



# Report of the Management Board on the operation of ENEA Group in H1 2018

Poznań, date of approval: 11 September 2018

Date of publication: 13 September 2018



## **1. Operating summary**

# 1. OPERATING SUMMARY

## 1.1 ENEA Group in numbers



### Resources

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- 6.2 GW of electrical power installed
- 391 million tonnes – extraction potential of 3 licenced areas
- 122,400 km of distribution lines including connections
- 16,100 Employees
- 2.5 million Customers



### H1 2018 financials

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- PLN 6,040 million of net sales revenue
- PLN 1,304 million of EBITDA
- PLN 462 million of net profit
- PLN 824.4 million of CAPEX



### Targets until 2025

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- 10.9 million tonnes of own demand for bituminous coal
- 5.8-6.3 GW of conventional electrical power installed
- 20.1 TWh of electricity sale
- EBITDA of PLN 2,939 million until 2025 (a 38% increase on 2015)

In the period under analysis, the Group improved its EBITDA result in two areas of activity. The highest EBITDA, amounting to PLN 580 million, was achieved in the Distribution area, where also its highest growth was recorded. The second highest EBITDA result was recorded in the Generation area, totalling PLN 437 million, with a growth of 2.2% YoY. The increase in the volume of electricity generated did not counterbalance the negative impact of the increase in variable costs in the Generation area. Electricity production was affected by opposite factors – on the one hand, these were the acquisition of Połaniec Power Plant at the end of Q1 2017 and the commissioning of Unit No. 11 at Kozenice Power Plant, while, on the other hand, there were the protracted shutdowns of Units Nos. 9 and 10 at Kozenice Power Plant, also related to the adjustment of generation units to the BAT conclusions. The EBITDA result recorded by the Trading area was down by 72% on the last year, and reached PLN 29 million – it was the effect of an increase in the costs of environmental obligations and in the purchase prices of electricity. The EBITDA result in the Mining area, following a decrease of PLN 48 million YoY, amounted to PLN 274 million – influenced by temporary geological and hydro-technological difficulties experiences in Q1 2018.



- an increase in revenues from electricity sales
- an increase in revenues from sales of CO<sub>2</sub> emission allowances
- an increase in the volume of heat sales
- an increase of the result on other operating activities



- a decrease in revenues from sales of natural gas
- a decrease in revenues from sales of coal
- an increase in costs of purchase of electricity and gas
- an increase in costs of consumption of materials and raw materials

- In H1 2018, ENEA Group's investment expenditures totalled PLN 824.4 million.
- The production and sales of commercial coal stood at the level of 4.5 million tonnes and 4.3 million tonnes, respectively.
- The Group generated 12.8 TWh of electricity – 37% more than in the corresponding period of the last year, of which 11.9 TWh came from conventional sources. There was also an increase in RES generation, by 49 GWh.
- The sales of heat increased and totalled 3,824 TJ, which is up by 12.1% YoY.
- Sales of distribution services to end users totalled 10 TWh, which means a growth of 4.1% when compared to the corresponding period of the last year.
- Volumes of electricity and gas fuel sold to retail customers increased by 1.1 TWh, or 12.1% YoY.

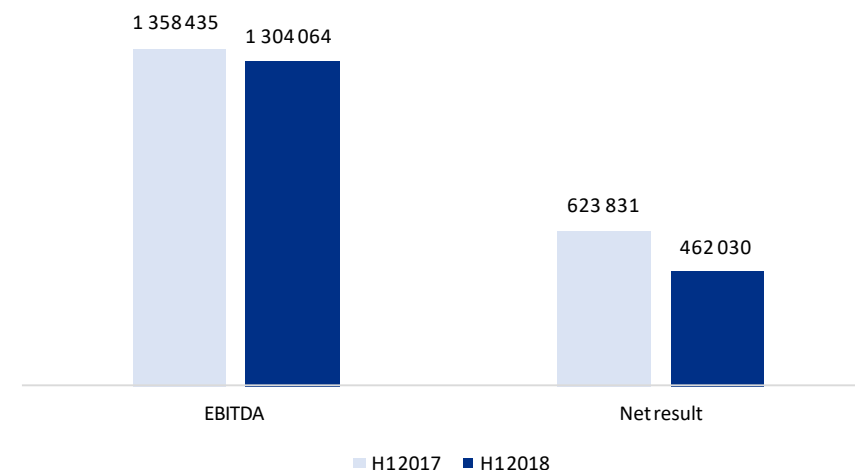
## 1.2. Selected consolidated financial data

[PLN k]	H1 2017	H1 2018	Change	% change
Net sales revenue	5,568,224*	6,039,555	471,331	8.5%
Operating profit / (loss)	781,621	632,883	-148,738	-19.0%
Profit / (loss) before tax	768,655	558,256	-210,399	-27.4%
Net profit / (loss) for the reporting period	623,831	462,030	-161,801	-25.9%
<b>EBITDA</b>	<b>1,358,435</b>	<b>1,304,064</b>	<b>-54,371</b>	<b>-4.0%</b>
Net cash flows from:				
operating activities	1,354,737	1,893,828	539,091	39.8%
investing activities	-2,235,821	-1,261,161	974,660	43.6%
financial activities	127,312	-280,276	-407,588	-
Balance of cash	1,586,445	3,039,517	1,453,072	91.6%
Net profit attributable to shareholders of the Parent	581,162	431,190	-149,972	-25.8%
Weighted average number of shares	441,442,578	441,442,578	-	-
Net profit per share [PLN]	1.32	0.98	-0.34	-25.8%
Diluted profit per share [PLN]	1.32	0.98	-0.34	-25.8%

\* Presentation change in the scope of valuation and own sales cost of property rights

[PLN k]	31 December 2017	30 June 2018	Change	% change
Total assets	28,312,994	28,389,420	76,426	0.3%
Total liabilities	14,313,325	13,589,269	-724,056	-5.1%
Non-current liabilities	10,063,012	9,851,074	-211,938	-2.1%
Current liabilities	4,250,313	3,738,195	-512,118	-12.0%
Equity	13,999,669	14,800,151	800,482	5.7%
Share capital	588,018	588,018	-	-
Book value per share [PLN]	31.71	33.53	1.82	5.7%
Diluted book value per share [PLN]	31.71	33.53	1.82	5.7%

[PLN k]	Q2 2017	Q2 2018	Change	% change
Net sales revenue	2,858,534*	3,051,002	192,468	6.7%
Operating profit / (loss)	399,042	294,105	-104,937	-26.3%
Profit / (loss) before tax	365,850	251,348	-114,502	-31.3%
Net profit / (loss) for the reporting period	302,641	207,962	-94,679	-31.3%
<b>EBITDA</b>	<b>692,009</b>	<b>601,935</b>	<b>-90,074</b>	<b>-13.0%</b>
Net profit attributable to shareholders of the Parent	285,932	190,434	-95,498	-33.4%
Weighted average number of shares	441,442,578	441,442,578	-	-
Net profit per share [PLN]	0.65	0.43	-0.22	-33.8%
Diluted profit per share [PLN]	0.65	0.43	-0.22	-33.8%



### 1.3. Key operating data and ratios <sup>1)</sup>

	Unit	H1 2017	H1 2018	Change	% change
Net sales revenue	PLNk	5,568,224*	6,039,555	471,331	8.5%
EBITDA	PLNk	1,358,435	1,304,064	-54,371	-4.0%
EBIT	PLNk	781,621	632,883	-148,738	-19.0%
Net profit	PLNk	623,831	462,030	-161,801	-25.9%
Net profit attributable to shareholders of the Parent	PLNk	581,162	431,190	-149,972	-25.8%
Net cash flows from operating activities	PLNk	1,354,737	1,893,828	539,091	39.8%
CAPEX	PLNk	2,445,120	824,412	-1,620,708	-66.3%
Net debt / EBITDA <sup>1)</sup>	-	2.1	1.8	-0.3	-14.3%
Return on assets (ROA) <sup>1)</sup>	%	4.9%	3.3%	-1.6pp	-
Return on equity (ROE) <sup>1)</sup>	%	9.3%	6.2%	-3.1pp	-
<b>Trading</b>					
Sales of electricity and gas fuel to retail customers	GWh	9,509	10,655	1,146	12.1%
Number of customers (Power Delivery Points)	k	2,410	2,451	41	1.7%
<b>Distribution</b>					
Sale of distribution services to end users	GWh	9,654	10,047	393	4.1%
Number of customers (closing balance)	k	2,535	2,571	36	1.4%
<b>Generation</b>					
Total generation of electricity, including:	GWh	9,337	12,793	3,456	37.0%
<i>from conventional sources</i>	GWh	8,484	11,891	3,407	40.2%
<i>from renewable energy sources</i>	GWh	853	902	49	5.7%
Gross heat generation	TJ	3,724	4,211	487	13.1%
Sale of electricity, including**:	GWh	11,043	17,442	6,399	57.9%
<i>from conventional sources</i>	GWh	8,640	11,985	3,345	38.7%
<i>from renewable energy sources</i>	GWh	697	808	111	15.9%
<i>From purchase</i>	GWh	1,706	4,649	2,943	172.5%
Sales of heat	TJ	3,411	3,824	413	12.1%
<b>Mining</b>					
Net production	tonnes k	4,558	4,519	-39	-0.9%
Coal sales	tonnes k	4,662	4,341	-321	-6.9%
Closing stocks	tonnes k	21	202	181	-
Excavation works	km	15.0	19.7	4.7	31.3%

<sup>1)</sup> Ratio definitions are presented on Page 110.

\* Presentation change in the scope of valuation and own sales cost of property rights

\*\*Presentation change

- a decrease in EBITDA of 4.0% (by PLN 54 million)
- a decrease in CAPEX, mainly in the Generation Area, i.a. due to a large equity investment in Q1 2017 (acquisition of EEP) and the investment project implemented and completed in 2017 (Unit No. 11)
- an increase of 12.1% in sales of electricity and gaseous fuel to retail customers (by 1,146 GWh)
- an increase in the total volume of electricity generated by 3.5 TWh

	Unit	Q2 2017	Q2 2018	Change	% change
Net sales revenue	PLNk	2,858,534*	3,051,002	192,468	6.7%
EBITDA	PLNk	692,009	601,935	-90,074	-13.0%
EBIT	PLNk	399,042	294,105	-104,937	-26.3%
Net profit	PLNk	302,641	207,962	-94,679	-31.3%
Net profit attributable to shareholders of the Parent	PLNk	285,932	190,434	-95,498	-33.4%
Net cash flows from operating activities	PLNk	782,467	1,160,496	378,029	48.3%
CAPEX	PLNk	603,713	386,999	-216,714	-35.9%
Net debt / EBITDA <sup>1)</sup>	-	2.1	1.8	-0.3	-14.3%
Return on assets (ROA) <sup>1)</sup>	%	4.8%	2.9%	-1.9 pp	-
Return on equity (ROE) <sup>1)</sup>	%	9.0%	5.6%	-3.4 pp	-
<b>Trading</b>					
Sales of electricity and gas fuel to retail customers	GWh	4,486	5,058	572	12.8%
Number of customers (Power Delivery Points)	k	2,410	2,451	41	1.7%
<b>Distribution</b>					
Sale of distribution services to end users	GWh	4,679	4,865	186	4.0%
Number of customers (closing balance)	k	2,535	2,571	36	1.4%
<b>Generation</b>					
Total generation of electricity, including:	GWh	5,581	6,458	877	15.7%
<i>from conventional sources</i>	GWh	4,935	5,928	993	20.1%
<i>from renewable energy sources</i>	GWh	646	530	-116	-18.0%
Gross heat generation	TJ	1,442	1,192	-250	-17.3%
Sale of electricity, including**:	GWh	6,672	9,156	2,484	37.2%
<i>from conventional sources</i>	GWh	5,071	5,984	913	18.0%
<i>from renewable energy sources</i>	GWh	510	474	-36	-7.1%
<i>From purchase</i>	GWh	1,091	2,698	1,607	147.3%
Sales of heat	TJ	1,318	1,087	-231	-17.5%
<b>Mining</b>					
Net production	tonnes k	2,136	2,424	288	13.5%
Coal sales	tonnes k	2,273	2,374	101	4.4%
Closing stocks	tonnes k	21	202	181	-
Excavation works	km	6.9	10.7	3.8	55.1%

<sup>1)</sup> Ratio definitions are presented on Page 111.

\* Presentation change in the scope of valuation and own sales cost of property rights

\*\*Presentation change

- a decrease in EBITDA of 13.0% (by PLN 90 million)
- a decrease in CAPEX, mainly in the Generation Area, i.a. due to the investment project implemented and completed in 2017 (Unit No. 11)
- an increase of 12.8% in sales of electricity and gaseous fuel to retail customers (by 572 GWh)
- an increase in the total volume of electricity generated by 0.9 TWh

## 1.4. Comment of the Management Board

Dear Madams and Sirs,

We present report on the operations of ENEA Group in the first half of 2018. In this period, we consistently implemented our development strategy, strengthening our position of an innovative resource and energy company.



The Group strengthens its market position through stable financial situation and growth of operating indicators, including electricity production. Our financial and operating results have been subject to volatile market conditions and are in line with our forecasts. We recorded a significant increase in generation and sales of electricity to retail customers, as well as an increase in the sales volume of distribution services. Our net profit amounted to PLN 462 million and EBITDA to PLN 1,304 million. The presented results show our potential to generate profit in accordance with the expectations of our shareholders. Our aim is to keep increasing the market share, while at the same time maintaining performance indicators at a high level. Dynamic market and the regulatory environment changes will require to take steps towards operating efficiency improvement in all areas of value chain

In the first half of 2018, prices of CO<sub>2</sub> emission allowances fluctuated substantially, reaching the highest level since 2011. Long-term forecasts anticipate further increases in the price of CO<sub>2</sub> emission allowances. Energy prices followed the prices of CO<sub>2</sub> emission allowances, which dynamically affected ENEA Group's trading area. They were also influenced by the costs of environmental obligations (green certificates) due to higher RES prices.

Since the beginning of 2018, the power exchange obligation of 30% has been in force. The doubling of the obligation, with the prospect of a 100% obligation being introduced in the future, led to a noticeable increase in trading on the power exchange, which gave an impulse to pursue an active trading policy and an effective transformation of the sales model.

In the generation area, ENEA Group is implementing a modernisation programme aimed at increasing the efficiency and effectiveness of the Group's generating units and adapting them to the EU environmental requirements. In the mining area, coal production and sales reached the expected levels, despite temporary geological difficulties at the beginning of the year. In distribution, we implement an extensive investment programme leading to an improvement in the reliability of the network and improving its efficiency and flexibility in responding to the needs of our customers. The trading area, in turn, is focused on developing sales channels and adding new products and services to our commercial offer - ENEA Smart and ENEA Eco. At the same time, we are a socially responsible company that cares for the Clients, workers, local communities and all other stakeholders.

### **We ensure stable and reliable electricity supply for our clients**

Unit no. 11 with a capacity of 1,075 MW in Koźienice Power Plant, launched in December 2017, owing to advanced technological solutions for supercritical parameters, already in its "infancy" achieves high efficiency. This enables it to significantly reduce CO<sub>2</sub> emissions in comparison to emissions from the existing hard coal-fired units. In May, the unit underwent its warranty inspection which fully confirmed its high efficiency.

Overall, in the 1st quarter of 2018, the electricity production in the ENEA Group went up by 37 % YoY and amounted to 12.8 TWh in total. This result was achieved by Koźienice and Połaniec power plants, belonging to the Group. In the generation area, we plan another investment project, as a partner of ENERGA, i.e. the construction of a high-efficiency energy unit with a capacity of 1 GW in Ostrołęka C Power Plant, which has reached the stage of obtaining final corporate approvals. Taking into consideration the country's economic growth and increasing demand for electricity, high-efficient and stable unit in Ostrołęka fits in the plan to ensure Energy security of the National Power System.



We are constantly working on improving our reliability indices, which is possible thanks to investments in the development of power grids and the expansion and modernization of strategic power substations. In January, ENEA Operator completed a multi-stage reconstruction of the Main Transformer Station, which provides energy supplies to customers in the Kostrzyn-Słubice Special Economic Zone. In accordance with the plan, the Company continues the existing investments and will start new ones in 2018, the commissioning of which will significantly increase the country's energy security.

#### **Production of LW Bogdanka as planned**

Lubelski Węgiel Bogdanka, which belongs to the ENEA Group, is a stable source of fuel consumed by the power plants of the Group. In accordance with the Development Strategy of the ENEA Capital Group until 2030, the hard coal consumption ratio from the Group's extraction assets for its own needs is projected to be 75 per cent. The yearly extraction plans of LWB at the minimum level of 9 million tonnes will be met, despite the difficult first quarter. This is confirmed by the excellent extraction results in the second quarter and the whole first half of the year. Production of commercial coal in the period from January to June 2018 totalled 4,519 thousand tonnes, and sales amounted to 4,341 thousand tonnes.

For Bogdanka, the first half of the year also witnessed events of importance for the future of the mine, namely the submission of an application for a concession to extract hard coal from "K-6 and K-7" deposit in the region of Lubelszczyzna. The deposit borders directly with the "Puchaczów V" mining area, which is being currently exploited by Bogdanka. The operable resources in the period of validity of the concession, until 2046, are estimated at 66 million tonnes.

In the first half of 2018, the millionth output skip was transported up the shaft (skip is a container for vertical coal transport, containing 40 tonnes of output, or coal before purification, at a time). The mine has also produced the 150-millionth tonne of commercial coal.

#### **Technologies and innovations significant for future development**

We want to be a company fully utilising the implemented innovation eco-system, employing the best technological solutions, open to new trends in power engineering. One of the initiatives consistently implemented by us is development of electromobility. We implement projects in the field of charging stations for electric vehicles. We enter into subsequent partnership agreements in this area, to develop competence, gain new experience and contribute to meeting the assumptions of the national electromobility programme.

In April, ENEA Serwis and Kolejowe Zakłady Łączności in Bydgoszcz signed an agreement on joint action in support of electromobility development. Moreover, in June, the National Centre for Research and Development and energy companies: ENEA, Energa-Operator, PGE Dystrybucja and Tauron Dystrybucja have signed a letter of intent to bring about the development of an innovative, zero-emission commercial vehicle. The vehicle will be aligned with the needs of the signatories of the letter of intent, so that it can be used, among other things, in the companies' fleets for the performance of daily tasks.

In May, ENEA Operator established cooperation with the University of Zielona Góra. The framework agreement signed provides for analytical and advisory work in the scope of security and reliability of operations of the distribution grid. It is the third university already with which the company entered into such an agreement. This is a further innovation in our power grid, which will concern use of smart metering and energy storage facilities.

### **Actions in support of local communities, social dialogue**

An indispensable element of activity of a large, modern enterprise and an integral part of ENEA Group's philosophy is supporting local communities. We are particularly proud to support initiatives in the field of education. This is our way of promoting the development of skilled staff who will be able to find employment in the future in ENEA Group, which is strongly emphasized by the social side.

In this area, ENEA has developed a project of cooperation between the companies belonging to the Group and vocational education schools and technical schools. Until the end of the year, the Group will start cooperating with 14 educational establishments. These schools stand out as they provide their students with high quality education and skills development in the occupations which are in the highest demand in the companies belonging to ENEA Group.

### **Stable financial situation, high liquidity and investment potential**

The consistent, sustainable development of our Group, the modernisation and the improvement of the efficiency of assets, and interesting trade offer translate into results consistent with our forecasts. In the first half of this year, EBITDA of the Group amounted to PLN 1,304 million, and the net profit reached PLN 462 million.

In the first six months of 2018, ENEA Group generated PLN 1.9 billion net operating cash flows. As at the end of June, the net debt-to-EBITDA ratio stood at a very safe level of 1.8.

These sound financial and operating results are proof of correctly selected directions of development, and the structure of the balance sheet allows ENEA Group to carry out further investment projects in accordance with the adopted strategy. We want to develop this potential by investing not only in advanced conventional power plants or the distribution grid, but also by meeting new challenges and play an important role in the development of electromobility or renewable energy sources.

Yours faithfully,  
Miroslaw Kowalik  
President of the Management Board of ENEA S.A.

## 1.5. Key events in H1 2018

### Q1

#### **Coal supplies for ENEA Elektrownia Połaniec secured**

On 3 January 2018, ENEA Trading Sp. z o.o. entered into the agreement for purchase of coal in 2018–2021 from Polska Grupa Górnicza Sp. z o.o. for the needs of power units of ENEA Elektrownia Połaniec S.A. The total net value of the agreement is PLN 1.49bn. In January 2018, an agreement was also concluded under which PGG will deliver PLN 0.52bn of coal supplies to ENEA Wytwarzanie by the end of 2021.

#### **More funds for electromobility and innovation**

On 3 January, the Extraordinary General Meeting of Shareholders of ElectroMobility Poland S.A. (a company in which ENEA holds 25% of shares) adopted a resolution on increasing the share capital of the company by PLN 20,000,000 up to the amount of PLN 30,000,000, by increasing the nominal value of existing shares from PLN 1,000 to PLN 3,000. The share capital increase was registered in the NCR on 23 April 2018.

On 31 January, the Extraordinary General Meeting of Shareholders of ENEA Innovation sp. z o.o. adopted a resolution on increasing the share capital by the amount of PLN 3,500,000 (from PLN 305,000 to PLN 3,805,000) by creating 35,000 new shares of nominal value of PLN 100 each. The share capital increase was registered in the NCR on 23 April 2018. On 17 April 2018, the company name was changed in the NCR from ENEA Innovation Sp. z o.o. to ENEA Innowacje Sp. z o.o.

#### **Completion of the extension of the strategic power station in Kostrzyn-upon-Oder**

In January this year, ENEA Operator completed a multi-stage extension of the Main Transformer Station which ensures power supplies for Customers in the Kostrzyn-Słubice Special Economic Zone. The investment is a response to dynamic economic development of the frontier zone, which translates into the need of connecting new entities to the grid and a power demand which has been growing for a couple of years.

#### **New offer supporting fight with smog**

Since 31 January, ENEA has extended its offer by a new product promoting an increased consumption of electricity in night-time hours. The new offer – ENEA Eco – is to encourage the Customers to use electrical heating and electric cars thanks to attractive prices. The product is targeted to retail customers who consume energy for the needs of households connected to ENEA Operator grid. The product supports energy consumption increase between 10 p.m. and 6 a.m. It is intended as a supplementation of preferential solutions included in the tariff for distribution services of ENEA Operator, applicable as of 31 January this year.

#### **Changes in management boards of subsidiaries**

On 1 February this year, the Extraordinary Shareholders Meeting of ENEA Wytwarzanie dismissed Mr. Dariusz Skiba, economic and financial vice-president, as well as Stefan Pacyński, development strategy vice-president, from the management board of the company. On 16 February, the Supervisory Board of ENEA Wytwarzanie adopted a decision on the appointment, as of 26 February, Mr. Andrzej Wicik to act as development strategy vice-president of ENEA Wytwarzanie, and Mr. Jarosław Ołowski to act as economic and financial vice-president. The decision was preceded by a competition procedure and interviews.

On 16 February, Mr. Krzysztof Szlaga ceased to act as President of the Management Board of Lubelski Węgiel Bogdanka S.A. Until the appointment of his successor, duties of President of the Management Board shall be performed by Sławomir Karlikowski, Production Vice-President of the Management Board. On 19 March, the Supervisory Board of LW Bogdanka adopted a resolution on appointing Mr. Artur Wasil to the position of President of the Management Board as of 21 March this year.

After the recruitment procedure, which ended on 27 March, the Supervisory Board of ENEA Centrum adopted a resolution on the appointment, as of 28 March, of Mr. Sławomir Jankiewicz to the position of president of the management board of ENEA Centrum and Mr. Krzysztof Kierzkowski to the position of IT and development management board member of ENEA Centrum.

### **Positive evaluation of the funding application related to Jastrowie wind farm**

In March this year, the construction project of a photovoltaic farm of 1 MW connection capacity in the locality of Jastrowie was positively evaluated and granted funding amounting to PLN 1,470,231.75. The total project value amounts to PLN 4,679,063.91.

### **Changes in the supervisory board of ENEA S.A.**

Upon request of the Minister of Energy, as of 22 March 2018 Mr. Ireneusz Kulka was appointed to the Supervisory Board of ENEA S.A. By decision of the Minister of Energy, as of 15 April, Mr. Ireneusz Kulka was dismissed from his position, and then, on 16 April this year, appointed once again to the Supervisory Board of ENEA S.A. by the Extraordinary General Meeting of Shareholders. By decision of the Company's Extraordinary General Meeting of Shareholders, the Supervisory Board was also joined by Mr. Paweł Jabłoński, upon obtaining a positive opinion of the Board for Companies with State Treasury Shareholding and State Legal Persons. Moreover, the General Meeting dismissed Mr. Rafał Bargiel and Mr. Piotr Kossak from their positions.

### **Construction of the power unit in Elektrownia Ostrołęka draws nearer**

On 27 March, Elektrownia Ostrołęka sp. z o.o., controlled by ENEA S.A. and Energa S.A., granted its consent for the settlement of the tender "Construction of Elektrownia Ostrołęka C with the capacity of approx. 1000 MW" by selecting as the best offer the one presented by the Consortium of GE Power Sp. z o.o. and Alstom Power System S.A.S, acting as General Contractor. The offer amounts to PLN 5,049,729,000 net, which is PLN 6,023,034,950 gross.

## **Q2**

### **Another step towards the launch of the construction of Ostrołęka C**

On 4 April this year Elektrownia Ostrołęka sp. z o.o. resolved a public procurement award procedure entitled "Construction of Elektrownia Ostrołęka C with an approximate output of 1000 MW" by selecting the a Consortium composed of GE Power Sp. z o.o. and Alstom Power System S.A.S as the General Contractor. The settlement of the procedure was not tantamount to granting consent to conclude a contract with the General Contractor – in order to grant such a consent, a prior agreement of the ENEA's Supervisory Board was necessary, among other things. The contract for the construction of Elektrownia Ostrołęka C with the consortium composed of GE companies (GE Power sp. z o.o. and Alstom Power Systems SAS) was signed on 12 July this year. Signing the agreement by the special purpose entity with the General Constructor is not tantamount to giving the consent for the notice to proceed.

### **Further actions for the development of electromobility**

On 20 April, at the headquarters of the Ministry of Energy, ENEA Serwis, Kolejowe Zakłady Łączności, Grupa LOTOS, Poczta Polska and Telewizja Polska signed agreements on the joint actions towards the development of electromobility. The aim of the signed documents is to develop electromobility and to strengthen the cooperation between the companies in this scope. The companies will support each other in their efforts to increase the efficiency of their fleets of vehicles by introducing alternative fuel cars and creating the necessary infrastructure for them.

Moreover, on 25 June, the National Centre for Research and Development and energy companies: ENEA, Energa-Operator, PGE Dystrybucja and Tauron Dystrybucja signed a Letter of Intent relating to multilateral cooperation for the development of electromobility in Poland. The objective of the "e-VAN" programme is the development of innovative, zero emissions commercial vehicle. The vehicle will be aligned with the needs of the signatories of the letter of intent, so that it can be used, among other things, in the companies' fleets for the performance of daily tasks.

