous plan for 2018–2027 are to be continued. The programmes include in particular those related to diversification of natural gas supplies to Poland, that is the Baltic Pipe programme, expansion of the LNG terminal in Świnoujście, construction of a connection with Lithuania, and construction of the North-South Corridor, which includes opening a connection with Slovakia. In Poland, the Baltic Pipe programme provides for construction of a link between the Baltic Pipe and the Polish transmission system and a gas pipeline connecting Goleniów and Lwówek, expansion of the gas compressor stations in Goleniów and Odolanów, and construction of a new gas compressor station in Gustorzyn. The second time horizon (until 2029) will be the time for carrying out investment projects whose implementation will depend on the development of gas markets in Poland and the region.

The PERN Group's business consists in the operation of the pipeline network, storage and distribution of crude oil and petroleum products, including fuels. In January 2019, the PERN General Meeting approved a Long-Term Strategic Plan for 2018–2022, which provides for the Group's capital expenditure of PLN 2.7bn. The strategy also provides for increasing the scale of PERN's operations and ensuring a stable increase in revenue and financial resources for the execution of key projects. The investment plan for the coming years envisages the construction of new storage tanks for fuels and crude oil, as well as new pipelines, including the second line of the Pomorski reverse pipeline with a length of over 240 km, transmitting crude oil along the Płock-Gdańsk-Płock route, and the Boronów-Trzebinia product pipeline with a length of almost 100 km from, supplying fuels to the Silesian Agglomeration. In 2019, the Group plans to spend more than PLN 500m on new projects and nearly PLN 100m on maintenance work.

Major growth projects have also been announced by the ORLEN Group, including the expansion of the Płock and Włocławek plants. The ORLEN Group's CAPEX budget for 2019–2020 will average PLN 6.8bn annually.

3. Competitive environment

The RAFAKO Group operates on a market dominated by large, mainly international players. On this market, contracts are typically awarded through tenders announced by clients, and projects usually take several years to complete.

Given the significance of factors such as experience, credentials, technological capabilities and financial resources in bidding for new contracts, the RAFAKO Group faces a limited number of competitors, which are typically companies specialising in EPC projects. In line with market requirements, the majority of the Group's large projects are also implemented under EPC contracts.

There is considerable competition in terms of the products and services which are part of EPC projects. Each company which the Company considers a significant competitor has proprietary energy generation technologies, extensive credentials and many years of experience in delivering EPC contracts. While some of them specialise in specific types of steam generators, others offer a comparable range of products and have access to technologies allowing them to bid for contracts within the same product scope as RAFAKO S.A. Complete generating units are constructed by: GE Power, Alstom Power Systems, Mitsubishi Hitachi Power Systems Europe, Doosan Power Systems, COVEC, CNEEC, Amec Foster Wheeler, CNIM, all of which have proprietary energy generation technologies, as well as organisational capacities necessary to carry out EPC projects. These companies, as well as RAFAKO S.A., offer products necessary to construct complete generating units that can run on any kind of fuel.

On the Polish market, there are several companies, such as Warbud, Budimex and Polimex Mostostal, which plan to enter the power construction industry by including EPC contracts into their offering or, at the very least, by offering assembly and construction services. Developing capabilities necessary to design and manufacture equipment for the power sector is complicated and requires considerable expenditures over long periods of time.

With respect to specific products, such as steam generators, desulfurisation units, NOx reduction units and waste incineration facilities, main competitors of RAFAKO S.A. are again GE Power, Alstom Power Systems, Mitsubishi Hitachi Power Systems Europe, Doosan Power Systems, Amec Foster Wheeler, SES Tlmace, Hitachi Zosen Inova, and CNIM, as well as Andritz, Valmet and Strabag.

Furthermore, given the nature of large EPC contracts, it cannot be ruled out that RAFAKO S.A. will partner with the above-mentioned companies for certain projects, especially those consisting in the supply of steam generators, their pressurised components or flue gas desulfurisation units.