### **The warranty inspection of the new power unit in Elektrownia Koźienice**

From 7 to 27 May this year, the warranty inspection of the new generation unit in Elektrownia Koźienice, Unit No. 11 – the biggest and the most modern unit in this power plant – was being carried out. It is the largest, the most efficient and the most modern hard coal power unit in Poland. Unit No. 11 was put into operation on 19 December 2017. Thanks to the use of advanced technological solutions for supercritical parameters, as early as in its "infancy" the unit achieves high efficiency, which enables it to significantly reduce CO<sub>2</sub> emissions in comparison to emissions from the existing hard coal-fired units. During the inspection, the unit was at a standstill, the installations and systems of Unit No. 11 were checked.

### Changes in Management Boards of the subsidiaries

On 10 May, Krzysztof Figat left his office of the President of ENEA Wytwarzanie. As of 4 June 2018, after carrying out the qualification procedure, the Supervisory Board of ENEA Wytwarzanie company appointed Antoni Józwiowicz as the CEO of ENEA Wytwarzanie. Antoni Józwiowicz during his career held numerous management and executive positions, among other things, as the president of Polimex-Mostostal S.A., where he was responsible for the final stage of U11 construction in ENEA Wytwarzanie, which was put into operation on 19 December 2017.

### Bogdanka of the ENEA capital group applied for a concession to extract deposits K-6 and K-7

On 11 May, LW Bogdanka applied to the Minister of Environment for a concession to extract hard coal from “K-6 and K-7” deposit in the region of Lubelszczyzna. It borders directly with the “Puchaczów V” mining area, which is being currently exploited by Bogdanka. The operable resources covered by the Deposit Management Project in the period of validity of the concession requested by the company, which expires in 2046, are estimated at 66 million tonnes. Then, Bogdanka is planning to apply for the extension of this concession, which would ensure the increase of the level of resources by additional 60-70 million tonnes. The increase of resources by 66 million tonnes would result in the extension of the life of the mine approximately by nine years. The work on the first longwall of the “K-6 and K-7” deposit may commence in 2022 – assuming that the concession will be granted this year.

### ENEA supports vocational education...

ENEA has developed a project for cooperation between the companies belonging to the Group and vocational education schools and technical schools. The programme prepared by ENEA assumes providing the patronage for 14 vocational education schools and technical schools. These schools stand out as they provide their students with high quality education and skills development in the occupations which are in the highest demand in the companies belonging to ENEA Group. The launch of the programme took place on 17 May in Połaniec. ENEA and ENEA Elektrownia Połaniec signed the patronage agreement with Oddział Partyzancki AK “Jędrusie” School Complex in Połaniec.

### ... and higher education

In October this year, in cooperation with Poznań University of Technology, ENEA Group is launching a pilot dual study programme for BA students of the Faculty of Electrical Engineering. After graduating from this type of studies, a graduate will have both a diploma and the proper professional experience. The dual studies are the innovative system of studying – they cover acquiring academic knowledge and gaining practical experience. The curriculum of these studies covers the necessary scope of the theoretical knowledge that is meant to be acquired during lectures, laboratory and practical classes, as well as workshops at Poznań University of Technology (3 days in a week) accompanied by practical classes – laboratory and project classes in the companies belonging to ENEA Group (2 days in a week).

### ENEA Serwis is constructing the photovoltaic power plant in Szczecin

ENEA Serwis will construct the photovoltaic power plant with the rated power of 420 kW together with electro-energetic connections. In June, the company won the tender issued by the investor – West Pomeranian Oncology Center in Szczecin. The completion of the investment is scheduled for September this year. The power plant will consist of two parts: freestanding part with the electrical power of 404.24 kW and the part installed on the roof of the administrative building with the electrical power of 18.60 kW.





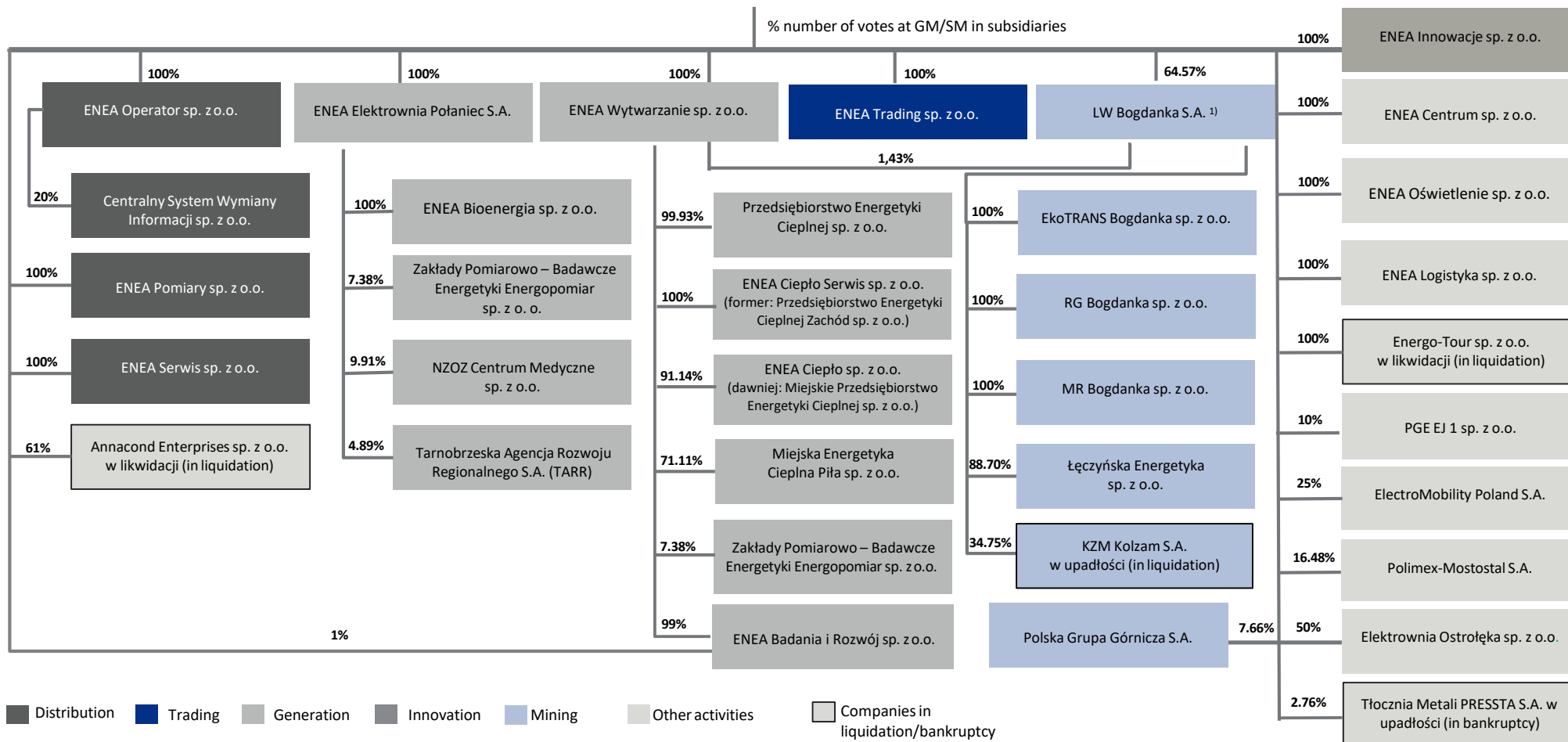
## **2. Organisation and operations of ENEA Group**

## 2. ORGANISATION AND OPERATIONS OF ENEA GROUP

### 2.1. Structure of ENEA Group

#### ENEAS.A.

% number of votes at GM/SM in subsidiaries



There are 6 leading entities within ENEA Group, i.e. ENEA S.A. (electricity trading), ENEA Operator sp. z o. o. (electricity distribution), ENEA Wytwarzanie sp. z o. o. (distribution of energy), ENEA Wytwarzanie sp. z o. o. and ENEA Elektrownia Połaniec S.A. (generation and sale of electricity and heat), ENEA Trading sp. z o. o. (wholesale electricity trading) and LW Bogdanka S.A. (coal mining). The other entities render ancillary activities in relation to the aforesaid companies. The Group's structure includes also minority interests in entities owned by subsidiaries of ENEA S.A., i.e. in particular ENEA Wytwarzanie sp. z o. o. and LW Bogdanka S.A.

<sup>1)</sup> ENEA S.A. together with ENEA Wytwarzanie Sp. z o.o. holds 65.999% of the votes at the General Meeting.

## 2.2. Changes in the Group's structure

### Asset restructuring

After performing key organisational changes in previous years, ENEA Group, apart from the initiatives related to the planned changes, did not conduct any significant activities within assets restructuring in the first half of 2018.

### Capital divestments

In the period of January – June 2018, no significant capital divestments were effected.

### Changes in the organisation of the Group

In the period of January – June 2018, ENEA Group continued activities aimed at the implementation of the Corporate Strategy of the Group.

### Equity investments

Area	Date	Company	Event
<b>H1 2018</b>			
Other activities	23 March 2018	Elektrownia Ostrołęka Sp. z o.o.	The acquisition, by ENEA S.A. from Energa S.A., of 1,201,036 shares of Elektrownia Ostrołęka sp. z o.o. - ENEA S.A. holds 50.00% of shares in the share capital of the Company in total.
Other activities	29 March 2018	Elektrownia Ostrołęka Sp. z o.o.	On 27 February 2018, the National Court Register registered the transformation of Elektrownia Ostrołęka S.A. into a limited liability company. On 29 March 2018, the Extraordinary General Meeting of Shareholders of Elektrownia Ostrołęka sp. z o.o. adopted a resolution on increasing the share capital of the Company from PLN 229,100,000.00 to PLN 264,100,000.00, i.e. by PLN 35,000,000.00 through creation of 700,000 new equal and indivisible shares, preferred in terms of voting in such a way so as one share entitles to two votes; the said preference shall expire upon disposing the shares to another person than the Main Shareholder, i.e. ENEA S.A. or Energa S.A., with the nominal value of each of the new shares is PLN 50.00 and the total nominal value amounts to PLN 35,000,000.00. On 29 March 2018, ENEA S.A. signed a declaration on taking-up 350,000 shares and covering them with cash contribution of PLN 17,500,000.00. On 30.03.2018, ENEA S.A. made the cash contribution to the Company's account. The share capital increase is awaiting registration in the NCR.
Other activities	3 January 2018	Electro-Mobility Poland S.A	The Extraordinary General Meeting of Shareholders of ElectroMobility Poland S.A. adopted a resolution on increasing the share capital of the company by PLN 20,000,000.00, i.e. from PLN 10,000,000 to PLN 30,000,000, by increasing the nominal value of the existing shares from PLN 1,000.00 to PLN 3,000.00. The share capital increase was registered on 23 April 2018.
Innovation	31 January 2018	ENEA Innovation Sp. z o.o.	On 31 January 2018, the Extraordinary General Meeting of Shareholders of ENEA Innovation sp. z o.o. adopted a resolution on increasing the share capital by PLN 3,500,000.00, i.e. from the amount of PLN 305,000.00 – including the prior increase of the Company's share capital based on Resolution no. 1 of the Extraordinary General Meeting of Shareholders of 02.08.2018 – to PLN 3,805,000.00, by creating 35,000 new shares of nominal value of PLN 100.00 each. The increase of the share capital was registered on 23 April 2018.
Mining	31 January 2018	PGG S.A.	On 31 January 2018, the EGMS of PGG S.A. adopted a Resolution on increasing the share capital of PGG S.A. by PLN 300,000,000 through the issuance of 3,000,000 new series B shares within a private subscription, of nominal value of PLN 100 each and the total nominal value of PLN 300,000,000. On 31 January 2018, ENEA also entered into an agreement on taking up 900,000 registered B series shares paid-up in whole through a cash contribution of PLN 90,000,000, increasing thereby its share in the share capital of the Company from 5.81% to 7.66% (entry in the NCR of 06.04.2018). The above recapitalisation is the third and the last PGG S.A. recapitalisation tranche resulting from the implementation of the provisions of the Investment Agreement dated 31 March 2017, providing for a total recapitalisation of PGG by ENEA S.A. amounting to PLN 300,000,000. The increase of the share capital was registered in the NCR on 6 April 2018.
Generation	1 February 2018	ENEA Badania i Rozwój Sp. z o.o.	On 1 February 2018, in connection with the resolution on increasing the share capital of the Company from PLN 5,000 to PLN 2,005,000, adopted on 17 November 2017 by the Extraordinary General Meeting of Shareholders of ENEA Badania i Rozwój sp. z o.o., ENEA S.A. signed a declaration on taking up 400 shares and covering them with cash contribution amounting to PLN 20,000. The increase of the share capital was registered in the NCR on 16 April 2018.
Other activities	28 February 2018	Annacond Enterprises sp. z o.o.	The Extraordinary General Meeting of Shareholders of Annacond Enterprises sp. z o.o. passed a resolution on putting the company into liquidation.



Innovation	17 April 2018	Enea Innowacje Sp. z o.o.	On 2 February 2017, the Extraordinary General Meeting of Shareholders of ENEA Innovation sp. z o.o. with its registered office in Warsaw, with share capital of PLN 5,000, decided to increase the share capital by PLN 300,000, i.e. from PLN 5,000 to PLN 305,000. On 17 April 2018, the NCR registered the increase in consideration.
<b>Events after the reporting period</b>			
Other activities	9 July 2018	ENEA Oświeetlenie sp. z o.o.	On 9 July 2018, the Extraordinary General Meeting of Shareholders of ENEA Oświeetlenie sp. z o.o. with its registered office in Szczecin adopted a resolution on increasing the share capital of the Company by the amount of PLN 16,000,000, from PLN 166,127,000 to PLN 182,127,000, by creating 32,000 new shares of the total value of PLN 16,000,000 (the nominal value of each share totalled PLN 500). On 11 July 2018, ENEA S.A. signed a declaration on taking-up 32,000 shares and covering them with cash contribution of PLN 16,000,000. On 12 July 2018, ENEA S.A. made the cash contribution to the Company's account. The share capital increase is awaiting registration in the NCR.
Other activities	27 July 2018	Elektrownia Ostrołęka sp. z o.o.	On 9 July 2018, the Extraordinary General Meeting of Shareholders of ENEA Oświeetlenie sp. z o.o. with its registered office in Szczecin adopted a resolution on increasing the share capital of the Company by the amount of PLN 16,000,000, from PLN 166,127,000 to PLN 182,127,000, by creating 32,000 new shares of the total value of PLN 16,000,000 (the nominal value of each share totalled PLN 500). On 11 July 2018, ENEA S.A. signed a declaration on taking-up 32,000 shares and covering them with cash contribution of PLN 16,000,000. On 12 July 2018, ENEA S.A. made the cash contribution to the Company's account. The share capital increase is awaiting registration in the NCR.
Other activities	9 August 2018	PGE EJ 1 sp. z o.o.	On 9 August 2018, the Extraordinary General Meeting of PGE EJ 1 sp. z o.o. adopted a resolution on increasing the Company's share capital from PLN 310,858,470 to PLN 370,858,200, i.e. by PLN 59,999,730. As a result of increasing the share capital of PGE EJ 1 sp. z o.o., on 21 August 2018 ENEA S.A. acquired 42,553 shares in the share capital of the Company with a value of PLN 5,999,973. On 23 August 2018, ENEA made a cash contribution to the Company's account. The share capital increase is awaiting registration in the NCR.

A detailed description of capital investments can be found in the condensed interim financial statements of the ENEA Capital Group for the period from 1 January to 30 June 2018.

#### **Implementation of the Investment Agreement with Energa S.A. and Elektrownia Ostrołęka S.A. on the construction and operation of the power unit at Elektrownia Ostrołęka S.A.**

On 19 September 2016, ENEA S.A. and Energa S.A. signed the Letter of Intent on commencing cooperation in the field of preparing, implementing, and operating a high-end coal fired 1,000 MW power unit at Elektrownia Ostrołęka (the Investment Project, Ostrołęka C). The Parties' intention is to jointly develop an effective business model for Ostrołęka C, verify its design documentation, and optimise the technical and economic parameters of the new power unit. The cooperation will also involve conducting the tender procedure to choose the general contractor of the Investment Project. In the unanimous opinion of the Parties, the Investment Project implementation will have a positive effect on the power safety of Poland, meet the highest environmental standards, and ensure another stable high efficiency and low-emission source of energy in the National Power System. On 8 December 2016, the Company signed the Investment Agreement on implementation of Ostrołęka C project. The subject matter of the Agreement is the preparation, construction, and operation of the abovementioned power unit. Pursuant to the Agreement, the cooperation will be generally organised in three stages: the Development Stage – until the issue of the notice to proceed for the general contractor; the Construction Stage – until the commissioning of Ostrołęka C for commercial operation; and the Operation Stage – the commercial operation of Ostrołęka C. Following the Development Stage completion, ENEA S.A. is obliged to participate in the Construction Stage, on the assumption that the Project profitability condition is met and that the Project financing does not violate the Company's bank covenants. The condition precedent for the coming into effect of the Investment Agreement was obtaining the consent from the UOKiK President for the concentration through the acquisition of shares in SPV for the Project implementation. The condition was met on 11 January 2017. On 19 December 2016, the SPV announced the tender procedure to choose the general contractor for the construction of Ostrołęka C supercritical power plant of the power capacity of approx. 1,000 MW and net efficiency of at least 45%. If relevant assumptions (including, without limitation, those related to the required participation of ENEA S.A., Energa S.A. and Financial Investors, if any) are met and if the power market or other support mechanism is introduced, Elektrownia Ostrołęka S.A. will be able to accept the order for the comprehensive implementation of this project. Performing the Investment Agreement from 1 February 2017 to 23 March 2018, ENEA S.A. acquired from Energa S.A., in tranches, shares of Elektrownia Ostrołęka Sp. z o.o. constituting 50% of the share capital in total and amounting to ca. PLN 101 million.

As a result of the above transactions, Energa S.A. and ENEA S.A. took joint control of Elektrownia Ostrołęka Sp. z o.o. with its registered office in Ostrołęka, with an aim of constructing and operating the new coal-fired power unit. Both parties hold 50% of shares of Elektrownia Ostrołęka Sp. z o.o. each and the equal number of votes at the General Meeting. The Management Board and the Supervisory Board shall include the equal number of representatives of both investors. Decisions concerning significant operations shall require unanimous consent of both shareholders entitled to net assets of Elektrownia Ostrołęka Sp. z o.o. Taking the above in consideration, the investment was classified as joint venture and is presented in books using the equity method.

In order to ensure adequate financial resources for the company, Energa S.A. and ENEA S.A., pursuant to the agreement of 23 November 2017, granted loans to Elektrownia Ostrołęka Sp. z o.o. in the amount of PLN 10 million each, ENEA S.A. and Energa S.A. The loan granted by ENEA S.A. was repaid. As a result of the transformation, on 27 February 2018, the legal form of Elektrownia Ostrołęka was changed from joint-stock company to limited liability company. On 26 March 2018, the Company executed the Annex to the Investment Agreement, under which the parties increased the estimated total investment expenditure resulting from the liabilities to be incurred at the Development Stage of the Ostrołęka C Investment Project, or by the time the notice to proceed is issued to the General Contractor. Investment expenditure to be provided by ENEA S.A. can amount to approx. PLN 226 million. The increase in investment expenditure results from the need of ensuring funds for e.g. organisation works stemming from the contract with the General Contractor, for related investments, and operations of Elektrownia Ostrołęka Sp. z o.o. As a result of increasing the share capital of Elektrownia Ostrołęka Sp. z o.o., on 29 March 2018 ENEA S.A. acquired 350,000 shares in the share capital of the value of PLN 17,500 thousand. On 30 March 2018, ENEA S.A. made a cash contribution to the account of the special purpose vehicle. Energa S.A. acquired 350,000 other shares. The capital increase was registered in the NCR on 30 July 2018.

As a result of another increase in the share capital of Elektrownia Ostrołęka sp. z o.o., on 30 July 2018 ENEA S.A. acquired 2,870,000 shares in the share capital with the value of PLN 143,500,000. On 2 August 2018, ENEA S.A. made a cash contribution to the Company's account. The capital increase is awaiting registration in the National Court Register. After the registration of the increase, the share of ENEA S.A. in the share capital of Elektrownia Ostrołęka Sp. z o.o. will not change and will still amount to 50% as the new shares in the increased share capital were taken up by ENEA S.A. and Energa S.A. proportionally to the shares held, i.e. in the ratio of 50:50.

On 4 April 2018, Elektrownia Ostrołęka Sp. z o.o. completed the public procurement procedure titled "Construction of Elektrownia Ostrołęka C with the capacity of approx. 1000 MW" by selecting the Consortium of GE Power Sp. z o.o. and Alstom Power System S.A.S as General Contractor who offered to deliver the subject of the Contract ensuring parameters specified in the offer for a net amount of PLN 5,049,729 thousand (PLN 6,023,035 thousand gross).

The settlement of the procedure is not tantamount to:

- granting consent to enter into a contract with the General Contractor – in order to grant such a consent, a prior consent of the Supervisory Board of the Issuer is necessary;
- notice to proceed – issuing of the NTP requires, among other things, a prior consent of the Supervisory Board of the Issuer and a prior in-principle consent given by the General Meeting of the Issuer to proceed to the Construction Stage.

It is estimated that capital expenditure related to the conclusion of the agreement between the Contracting Party and the General Contractor will not exceed the equivalent of 4% of the contract price until the date of NTP issuance. On 6 July 2018, the Extraordinary General Meeting of Shareholders of Elektrownia Ostrołęka Sp. z o.o. granted its consent for the execution of a Public Contract with the General Contractor: The Consortium of GE Power Sp. z o.o. – The Consortium Leader and ALSTOM Power Systems S.A.S. selected within the framework of procedures for industry procurement conducted by the company in the form of a competitive dialogue entitled "Construction of Elektrownia Ostrołęka C with the capacity of approx. 1000 MW". The Contract with the General Contractor – Consortium of GE Power sp. z o.o. (the Consortium Leader) and ALSTOM Power Systems S.A.S. was signed by the Management Board of Elektrownia Ostrołęka Sp. z o.o. on 12 July 2018.

On 4 September 2018, ENEA S.A. signed a memorandum of understanding with Energa S.A., Elektrownia Ostrołęka Sp. z o.o. (SPV) and Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych Energia (Fund), with respect to the Fund's capital involvement in the SPV project of preparation, construction and operation of a power unit with gross capacity of approx. 1,000 MW fired with hard coal. The Fund's involvement in the SPV is subject to a number of legal, corporate and financial conditions, including the market situation. The Memorandum sets out the preliminary structure of the Project's financing, where the total of PLN 2 billion includes the capital contributed to the Company by ENEA S.A. and Energa S.A. (PLN 1 billion each), in this amount are included the funds contributed by ENEA S.A. and Energa S.A. before the date of concluding a potential investment agreement with the Fund, and a maximum of PLN 1 billion of the capital contributed to the Company by the Fund, while the remaining amount will be provided by other forms of financing.

## Recapitalisation of Grupa Górnicza S.A.

In connection with the process of equity investor prospecting by Katowicki Holding Węglowy S.A., in July 2016 ENEA S.A. commenced talks with investors on the possibility of implementing the Investment and its potential parameters. On 28 October 2016, ENEA S.A. signed a letter of intent with Węglokoks S.A. and Towarzystwo Finansowe Silesia Sp. z o.o. (Investors), expressing the parties' initial interest in the financial commitment in Katowicki Holding Węglowy S.A. or its selected assets. In connection with the interest of Polska Grupa Górnicza S.A. (PGG) in acquiring selected assets of Katowicki Holding Węglowy S.A. and commencement of the PGG recapitalisation process, ENEA S.A. conducted, with the existing Shareholders of PGG, the necessary analyses of the Business Plan presented by PGG and expressed interest in capital commitment in Polska Grupa Górnicza S.A. On 30 March 2017, the Supervisory Board of ENEA S.A. expressed its consent for the Company to join Polska Grupa Górnicza S.A. and take up new shares in the PGG's capital, of nominal value of PLN 300 million, in exchange of a cash contribution of PLN 300 million.

On 31 March 2017, the Company entered into:

- the investment agreement setting out the terms and conditions of financial investment in PGG (Investment Agreement),
- the investor agreement concerning the joint control of PGG (Annex no. 1 to the Agreement related to Polska Grupa Górnicza).

### Investment Agreement

The Parties to the Investment Agreement are: ENEA S.A., ENERGA Kogeneracja Sp. z o.o., PGE Górnictwo i Energetyka Konwencjonalna S.A., PGNiG TERMIKA S.A., Węglokoks S.A., Towarzystwo Finansowe Silesia Sp. z o.o., Fundusz Inwestycji Polskich Przedsiębiorstw Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych (Investors), and PGG. Under the Investment Agreement, PGG was to acquire selected mining assets from Katowicki Holding Węglowy S.A. under the promised agreement which was entered into on 1 April 2017. The Investment Agreement governs the procedure for conducting the investments and for the Company's joining PGG, the rules for operation of PGG and its bodies as well as the rules for the parties' exit from investments in PGG.

As part of recapitalisation of PGG, ENEA S.A. undertook to take up new shares of PGG of the total nominal value of PLN 300 million, for a cash contribution amounting to PLN 300 million, in three stages:

- a) as part of the first stage, the Company took up new shares of PGG of the nominal value of PLN 150 million in exchange for a cash contribution of PLN 150 million. After taking up these shares, the Company held a 4.39% share in the share capital of PGG. The first recapitalisation took place in April 2017;
- b) as part of the second stage, the Company took up new shares of PGG of the nominal value of PLN 60 million in exchange for a cash contribution of PLN 60 million. After taking up these shares, the Company held a 5.81% share in the share capital of PGG. The second recapitalisation took place in April 2017;
- c) as part of the third stage, the Company took up, by way of a private subscription, B series shares of PGG of the nominal value of PLN 90 million, paid up in full with a cash contribution of PLN 90 million. The share of ENEA S.A. in the share capital increased to 7.66%. The third recapitalisation took place in January 2018.

The Agreement defines the rules for the appointment of members of the Supervisory Board, based on which each Investor and the State Treasury shall be entitled to appoint one member to the Supervisory Board consisting of not more than 8 members. The investment fits into the Development Strategy of ENEA Capital Group, since one of the elements of the Strategy is to secure resource base for conventional power operations.

### Investor Agreement

On 31 March 2017, the following investors: ENERGA Kogeneracja Sp. z o.o., PGE Górnictwo i Energetyka Konwencjonalna S.A., PGNiG TERMIKA S.A. and Fundusz Inwestycji Polskich Przedsiębiorstw Fundusz Inwestycyjny Zamknięty Aktywów Niepublicznych and ENEA S.A. entered into the Agreement regulating the manner of reaching a common position of the Parties in decisions relating to the Company, and the common control of the company. The Agreement for ENEA S.A. was executed on the condition of obtaining the consent of the President of the Office of Competition and Consumer Protection (UOKiK) for the acquisition of joint control of the company. The UOKiK's consent referred to in the preceding sentence was granted on 22 December 2017. At the same time, on 31 March 2017, the Letter of Intent signed on 16 October 2016 by ENEA S.A., Węglokoks S.A. and Towarzystwo Finansowe Silesia Sp. z o.o., relating to the considered equity investment in Katowicki Holding Węglowy S.A. was terminated.