4. The RAFAKO Group's strategy

Considering the shifts and trends prevailing in the Company's core market, including declining investment in conventional energy projects (chiefly in new large generating units in Poland), including 2018 RAFAKO decided to update its strategy and expand its operations to include EPC and general contracting services for the gas and oil sector. This growth direction is to diversify revenue sources and ensure further development of the Group's business. Following this decision, the RAFAKO Group's core and strategic business segments comprise the power construction segment and the gas and oil segment.

RAFAKO's strategy is to deliver long-term growth in the Company's value by building Poland's largest provider of specialised technological solutions to the power sector and the oil and gas industry in Poland and abroad.

The Group conducts its business taking into account corporate social responsibility standards, with respect for the natural environment, in compliance with ethical principles, and with care for the employees' and customers' satisfaction.

The Group's strategic objectives are to:

- Strengthen its position in the domestic power construction market by delivering and participating in the largest capital investment projects in Poland, capturing a market share in the market for services related to the modernisation of heat and power infrastructure, and ensuring compliance with BAT regulations;
- Increase its share in the oil and gas market by participating in projects to construct transmission, production and processing infrastructure;
- Expand operations in foreign markets in both of the Group's strategic segments;
- Develop the technologies it applies, particularly its proprietary technologies;
- Improve profitability through control and mitigation of project risks;
- Achieve dividend distribution capacity in 2020.

These objectives are feasible provided the Group is properly organised and focused on the provision of EPC project management and general contracting services in both its strategic business segments. The Group's internal reorganisation will also involve transfer to RAFAKO of EPC capabilities in the gas and oil sector.

Power construction segment

RAFAKO has been operating in the power sector since 1949, designing, manufacturing and supplying steam generators and environmental protection facilities, including under EPC contracts, for this sector. RAFAKO owns end-to-end technology for the construction of traditional generating units and is among Europe's largest manufacturers of steam generators and environmental protection facilities for the power sector. RAFAKO is the undisputed leader of the Polish market for power generation equipment. In line with the adopted strategy, the operations of the RAFAKO Group in the power sector are expected to significantly boost the Group's revenue. In the near future, the Group intends to focus on further developing and improving its capabilities relevant to EPC and general contracting services in the power sector through the participation in and execution of the largest projects in Poland, as well as participation in projects executed on foreign markets. Given the Group's experience as well as the solutions and technologies it offers, the Group also plans to actively participate in the market for modernisation of heat and power infrastructure, in particular 200 MW and smaller generating units, and in the market for modernisation of environmental protection facilities in accordance with the IED (Directive 2010/75/EU on industrial emissions) and BAT (Best Available Techniques). Given its proprietary technologies and credentials, RAFAKO is well prepared to take part in such tenders and meet market expectations.

In 2019, in the power segment the RAFAKO Group has taken part in tender procedures, or is planning to bid, for contracts for the construction of generating units and waste thermal treatment plants, construction and delivery or upgrade of steam generators and related facilities, as well as construction and upgrade of existing FGD, SCR and particulate removal units.

Oil and gas segment

The reasons for RAFAKO's entry into this strategic segment of the PBG Group's operations include primarily the market environment, growth prospects, and opportunities to use of the Group's potential. The experience, credentials and know-how acquired by PBG during more than 25 years of its operations in this specialist construction services market will be concentrated within the RAFAKO Group. Historically, the PBG Group was the leader of this market in Poland and the implementation of multi-billion projects enabled the Group to obtain unique credentials that can be now used in tenders and which represent an added value for the entire Group. The credentials include experience as a general contractor in turnkey projects covering the design, delivery, assembly, construction and commissioning of the complete LMG (Lubiatów-Międzychód-Grotów) oil and gas production facility, a power plant worth PLN 1,397m (VAT exclusive), and unique experience in implementing a turnkey project to construct an LNG terminal, with a value of PLN 2,368m (VAT exclusive). The Lubiatów-Międzychód-Grotów facility is the largest oil and gas production facility in Poland with production capacities reaching 1,300 tonnes of crude oil per day and 35,000 Nm^3 of gas per hour. Since 2013, PBG oil and gas has also been playing an important role in the PBG Group's operations in the oil and gas segment. In 2017, PBG oil and gas successfully completed the construction of the Radoszyn production facility. It is the third largest oil and gas production facility in Poland, with the production capacity reaching 80 tonnes of crude oil per day. Thanks to its active participation in the market and contract performance, PBG oil and gas has the competencies in managing projects at each stage of execution. Its capabilities include planning of design, production and construction work necessary to execute an entire project, and comprehensive management of the supply chain and logistics to ensure timely delivery and high quality of products and services. The company also has the relevant experience and capabilities related to the start-up and commissioning of projects. At the beginning of June 2019, a merger of PBG S.A. and PBG oil and gas Sp. z o.o. was registered. Next, an organised part of the merged entity's business, comprising the above capabilities, was spun off. Steps are now being taken to transfer the PBG Group's EPC capabilities in the oil and gas sector to the RAFAKO Group. Their successful completion will mainly depend on approval from PBG S.A. bondholders and from RAFAKO S.A. stakeholders.

The RAFAKO Group intends to actively participate in the market of investment projects related to gas and oil production and to the development and modernisation of gas networks in Poland and abroad. The Group is interested in participating in projects of key importance to Poland's energy security, related to the expansion of underground gas and oil storage facilities and distribution infrastructure, including gas compressor stations.

In 2019, in the oil and gas segment, the Group has taken part in tender procedures, or is planning to bid, for contracts for LNG tanks and liquefaction facilities, gas compressor stations, gas pipelines, gas production facilities as well as upgrades of existing facilities.

Since the beginning of 2019, the RAFAKO Group has secured new contracts worth more than PLN 1bn, which means that the Company's new business target for 2019 has been met.

Development of the Group's solutions, especially proprietary technologies

The RAFAKO Group's critical competitive edge lies in the wide array of technologies enabling it to flexibly respond to market expectations, including to developments in the power sector. The Group has engaged in a number of research and development projects designed to:

- Modify and enhance traditional products, such as steam generators and environmental protection equipment;
- Develop new products and services. These projects include a programme to improve the operational flexibility of 200 MW units with a comprehensive range of upgrade services, construction of a biomass and RDF gasification system as well as using syngas for the production of energy and for chemical purposes, CO_2 methanation, heat storage (construction of an industrial facility with a partner ENSOL), ELAGLOM (commercialisation of a patented solution for capturing submicron particles, including heavy metals, from flue gases), electromobility (an innovative school/city bus project), and a technology involving the use of supersonic wave in small flue gas treatment units.

Dividend policy

The Company's objective is to regain its dividend payment capacity in 2020. The dividend policy will be defined following the completion of the project to construct the 910 MW supercritical power generating unit at the Jaworzno Power Plant.

5. Order book

As at June 30th 2019, the value of the Group's order book was in excess of PLN 3.0bn. The largest item is the PLN 0.7bn Jaworzno Project, with PLN 0.1bn outstanding under the contract and attributable to the parent and PLN 0.6bn outstanding under the contract and attributable to SPV Jaworzno. The order book does not include the Opole contract (RAFAKO's entire share in the project worth PLN 3.2bn was subcontracted outside the RAFAKO Group, of which PLN 0.2bn is still outstanding).

	ORDER BOOK (PLNm)		Due for execution in		
	as at Jun 30 2018	as at Jun 30 2019	JULY–DECEMBER 2019	2020	after 2020
RAFAKO	1,968	2,375	1,203	921	251
SPV Jaworzno	1,116	627	614	13	0
Other	61	30	27	3	0
TOTAL	**3,145**	**3,032**	**1,844**	**937**	**251**

As regards the value of the RAFAKO Group's order book, data presented in this document is based on the following assumptions:

a. The order book value is equal to the aggregate amount of the Group's consideration under individual contracts executed by Group companies by June 30th 2019; the figure does not include any planned contracts that have not yet been signed, but it does include contracts signed conditionally;

b. the order book value is disclosed as at June 30th 2019; actual revenue from contracts and performance periods depend on a number of factors, which may be outside the Group's control.