## 2.3. Areas of activities

### MINING

- Bituminous coal production
- Bituminous coal sale
- Securing of raw material base for the Group



### DISTRIBUTION

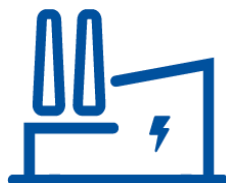
- Supply of electricity
- Planning and ensuring of distribution network development
- Operation, maintenance and repairs of the distribution network
- Measurement data management



## BUSINESS AREAS OF ENEA GROUP

### GENERATION

- Electricity generation based on bituminous coal, biomass, gas, wind, water and biogas
- Heat generation
- Heat supply and distribution
- Electricity trading



### TRADING

#### Retail trading:

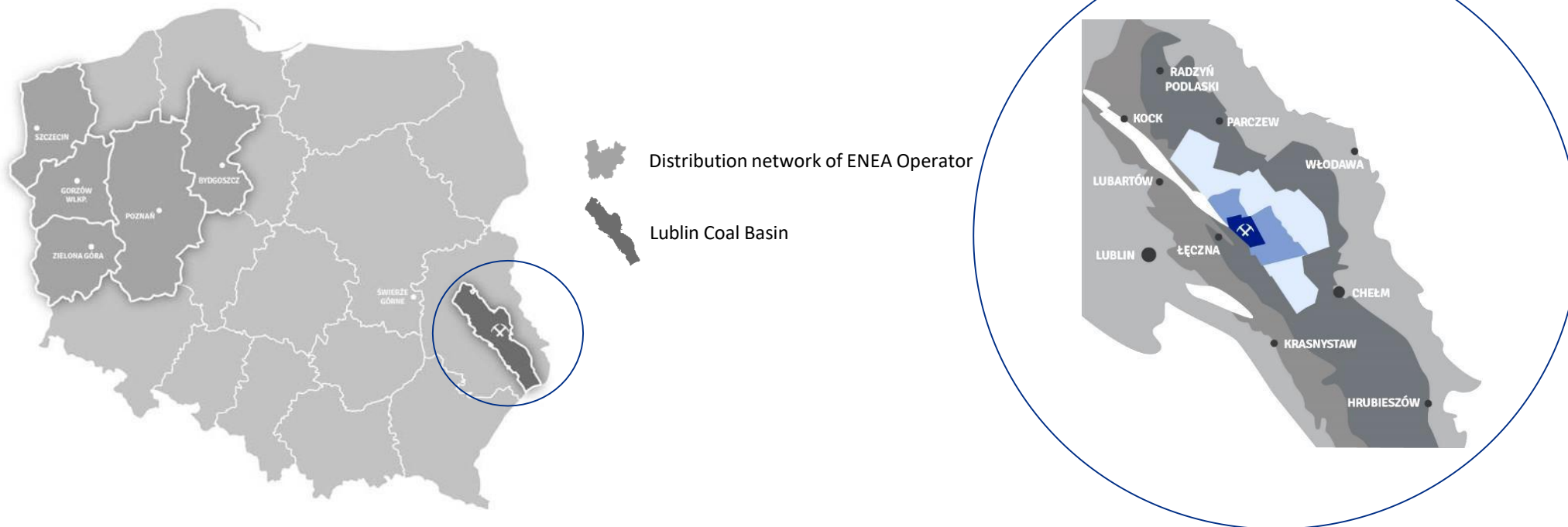
- Trading in electricity and fuel gas on the retail market
- Product and service offer adjusted to Customers' needs
- Comprehensive Customer Service

#### Wholesale trading:

- Optimisation of wholesale contracts portfolio for electricity and fuel gas
- Operations on product markets
- Ensuring access to wholesale markets



# Mining



LW Bogdanka is one of the leaders on the market of producers of bituminous coal in Poland, distinguishable within the industry in terms of the generated financial results, coal extraction efficiency and investment plans providing for the access to new deposits. The bituminous coal sold by the Company is used primarily for the generation of electricity and heat and the production of cement. The Company's clients include mainly industrial companies, primarily entities operating in the power industry located in eastern and north-eastern Poland.

Item	H12017	H12018	Change
Net production [tonnes k]	4,558	4,519	-0.9%
Sale of coal [tonnes k]	4,662	4,341	-6.9%
Closing stock [tonnes k]	21	202	861.9%
Excavation works [km]	15.0	19.7	31.3%

## Generation



- Power Plants:  
Kozienice, Połaniec
- Białystok Heat and Power Plant,  
MEC Piła, PEC Oborniki,  
Enea Ciepło Serwis, Enea Ciepło
- Wind farms:  
Bardy, Darżyno, Baczyna
- 21 hydroelectric plants
- Biogas plants: Gorzesław, Liszkowo
- Distribution network of  
Enea Operator

### ENEA Group's generation assets

Item	Installed electrical capacity [MW <sub>e</sub> ]	Attainable electrical capacity [MW <sub>e</sub> ]	Installed heating capacity [MW <sub>t</sub> ]
Kozienice Power Plant	4,071.8	4,016.0	125.4
Połaniec Power Plant	1,837.0	1,882.0	130.0
Białystok Heat and Power Plant	203.5	156.6	383.7
Bardy, Darżyno and Baczyna wind farms	70.1	70.1	0.0
Liszkowo and Gorzesław biogas plants	3.8	3.8	3.1
Hydroelectric plants	60.4	57.6	0.0
MEC Piła	10.0	10.0	150.4
PEC Oborniki	0.0	0.0	30.4
Enea Ciepło	0.0	0.0	185.0
<b>Total</b>	<b>6,256.6</b>	<b>6,196.1</b>	<b>1,008.0</b>

### Data of ENEA Wytwarzanie in Kozienice Power Plant

Item	H1 2017	H1 2018	Change	Q2 2017	Q2 2018	Change
<b>Total generation of heat (net) [GWh], including:</b>	<b>6,645</b>	<b>8,001</b>	<b>20.4%</b>	<b>3,183</b>	<b>3,870</b>	<b>21.6%</b>
<b>Net production from conventional sources [GWh], including:</b>	<b>6,434</b>	<b>7,786</b>	<b>21.0%</b>	<b>3,092</b>	<b>3,779</b>	<b>22.2%</b>
Enea Wytwarzanie (excluding biomass co-combustion)	6,214	7,624	22.7%	3,015	3,746	24.2%
Enea Wytwarzanie – Heat Segment (Białystok Heat and Power Plant – excluding biomass combustion)	185	127	-31.4%	61	17	-72.1%
MEC Piła	35	35	0.0%	16	16	0.0%
<b>Net production from renewable energy sources [GWh], including:</b>	<b>211</b>	<b>215</b>	<b>1.9%</b>	<b>91</b>	<b>91</b>	<b>0.0%</b>
Combustion of biomass	40	67	67.5%	9	29	222.2%
Enea Wytwarzanie – RES Segment (hydroelectric plants)	76	97	27.6%	35	40	14.3%
Enea Wytwarzanie – RES Segment (wind farms)	90	48	-46.7%	44	21	-52.3%
Enea Wytwarzanie – RES Segment OZE (biogas plants)	5	3	-40.0%	3	1	-66.7%
<b>Gross generation of heat [TJ]</b>	<b>3,022</b>	<b>2,983</b>	<b>-1.3%</b>	<b>847</b>	<b>621</b>	<b>-26.7%</b>

### Generation of electricity and heat – ENEA Elektrownia Połaniec

Item	H1 2017	including ENEA Group*	H1 2018	Q2 2017	Q2 2018
<b>Total generation of electricity (net) [GWh], including:</b>	<b>4,447</b>	<b>2,692</b>	<b>4,792</b>	<b>2,398</b>	<b>2,587</b>
Enea Elektrownia Połaniec – net production from conventional sources	3,368	2,050	4,105	1,844	2,149
Enea Elektrownia Połaniec – production from renewable energy sources (combustion of biomass – green unit)	733	486	593	419	383
Enea Elektrownia Połaniec – production from renewable energy sources (co-combustion of biomass)	346	156	94	135	55
<b>Gross generation of heat [TJ]</b>	<b>1,247</b>	<b>702</b>	<b>1,228</b>	<b>594</b>	<b>570</b>

\*4 March – 31 March 2017 in ENEA Group

## Free emission allowances for CO<sub>2</sub>



### Kozienice

Free emission allowances for CO <sub>2</sub> /electricity/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Kozienice Power Plant - in acc. with CM Reg. of 8 Apr 2014	5,428,606	5,018,189	4,361,736	3,318,805	2,511,410	20,638,746
Kozienice Power Plant Unit No. 11	0	0	0	411,338	1,245,072	1,656,410
Kozienice Power Plant - allowance received*	5,428,606	4,719,575	2,843,957	3,008,656	2,321,834	18,322,628

Free emission allowances for CO <sub>2</sub> /heat/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Kozienice Power Plant - in acc. with CM Reg. of 31 Mar 2014	26,297	23,434	20,673	18,035	15,546	103,985
Kozienice Power Plant - allowance received	26,297	23,434	20,673	18,035	15,546	103,985

\* The allocation of free CO<sub>2</sub> allowances received with a one-year shift.



### Białystok

Free emission allowances for CO <sub>2</sub> /electricity/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Białystok Heat and Power Plant - in acc. with CM Reg. of 8 Apr 2014	260,483	240,789	209,291	159,247	120,506	990,316
Białystok Heat and Power Plant - allowance received *	260,483	240,789	161,766	127,514	74,054	864,606

Free emission allowances for CO <sub>2</sub> /heat/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Białystok Heat and Power Plant - in acc. with CM Reg. of 31 Mar 2014	253,400	212,489	175,707	142,958	123,118	907,672
Białystok Heat and Power Plant - allowance received	253,400	212,489	175,719	142,941	123,074	907,623

\* The allocation of free CO<sub>2</sub> allowances received with a one-year shift.



### Połaniec

Free emission allowances for CO <sub>2</sub> /electricity/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Połaniec Power Plant - in acc. with CM Reg. of 8 Apr 2014	2,696,073	2,492,243	2,166,221	1,648,258	1,247,271	10,250,066
Połaniec Power Plant - allowance received *	2,696,073	2,492,243	2,166,221	204,565	0	7,559,102

Free emission allowances for CO <sub>2</sub> /heat/	Y 2013	Y 2014	Y 2015	Y 2016	Y 2017	Total
Połaniec Power Plant - in acc. with CM Reg. of 31 Mar 2014	147,268	143,262	139,398	135,852	132,571	698,351
Połaniec Power Plant - allowance received	147,268	143,262	139,398	135,852	132,571	698,351

\* The allocation of free CO<sub>2</sub> allowances received with a one-year shift.

## Generation

### Sales of electricity

#### ENE A Wytwarzanie

The electricity sales volume in ENE A Wytwarzanie in H1 2018 amounted to 11,236 GWh, of which 215 GWh was energy from renewable sources. Sales were carried out by individual segments depending on the statutory obligations and the agreements concluded.

#### ENE A Elektrownia Połaniec

In H1 2018, the volume of electricity sold in ENE A Elektrownia Połaniec totalled to 6,206 GWh, of which 593 GWh were generated from RES.

### Purchase of electricity on the wholesale market

#### ENE A Wytwarzanie

In H1 2018, the volume of electricity purchased in Koźienice Power Plant totalled 3,235 GWh. The purchase was conducted for the needs of trading in energy (1,776 GWh). Additionally, as part of the Balancing Market operation, 1,441 GWh of energy were purchased. In the Heat Segment, the purchased volume in H1 2018 totalled 18 GWh – purchase on the Balancing Market accounted for 11 GWh, and purchase in trading – for 7 GWh. As a rule, trading in energy (sales = purchase) is carried out as part of market possibilities guaranteeing the achievement of the assumed financial result as well as to limit the consequences of failures (in the case of lack of availability of generation units). The purchase as part of trading already takes into account the increase of available power with Unit No. 11. The increase in purchase is also related to the rise in the exchange obligation to 30% (Act of December 2017), which due to the late date of the decision makes it necessary to repurchase the previously contracted energy (lack of availability to execute the full obligation). The purchase of electricity as part of trading in the period of the first half of 2018 concerned mainly Koźienice Power Plant and constituted 55% of the overall purchase of energy. The purchase of electricity as part of the Balancing Market mechanisms accounted for 45%. The purchase results from the ongoing balancing of the NPS by the Operator. Within the Heat Segment, the purchase as part of trading resulted from the implementation of the agreements made with the customers and operations limiting the costs of failure of generation units and the lack of available power against the contracts made.

#### ENE A Elektrownia Połaniec

In H1 2018, the volume of electricity purchased in ENE A Elektrownia Połaniec totalled to 1,414 GWh, which concerned the actual purchase of 1,405 GWh and the additional adjustment from the previous periods – 9 GWh.



## Fuel supply

### ENEA Wytwarzanie in Kozenice Power Plant

Fuel type	H1 2017		H1 2018		Change	
	Volume [tonnes k]	Cost <sup>1)</sup> [PLN m]	Volume [tonnes k]	Cost <sup>1)</sup> [PLN m]	Volume	Cost
Bituminous coal	3,265	672	3,311	736	1.4%	9.5%
Biomass	99	13	142	25	43.4%	92.3%
Fuel oil (heavy) <sup>2)</sup>	4	5	4	5	0.0%	0.0%
Fuel oil (light) <sup>3)</sup>	0	0	5	13	0.0%	0.0%
Gas [km <sup>3 4)</sup>	8,863	10	8,808	10	-0.6%	0.0%
<b>TOTAL</b>		<b>700</b>		<b>789</b>		

<sup>1)</sup>Including transport

<sup>2)</sup>Light-up fuel in Kozenice Power Plant

<sup>3)</sup>Light-up fuel of Unit No. 11

<sup>4)</sup>Used to produce electricity and heat in MEC Piła, and heat energy in PEC Oborniki

### ENEA Wytwarzanie – Kozenice Power Plant

The main fuel used to produce electricity is bituminous coal (mainly fuel dust and small quantities of sludge). The main supplier of coal for ENEA Wytwarzanie – Kozenice Power Plant generation source in H1 2018 was LW Bogdanka S.A. Moreover, coal was supplied by Polska Grupa Górnicza S.A., Węglokoks S.A., and Jastrzębska Spółka Węglowa S.A. In Kozenice Power Plant, no biomass was co-combusted in H1 2018.

### ENEA Wytwarzanie – Heat Segment

The basic fuels used in ENEA Wytwarzanie in the Heat Segment (Białystok Heat and Power Plant) are coal and biomass – mainly as wood chips, energetic willow chips and agricultural production left-overs and sunflower husk pellet. In the period of January – June 2018, the volume of supplied biomass was approx. 142.4 thousand tonnes, and the supplies were performed by 13 entities. They were slightly smaller than in the same periods of previous years, due to, inter alia, a prolonged failure of the equipment of one of the biomass units. More than 42 thousand tonnes of biomass were supplies to the premises of ENEA Wytwarzanie – Heat Segment by rail transport. In H1 2018, coal supplies to ENEA Wytwarzanie – Heat Segment were ensured mainly by LW Bogdanka (more than 96% of total supplies) and Polska Grupa Górnicza S.A.

## Fuel supplies

### ENEA Elektrownia Połaniec

Fuel type	H1 2017		H1 2018	
	Volume [tonnes k]	Cost <sup>1)</sup> [PLN m]	Volume [tonnes k]	Cost <sup>1)</sup> [PLN m]
Bituminous coal	1,589.2	307.7	1,999.9	450.9
Biomass	819.8	138.3	589.8	121.3
Fuel oil	3.3	5.8	4.2	7.3
<b>TOTAL</b>	<b>2,412.3</b>	<b>451.8</b>	<b>2,593.9</b>	<b>579.5</b>

1) Including transport

The main coal supplier for Połaniec Power Plant in the period from January to June 2018 was LW Bogdanka S.A

## Coal transport

### ENEA Wytwarzanie

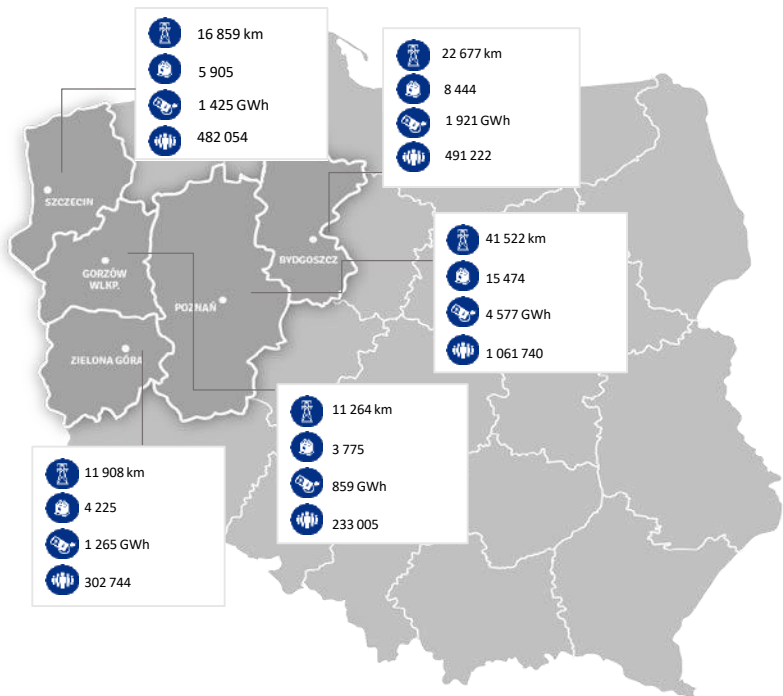
#### Kozienice Power Plant

The only means of transport used to deliver bituminous coal to Kozienice Power Plant in the period from January to June 2018 was rail transport ensured mainly by the carrier PKP Cargo S.A.

### ENEA Elektrownia Połaniec

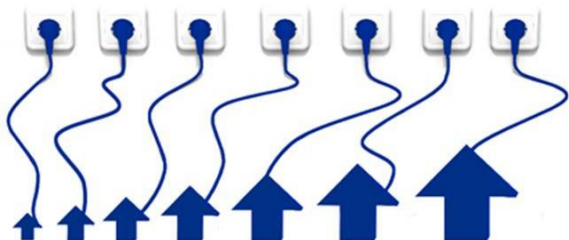
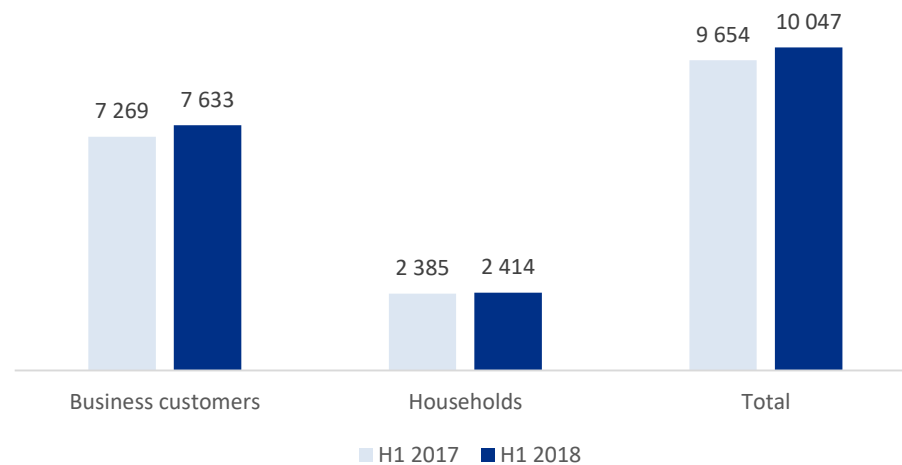
During the first six months of 2018, coal transport in ENEA Elektrownia Połaniec was carried out by PKP Cargo S.A.

# Distribution



- Length of power lines
- Transformer stations
- Volume of energy supplied in H1 2018.
- Number of Customers in H1 2018
- Distribution network of ENEA Operator

Sale of distribution services [GWh]



- **104,230** – Length of power lines [km]
- **37,820** – Number of transformer stations
- **840,050** – Number of connections
- **18,140** – Length of power lines [km]

## Technical indicators

Item	H1 2017	H1 2018	Change
SAIDI planned interruptions and unplanned interruptions, including catastrophic ones (HV, MV) [min]	76.62	81.82	6.79%
SAIFI planned interruptions and unplanned interruptions, including catastrophic ones (HV, MV)	1.44	1.60	11.11%

The values of reliability indices are determined in accordance with qualitative regulation – they include planned and unplanned interruptions, including catastrophic interruptions on high and medium voltage. In analysis of the next years, we observe a gradual decrease in reliability indices, which results from the improving technical condition of the power grid. However, catastrophic weather conditions, as those occurring in 2017, result in the rapid increase of the indices.

After the 2nd quarter of 2018, the indices reached a higher level in relation to the analogical period of the preceding year, but they reflect critical weather conditions which took place in January (18-19 January 2018) and in June (21 June 2018) this year.

Item	H1 2017	H1 2018	Change
Contracts performed in the reference term of 18 months - group IV [%]	97.37	99.54	2.23%
Contracts performed in the reference term of 18 months - group V [%]	97.71	99.10	1.43%

## Other technical indicators

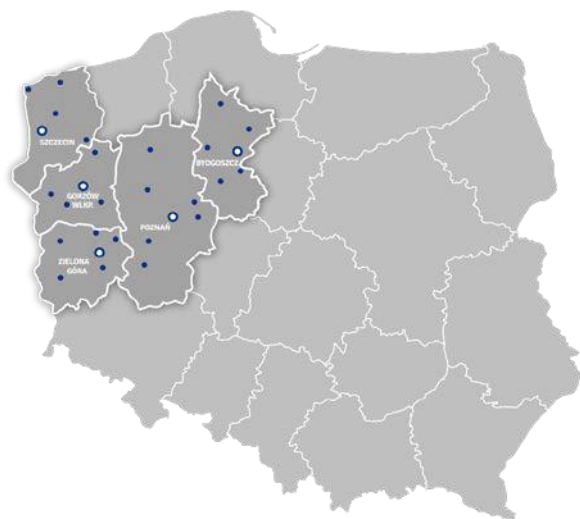
Item	H1 2017	H1 2018	Change
Grid distribution losses ratio [%]	5.86	5.75	-0.11 pp

The grid distribution losses ratio depends on seasonal fluctuations occurring during the year. For this reason, it is presented in a moving perspective - in the last 12 months.

## Sales of distribution services

Item	H1 2017	H1 2018	Change
Sales of distribution services [GWh]	9,654	10,047	4.07%
Number of recipients at the end of the period	2,535,437	2,570,765	1.39%

# Trading



**32** Modern Customer Service Centres

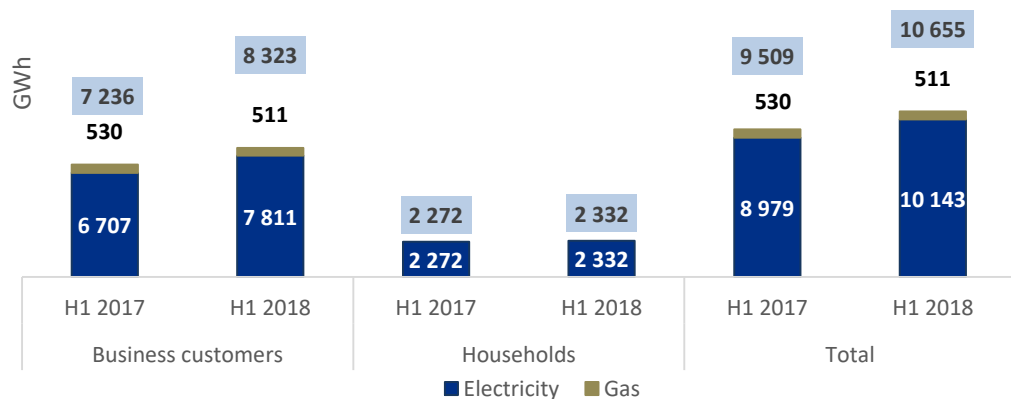
● Customer Service Centre (CSC)

Distribution network of ENEA Operator

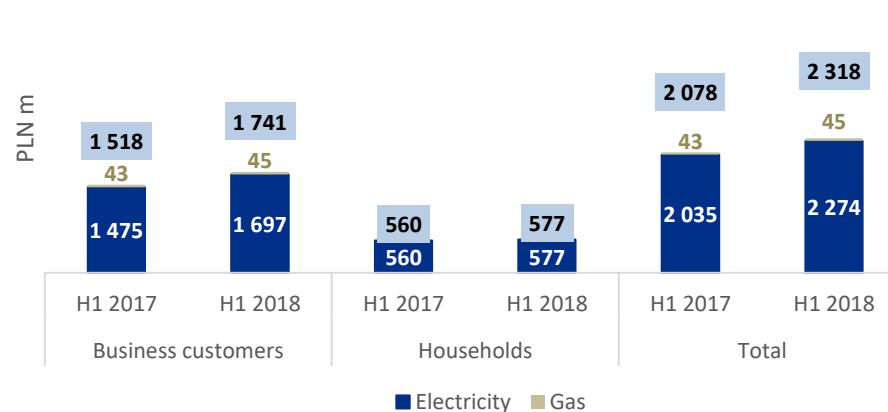
### Sales of electricity and gas fuel to retail customers carried out by ENEA SA

In H1 2018, in comparison to the corresponding period of 2017, there was a significant growth in the total sales volume, by 1,146 GWh, i.e. by more than 12%. The sales volume growth was associated with sales of electricity (an increase of 1,164 GWh, i.e. by almost 13%). The total growth in sales volumes translated into higher total sales revenues by PLN 241 million, i.e. by almost 12% when compared to the analogical period of 2017

Sales of electricity and gas fuel to retail customers of ENEA SA



Revenue from sales of electricity and gas fuel to retail customers of ENEA SA



## 2.4. Development strategy

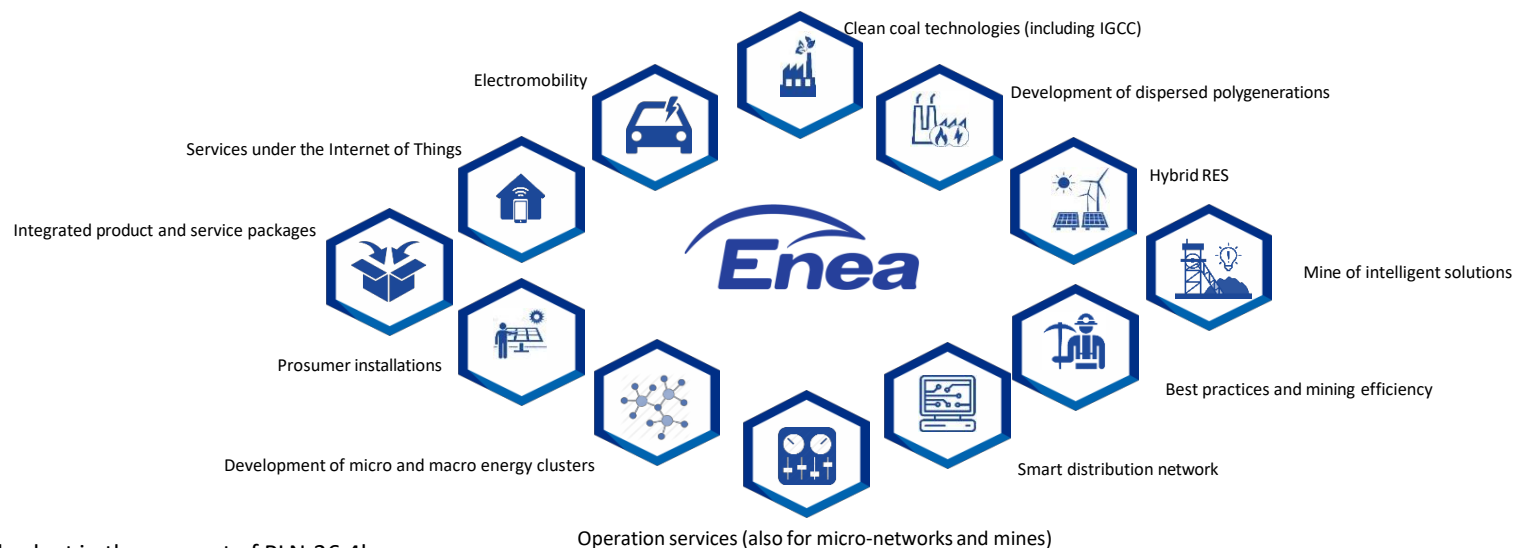
ENEA Group's Development Strategy until 2030 – baselines

**MISSION:** ENEA delivers constantly improved products and services, exceeding Customers' expectations due to motivated teams working in a friendly, safe and innovative organisation.