Key contracts for power generating units, boilers, power equipment, machinery and components

1) **Construction of a 910 MW supercritical power generating unit at the Jaworzno Power Plant**

On April 17th 2014, RAFAKO S.A., acting as the leader of a consortium with Mostostal Warszawa S.A., executed a contract with Tauron Wytwarzanie S.A. for the construction of a 910 MW supercritical power generating unit at the Jaworzno III Power Plant - Power Plant II. The value of the contract is approximately PLN 4.5bn.

The consortium will construct the unit together with a complete set of key facilities, installations and external equipment required for its safe and proper operation. The unit will be fitted with a coal-fired supercritical pulverised-fuel once-through steam generator and a condensing steam turbine coupled with the power generator. The unit will be connected to a new 400 kV substation supplying electricity to the National Power Grid. The unit's gross capacity will be 910 MWe, with a net efficiency of 45.91% and design coal consumption of ca. 345 t/h at nominal capacity.

The unit will be a high-efficiency base-load electricity generation facility operating within the power system. It will be fitted with systems enabling compliance with the NOx, SO_2 and dust emission standards, i.e. an SCR unit, an FGD unit and an electrostatic precipitator. The operating life of the unit will be at least 200 thousand hours or 30 years, and its output will increase the total capacities of the Polish electric utility sector by approximately 2.5%.

2) Construction of a biomass-fired co-generation unit in Vilnius

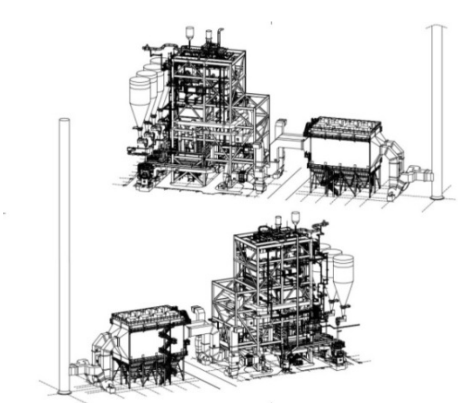
The contract provides for the construction of a biomass-fired co-generation unit consisting of boilers with fluidised beds, biomass storage and feeder systems, and a flue gas treatment system. The project will be executed as part of the process to construct a new CHP plant in Vilnius, Lithuania.

The contract was signed on September 29th 2016 with JSC Vilniaus Kogeneracinė Jėgainė. The notice to proceed ("NTP") was set for June 1st 2017; the contract delivery period is 32 months from that date.

Currently, the contract is valued at EUR 148,325 thousand.

The award of this project is an important step towards one of the RAFAKO Group's strategic objectives, which is to increase Group-wide export revenues.

3) Construction of two coal-fired steam units (2x50 MW) on Lombok Island, Indonesia



On December 28th 2017, a consortium comprising RAFAKO S.A. and PT. Rekayasa Industri of Indonesia, as the Consortium Leader, signed a conditional agreement with PT. PLN (PERSERO), INDONESIA for the construction of two coal-fired steam units (2x50 MW) on Lombok Island, Indonesia. The total value of the Consortium Agreement is EUR 70.3m, USD 18.9m, and IDR 1,590,700m (approximately PLN 850.3m in total, VAT exclusive), including the remuneration of RAFAKO S.A., amounting to EUR 70.3m (approximately PLN 295m), VAT exclusive, representing ca. 35% of the total value of the Consortium Agreement. The employer set the notice to proceed ("NTP") at April 11th 2018. The contract delivery period is 36 months for the first unit and 39 months for the second unit.

4) Construction of a coke gas power generation unit for JSW KOKS S.A. of Radlin

On June 12th 2019, a contract was signed for the 'Improvement of energy efficiency at JSW KOKS S.A. – Construction of a coke gas power generation unit' project at JSW KOKS S.A. KKZ Branch - Radlin Coking Plant.

The project will consist of two steam generators, a condensing-extraction steam turbine, a power generator and a set of auxiliary facilities.

The contract sum is PLN 289,000 thousand, and the project completion deadline is 29 months from the contract date.