**VISION:** ENEA is a leading supplier of integrated raw materials and energy related products and services and other innovative services for the wide range of Customers, recognised for the quality, comprehensiveness and reliability.

ENEA has defined 60 strategic initiatives, of which over 50% are of innovative nature.

The implementation of potential-enhancing initiatives will support, i.a., the development of innovative products, services and business lines of ENEA Group.



Basic investment budget in the amount of PLN 26.4bn

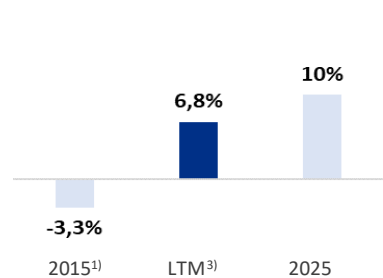
### Estimated capital expenditures of ENEA Group in the years 2016-2030 [PLN m, current prices]

Area	2016-2025	2026-2030
Mining	3,712	2,080
Distribution	9,501	5,193
Generation	4,808	504
Other	403	153
Total basic investment budget of ENEA Group	18,424	7,930
CAPEX potential <sup>1)</sup>	6,176	5,320
Increasing the investment potential <sup>2)</sup>	3,200	2,500
ENEA Group Total	27,800	15,750

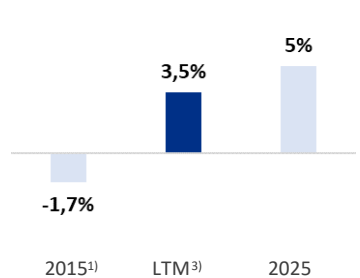
<sup>1)</sup> CAPEX potential maintaining the net debt / EBITDA ratio on a safe level

<sup>2)</sup> Increasing the investment potential by PLN 5.7bn as a result of the implementation of innovative strategic initiatives (growth in EBITDA)

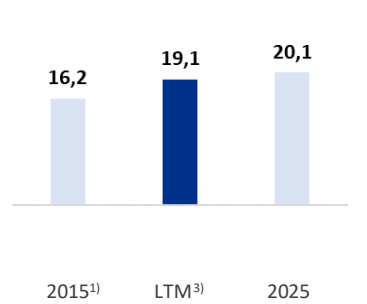
**Return on equity (ROE)**



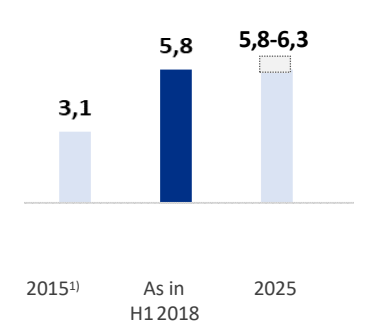
**Return on assets (ROA)**



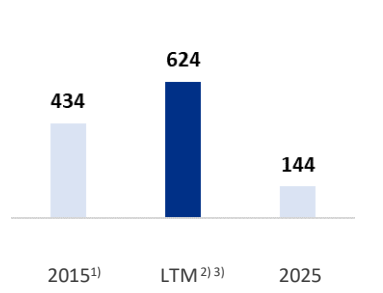
**Sales of electricity to end users [TWh]**



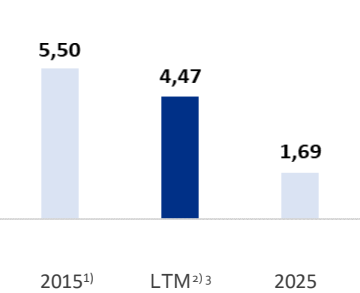
**Installed conventional generation capacities [GW]**



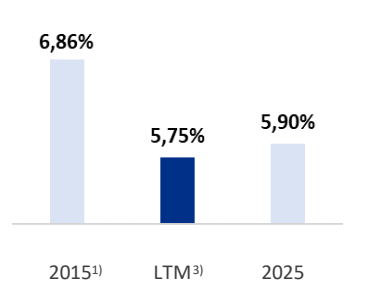
**SAIDI [minutes]**



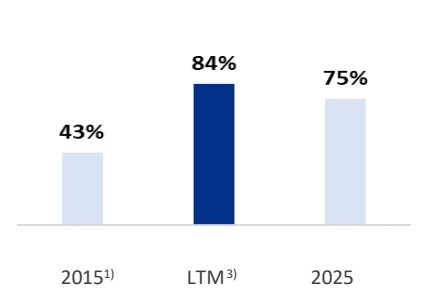
**SAIFI**



**Grid distribution loss index**



**Own annual consumption of bituminous coal**



<sup>1)</sup> Reference year

<sup>2)</sup> Higher ratios as a result of weather phenomena of an unprecedented strength

<sup>3)</sup> LTM (Last Twelve Months) covering the period H2 2017 – H1 2018

## 2.5. 2018 vs. 2017 trends

Area	2018 trends	Key drivers
Mining	Under pressure	<ul style="list-style-type: none"> <li>(+) Coal price stabilisation</li> <li>(+) Construction of new heading excavations</li> <li>(-) Higher fixed costs (wages and raw materials)</li> <li>(-) Renovation of railway routes</li> <li>(-) Geological difficulties in Q1 2018</li> </ul>
Generation	Under pressure	<ul style="list-style-type: none"> <li>(+) Higher volume of electricity generation</li> <li>(-) Modernisation shutdowns of Units Nos. 9 and 10 at Koziencice Power Plant</li> <li>(-) Lower volume of free CO<sub>2</sub> emission allowances</li> <li>(-) Higher coal price and higher transportation costs</li> <li>(-) Increase in CO<sub>2</sub> prices to historically high levels</li> <li>(-) Higher fixed costs</li> </ul>
Distribution	Stable	<ul style="list-style-type: none"> <li>(+) Increased sales volumes of distribution services</li> <li>(+) Asset management optimisation</li> <li>(+) Works on the improvement of service quality (reduction in SAIDI and SAIFI)</li> <li>(-) Possible postponement of the implementation of investment tasks settled under the National Investment Plan</li> </ul>
Trading	Under pressure	<ul style="list-style-type: none"> <li>(+) Development of sale channels and product range</li> <li>(+) Greater sales volumes of electricity and gaseous fuel to retail users</li> <li>(-) Growing erosion of 1st contribution margin in the Trading Area</li> <li>(-) Increase in the costs of environmental obligations</li> <li>(-) Valuation of CO<sub>2</sub> contracts to market price levels at historically high prices</li> </ul>



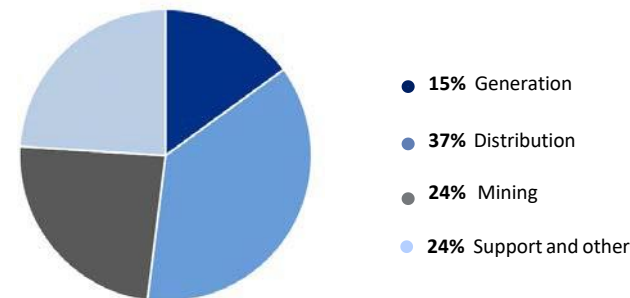
## 2.6. Implemented measures and investments

### Capital expenditure in H1 2018

Capital expenditure [PLN m]	H1 2017	H1 2018	Status of plan implementation	2018 plan
Generation	329.0	125.8	21.1%	596.0
Distribution	343.6	300.9	31.1%	966.6
Mining	139.6	199.5	40.2%	496.0
Support and other	25.2	27.2	17.5%	155.5
Equity investments	51.7	171.1	83.3%	205.3
<b>TOTAL Plan implementation</b>	<b>888.5</b>	<b>824.4</b>	<b>34.1%</b>	<b>2,419.4</b>
Equity investments <sup>1)</sup>	1,556.6	0	-	-
<b>TOTAL ENEA Group's expenditures</b>	<b>2,445.1</b>	<b>824.4</b>	-	-

1) Not included in ENEA Group's Material and Financial Plan

### CAPEX



### Investments implemented in H1 2018

#### Mining

- Obtaining new licences:
  - Application for new mining licences in K-6 and K-7 areas
- Maintenance of the machinery stock - purchase and assembly of machines and equipment
- Operating investments - execution of 19.7 km of new excavations
- Other development and replacement investments:
  - replacement investments in Zakład Przeróbki Mechanicznej Węgla, i.a. upgrades of steel structures and an electromagnetic separator development project
  - power, telecommunication, and mechanical installations

#### Generation

##### ENEA Wytwarzanie

- On 30 March 2018, modernisation work within the project – Modernisation of the stator from unit. no 8 for reserve – was completed. The Institute of Power Engineering has drawn up an oversight report; the report has been received. The project has been completed successfully and timely.
- The work on project - Upgrade of unit no. 10 as part of the 2 x 500 MW units upgrade programme was finished, the Final Acceptance report for the construction work was signed on 22 May 2018 and the investment was transferred to Company's assets.
- Continued development of the SCR installation along with modernization of electrostatic dust precipitators for units No. 9 and 10 as part of the programme involving the modernization of 2 x 500 MW units

##### ENEA Elektrownia Połaniec

- Launch of the SCR installation on unit No. 4

#### Distribution

- Completion of a series of investments related to the expansion, automation and modernization of stations and power grids, including those related to the connection to the grid, as well as to the modernisation of stations, including the redesigning of the Main Transformer Station Zdroje
- Continuation of ongoing investments and launching new investments to be implemented in 2018 and in the following years
- Continuation of the improvement of processes for connecting Customers to the power grid
- Continuation of development of IT tools supporting network management

## Investments and other activities planned by the end of 2018 and in the following years as part of the existing assets

### Mining

Development investments	<p>Obtaining new licences:</p> <ul style="list-style-type: none"> <li>continuation of the application process related to mining licences in area K- 6, K-7</li> </ul> <p>Maintenance of the machinery stock:</p> <ul style="list-style-type: none"> <li>purchase and assembly of new machinery and equipment</li> <li>upgrade of machinery and equipment</li> <li>programme and spatial concept OG Ludwin;</li> <li>obtaining of a property in connection with the development plans for the mine;</li> </ul>
	<p>New excavations and upgrade of existing ones:</p> <ul style="list-style-type: none"> <li>development of excavations, mainly longwall galleries, longwall cross-cuts and technological cross-cuts, and other technological and access excavations, enabling wall mining</li> <li>upgrades of mine excavations</li> </ul>
	<p>Other development and replacement investments:</p> <ul style="list-style-type: none"> <li>extension of the extractive waste disposal facility in Bogdanka</li> <li>continuation of work connected with "Integrated Production Management System" and "Smart Solutions Mine" project</li> <li>upgrade of main ventilators in shaft 1.4</li> <li>upgrade of drive system and shaft signalling system</li> <li>installation of a tower crane</li> <li>environment protection – water drainage – surrounding drainage trench, planned construction of a pumping station on the RE Żelazny trench along with water drainage and a pumping station on trench C in Nadrybie</li> </ul>
Operating investments	
Other investments	

### Generation

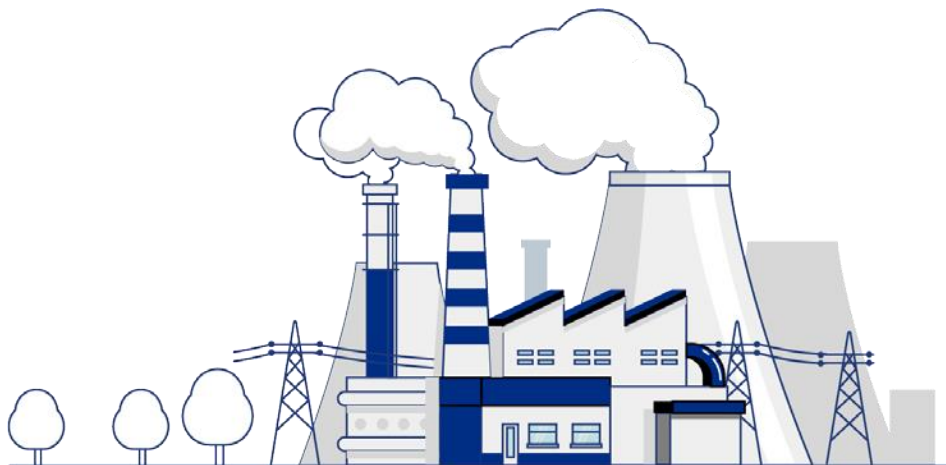
ENEA Wytwarzanie	Continued	<ul style="list-style-type: none"> <li>Adaptation of the Systemic Power Plants Segment of ENEA Wytwarzanie sp. z o.o. for BAT conclusions</li> <li>Upgrade of Unit No. 6</li> <li>Development of the SCR installation for Units No. 9 and No. 10 (completion in 2019)</li> </ul>
	Heat Segment	<ul style="list-style-type: none"> <li>Reconstruction of the TZ3 turbine set – reconstruction of generation capacity of the TZ3 turbine set, ensuring fault-free operation and maintaining correct operating parameters of the turbine set as well as of the auxiliary systems and equipment.</li> </ul>
	RES Segment	<ul style="list-style-type: none"> <li>Searching for bargain investment and acquisition projects</li> </ul>
ENEA Elektrownia Połaniec		<ul style="list-style-type: none"> <li>Prefabrication of elements of turbine no. 5 as part of the Phoenix project for Unit No. 5</li> </ul>

### Distribution

Key investments implemented	<ul style="list-style-type: none"> <li>Implementation of the smart grid development programme</li> <li>Continuation of the grid operation reliability improvement programme</li> <li>Continuation of the Grid Information System project</li> <li>Project "Innovative system services of energy storage facilities increasing the quality and efficiency of electricity usage – EnergyStore".</li> <li>Construction and upgrade of a number of grid infrastructure elements, such as HV, MV, and LV power lines and transformer stations, including i.e.: <ul style="list-style-type: none"> <li>Development of Poznań Główna Main Transformer Station</li> <li>Development of Suchy Las Main Transformer Station</li> <li>Development of Kisielin Main Transformer Station</li> <li>Development of Skwierzyna II Main Transformer Station</li> <li>Redevelopment of Fordon Main Transformer Station along with the development of a duplex power supply for the station</li> <li>Redevelopment of Chodzież Main Transformer Station</li> <li>Redevelopment of Oborniki Main Transformer Station</li> <li>Redevelopment of Dąbie Main Transformer Station</li> <li>Development of Dąbie – Zdroje 110 kV power cable line</li> <li>Development of Bydgoszcz Śródmieście – Bydgoszcz Północ 110 kV power cable line</li> <li>Redevelopment of Kościan – Śmigiel 110 kV power cable line</li> <li>Redevelopment of Morzyczyn - Drawski Młyn 110 kV power cable line</li> <li>Redevelopment of Gryfino – Żydowce 110 kV power cable line</li> <li>Development of Choszczno II Main Transformer Station and Recz Main Transformer Station</li> <li>Development of Garbary Main Transformer Station and development of Garbary-Cytadela and Garbary-EC Karolin 110 kV power cable lines</li> <li>Development of Garaszewo grid switchyard oraz development of Kromolice - Nagradowice, Kromolice – Gądkki and Kromolice – Swarzędz 11- kV power cable lines</li> <li>Development of Piła Krzewina - Miasteczko Krajeńskie 110 kV power cable line and redevelopment of Miasteczko Krajeńskie Main Transformer Station</li> <li>Redevelopment of Wronki Main Transformer Station</li> <li>Redevelopment of Piła Południe Main Transformer Station</li> <li>Redevelopment of Żary Main Transformer Station</li> </ul> </li> </ul>

## Operation of Unit No. 11 in H1 2018

In 2017, ENEA Group commissioned the most modern power unit in Poland and Europe.



### The new 1,075 MWe unit in Koźienice Power Plant

- The largest power unit fired with bituminous coal in Europe
- Entirely independent entity with its own infrastructure
- The new unit means a 1/3 increase in the capacity of Koźienice Power Plant
- Unit No. 11 will allow to eliminate energy deficits on the market
- High efficiency of energy generation
- High availability and low failure rate of the new unit
- The unit meets the requirements of environmental protection regulations

Unit No. 11	H1 2018	Q2 2018
Net electricity generation (GWh)	2,393	1,054
Net average monthly load (MW)	687	691

## Status of works on key investment projects

Investment	Project status	H1 2018 CAPEX [PLN m]	Total CAPEX [PLN m]	Work progress [%]	Planned completion date
ENEA Wytwarzanie	<p>Upgrade of Unit No. 10 as part of the 2 x 500 MW units upgrade programme</p> <p>In H1 2018, the following works were completed:</p> <ul style="list-style-type: none"> <li>• Work on auxiliary installations of the turbine set, ended on 9 February 2018</li> <li>• Assembly of elements of the Automatic Test and Measurement Equipment, ended 31 January 2018</li> <li>• Work on the boiler pressure system, ended 19 February 2018</li> <li>• A 72-hour test run of the unit, ended 5 May 2018</li> <li>• The final acceptance protocol for the construction works was signed on 22 May</li> <li>• The investment was transferred to Company's assets on 22 May 2018</li> <li>• Heat tests in unit were carried out to check if the predicted effect of the upgrade conducted from 13 to 17 June 2018 has been achieved</li> </ul>	7.136	92.723	99%	2018
	<p>Upgrade of Unit No. 9 as part of the 2 x 500 MW units upgrade programme</p> <p>In the first half of 2018, the following work was completed:</p> <ul style="list-style-type: none"> <li>• on 1 May 2018, the upgrades in the unit started</li> <li>• the work on the upgrade of the equipment in the facility is in progress - boiler house and engine house</li> <li>• the update of the Schedule of unit no. 9 upgrade - anticipated completion date of the unit's upgrade is on 19 January 2019</li> <li>• work connected with the upgrade of the boiler house and engine house are planned by the end of 2018</li> </ul>	29.138	31.651	27%	2019
	<p>Upgrade of Unit No. 6</p> <p>In the first half of 2018, the following activities were carried out:</p> <ul style="list-style-type: none"> <li>• On 1 June 2018, an agreement was executed with Polimex Energetyka sp. z o.o. for "Boiler upgrade, unit no. 6" of the net value of PLN 7,916,608.94.</li> <li>• On 9 May 2018, an agreement was executed with Rafako Engineering sp. z o.o. for "Preparing an expert analysis of the wear and tear of pressure components of boiler OP-650 no. 6" of the net value of PLN 417,000.00.</li> <li>• Commencement of work as part of "Boiler upgrade, unit no. 6" is planned for 2 July 2018.</li> <li>• The agreement related to the task "Turbine set upgrade, unit no. 6" was executed.</li> <li>• On 30 July 2018, the upgrades in the unit no. 6 started.</li> </ul>	2.261	2.261	20%	2018
	<p>Adaptation of ENEA Innowacje sp. z o.o. The Systemic Power Plants Segment for BAT conclusions – Upgrade of the electrostatic dust precipitator, Unit No. 6</p> <p>The agreement signed on 25 October 2017 with Balcke -Durr Polska Sp. z o.o. The Contractor provided implementation projects in all sectors by 19 February 2018. The commencement of work on the facility is to take place by 2 July 2018. In March, elements for the upgrade of the precipitator were prefabricated. Works on the site began on 4 July 2018.</p>	0.211	0.697	15%	2018
<p>Development of the SCR installation with upgrade of electrostatic precipitators for boilers AP-1650 of Units No. 9 and No. 10 as part of the 2 x 500 MW units upgrade programme</p> <p>In the first half of 2018, the following activities were completed:</p> <p>Unit no. 10:</p> <ul style="list-style-type: none"> <li>• On 30 April 2018, unit no. 10 was started up with the SCR installation,</li> <li>• the hot start has started with the anticipated completion date by 2 July 2018.</li> </ul> <p>Unit no. 9:</p> <ul style="list-style-type: none"> <li>• On 1 May 2018, unit no. 9 was reclassified from operational standstill to renovation standstill.</li> <li>• On 11 May 2018, the report concerning handing-over of construction site no. 6, i.e. the area of Fume Extraction Fans and Electrostatic Dust Precipitator of unit no. 9. was signed.</li> </ul> <p>On 27 April 2018, the post-assembly acceptance report confirming the completion of construction and assembly work was signed.</p> <p>On 16 May 2018, partial acceptance reports for pipelines and technological installations, as well as of the technological structures, fabric and metal compensators were signed.</p>	22.829	124.398	42%	2019	

Investment	Project status	H1 2018 CAPEX [PLN m]	Total CAPEX [PLN m]	Work progress [%]	Planned completion date
<b>ENE A</b> <b>Wytwarzanie</b>	<p>An agreement was concluded with the National Environmental Fund for investment subsidy in the form of a loan. On 29 September 2017, the installation was commissioned.</p> <p>In H1 2018, works connected with the completion of the investment were continued, i.e.:</p> <ul style="list-style-type: none"> <li>Regulation and optimisation of the FGD operation by the Contractor to ensure guaranteed parameters.</li> <li>Assembly of an additional element in the reactor, aimed at changing the flow distribution in the reactor and assessment of its influence on the operation of the installation.</li> <li>Installation test on a sorbent from another suppliers.</li> <li>On 20–23 February 2018, guaranteed parameters were again measured.</li> <li>The report on these measurement states that the installation achieves all technical and environmental parameters except for process water consumption and process temperature. On 12 March 2018, the Contractor submitted the installation for final acceptance;</li> <li>An Annex to the Agreement, changing the investment completion date to 15 March 2018, was entered into with the Contractor (this action was approved by the Management Board of ENEA Wywarzanie and of ENEA Group's Investment Committee).</li> <li>The date of the final acceptance is 19 April 2018.</li> <li>On 24 April 2018, an Agreement regulating the issue of the installation defects removal was entered into with Rafako.</li> <li>Transfer to the Company's assets on 1 May 2018.</li> </ul>	6.608	85.783	97%	2018
	<p>Development of the FDG installation for boilers K7 and K8</p>				
<b>ENE A</b> <b>Elektrownia Potaniec</b>	<p>Development of the SCR installation for Unit No. 4</p>	12.53	34.4	98%	2018
	<p>Launch of the SCR installation for Unit No. 4</p>				
	<p>Phoenix project for Unit No. 5</p>	6.37	127.4	5%	2020
	<p>NTP issued for turbine modernisation and NTP for generator modernisation and delivery of a new step-up transformer.</p> <p>The tender procedure to choose the contractor of SCR installation is under way.</p>				



### Retail Trade Area

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#### Measures implemented in H1 2018

- Including the Heating package to the SMART HOME product offer
- Implementation of the base product in the ENEA ECO product line
- “Happy PLN 100 for Spring” sales promotion on the PURCHASE ZONE loyalty programme
- Launching the new formula of the ENEA+SPECIALIST product line
- Implementing new agreement templates meeting GDPR requirements



### Client Service Area

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- Launching of IVR self-services available for Customers
- Opening customised Customer Service Centres in Krośno Odrzańskie, Wolsztyn, Nakło nad Notecią, Gryfice, Świnoujście and Kościan
- Implementing a billing system for gas fuel for generation
- Conducting design works and finalisation of the preparations for the functional project for eBOK 2.0
- Introduction of automated service processes, using, among other things, robotic process automation, which will translate into the timely implementation of key indicators as part of ongoing processes
- Production launching of the CRM system in the Contact Center to facilitate everyday Customer service
- Implementation of Active Sales in Customer Service Offices is the first stage of structuring customer portfolios
- Sales Representative – launch of a pilot programme in the Bydgoszcz area of mobile sales in the Customer Service Centre structure
- Adaptation of the rules of processing, use and storage of personal data, forms and documents to the new regulations resulting from the General Data Protection Regulation (GDPR) for the efficient exercise of ENEA Customers’ rights resulting from the GDPR



### Wholesale Trade Area

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- Taking account of the increase in installed capacity in the generation potential of ENEA Wytwarzanie (Unit No. 11)
- Active participation in impact analyses of the power market implementation as part of industry consultations
- Optimisation of fuel (coal, biomass, fuel oil) deliveries using the ENEA Group’s extraction resources, taking account of geographical location in the scope of transport services
- Commencing cooperation with PGG S.A. and JSW S.A. in the area of management of sludges and flotoconcentrates – execution of agreements on sludge supplies to Kozienice and Połaniec
- Development of analytical models of long-term price paths for products listed on wholesale markets, taking account of the fundamental model for bituminous coal
- Expansion of the product range with specialised services for the RES segment for installations with installed capacities of 500kW and above after the obliged seller ceases to be obliged to purchase electricity, i.e. from 1 January 2018
- Developing regulatory support for ENEA Group companies with regard to the wholesale market

## Measures to be implemented by the end of 2018



### Retail Trade Area

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- Implementing the Dual Fuel offer for households and small businesses
- Developing the ENEA ECO product line
- Implementing the remote acquisition service and metering data management
- Customer Satisfaction Surveys in the B2C and B2B areas
- Development of the PURCHASE ZONE loyalty programme



### Client Service Area

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- Continuation of the visual upgrade project for all 32 Customer Service Centres
- By using the 2017 implementations and maximising profits in the area of customer service, the development of remote customer service channels is planned by introducing a range of facilities, such as: new contact channels, video chat and mass customer service through social media.
- Launching a new Digital Customer Service Centre and introducing changes on the service sub-pages of [www.enea.pl](http://www.enea.pl) website, to facilitate remote customer service
- Developing a concept and undertaking activities aimed at building lasting relationships with customers and adapting contact channels to the customer preferences (OmniKontakt), including Customer service in English in the Contact Centre and further expansion of the self-service offer
- Further works in the process of automation of service processes using robotic process automation
- Implementation of the Central Customer Database in order to provide comprehensive, uniform information about clients and to implement the guidelines imposed by the new General Data Protection Regulation becoming effective in May 2018
- Implementing Customer satisfaction surveys in Customer Service Centres
- Providing new points of payment for FV and top-up points for prepaid meters in cooperation with the PayTel network
- The optimization of the processes for the purpose of accelerating the activities in favour of a Customer and increasing the quality of Customer service in the Contact Centre, among other things, by a new process of initial training sessions, changes in the processes of sending claims to the second line of support, automation of debt recovery suspension and the new Standard of Customer Service



### Wholesale Trade Area

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- Changing the approach to valuing portfolio management activities on the wholesale market
- Execution of an interdisciplinary power market implementation project aimed at maximising financial revenue and optimising the cost management approach with regard to repairs and investments for generating units for the ENEA Group
- Optimisation and search for further synergies in the energy product portfolio management using the potential of the ENEA Group and wholesale markets
- Development of tools supporting distributed generation as a result of changes in the support mechanism for renewable sources effective after 1 January 2018
- Agreement on the conditions of 2019 coal supplies for the demand of ENEA Wytwarzanie and ENEA Elektrownia Połaniec provided for in forward contracts
- Optimisation of fuel logistics
- Performing analytical and conceptual work for the purpose of changing the coal purchase model in order to use low-caloric coals in the process of mixing sludges and flotoconcentrates
- Development of tools and analytical database enabling effective prop-trading activities in the area of short-term cross-border operations in order to get prepared for the Community energy market
- Continuation and completion of works connected with the project "Development of the concept and change of the model of fuel coal trading in the ENEA Group"

## 2.7. Agreements concluded

### Financing sources of the investment programme

ENE A S.A. finances the investment programme using financial surpluses from its business activities and external debt. ENE A Group implements the investment financing model, in which ENE A S.A. acquires external sources of financing and distributes them to its subsidiaries. In further activities, ENE A S.A. will focus on ensuring appropriate diversification of external sources of financing for the investments planned in the Strategy of the ENE A Group in order to optimize the amount of costs and debt repayment dates. Description of active agreements is presented below.