Key contracts for air pollution control systems

1) **Installation of a catalytic flue gas NOx reduction unit at ENEA Wytwarzanie Sp. z o.o.**

On September 30th 2016, the parent and ENEA Wytwarzanie Sp. z o.o. signed a contract for delivery and installation of a catalytic flue gas NOx reduction system for AP-1650 boilers No. 9 and 10 and for upgrade of the electrostatic precipitators at ENEA Wytwarzanie Sp. z o.o. for PLN 289,182.1 thousand.

2) **Upgrade of 3-6" FGD unit for PGE Górnictwo i Energetyka Konwencjonalna S.A.**

The project consists of a comprehensive upgrade of the flue gas desulfurisation systems on units 3, 4, 5 and 6. The VAT-exclusive value of the order is PLN 181,600 thousand.

Work has been completed on units 3 and 4, with FGD absorbers placed in service. Work is under way on units 5 and 6.

The project completion date is scheduled for May 31st 2021.

3) **Construction of flue gas desulfurisation unit (FGD II) at Ostrołęka Power Plant B**

On July 24th 2018, a contract was signed for the construction of a wet lime and gypsum flue gas desulfurisation unit at Ostrołęka Power Plant B. The contract is performed by a consortium comprising RAFAKO and ENERGA Serwis Sp. z o.o. The value of the contract attributable to RAFAKO (consortium leader) is PLN 126,250 thousand.

The scheduled completion date is June 30th 2020.

4) **Comprehensive upgrade of the Flue Gas Desulfurisation Systems on units 8–12 at PGE Górnictwo i Energetyka Konwencjonalna S.A.**

The contract was signed on September 5th 2019 and the completion deadline is 28 months from the contract date.

The VAT-exclusive contract sum is PLN 244,940 thousand.

Major contracts in the oil and gas segment:

1) **Construction of the DN700 Szczecin-Gdańsk gas pipeline, section V Goleniów-Płoty**

On May 30th 2018, a contract was signed between Operator Gazociągów Przemysłowych GAZ – SYSTEM S.A. and RAFAKO S.A. for general contractor services in the project to construct section V Goleniów-Płoty of the DN 700 Szczecin-Gdańsk pipeline with auxiliary facilities and the necessary infrastructure for its operation.

The total value of the contract as at the execution date is PLN 125m, and the completion deadline is scheduled 24 months after that date.

2) Construction of the Kędzierzyn Compressor Station

On February 15th 2019, a contract for the construction of a compressor station in Kędzierzyn-Koźle was signed between Operator Gazociągów Przemysłowych GAZ-SYSTEM S.A. and RAFAKO S.A.

The VAT-exclusive value of the contract is PLN 168m. The contract is to be completed within 25 months.

Other contracts of significant value:

1) Construction of St. John Paul II MEMORY AND IDENTITY Museum in Toruń

The contract provides for the design and construction of a complex comprising a museum, an auditorium and as well as scientific and creative sections along with facilities. The contract was signed by the parties on April 16th 2019.

The contract sum is PLN 117,000 thousand, and the project is to be completed within 100 weeks.

Management Board’s statement

The Management Board of RAFAKO S.A., the parent of the RAFAKO Group, hereby represent that:

1) To the best of its knowledge, the interim condensed consolidated financial statements for the six months ended June 30th 2019, as well as comparative data for the six months ended June 30th 2018 and for the year ended December 31st 2018, were drawn up in compliance with the applicable accounting standards and give a true, fair and clear view of the Group’s assets, its financial condition and performance, and that the Directors’ Report on the operations of the RAFAKO Group gives a true view of the Group’s development, achievements and standing, including a description of key risks and threats;

2) The auditor of the full-year financial statements, being an entity qualified to audit financial statements, was appointed in compliance with the applicable laws, and the auditing firm and the auditors who conducted the audit satisfied the auditor independence criteria to deliver an unbiased and independent auditor’s opinion on the audited half-year condensed consolidated financial statements, in compliance with the applicable laws and professional standards.

Signatures of Management Board members

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Helena Fic
President of the Management Board of RAFAKO S.A.

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Agnieszka Wasilewska-Semail
Vice President of RAFAKO S.A. Management Board

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Jerzy Ciechanowski
Vice President of RAFAKO S.A. Management Board


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