**Programme Agreement on the bond issue programme up to the amount of PLN 5bn** On 30 June 2014, ENE A S.A. concluded a programme agreement relating to the bond issue programme up to the amount of PLN 5bn with the following banks acting as dealers: ING Bank Śląski S.A., PKO BP S.A., Bank Pekao S.A. and mBank S.A. Under the Programme, ENE A may issue bonds with the maturity of up to 10 years, and Bank dealers have the duty of care when offering the sale of bonds to market investors. In the period of January-June 2018, ENE A S.A. did not issue bonds under that programme. As at 30 June 2018, the value of the bonds issued within the Programme totalled PLN 1,500m.

### Programme Agreements on the bond issue programme guaranteed by BGK

Under the financing guaranteed by Bank Gospodarstwa Krajowego, ENE A S.A. concluded a bond issue programme agreement (signed on 3 December 2015) with the value of PLN 700 million. The financing is not hedged on ENE A Group's assets. The funds from that programme are allocated i.a. to the implementation of the investments by ENE A S.A. and its subsidiaries. The interest rate is based on floating WIBOR rate plus margin. So far, ENE A S.A. has issued bonds under the programme agreement of the value of PLN 150 million. As at 30 June 2018, the amount of PLN 550 million was available.

30 %



Financing source utilisation rate

21 %



Financing source utilisation rate

### External financing sources utilised

Below is a summary of the loan agreements and bond issue programmes utilised, under which ENE A had liabilities as at 30 June 2018

Source	Goal	Value	Final redemption/repayment date	Amount due at the balance sheet date	Additional information
Programme Agreement on the bond issue programme	Financing of the realisation of investment projects	up to PLN 3,000m	June 2022	PLN 3,000m	-underwriters of the issue – PKO BP S.A., Bank Pekao S.A., BZ WBK S.A. and Bank Handlowy -the financing is not hedged on assets
Programme Agreement on the bond issue programme	Financing of the current activities and investment purposes	up to PLN 1,000m	December 2026	PLN 920m	- underwriter of the issue – Bank Gospodarstwa Krajowego
Investment loans granted by the European Investment Bank	Financing of the multiannual investment plan regarding the upgrade and extension of the power grids of ENE A Operator	a loan up to PLN 950m	September 2028	PLN 836m	- the financing is not hedged on assets
		a loan up to PLN 475m	June 2030	PLN 475m	
		a loan up to PLN 946m	September 2032	PLN 946m	



### Issue of ENEA S.A.'s securities in 2018

The companies of ENEA Group did not issue any securities in H1 2018. The nominal debt in respect of bonds issued by ENEA S.A. totalled PLN 5,563 million as at 30 June 2018.

### Suretyships and guarantees granted

During the first six months of 2018, the companies of the ENEA Group did not grant any new suretyships or guarantees of significant value. As at 30 June 2018, the total value of corporate suretyships and guarantees granted by ENEA S.A. for hedging the liabilities of ENEA Group companies amounted to PLN 124.1 million, whereas the total value of bank guarantees issued on request of ENEA S.A. and being the security of the liabilities of ENEA Group companies amounted to PLN 289.6 million.

### Interest rate hedging transactions

Under the implementation of the Interest Rate Risk Management Policy, in the first six months of 2018 ENEA S.A. did not conclude any transactions hedging the interest rate risk (Interest Rate Swap).

### Agreements of significance to ENEA Group's operations

On 3 January 2018, an agreement was concluded for the purchase of coal from Polska Grupa Górnicza Sp. z o.o. in the period of 2018 - 2021 for the needs of ENEA Elektrownia Połaniec S.A.'s units. The total net value of the agreement amounts to PLN 1.49 billion. Notwithstanding the aforementioned agreement, during the first three months of 2018, and until the publication date of this report, the companies of ENEA Group did not conclude any agreements of significance to the Group's operations.

### Related-party transactions

In the period of January-June 2018, ENEA and its subsidiaries did not conclude any related-party transactions on non-market conditions. Information on related-party transactions concluded by ENEA or its subsidiary is included in Note 25 to the condensed interim financial statements of ENEA Group for the period from 1 January to 30 June 2018.

### Other agreements

In the previous years, ENEA SA also concluded inter-group bond issue programme agreements with its subsidiaries, which are intended to finance investments in the RES and Heat segments. The programmes are fully utilised and redeemed in instalments. The value of the bonds to be redeemed under these programmes totalled as at 30 June 2018 PLN 63.6m.

### Distribution of cash – bond issue programmes of subsidiaries

#### PLN 3 bn – Bond Issue Programme of 8 September 2012 (ENEA Wytwarzanie)

The Programme was fully utilised by ENEA Wytwarzanie. Under the Programme, ENEA Wytwarzanie has issued bonds to the total value of PLN 2,650 m. Bonds are to be redeemed in 2020, 2021 and 2022.

#### PLN 1,425 m – Bonds (ENEA Operator)

The Programme was fully utilised by ENEA Operator. The bonds, depending on the series, bear fixed or floating interest rate. The bonds are being redeemed in instalments from June 2017 and the final redemption date is June 2030.

#### PLN 1 bn – Programme Agreement of 17 February 2015 (ENEA Wytwarzanie)

On 17 February 2015, ENEA Wytwarzanie, ENEA and PKO Banki Polski concluded a Bond Issue Programme for the amount of PLN 760m. On 3 June 2015, an annex to the Agreement was concluded, under which the parties increased the amount of the Programme to PLN 1bn. The programme has been fully utilised.

#### PLN 946m – Bond Issue Programme Agreement of 7 July 2015 (ENEA Operator)

The programme has been fully utilised by ENEA Operator. The bonds bear floating interest rate. The bonds are redeemed in instalments from December 2018, the final redemption date is in September 2032.

#### PLN 740m - Bond Issue Programme Agreement of 17 November 2014 (ENEA Wytwarzanie)

Under the Programme, ENEA Wytwarzanie issued bonds of the value of PLN 350m. The possibility of issuing bonds ended on 30 June 2016. The bonds will be redeemed on one date in March 2020.

#### PLN 260m – Programme Agreement of 12 August 2014 (ENEA Wytwarzanie)

The Programme is fully utilised by ENEA Wytwarzanie. The bonds bear fixed interest rate. The redemption of the bonds started in instalments in September 2017. The final redemption date is in December 2026.

#### PLN 350m – Bond Issue Programme Agreement of 20 September 2017 (ENEA Operator)

The Executive Bond Issue Programme Agreement for the amount of PLN 350m was concluded between ENEA as guarantor, ENEA Operator as issuer and PKO Bank Polski as agent. Within the agreement, on 28 September ENEA Operator issued bonds of the value of PLN 350m bearing floating interest rate WIBOR 3M plus margin. The bonds will be redeemed on one date and the redemption date is in December 2019.

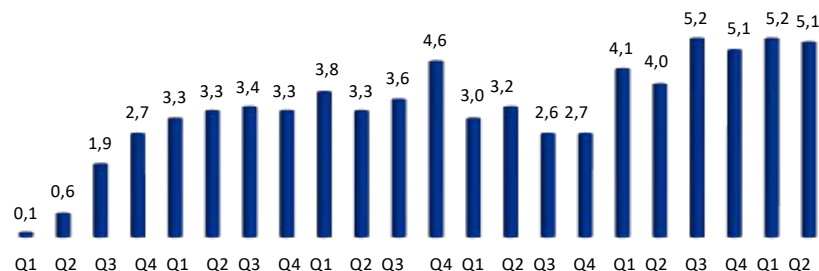
## 2.8. Market and regulatory environment

### Macroeconomic situation

ENEA Group's operations are focused on the territory of Poland. Therefore, core macroeconomic factor affecting both the results achieved and its financial situation is the development pace and the general condition of the Polish economy.

According to the preliminary estimate of the Central Statistical Office of Poland (GUS), the GDP in Q2 2018 (seasonally unadjusted) increased by 5.1% on the same quarter in 2017.

### GDP dynamics in 2013-2018 [%]



### According to GUS data, in H1 2018 growth tendencies were observed in the main areas of the economy.

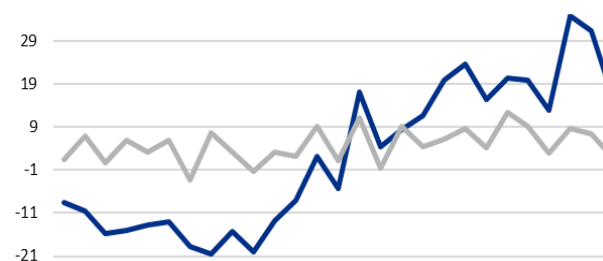
According to the estimates by GUS, in H1 2018 the industrial production sold was higher than the year before by 6.2%. In the second quarter of this year, the pace of growth accelerated.

In the first half of 2018, sales in most sections was higher than the year before, except for mining and extraction. Growth in production was observed in all main industrial groupings, with the highest one in the field of energy-related goods. In the period of January–June 2018, the domestic construction and assembly output was by approx. 23.7 % higher than in the preceding year. This output grew at a significantly higher pace than in the whole 2017. The highest growth was recorded in sales of construction works in entities specialising in the construction of civil engineering works. In the first half of 2018, the prices of consumer goods and services went up over year less than year before. The dynamics of consumer prices in the second quarter was slightly higher than in the first one. In June 2018, further strengthening of the pace of growth in consumer prices was observed, with a significant acceleration of the growth in prices of goods and services in the field of transport among the main contributors. The prices of consumer goods and services in June 2018 were by 0.7% higher than in December last year (when compared to the increase by 0.8% the year before).

Below, the basis macroeconomic data for 2015–2018 are presented.

Item	Unit	2015	2016	2017	H1 2018
GDP	%change	3.8	2.9	4.6	5.1
Industrial production sold	%change	6.0	3.6	6.6	6.2
Construction production	%change	3.7	-2.6	7.0	23.7
Inflation	%	-0.9	-0.6	2.0	0.7

### Monthly domestic production dynamics in 2016-2018 [%]



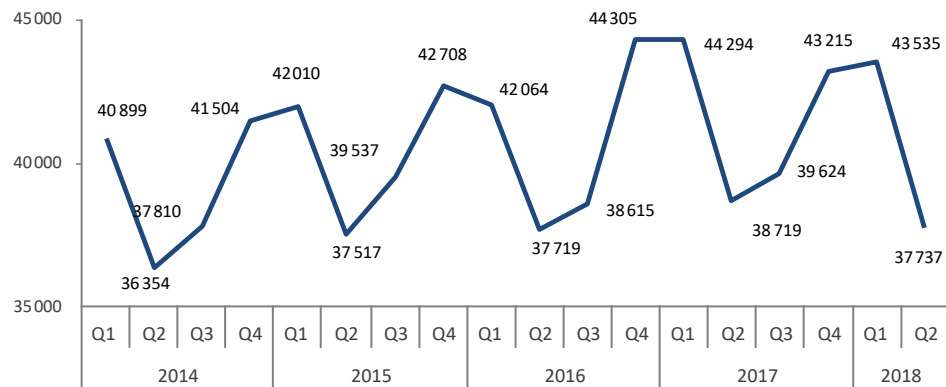
Source: <http://stat.gov.pl> and GUS studies entitled "Informacja o sytuacji społeczno-gospodarczej kraju w I półroczu 2018 roku" ("Information on the social and economic situation in the country in H1 2018") and "Szybki szacunek produktu krajowego brutto za drugi kwartał 2018 roku" ("A quick estimate of the Gross Domestic Product for Q2 2018")

## Situation on the electricity market

### Production of electricity

According to the data published by Polskie Sieci Energetyczne, the domestic production of electricity in H1 2018 was 81,272 thousand GWh.

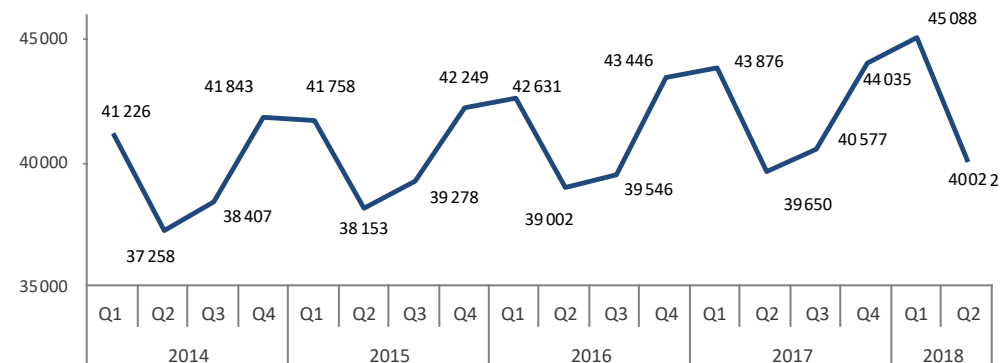
### Domestic production of electricity [GWh]



### Structure of electricity production [GWh]

Types of power plants	H1 2017	H1 2018
Commercial on bituminous coal	40,005	39,957
Commercial on lignite	26,554	24,194
Industrial	5,137	5,005
Gas	3,172	4,789
Commercial hydroelectric	1,371	1,356
Wind	6,697	5,830
Other renewable	76	141

### Domestic consumption of electricity [GWh]



### Exchange of electricity with abroad [GWh]



## Market prices of coal in H1 2018

In the first half of 2018, the international coal market experienced an upward trend. While in Q1 2018 the situation on the global coal market was diversified with a growth tendency in the area of Asia and Pacific and a downward trend in Europe, in Q2 2018 systematic growth of prices prevailed on the market with the critical barrier of USD 100 for 1 tonne of steam coal broken on the global exchanges. In summer, the level of quotations in the period of H1 2018 for price indices was unusual, similar to the picture of the coal market in winter months.

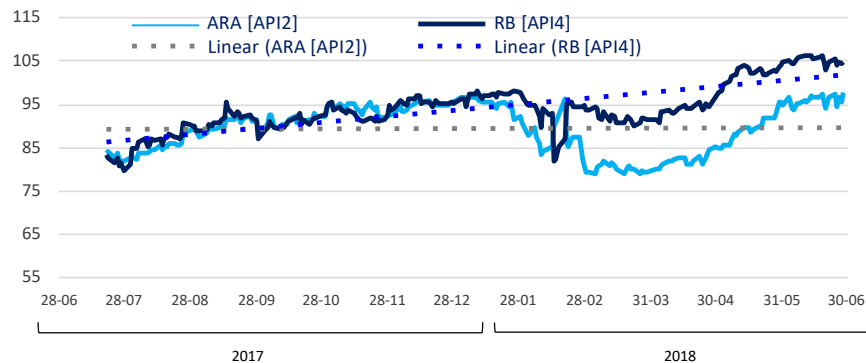
In the Asia-Pacific area, factor significantly influencing coal prices in H1 2018 included, among others, high demand in countries of Southeast Asia and India, disruptions in export of Australian coal and import restrictions imposed by China to stabilise domestic prices and supply. The lower-than-projected level of RES generation in the first half of this year, high prices of gas and oil, and relatively high temperatures already in early spring months resulted in higher energy demand, supporting thereby quotations of the resource in ARA.

The growth of prices in the Asia-Pacific area was characterised by a fairly stronger dynamics in comparison with the Atlantic area.

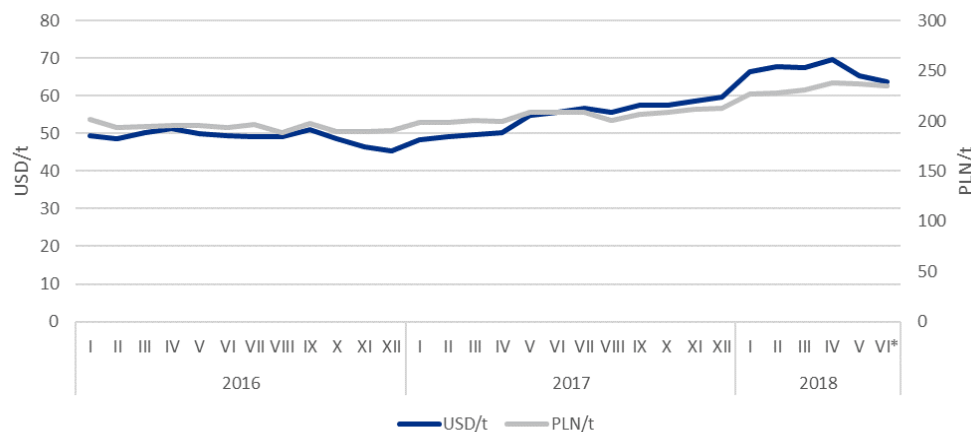
In H1 2018, the average spot price of 1 tonne of coal in ARA ports totalled USD 88.52/tonne (+13.84% YoY), and prices ranged from USD 78 to 97 per tonne. The average spot price of 1 tonne of South African coal totalled USD 98.10/tonne (+22.51% YoY), and quotations ranged from USD 81 to 106 per tonne. The dynamics of changes in coal quotations in the period under analysis remained neutral.

Also, the Polish index for steam coal, PSCMI1, was growth-supportive. In the first half of 2018, the domestic energy sector paid for 1 tonne of coal at average 17% more YoY, i.e. PLN 10.55/GJ. The high prices of coal on the domestic market result from low domestic supply, increase in import of more expensive coal from abroad and extraction difficulties in mining and logistics of the resource supplies to generation enterprises.

## Global Coal Spot Prices [USD/t]



## Polish Steam Coal Market Index – PSCMI1 [1H/18]



Source: Own study based on the National Bank of Poland and ARP data. Forecast

## Wholesale electricity prices

The average price on the SPOT market in the first half of 2018 was higher by 30.7% when compared to the same period of 2017. In all months under analysis (except for January), prices were recorded at a significantly higher level than in the same period of 2017. The prices were influenced by the following factors:

- lower level of capacity available in the PPE system,
- low generation level of wind plants,
- significant influence of weather – temperature below multi-annual averages,
- increase in demand.

### Average prices on SPOT market (PPE's Day Ahead Market)

Period	Average Price [PLN/MWh]	Change [%]
H1 2017	151.32	-
H1 2018	197.71	↑ 30.7%

Source: own study on the basis of the PPE data.

### Average electricity prices on Day Ahead Market



Source: Own study based on the PPE and TFS data.

On the forward market, growth in prices could be observed. During the reporting period, the BASE Y-19 product price went up from the level of PLN 183.25/MWh in the beginning of January to PLN 206.90/MWh in the end of June.

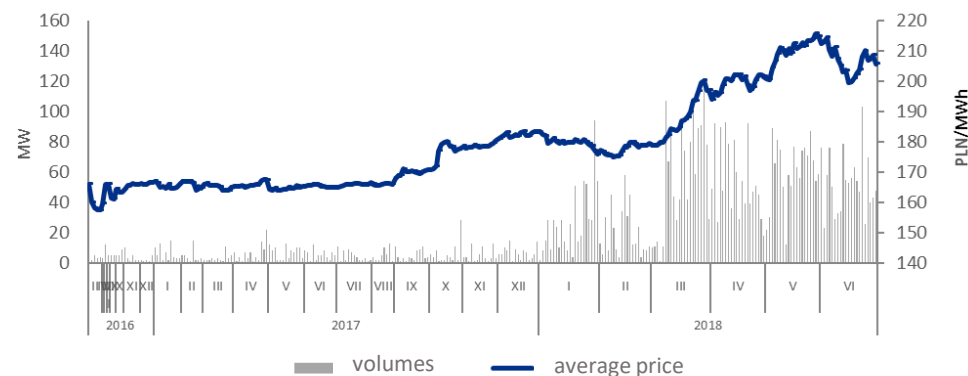
### Prices on the forward market

Product	Price at the end of quotations [PLN/MWh]	Change YoY [%]	Average price from quotations [PLN/MWh]	Change YoY [%]
BASE Y-16	167.50		166.49	
BASE Y-17	162.00	↓ -3.3%	159.31	↓ -4.3%
BASE Y-18	177.65	↑ 9.7%	167.00	↑ 4.8%
BASE Y-19 <sup>1)</sup>	206.90	↑ 16.5%	193.87	↑ 16.1%

<sup>1)</sup> as at the end of June 2018

Source: Own study based on the PPE and TFS data.

### Transaction prices and volumes – BASE Y-19

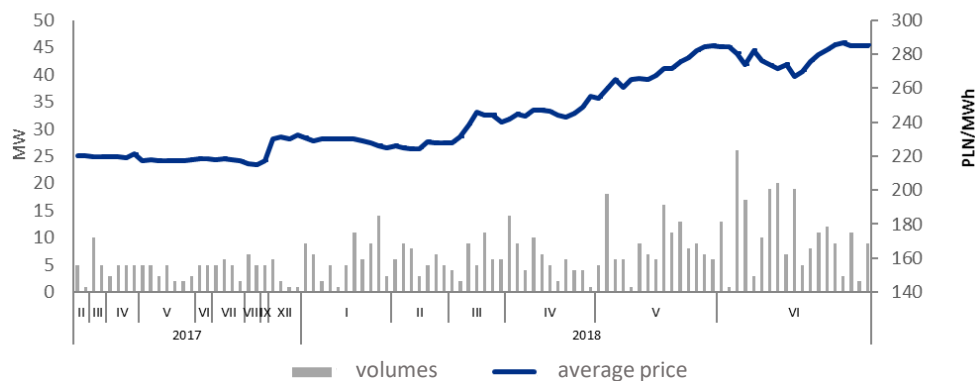


Such strong increases, never seen before on the market, coincided with strong growth in prices over shorter terms (in particular BASE Q-3-18 and BASE Q-4-18). On the PPE forward market, an increased liquidity can be observed, when we compare turnover in the first half of 2017 and 2018 between BASE Y-18 and BASE Y-19 (it amounts to approx. 140% which means that currently the volume traded on the PPE is comparable to the total yearly turnover of the product 2016 and 2017). One of the reasons for such a situation may be the introduction of the so-called 'exchange obligation' amounting to 30% and the acceleration of the contracting process postponed in the previous years to the second half of the year.

As in the case of BASE Y-19, the prices of PEAK Y-19 also changed. At the beginning of January, the market valuation of this product was PLN 230.50/MWh, and at the end of June 2018 at PLN 285.00/MWh.

The growth of prices seen in the first half of the year was associated, among other things, with a high volatility of CO<sub>2</sub> emission allowances (the difference in prices ranged to even EUR 8.65/tonne) and with a difficult situation on the hard coal market. A dynamic growth and significant volatility of the CO<sub>2</sub> emission allowance prices are connected with the implementation of the Market Stability Reserve and the increased activity of speculators.

#### Transaction prices and volumes – PEAK Y-19



In H1 2018, transactions were also concluded for BASE Y-20; however, due to the remote delivery horizon, the trading volume was much lower than in the case of BASE Y-19.

#### Transaction prices and volumes – BASE Y-20



Source: Own study based on the PPE and TFS data.

#### Obligations involved in obtaining energy certificates

Pursuant to the effective regulations, energy companies selling electricity to end users in 2018 are obliged to obtain and redeem the following types of certificates of origin:

- for energy generated in renewable sources, the so-called "green" certificates – the obligation at the level of 17.5% of sales to end users
- for energy generated from agricultural biogas – an obligation at the level of 0.50% of sales to end users
- for energy generated in methane cogeneration, the so-called "violet" certificates – an obligation at the level of 2.3% of sales to end users
- for energy generated in gas cogeneration units or with a total installed capacity of up to 1 MW, the so-called "yellow" certificates – the obligation at the level of 8.0%
- for energy generated in other cogeneration sources, the so-called "red" certificates – the obligation at the level of 23.2%
- for energy efficiency certificates, the so-called "white" certificates – the obligation at the level of 1.5%

Below, the pricing structure of contracts on the PPE session market for individual property rights in the period January – June 2018 is presented. „Green” property rights (PMOZE) were omitted in the analysis due to the lack of trading and their complete replacement by PMOZE\_A.

#### Prices on the market for certificates of origin (PPE’s session market)

	Average price H1 2018	Change in relations to H2 2017		Maximum price PLN/MWh	Minimum price PLN/MWh	
		%	PLN/MWh			
OZEX_A („green” property rights)	68.89	↑ 60.0%	↑ 25.83	82.10	45.01	
OZEX_BIO („light blue” property rights)	316.59	↑ 2.1%	↑ 6.37	322.00	301.00	
KGMX („yellow” property rights)	2017	117.51	↑ 0.8%	↑ 0.93	120.00	70.00
	2018	107.81	-	-	110.00	101.48
KECX („red” property rights)	2017	9.81	↑ 0.8%	↑ 0.08	9.90	9.50
	2018	8.67	-	-	8.80	8.52
KMETX („violet” property rights)	2017	55.38	↑ 0.8%	↑ 0.46	63.00	54.00
	2018	54.89	-	-	56.00	54.00
EFX („white” property rights) <sup>1)</sup>	706.16	↑ 33.1%	↑ 175.61	910.00	440.00	
EFFX („white” property rights) <sup>1)</sup>	1,513.06	↑ 22.1%	↑ 273.74	1,580.00	1,400.00	
EFX („white” property rights) <sup>1)</sup>	2017	616.70	↑ 10.2%	↑ 57.04	900.00	400.00
	2018	704.55	-	-	710.00	700.00

<sup>1)</sup> Values in PLN/toe

#### Limits and market prices of carbon dioxide emissions allowances

With the beginning of 2018, the package of MiFID II regulations entered into force, aimed at the strengthening of the financial instrument markets and the protection of capital market participants in Europe.

The Member States of the UE have started distribution of free allowances for 2018 (until 18 May 2018, 681.49 million EUAs of 756.58 million were issued: 90% of all EUAs). Also, according to the data published, Poland has transferred 89% of the allowances granted to it.

Information about the CO<sub>2</sub> emission allowances in trading was published, along with information about the number of allowances that will be transferred to the MSR over the first 8 months from 01.01.2019, i.e. 264.7 million allowances out of 1,654.6 million identified as a surplus.

The European Commission suggested the continuation of the obligation resulting from the greenhouse gas emissions by aviation until final decisions are made regarding the global market mechanism.

Prices of CO<sub>2</sub> emission allowances are at the highest level since 2011, and long-term price forecasts anticipate further increases. The identified cause of this situation is launching, in 2019, the MSR whose task is to limit oversupply of allowances on the market by transferring them to a reserve.

#### EUA and CER price change

Product	Price [EUR/t]			% change
	Beginning of January 2018	End of June 2018		
EUA Spot	7.78	14.95	↑	92.2%
CER Spot	0.17	0.24	↑	41.2%
EUA gru-18	7.81	14.99	↑	91.9%
CER gru-18	0.17	0.24	↑	41.2%

<sup>1)</sup> Source: Own study based on ICE data.

#### EUA and CER quotations



Source: Own study based on BlueNext and ICE data.

## 2.9. Risk management

ENEA Group is exposed to risks in each segment of its activity. The risk materialisation could have a significant adverse effect on the continuity of business of individual companies of the Group, their financial standing, and ability to achieve their strategic goals.

The awareness of these risks requires maintaining, using, and constantly improving a formalised and integrated enterprise risk management (ERM) system. Its framework is determined by the single Enterprise Risk Management Policy binding in ENEA Group. ERM system in ENEA Group is based on the comprehensive approach to the risk management issue and determination of detailed rules for risk identification and assessment. This is the basis for identification of the key corporate risks and for monitoring of exposure to these risks as well as preparing and monitoring mitigation plans. In the case of some corporate risks, such as credit, liquidity loss, FX, interest rate, and commodity risks, the formalised approach to risk management takes the form of dedicated Policies and Procedures.

The risk management rules adopted are determined on the basis of the highest management standards and compliant with relevant market practice.

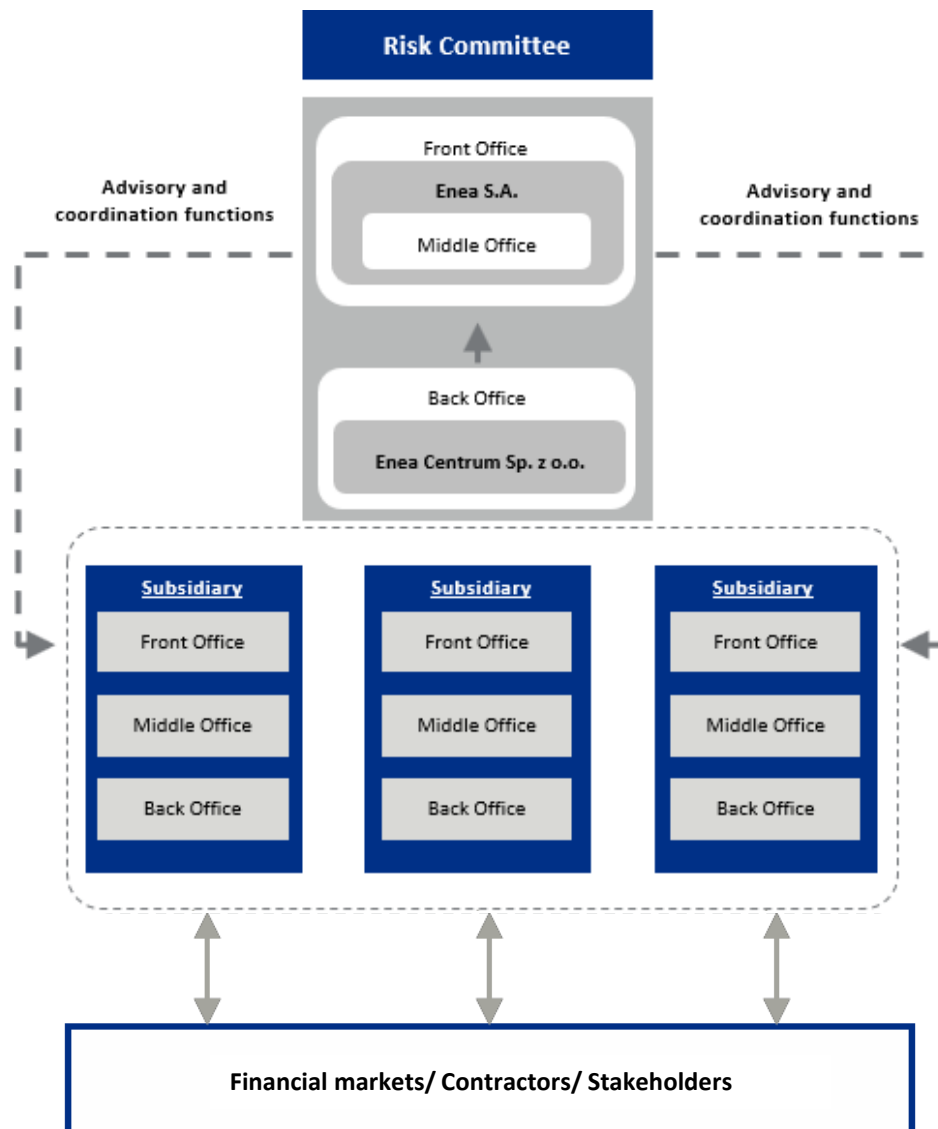
In the first half of 2018, thanks to the implementation of IT systems, corporate risk and credit risk management processes were optimized.

### Management model

The risk management organisation at ENEA Group is based on a coordinated model. The key assumption of the model operation is the coordination of risk management processes within the Group by ENEA SA.

#### Key features of the coordinated model:

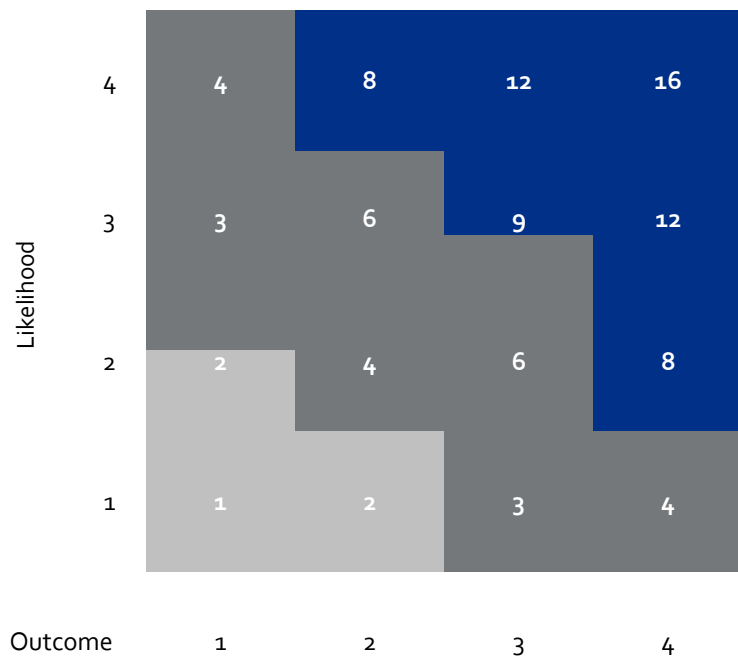
- The Group companies manage risks on the basis of uniform standards set out in the Policies and Procedures.
- The companies ensure operating management of risks within allocated limits and pursuant to the rules approved by ENEA Group Risk Committee.
- Individual companies report to the parent company on the measures implemented in the area of risk management.
- ENEA SA acts in its capacity as the process coordinator in the Group.
- The Company's organisational structure is divided into Front-, Middle- and Back Office.





## Risk Assessment

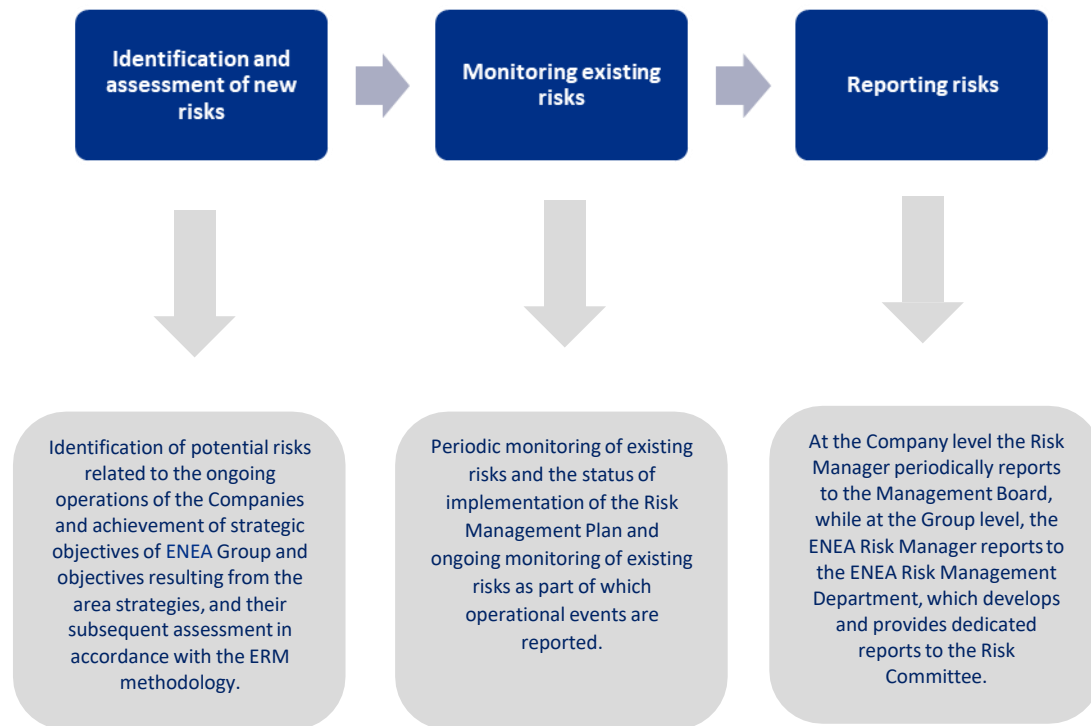
Each risk included in the Risk Register is assessed in terms of probability and potential financial, reputational and health and safety impacts in line with the Corporate Risk Assessment Scale.



**Key risk**
 **Material risk**
 **Immaterial risk**

## Risk management process

The risk management process in ENEA Group is a multi-stage process, engaging all the significant organisational units of the Group Companies. The process model is compliant with the best market practice, and also standards being in force within this scope.



The identification process also includes non-financial risks that may have a significant negative impact on social, employee, environmental, human rights and anti-corruption issues.

### Documentation governing the risk management process in ENEA Group

The overall system of rules for the risk management system operation at ENEA Group is described by a concise list of documents constituting internal law and including relevant Policies and Procedures.

The Policies play the role of constitutive documents setting the framework for the operations performed, specifying the scopes of responsibility of participants, and providing the fundamental guidelines for the management model. The Procedures, in turn, describe the course of process of such operations and the methods employed to conduct any audits, measurements, etc.

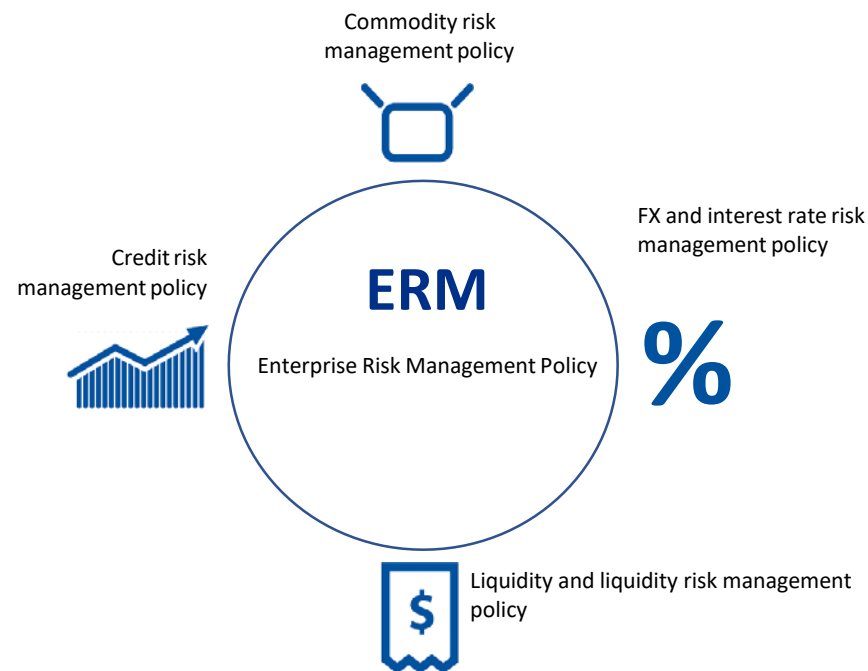
### ENEA Group Risk Committee

The key authority in the risk management process at ENEA Group is the Risk Committee. The Committee is an interdisciplinary body composed of the representatives of key business areas at ENEA Group who represent all key companies of the Group.

### Members of ENEA Group Risk Committee

The Risk Committee is composed of dedicated members of the management board of ENEA SA and its Subsidiaries within the Group as well as ENEA SA department directors in charge of risk management, audit and Compliance.

### INTEGRATED RISK MANAGEMENT SYSTEM



### Powers of the Risk Committee

For the Risk Management and Compliance Area:

1. Giving recommendations to ENEA Management Board on approving the policies governing the process of managing risks, business continuity, insurances, and compliance with approval of any relevant updates
2. Accepting and analysing information received from Content Management Units in the area of managing risks, business continuity, and insurances
3. Providing opinion on annual reports on the Compliance Policy implementation which are submitted to ENEA Management Board for approval
4. Accepting semi-annual reports on the Compliance Policy ongoing implementation and preparing recommendations as to the Compliance Policy implementation
5. Issuing of binding interpretation (construction) of the Compliance Policy provisions
6. Approving the operating documentation governing the process of managing risks, insurances, and business continuity with approval of any relevant updates (strategies, procedures, methodologies, tools, instructions, guidelines, etc.)
7. Making decisions on the issues which include, without limitation:
  - Issues resulting from the documentation governing the area of managing risks, business continuity, and insurances
  - Giving a consent to the deviations from the rules set out in the documentation governing the areas listed in the item above
  - Giving a consent for the member companies of ENEA Group to sign contracts based on foreign law or on the settlement currency other than the Polish zloty (save for EFET framework contracts and related suretyships agreements in the case where they meet all the following conditions at the same time: the governing law is the German law, the prevailing language is English, the disputes are settled before the arbitration court, and the settlement currency is EUR or PLN)

For the Market Regulation Area:

1. Issuing guidelines concerning the presentation of the position and undertaking negotiation, regulatory, and lobbying activities in favour of ENEA Group companies in the scope of market regulations
2. Setting the direction and scope of the analysis of the impact of market regulations on development and investment plans and strategy of ENEA Group
3. Receiving and analysing information from the Market Regulation Area received from the Substantive Entities

## ENEA Group's Risk Model

RISK MODEL	CORE RISKS TO WHICH ENEA GROUP IS EXPOSED IN SPECIFIC CATEGORIES	EXAMPLES OF RISK MITIGATING ACTIONS TAKEN IN SPECIFIC CATEGORIES
STRATEGIC	<ul style="list-style-type: none"> <li>• The risk of breaching legal and internal regulations on the protection of personal data</li> <li>• The risk of delays in the implementation / failure to implement measurement of the MV / LV station by the specified statutory deadlines</li> <li>• The risk of an unforeseen increase in the cost of acquiring electricity or gaseous fuel</li> <li>• The risk of adopting erroneous assumptions for long-term financial projections</li> <li>• The risk of improper management of information in a crisis situation</li> <li>• The risk of fewer free CO2 allowances granted due to non- implementation of investments reported to KPI</li> <li>• The risk of non-compliance with the restrictive objectives of the EU climate policy</li> <li>• The risk of a generation gap</li> <li>• The risk of failure to meet the economic objectives of the planned construction of the Ostrołęka C Power Plant</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting induction and periodic training for employees and co-workers</li> <li>• Participation in the work of thematic teams and the bodies of the Association of Energy Trading and other industry associations</li> <li>• Securing systems that process personal data by ensuring system security measures</li> <li>• Monitoring and verification of forecasts of exchange rates, interest rates and other macroeconomic assumptions</li> <li>• Maintaining efficient communication channels with key business units</li> <li>• Participation in work on regulations for the energy and coal industry</li> <li>• Implementation of solutions aimed at supplementing, enhancing and strengthening the competences and knowledge of the organization, e.g. through paid internships and apprenticeships</li> <li>• Ensuring a transparent, competitive and motivational remuneration system</li> <li>• Monitoring of legislative activities</li> <li>• Updating the financial model in line with planned legislative changes</li> </ul>
FINANCIAL	<ul style="list-style-type: none"> <li>• The risk of breach of financing agreements</li> <li>• The risk of rating downgrade</li> <li>• The risk of losses due to contractors' failure to meet their contractual obligations (including the credit risk)</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring of banking covenants at ENEA Group</li> <li>• Ongoing consultations with the credit rating agency</li> <li>• Conducting structured activities in the area of credit risk management and debt collection, formally defined by means of implemented documentation</li> </ul>
OPERATING	<ul style="list-style-type: none"> <li>• The risk of non-compliance with BAT conclusion requirements</li> <li>• The risk of excessive consumption of some elements of generation assets.</li> <li>• The risk of delayed tender processes</li> <li>• The risk of non-compliance with laws and internal regulations regarding information processing and IT security in the ENEA Group</li> </ul>	<ul style="list-style-type: none"> <li>• Projects related to compliance with the requirements of the BAT conclusions</li> <li>• Analyses and research on the state of production assets. Initiating renovation projects as needed</li> <li>• Regular periodic employee training</li> <li>• Regular periodic reviews of systems processing personal data and their assessment in terms of ensuring security</li> </ul>
MARKET	<ul style="list-style-type: none"> <li>• The risk of price volatility on the futures market</li> <li>• The risk of non-continuity of fuel supplies</li> <li>• The volumetric risk of fuel and transport</li> <li>• The risk involved in the sales of the assumed volume of coal to major customers</li> </ul>	<ul style="list-style-type: none"> <li>• Improving methods and tools to optimize commodity portfolios</li> <li>• Maintaining and developing competences within the Company to manage the commodity risk</li> <li>• Diversifying sources of supply and service provision</li> <li>• Continuous analysis of the fuel and energy market</li> <li>• Optimization of coal supplies within the Group to the generation entities of the Group taking into account the limited capacity of the by-pass routes and the increase of transport costs on the LWB coal by-pass routes</li> </ul>



### **3. Financial standing**

## 3. FINANCIAL STANDING

### 3.1. Financial results of ENEA Group in H1 2018 and Q2 2018

#### Consolidated profit and loss account – H1 2018

[PLN k]	H1 2017	H1 2018	Change	% change
Revenue from the sale of electricity	3,327,553	4,219,299	891,746	26.8%
Revenue from the sale of heat	189,435	197,473	8,038	4.2%
Revenue from the sale of gas	70,104	54,215	-15,889	-22.7%
Revenue from the sale of distribution services	1,601,160	1,342,551	-258,609	-16.2%
Revenue from certificates of origin	19,542*	2,094	-17,448	-89.3%
Revenue from the sale of CO <sub>2</sub> emission allowances	10,130	25,977	15,847	156.4%
Revenue from the sale of goods and materials	34,805	37,653	2,848	8.2%
Revenue from the sale of other services	83,066	74,789	-8,277	-10.0%
Revenue from the sale of coal	232,429	85,504	-146,925	-63.2%
<b>Net sales revenue</b>	<b>5,568,224*</b>	<b>6,039,555</b>	<b>471,331</b>	<b>8.5%</b>
Depreciation	576,814	722,546	145,732	25.3%
Costs of employee benefits	771,479	825,657	54,178	7.0%
Consumption of materials and raw materials and the value of goods sold	709,768	1,148,199	438,431	61.8%
Purchase of energy and gas for sale purposes	1,574,872*	1,886,320	311,448	19.8%
Transmission services	527,438	204,390	-323,048	-61.2%
Other third party services	357,013	410,287	53,274	14.9%
Taxes and levies	197,567	216,026	18,459	9.3%
<b>Tax deductible cost of sales</b>	<b>4,714,951*</b>	<b>5,413,425</b>	<b>698,474</b>	<b>14.8%</b>
Other operating revenue	59,331	89,857	30,526	51.5%
Other operating costs	122,946	120,614	-2,332	-1.9%
Profit / (Loss) on the sale and liquidation of property, plant and equipment	(8,037)	(13,855)	-5,818	-72.4%
Reversal of the impairment loss on non-financial non-current assets	-	51,365	51,365	100.0%
<b>Operating profit</b>	<b>781,621</b>	<b>632,883</b>	<b>-148,738</b>	<b>-19.0%</b>
Financial costs	81,942	186,128	104,186	127.1%
Financial revenue	62,519	87,536	25,017	40.0%
Share in the results of affiliates and jointly controlled entities	5,931	23,750	17,819	300.4%
Dividend revenue	526	215	-311	-59.1%
<b>Profit before tax</b>	<b>768,655</b>	<b>558,256</b>	<b>-210,399</b>	<b>-27.4%</b>
Income tax	144,824	96,226	-48,598	-33.6%
<b>Net profit of the reporting period</b>	<b>623,831</b>	<b>462,030</b>	<b>-161,801</b>	<b>-25.9%</b>
<b>EBITDA</b>	<b>1,358,435</b>	<b>1,304,064</b>	<b>-54,371</b>	<b>-4.0%</b>

#### H1 2018:

##### Factors behind the change of ENEA Group's EBITDA:

- (+) higher revenues from sales of electricity by PLN 892 million results mainly from a higher sales volume (by 4,219 GWh) and a higher average sales price by 1.8%, as well as higher revenues from Regulatory System Services
- (+) higher revenues from sales of heating energy by PLN 8 million results from the higher sales volume by 406 TJ (mainly as a result of the EEP acquisition), with the concurrent decrease of the average sales price by 7.1%
- (-) lower revenues from sales of natural gas by PLN 16 million results mainly from a change in presentation of revenues from gas sales – distribution services (implementation of IFRS 15 from 01.01.2018)
- (-) lower revenues from sales of distribution services by PLN 259 million results mainly from a change in presentation of revenues from transferred charges (implementation of IFRS 15 from 01.01.2018)
- (-) lower revenues from sales of certificates of origin by PLN 17 million results from a higher volume of intra-group transactions
- (+) higher revenues from sales of CO<sub>2</sub> emission allowances by PLN 16 million resulting mainly from an increase of the average prices of allowances on the European market
- (-) lower revenues from sales of services by PLN 8 million results mainly from a change in presentation of revenues from the transport fee (implementation of IFRS 15 from 01.01.2018)
- (-) lower sales of coal by PLN 147 million results from a higher volume of intra-group supplies
- (-) increase in employee benefit costs by PLN 54 million mainly due to the EEP acquisition, raises in LWB and lower remunerations charged to expenditures in connection with the completion of Unit No. 11 investment.
- (-) increase in the costs of consumption of materials and raw materials and the value of goods sold by PLN 438 million results mainly from the EEP acquisition in the end of Q1 2017, commissioning of SCR installation in Polaniec Power Plant – consumption of ammonia water, launch of the operation of Unit No. 11 with a simultaneous higher costs of coal purchase and CO<sub>2</sub> emission allowances for the whole Generation Area
- (-) increase in the costs of purchasing electricity and gas by PLN 311 million results mainly from the increase in average purchase prices:
  - (-) electricity: price: +9.8%; volume: +1,052 GWh
  - (+) natural gas: price: +10%; volume: -87 GWh
  - (-) higher purchase costs of property rights as a result of higher average prices by 25.9% and a change in the liability base from 15.4% to 17.5%
- (+) decrease in costs of industrial services by PLN 323 million mainly due to a change in presentation of costs without transmission fees (implementation of IFRS 15 from 01.01.2018), with a concurrent increase of volume of energy from PSE and a higher fixed transmission fee in the PSE tariff
- (-) higher costs of third party services by PLN 53 million results mainly from the EEP acquisition and a higher gross extraction (wider scope of gallery work, wider scope of outsourced weekend work).
- (-) higher taxes and levies by PLN 18 million results, among other things, from the EEP acquisition and from a higher value of fixed assets in connection with the completed investments processes
- (+) higher result on other operating activities by PLN 27 million:
  - (-) profit from a bargain purchase of shares of ENEA Elektrownia Polaniec SA in 2017 amounting to PLN 12 million
  - (+) lower impairment losses on overdue and bad debt by PLN 14 million
  - (+) higher balance of refunds from the insurer by PLN 14 million
  - (+) lower increase in provisions for non-contractual use of transmission corridors PLN 6 million
  - (+) lower provisions for potential claims by PLN 47 million (including PLN 33 million for terminated contracts of purchase of property rights)
  - (+) higher revenue arising from claims, penalties and fines by PLN 25 million
  - (-) higher loss arising from liquidation of tangible assets by PLN 6 million
  - (-) update of the CO<sub>2</sub> contracts' value, of about PLN 58 m

\* Presentation change in the scope of valuation and own sales cost of property rights

## Consolidated profit and loss account – Q2 2018

[PLN k]	Q2 2017	Q2 2018	Change	% change
Revenue from the sale of electricity	1,824,748	2,202,223	377,475	20.7%
Revenue from the sale of heat	70,664	60,963	-9,701	-13.7%
Revenue from the sale of gas	34,553	21,261	-13,292	-38.5%
Revenue from the sale of distribution services	772,632	649,722	-122,910	-15.9%
Revenue from certificates of origin	19,381*	401	-18,980	-97.9%
Revenue from the sale of CO <sub>2</sub> emission allowances	4,425	3,445	-980	-22.1%
Revenue from the sale of goods and materials	19,923	19,362	-561	-2.8%
Revenue from the sale of other services	38,208	31,559	-6,649	-17.4%
Revenue from the sale of coal	74,000	62,066	-11,934	-16.1%
<b>Net sales revenue</b>	<b>2,858,534*</b>	<b>3,051,002</b>	<b>192,468</b>	<b>6.7%</b>
Depreciation	292,967	359,195	66,228	22.6%
Costs of employee benefits	384,492	415,648	31,156	8.1%
Consumption of materials and raw materials and the value of goods sold	424,157	542,542	118,385	27.9%
Purchase of energy and gas for sale purposes	782,456*	1,031,378	248,922	31.8%
Transmission services	265,615	101,189	-164,426	-61.9%
Other third party services	207,114	210,460	3,346	1.6%
Taxes and levies	91,240	93,030	1,790	2.0%
<b>Tax deductible cost of sales</b>	<b>2,448,041*</b>	<b>2,753,442</b>	<b>305,401</b>	<b>12.5%</b>
Other operating revenue	43,093	31,389	-11,704	-27.2%
Other operating costs	50,294	75,644	25,350	50.4%
Loss on the sale and liquidation of property, plant and equipment	-4,250	-10,565	-6,315	-148.6%
Impairment loss on non-financial non-current assets	-	-51,365	-51,365	-100.0%
<b>Operating profit</b>	<b>399,042</b>	<b>294,105</b>	<b>-104,937</b>	<b>-26.3%</b>
Financial costs	35,985	123,744	87,759	243.9%
Financial revenue	-3,664	69,631	73,295	2,000.4%
Share in the results of affiliates and jointly controlled entities	5,931	11,141	5,210	87.8%
Dividend revenue	526	215	-311	-59.1%
<b>Profit before tax</b>	<b>365,850</b>	<b>251,348</b>	<b>-114,502</b>	<b>-31.3%</b>
Income tax	63,209	43,386	-19,823	-31.4%
<b>Net profit of the reporting period</b>	<b>302,641</b>	<b>207,962</b>	<b>-94,679</b>	<b>-31.3%</b>
<b>EBITDA</b>	<b>692,009</b>	<b>601,935</b>	<b>-90,074</b>	<b>-13.0%</b>

## Q2 2018:

### Factors behind the change of ENEA Group's EBITDA:

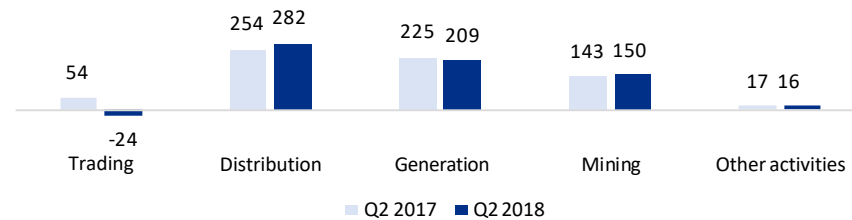
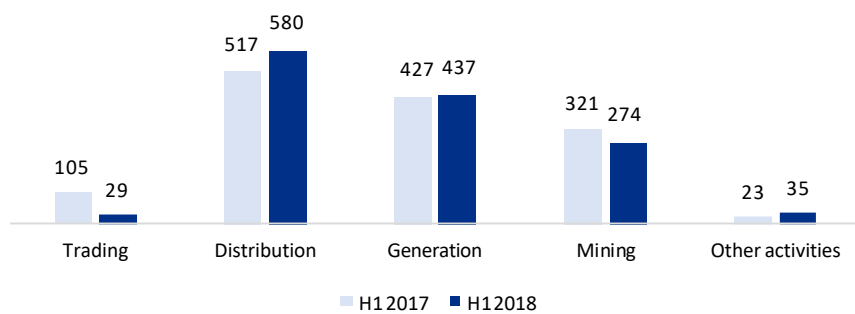
- (+) higher revenues from sales of electricity by PLN 377 million results mainly from a higher sales volume (by 1,588 GWh) and a higher average sales price by 43%, with the concurrent drop in revenues from Regulatory System Services
- (-) lower revenues from sales of heating energy by PLN 10 million results from a lower sales volume (by 159 TJ) and a decrease of the average sales price by 1.7%
- (-) lower revenues from sales of natural gas by PLN 13 million results mainly from a change in presentation of revenues from gas sales – distribution services (implementation of IFRS 15 from 01.01.2018)
- (-) lower revenues from sales of distribution services by PLN 123 million results mainly from a change in presentation of revenues from transferred charges (implementation of IFRS 15 from 01.01.2018)
- (-) lower revenues from sales of certificates of origin by PLN 19 million results from a higher volume of intra-group transactions
- (-) lower revenues from sales of services by PLN 7 million results mainly from a change in presentation of revenues from the transport fee (implementation of IFRS 15 from 01.01.2018)
- (-) lower sales of coal by PLN 12 million results from a higher volume of intra-group supplies
- (-) higher employee benefit costs by PLN 31 million mainly due to a change in balance of actuarial provisions and lower remunerations charged to expenditures in connection with the completion of Unit No. 11 investment
- (-) higher costs of consumption of materials and raw materials and a higher value of sold goods by PLN 118 million as a result of a higher production, which caused higher consumption of materials and raw materials used directly in production, with concurrent higher costs of purchase of coal, biomass, and CO<sub>2</sub> emission allowances for the whole Generation Area
- (-) higher costs of purchasing electricity and gas by PLN 249 million results mainly from higher average purchase prices:
  - (-) electricity: price: +13.9%; volume: +866 GWh
  - (+) natural gas: price: +11%; volume: -85 GWh
- (-) higher costs of purchasing property rights mainly as a result of a higher average price of green certificates
- (+) lower costs of industrial services by PLN 164 million mainly due to a change in presentation of costs without transmission fees (implementation of IFRS 15 from 01.01.2018), with a concurrent increase of volume of energy from PSE and a higher fixed transmission fee in the PSE tariff
- (-) higher result on other operating activities by PLN 43 million:
  - (-) profit from a bargain purchase of shares of ENEA Elektrownia Potaniec SA in 2017 amounting to PLN 12 million
  - (-) higher impairment losses on overdue and bad debt by PLN 6 million
  - (+) higher balance of refunds from the insurer by PLN 3 million
  - (+) lower provisions for potential claims by PLN 29 million (including PLN 16 million for terminated contracts of purchase of property rights)
  - (-) lower revenue arising from claims, penalties and fines by PLN 4 million
  - (-) decrease in fixed assets acquired for free PLN 1.8 million
  - (-) higher loss arising from liquidation of tangible assets by PLN 6 million
  - (-) revaluation of CO<sub>2</sub> contracts by PLN 53 million

\* Presentation change in the scope of valuation and own sales cost of property rights

## ENEA Group's financial results in H1 2018 and Q2 2018

EBITDA [PLN k]	H1 2017	H1 2018	Change	% change	Q2 2017	Q2 2018	Change	% change
Trading	105,052	29,098	-75,954	-72.3%	54,230	-24,192	-78,422	-144.6%
Distribution	516,811	579,810	62,999	12.2%	254,438	282,341	27,903	11.0%
Generation	427,280	436,616	9,336	2.2%	225,033	209,407	-15,626	-6.9%
Mining	321,234	273,549	-47,685	-14.8%	142,965	150,269	7,304	5.1%
Other activities	23,055	35,086	12,031	52.2%	16,990	16,007	-983	-5.8%
Unassigned items and exclusions	-34,997	-50,095	-15,098	-43.1%	-1,647	-31,897	-30,250	-1836.7%
<b>Total EBITDA</b>	<b>1,358,435</b>	<b>1,304,064</b>	<b>-54,371</b>	<b>-4.0%</b>	<b>692,009</b>	<b>601,935</b>	<b>-90,074</b>	<b>-13.0%</b>

PLN m



## Trading Area

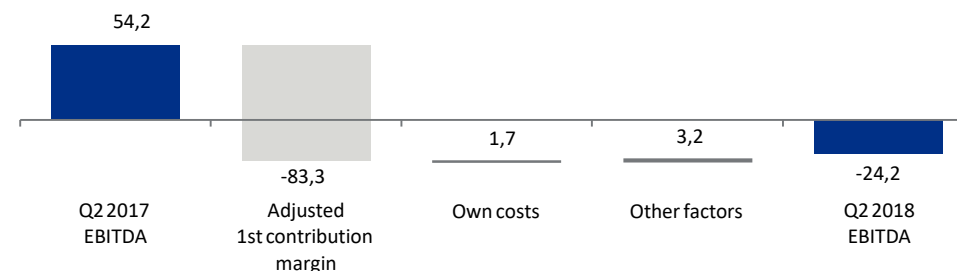
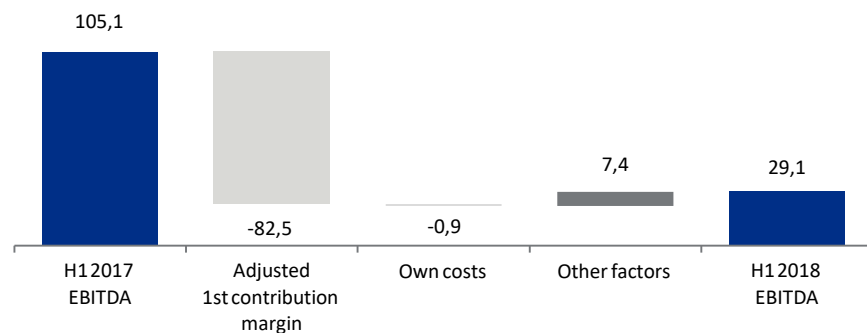
[PLN k]	H1 2017	H1 2018	Change	% change	Q2 2017	Q2 2018	Change	% change
Sales revenue	2,799,035	3,999,939	1,200,904	42.9%	1,351,922	2,061,400	709,478	52.5%
EBIT	104,597	28,805	-75,792	-72.5%	53,992	-24,343	-78,335	-145.1%
Depreciation	455	293	-162	-35.6%	238	151	-87	-36.6%
EBITDA	105,052	29,098	-75,954	-72.3%	54,230	-24,192	-78,422	-144.6%
CAPEX <sup>1)</sup>	188	413	225	119.7%	-	413	413	100.0%
Share of the area's sales revenue in the Group's sales revenue	36%	40%	4 pp	-	42%	51%	9 pp	-

Retail sales of electricity are carried out by ENEA S.A.

Wholesale trade is carried out by ENEA Trading sp. z o. o.

1) Without equity investments of ENEA S.A.

PLN m



### H1 2018 EBITDA change drivers:

#### First contribution margin

- (-) lower average energy selling price by 1.1%
- (-) higher costs of environmental obligations by 45.3%
- (-) higher average purchase price of energy by 4.1%
- (-) lower result on trade in gas fuel
- (+) growth in energy sales volume by 13.0%
- (+) lower provision for potential claims under terminated contracts on RES property rights by PLN 32.8 million

#### Own costs

- (+) lower direct costs of sales by PLN 1.6 million
- (-) higher general administration costs by PLN 1.3 million
- (-) higher costs of SSC services by PLN 1.2 million:

#### Other drivers

- (-) higher provisions for anticipated losses and potential claims by PLN 9 million
- (+) lower costs of donations by PLN 4 million
- (+) lower written-off debts by PLN 2 million
- (+) higher revenue from licence fees connected with the ENEA brand by PLN 4 million
- (+) growth in revenues from the provision of wholesale trading services by PLN 6 million

### Q2 2018 EBITDA change drivers:

#### First contribution margin

- (-) lower average energy selling price by 0.7%
- (-) higher costs of environmental obligations by 64.3%
- (-) higher average purchase price of energy by 6.8%
- (-) lower result on trade in gas fuel
- (+) higher volume of energy sales by 13.8%
- (+) lower provision for potential claims under terminated contracts on RES property rights by PLN 16.0 million

#### Own costs

- (+) lower direct costs of sales by PLN 2.5 million
- (+) higher general administration costs by PLN 0.4 million
- (-) higher costs of SSC services by PLN 1.2 million

#### Other drivers

- (-) higher provisions for latent claims and anticipated losses by PLN 7 million
- (+) higher revenue from licence fees connected with the ENEA brand by PLN 4 million
- (+) lower written-off debts by PLN 1 million
- (+) lower impairment losses on receivables by PLN 1 million
- (+) growth in revenues from the provision of wholesale trading services by PLN 3 million



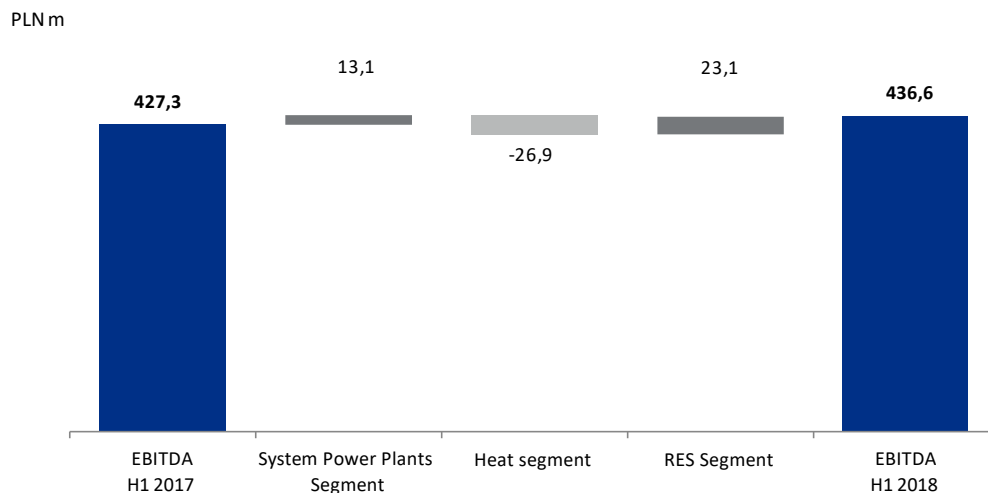
## Generation Area

[PLN k]	H12017	H12018	Change	%change	Q22017	Q22018	Change	%change
Sales revenue	2,147,041	3,391,881	1,244,840	58.0%	1,257,278	1,747,568	490,290	39.0%
<i>electricity</i>	1,897,197	3,082,718	1,185,521	62.5%	1,142,048	1,632,681	490,633	43.0%
<i>certificates of origin</i>	38,414	72,316	33,902	88.3%	32,005	42,194	10,189	31.8%
<i>sales of CO<sub>2</sub> emission allowances</i>	10,463	26,019	15,556	148.7%	4,652	3,450	-1,202	-25.8%
<i>heat</i>	186,225	193,656	7,431	4.0%	70,272	59,546	-10,726	-15.3%
<i>others</i>	14,742	17,172	2,430	16.5%	8,301	9,697	1,396	16.8%
EBIT	283,002	213,451	-69,551	-24.6%	148,459	129,333	-19,126	-12.9%
Depreciation	144,278	274,530	130,252	90.3%	76,574	131,439	54,865	71.6%
Reversal of the impairment loss on non-financial non-current assets	-	51,365	51,365	100.0%	-	51,365	51,365	100.0%
<b>EBITDA</b>	<b>427,280</b>	<b>436,616</b>	<b>9,336</b>	<b>2.2%</b>	<b>225,033</b>	<b>209,407</b>	<b>-15,626</b>	<b>-6.9%</b>
CAPEX	329,042	125,752	-203,290	-61.8%	84447	65,524	-18,923	-22.4%
Share of the area's sales revenue in the Group's sales revenue	28%	34%	6pp	-	39%	43%	4pp	-

W the Generation Area, financial data of ENEA Wytwarzanie sp. z o.o. together with its subsidiaries ENEA Elektrownia Połaniec S.A. and ENEA Bioenergia Sp. z o.o. is presented.

At the end of June 2018, ENEA Wytwarzanie possesses, e.g. 11 high-efficiency and modernized power units in the Koźienice Power Plant. As a result of the EEP acquisition, the production area was increased by additional 7 coal units with a total gross power of 1,657 MW and the world's largest biomass-fired unit with a total installed capacity of 225 MW.

The annual production capacity in this area is about 32 TWh of electricity.



### H1 2018 EBITDA change drivers:

#### System Power Plants Segment

- (+) higher generation margin by PLN 61.0million
- (-) lower revenues from Regulatory System Services by PLN 1.7 million
- (-) lower margin on trade and on Balancing Market by PLN 16.2 million
- (-) higher fixed costs by PLN 35.5 million
- (+) ENEA Elektrownia Połaniec PLN 7.3 million

#### Heat Segment

- (-) higher costs of consumption of materials and raw materials by PLN 16.4 million, including higher costs of biomass consumption by PLN 11.8 million, higher costs of CO<sub>2</sub> emission by PLN 7.3 million, lower costs of coal consumption by PLN 2.8 million
- (-) lower result on other operating activities by PLN 3.9 million:
- (-) higher revenues from heat sales by PLN 3.0 million
- (-) lower revenues from electricity as part of generation licence by PLN 2.0 million
- (-) higher employee benefit costs (by PLN 1.4million)

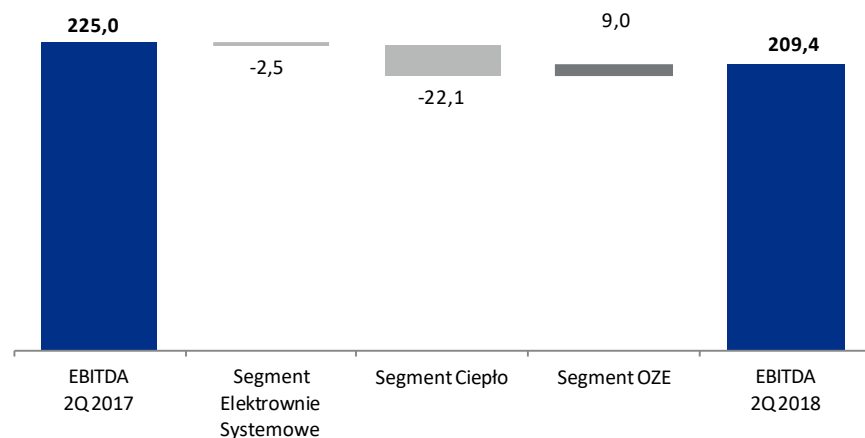
#### RES Segment

- (+) Water Area (PLN +10.5 million): higher revenues from electricity by PLN 7.6 million, higher revenues from certificates of origin by PLN 3.5 million, higher profit on sales of fixed assets by PLN 0.6 million
- (-) Wind Area (PLN -0.2 million): lower revenues from electricity PLN 6.9 million; lower result on other operating activities by PLN 1.3 million; lower fixed costs by PLN 5.3 million; higher revenues from certificates of origin by PLN 1.7 million; lower variable costs by PLN 1.0 million
- (-) Biogas Area (PLN -0.1 million): lower revenues from certificates of origin by PLN 0.9 million; lower revenues from sales of electricity by PLN 0.3 million; lower variable costs by PLN 0.5 million; lower other costs by PLN 0.5 million
- (+) Biomass Area (Green Unit): PLN 12.9 million (including PLN 2.2 million ENEA Bioenergia Sp. z o.o.)

## Generation Area

[PLN k]	H12017	H12018	Change	% change	Q22017	Q22018	Change	% change
Sales revenue	2,147,041	3,391,881	1,244,840	58.0%	1,257,278	1,747,568	490,290	39.0%
<i>electricity</i>	1,897,197	3,082,718	1,185,521	62.5%	1,142,048	1,632,681	490,633	43.0%
<i>certificates of origin</i>	38,414	72,316	33,902	88.3%	32,005	42,194	10,189	31.8%
<i>sales of CO<sub>2</sub> emission allowances</i>	10,463	26,019	15,556	148.7%	4,652	3,450	-1,202	-25.8%
<i>heat</i>	186,225	193,656	7,431	4.0%	70,272	59,546	-10,726	-15.3%
<i>others</i>	14,742	17,172	2,430	16.5%	8,301	9,697	1,396	16.8%
EBIT	283,002	213,451	-69,551	-24.6%	148,459	129,333	-19,126	-12.9%
Depreciation	144,278	274,530	130,252	90.3%	76,574	131,439	54,865	71.6%
Reversal of the impairment loss on non-financial non-current assets	-	51,365	51,365	100.0%	-	51,365	51,365	100.0%
<b>EBITDA</b>	<b>427,280</b>	<b>436,616</b>	<b>9,336</b>	<b>2.2%</b>	<b>225,033</b>	<b>209,407</b>	<b>-15,626</b>	<b>-6.9%</b>
CAPEX	329,042	125,752	-203,290	-61.8%	84,447	65,524	-18,923	-22.4%
Share of the area's sales revenue in the Group's sales revenue	28%	34%	6pp	-	39%	43%	4pp	-

PLN m



### Q2 2018 EBITDA change drivers:

#### System Power Plants Segment

- (+) higher generation margin by PLN 58 million
- (-) lower revenues from Regulatory System Services by PLN 8.1 million
- (-) higher fixed costs by PLN 15.2 million
- (-) lower margin on trade and on Balancing Market by PLN 41.5 million

#### Heat Segment

- (-) lower revenues from heat sales by PLN 9.4 million
- (-) lower result on other operating activities by PLN 3.8 million:
  - (-) lower revenues from electricity as part of generation licence by PLN 3.3 million
  - (-) lower revenues from certificates of origin by PLN 2.8 million
- (-) higher employee benefit costs (by PLN 1.8 million)
- (-) higher costs of energy purchase for sale purposes by PLN 1.8 million
- (+) lower costs of coal consumption by PLN 1.8 million

#### RES Segment

- (+) Water Area (PLN +5.6 million): higher revenues from electricity by PLN 3.1 million, higher revenues from certificates of origin by PLN 2.1 million, and lower fixed costs by PLN 0.4 million
- (+) Wind Area (PLN +1.2 million): lower fixed costs by PLN 3.3 million; higher revenues from certificates of origin by PLN 1.8 million; lower variable costs by PLN 0.5 million; lower revenues from electricity by PLN 3.2 million; lower result on other operating activities by PLN 1.2 million
- (+) Biogas Area (PLN +0.1 million): lower variable costs by PLN 0.4 million; higher result on other operating activities by PLN 0.4 million; lower fixed costs by PLN 0.1 million; lower revenues from certificates of origin by PLN 0.6 million; lower revenues from sales of electricity by PLN 0.2 million
- (+) Biomass Area (Green Unit) PLN 2.1 million (including PLN 1.1 million ENEA Bioenergia Sp. z o.o.): higher margin (lower volume of energy generation with higher price of energy, biomass and unit pricing of green

## Distribution Area

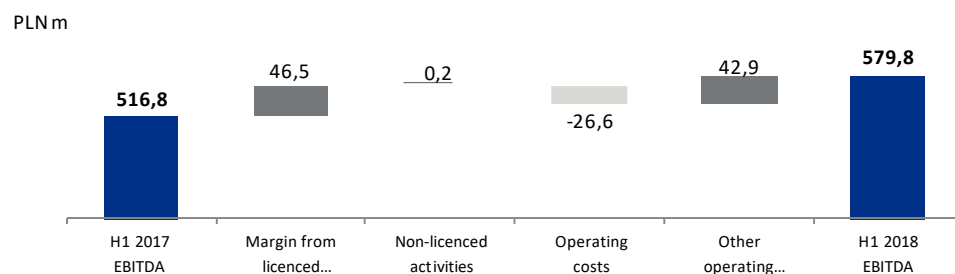
[PLN k]	H12017	H1 2018	Change	% change	Q2 2017	Q2 2018	Change	% change
Sales revenue	1,628,660	1,370,977	-257,683	-15.8%	788,876	665,286	-123,590	-15.7%
<i>distribution services to end users</i>	1,556,652	1,296,089	-260,563	-16.7%	748,773	621,867	-126,906	-16.9%
<i>network connection fees</i>	29,663	29,659	-4	-0.01%	16,176	19,708	3,532	21.8%
<i>others</i>	42,345	45,229	2,884	6.8%	23,927	23,711	-216	-0.9%
EBIT	273,852	325,044	51,192	18.7%	131,314	153,777	22,463	17.1%
Depreciation	242,959	254,766	11,807	4.9%	123,124	128,564	5,440	4.4%
<b>EBITDA</b>	<b>516,811</b>	<b>579,810</b>	<b>62,999</b>	<b>12.2%</b>	<b>254,438</b>	<b>282,341</b>	<b>27,903</b>	<b>11.0%</b>
CAPEX	343,558	300,881	-42,677	-12.4%	193,581	187,849	-5,732	-3.0%
Share of the area's sales revenue in the Group's sales revenue	21%	14%	-7 pp		25%	16%	-9 pp	

ENE A Operator sp. z o.o. is responsible for the distribution of electricity to 2.6 million customers - in western and north-western Poland in the area of 58.2 thousand km<sup>2</sup>.

The basic task of ENE A Operator is to provide energy in a continuous and reliable manner, while maintaining appropriate quality parameters.

In the Distribution Area, financial data includes data of the following companies:

- ENE A Operator sp. z o.o.
- ENE A Serwis sp. z o.o.
- ENE A Pomiar sp. z o.o.
- Annacond Enterprises sp. z o. o.



### H1 2018 EBITDA change drivers:

#### Margin on the licenced operations

- (-) lower revenue from sales of distribution services to end users by PLN 261 million (from 01.01.2018 change of the standard – IFRS 15)
- (+) lower costs of purchase of transmission services (balance) by PLN 309 million (from 01.01.2018 change of the standard – IFRS 15)
- (-) higher costs of purchase of electricity to cover the balance-sheet difference (balance) by PLN 2 million, resulting mainly from a higher average price of electricity

#### Operating costs

- (-) higher costs of third-party services by PLN 10 million mainly in areas relating to IT services, measurement, and operation of grid assets
- (-) higher costs of taxes and levies by PLN 8 million result from the implemented investments in grid assets
- (-) higher costs of employee benefits by PLN 8 million result mainly from actuarial provisions

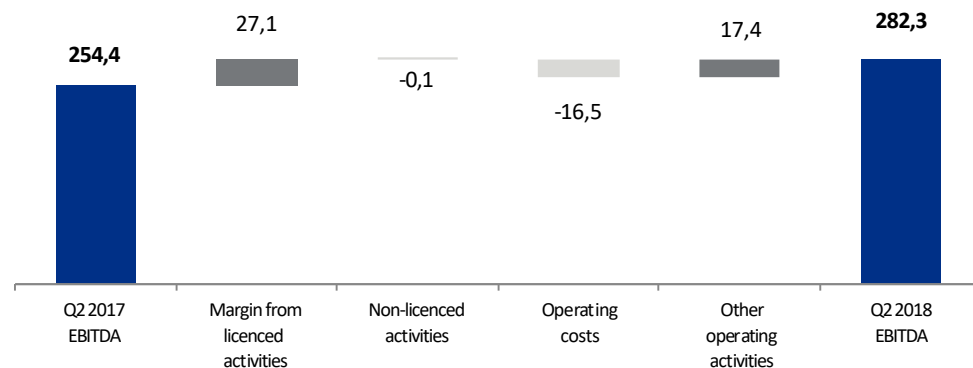
#### Other operating activity

- (+) higher revenues from the insurer by PLN 18 million
- (+) lower provisions concerning grid assets by PLN 18 million
- (+) lower impairment losses by PLN 11 million

## Distribution Area

[PLN k]	H12017	H12018	Change	% change	Q22017	Q22018	Change	% change
Sales revenue	1,628,660	1,370,977	-257,683	-15.8%	788,876	665,286	-123,590	-15.7%
<i>distribution services to end users</i>	1,556,652	1,296,089	-260,563	-16.7%	748,773	621,867	-126,906	-16.9%
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CAPEX	343,558	300,881	-42,677	-12.4%	193,581	187,849	-5,732	-3.0%
Share of the area's sales revenue in the Group's sales revenue	21%	14%	-7pp		25%	16%	-9 pp	

PLN m



### Q2 2018 EBITDA change drivers:

#### Margin on the licenced operations

- (-) lower revenue from sales of distribution services to end users by PLN 127 million (from 01.01.2018 change of the standard – IFRS 15)
- (+) lower costs of purchase of transmission services (balance) by PLN 152 million (from 01.01.2018 change of the standard – IFRS 15)
- (+) lower revenues from network connection fees by PLN 4 million, resulting mainly from the settlement of advances on connections and quarterly IAS allowances in 2017 (from 01.01.2018, change of the standard – IFRS 15)
- (-) higher costs of purchase of electricity to cover the balance-sheet difference (balance) by PLN 1 million, resulting mainly from a higher average price of electricity

#### Operating expenses

- (-) higher costs of employee benefits by PLN 7 million result mainly from actuarial provisions
- (-) higher costs of third-party services by PLN 4 million mainly in areas relating to IT services and operation of grid assets
- (-) higher costs of taxes and levies by PLN 3 million result from the implemented investments in grid assets

#### Other operating activity

- (+) lower provisions concerning grid assets by PLN 22 million
- (-) higher impairment losses by PLN 7 million

## Mining Area

[PLN k]	H1 2017	H1 2018	Change	% change	Q2 2017	Q2 2018	Change	% change
Sales revenue	902,117	855,952	-46,165	-5.1%	436,880	457,255	20,375	4.7%
<i>coal</i>	874,994	832,098	-42,896	-4.9%	426,165	446,300*	20,135	4.7%
<i>other products and services</i>	20,891	14,721	-6,170	-29.5%	6,947	5,834*	-1,113	-16.0%
<i>goods and materials</i>	6,232	9,133	2,901	46.6%	3,768	5,121*	1,353	35.9%
EBIT	147,174	99,989	-47,185	-32.1%	57,581	60,786	3,205	5.6%
Depreciation	174,060	173,560	-500	-0.3%	85,384	89,483	4,099	4.8%
<b>EBITDA</b>	<b>321,234</b>	<b>273,549</b>	<b>-47,685</b>	<b>-14.8%</b>	<b>142,965</b>	<b>150,269</b>	<b>7,304</b>	<b>5.1%</b>
CAPEX	139,033	199,450	60,417	43.5%	73,607	114,644	41,037	55.8%
Share of the area's sales revenue in the Group's sales revenue	12%	9%	-3pp	-	14%	11%	-3pp	-

\* Presentation change in Q1 2018 regarding the recognition of sales revenues from coal transport (transport fee)

The Mining Area presents the financial results of LW Bogdanka Group with the parent company - Lubelski Węgiel Bogdanka S.A. and its subsidiaries.

LW Bogdanka divides its range of sales into energy-rich coal, which accounts for 99% and for pea and nut coal.

The main recipients are professional and industrial power industry.

### H1 2018 EBITDA change factors:

(-) EBITDA profitability: 32.0% in H1 2018 vs 35.6% in H1 2017

(-) a decrease in revenues from coal sales by: lower sales volume -321,000 t (-6.9%), at a higher price and coal adjustments from the preparation works

(+) an increase in revenues from sales of goods and materials – an increase in the value of sold steel scrap

(-) an increase of revenue adjustments due to the value of excavated coal - greater scope of preparatory works (+4.7 km) together with the higher coal price

(-) 828,000 higher extraction output (+12.3%) – production cost increase

(-) an increase in nominal production cost (without depreciation):

- the third party services cost (mainly due to the cost of work on Saturdays and Sundays and drilling),
- salaries' cost (salaries raise paid, with additional bonuses and higher average employment rate of about 110 people)

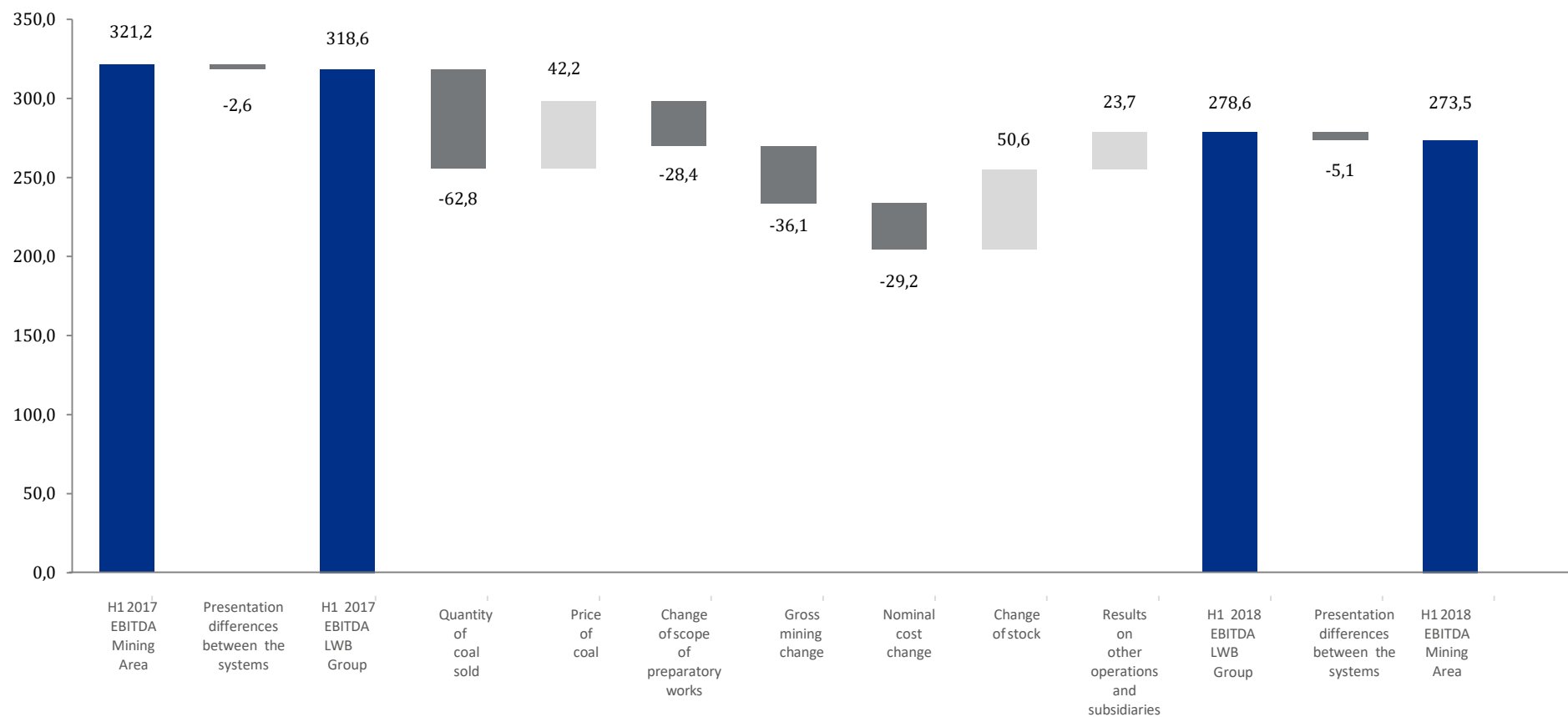
(+) in 2018 an increase in stocks of about PLN 33.9 million (decrease in costs), in 2017 decrease in stocks of about PLN 16.7 million (increase in costs)

(+) a higher result on other operating activities: mainly settlement of the arrangement entered into by and between LW Bogdanka S.A. and the consortium of Mostostal Warszawa S.A. and Acciona Infraestructuras - a positive impact on EBITDA in the amount of PLN 28.7million

Presentation differences concerning the financial reporting of ENEA Group and LW Bogdanka Group in the scope of depreciation.

The decrease in revenues from the sale of other products and services results primarily from the fact that, as a result of the adoption of the new IFRS 15 "Revenue from contracts with customers" as of 1 January 2018, revenues from sales under this item were shown in the balance with the incurred costs (the amount of revenues was reduced by costs amounting to approximately PLN 7.5 million). In the previous year, revenues from transport were presented in an open order (change without impact on EBITDA).

## Mining Area



## Mining Area

[PLN k]	H12017	H12018	Change	% change	Q22017	Q22018	Change	% change
Sales revenue	902,117	855,952	-46,165	-5.1%	436,880	457,255	20,375	4.7%
<i>coal</i>	874,994	832,098	-42,896	-4.9%	426,165	446,300*	20,135	4.7%
<i>other products and services</i>	20,891	14,721	-6,170	-29.5%	6,947	5,834*	-1,113	-16.0%
<i>goods and materials</i>	6,232	9,133	2,901	46.6%	3,768	5,121*	1,353	35.9%
EBIT	147,174	99,989	-47,185	-32.1%	57,581	60,786	3,205	5.6%
Depreciation	174,060	173,560	-500	-0.3%	85,384	89,483	4,099	4.8%
<b>EBITDA</b>	<b>321,234</b>	<b>273,549</b>	<b>-47,685</b>	<b>-14.8%</b>	<b>142,965</b>	<b>150,269</b>	<b>7,304</b>	<b>5.1%</b>
CAPEX	139,033	199,450	60,417	43.5%	73,607	114,644	41,037	55.8%
Share of the area's sales revenue in the Group's sales revenue	12%	9%	-3 pp	-	14%	11%	-3 pp	-

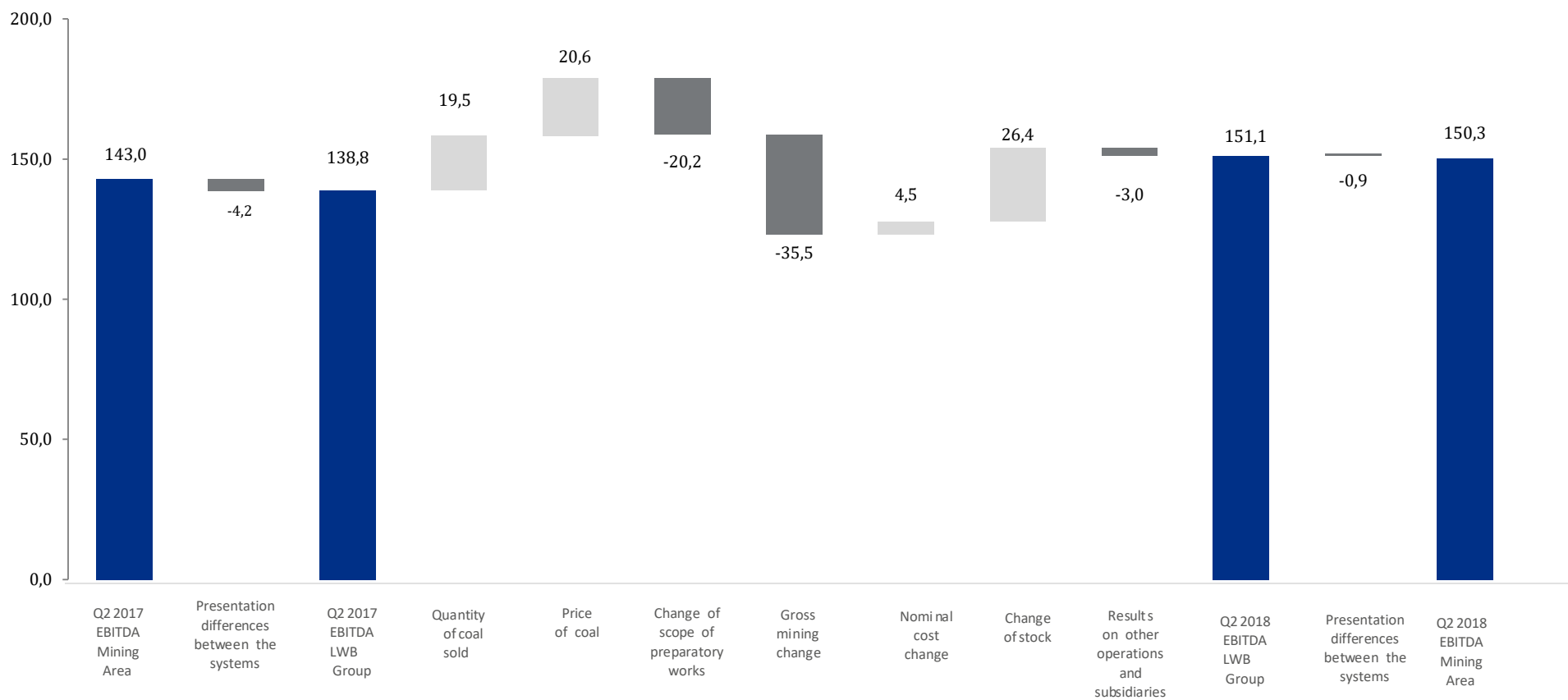
\* Presentation change in Q1 2018 regarding the recognition of sales revenues from coal transport (transport fee)

### Q2 2018 EBITDA change factors:

- (+) EBITDA profitability: 32.9% in Q2 2018 vs. 32.7% in Q2 2017
- (+) increase in revenues from coal sales by: higher volume sales, with a higher price and higher correction of coal from preparatory works
- (+) an increase in revenues from sales of goods and materials – an increase in the value of sold steel scrap
- (-) an increase in revenue adjustments of revenues due to the value of excavated coal - greater scope of preparatory works (+3.8 km) at a higher price of coal
- (-) 766,000 higher extraction output (+24.5%) – production cost increase
- (+) in 2018 an increase in stocks of about PLN 7.0 million (decrease in costs), in 2017 decrease in stocks of about PLN 19.4 million (increase in costs)

Presentation differences concerning the financial reporting of ENEA Group and LW Bogdanka Group in the scope of depreciation.

The decrease in revenues from the sale of other products and services results primarily from the fact that, as a result of the adoption of the new IFRS 15 "Revenue from contracts with customers" as of 1 January 2018, revenues from sales under this item were shown in the balance with the incurred costs (the amount of revenues was reduced by costs amounting to approximately PLN 7.5 million). In the previous year, revenues from transport were presented in an open order (change without impact on EBITDA).





## Area of Other Activities

[PLN k]	H1 2017	H1 2018	Change	% change	Q2 2017	Q2 2018	Change	% change
Sales revenue	264,428	285,682	21,254	8.0%	134,852	145,111	10,259	7.6%
EBIT	2,822	9,612	6,790	240.6%	6,887	3,364	-3,523	-51.2%
Depreciation	20,233	25,474	5,241	25.9%	10,103	12,643	2,540	25.1%
<b>EBITDA</b>	<b>23,055</b>	<b>35,086</b>	<b>12,031</b>	<b>52.2%</b>	<b>16,990</b>	<b>16,007</b>	<b>-983</b>	<b>-5.8%</b>
CAPEX	25,025	26,876	1,851	7.4%	15,128	18,461	3,333	22.0%
Share of the area's sales revenue in the Group's sales revenue	3%	3%	-	-	4%	4%	-	-

The Area of Other Activities includes companies from the following areas:

- **Support for other ENEA Group companies:**

Enea Centrum sp. z o.o. – the Shared Services Centre in the Group in the field of accounting, human resources, ITC and customer service

Enea Logistyka sp. z o.o. – a company specializing in logistics, warehousing and procurement

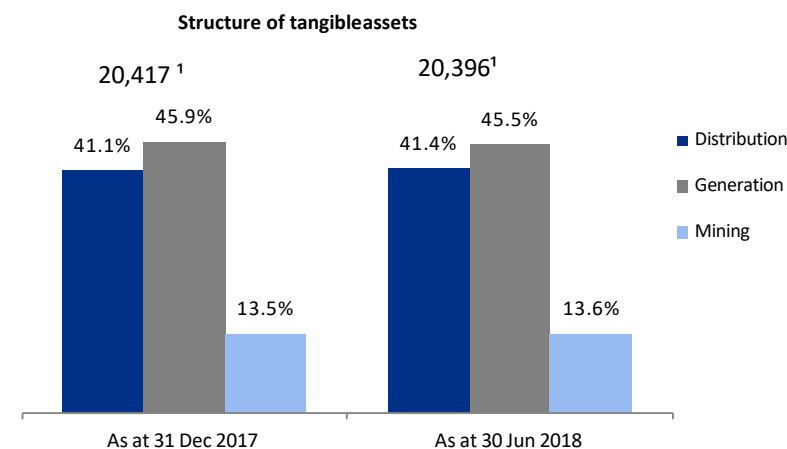
- **Accompanying activities:**

Enea Oświetlenie sp. z o.o. – a company specializing in indoor and outdoor lighting; it designs, builds road lighting, it illuminates urban spaces, illuminates historic and public buildings, and provides construction and comprehensive services for photovoltaic power plants.

## Asset position - the structure of assets and liabilities of ENEA Group

Assets [PLN k]	Asat:		Change	% change
	31 Dec 2017	30 Jun 2018*		
<b>Non-current assets</b>	<b>22,080,914</b>	<b>22,266,409</b>	<b>185,495</b>	<b>0.8%</b>
Property, plant and equipment	20,416,867	20,395,723	-21,144	-0.1%
Perpetual usufruct of land	105,571	105,163	-408	-0.4%
Intangible assets	418,248	413,556	-4,692	-1.1%
Investment real estates	26,981	25,988	-993	-3.7%
Investments in subsidiaries, affiliates and jointly controlled entities	355,152	549,096	193,944	54.6%
Deferred income tax assets	501,945	444,768	-57,177	-11.4%
Financial assets at fair value	-	91,637	91,637	100.0%
Debt financial assets at amortized cost	-	7,742	7,742	100.0%
Financial assets available for sale – until 2017	40,698	-	-40,698	-100.0%
Financial assets at fair value through profit or loss– until 2017	33,364	-	-33,364	-100.0%
Derivatives – until 2017	29,553	-	-29,553	-100.0%
Trade and other receivables	30,729	98,445	67,716	220.4%
Costs incurred to obtain or fulfil a contract	-	14,165	14,165	100.0%
Funds accumulated in the Mine Liquidation Fund	121,806	120,126	-1,680	-1.4%
<b>Current assets</b>	<b>6,232,080</b>	<b>6,123,011</b>	<b>-109,069</b>	<b>-1.8%</b>
CO <sub>2</sub> emission allowances	595,533	92,823	-502,710	-84.4%
Inventories	846,187	835,288	-10,899	-1.3%
Trade and other receivables	1,903,568	1,598,295	-305,273	-16.0%
Costs incurred to obtain or fulfil a contract*	-	15,753	15,753	100.0%
Assets due to contracts with clients*	-	238,888	238,888	100.0%
Current income tax assets	149,859	56,206	-93,653	-62.5%
Financial assets at fair value**	-	94,369	94,369	100.0%
Debt financial assets at amortized cost**	-	111	111	100.0%
Other short-term investments	-	151,761	151,761	100.0%
Financial assets held to maturity – until 2017	478	-	-478	-100.0%
Financial assets at fair value through profit or loss – until 2017	49,329	-	-49,329	-100.0%
Cash and cash equivalents	2,687,126	3,039,517	352,391	13.1%
<b>Total assets</b>	<b>28,312,994</b>	<b>28,389,420</b>	<b>76,426</b>	<b>0.3%</b>

PLN m



<sup>1</sup> including exclusions

### Change factors for non-current assets (increase by PLN 185 million):

- a decrease in tangible assets by PLN 21 million resulting mainly from an increase in the value of machinery, buildings and premises as a result of depreciation (higher depreciation due to the commissioning of Unit No. 11 at the end of 2017)
- an increase in investments in subsidiaries by PLN 194 million resulting mainly from taking up new shares in the increased share capital of Polska Grupa Górnicza Sp. z o.o., Elektrownia Ostrołęka Sp. z o.o. and from an increase in the share capital of ElectroMobility Poland S.A.

### Change factors for current assets (decrease by PLN 109 million):

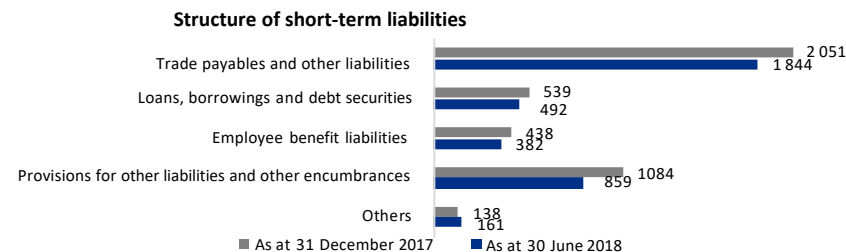
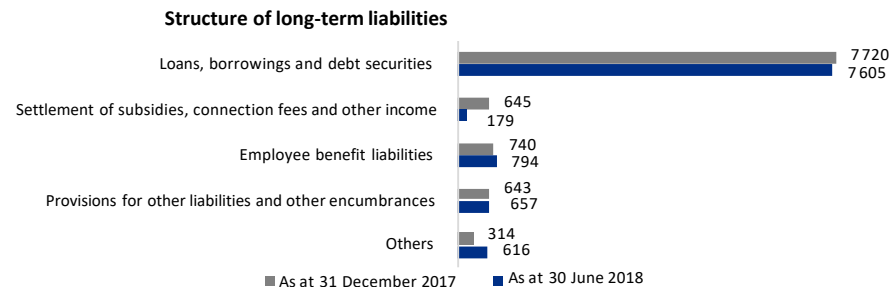
- a decrease in the value of CO<sub>2</sub> emission allowances by PLN 503,000 mainly due to redemption of allowances for the previous year
- an increase in cash and cash equivalents by PLN 352 million caused mainly by revaluation of CO<sub>2</sub> emission futures contracts from the ICE stock exchange, realised gains on futures transactions concerning the purchase of CO<sub>2</sub> emission allowances and current operations of Group companies

\* Data for H1 2018 incorporate changes resulting from the introduction of IFRS 15, while balance-sheet items for 2017 do not include new asset categories. Restated data for 31 December 2017 are presented in the Consolidated Financial Statements for H1 2018.

\*\* Data for H1 2018 incorporate changes resulting from the introduction of IFRS 9, while balance-sheet items for 2017 do not include new asset categories. Restated data for 31 December 2017 are presented in the Consolidated Financial Statements for H1 2018.

## Asset position - the structure of assets and liabilities of ENEA Group

Equity and liabilities [PLN k]	As at:		Change	% change
	31 December 2017	30 June 2018		
<b>Total equity</b>	<b>13,999,669</b>	<b>14,800,151</b>	<b>800,482</b>	<b>5.7%</b>
Share capital	588,018	588,018	-	-
Capital from the surplus of the issue price over the nominal value	3,632,464	3,632,464	-	-
Capital from the revaluation of financial instruments	741	933	192	25.9%
Other equity	-27,101	-27,101	-	-
Reserve capital from the valuation of hedging instruments	25,967	3,695	-22,272	-85.8%
Retained profits	8,858,130	9,651,464	793,334	9.0%
Non-controlling shares	921,450	950,678	29,228	3.2%
<b>Total liabilities</b>	<b>14,313,325</b>	<b>13,589,269</b>	<b>-724,056</b>	<b>-5.1%</b>
Long-term liabilities	10,063,012	9,851,074	-211,938	-2.1%
Short-term liabilities	4,250,313	3,738,195	-512,118	-12.0%
<b>Total equity and liabilities</b>	<b>28,312,994</b>	<b>28,389,420</b>	<b>76,426</b>	<b>0.3%</b>



### Change factors for long-term liabilities (decrease by PLN 212 million)

- a decrease by PLN 466 million in the item of settlement of income on subsidies, connection fees – resulting from the implementation of IFRS 15 which affects the manner of presenting the revenues from connection fees for tasks completed by 31 December 2009, recognised previously as deferred revenues
- a decrease by PLN 115 million in loans, borrowings and debt securities – mainly due to the reclassification of long-term liabilities to short-term liabilities
- an increase by PLN 54 million of the employee benefits provision
- an increase by PLN 302 million in other long-term liabilities: an increase in trade and other liabilities by PLN 187 million, an increase in deferred income tax provisions by PLN 91 million, an increase in liabilities due to contracts with customers by PLN 20 million (new balance sheet item since the implementation of IFRS 15).

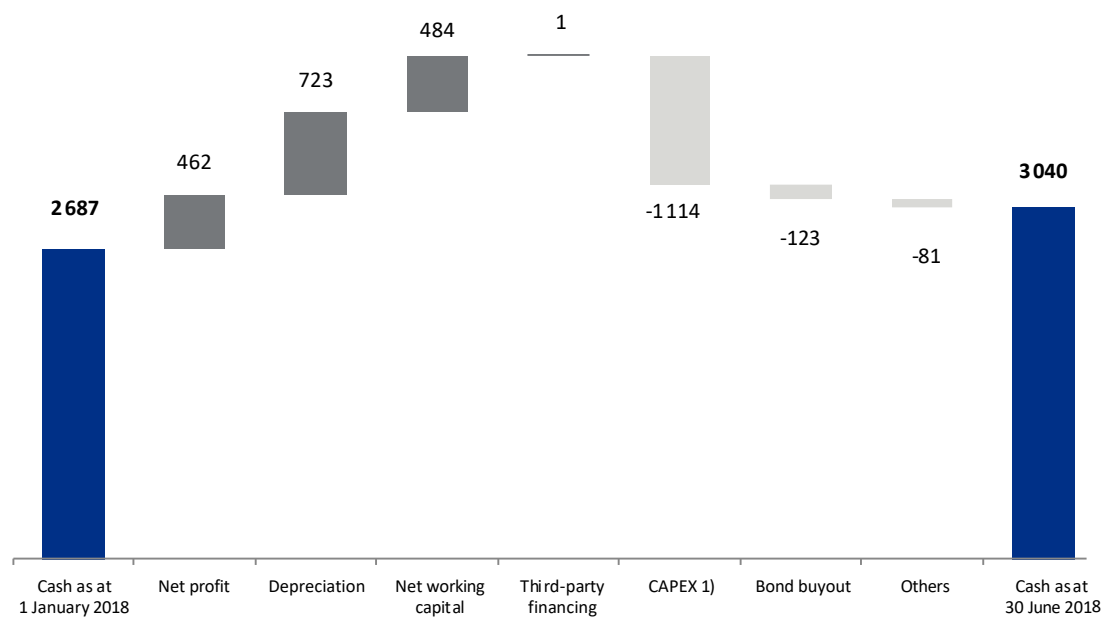
### Change factors for short-term liabilities (decrease by PLN 512 million)

- a decrease by PLN 225 million in provisions for other liabilities and other benefits - change in the provision for CO<sub>2</sub> emission allowances due to redemption of allowances for the previous year
- a decrease by PLN 207 million in trade and other liabilities due to lower investment liabilities (i.a. as a result of completion of the investment in 2017 – Unit No. 11)
- a decrease by PLN 56 million in provisions for employee benefits - payment of one-off benefits
- a decrease by PLN 47 million in loans, borrowings and debt securities - due to the redemption of the first tranche of bonds with a nominal value of PLN 75 million by LWB Bogdanka, repayment of loan instalments and redemption of bonds

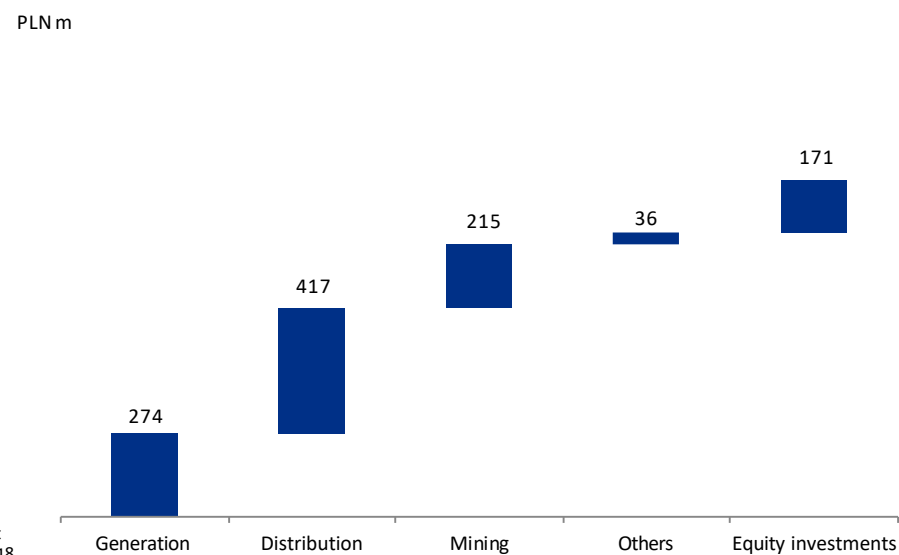
## Cash position of ENEA Group

Cash flow statement [PLN k]	H1 2017	H1 2018	Change	% change
Net cash flow from operating activities	1,354,737	1,893,828	539,091	39.8%
Net cash flow from investment activities	(2,235,821)	(1,261,161)	974,660	43.6%
Net cash flow from financial activities	127,312	(280,276)	-407,588	-320.1%
Increase / (decrease) in net cash	(753,772)	352,391	1,106,163	146.8%
Cash balance at the beginning of the reporting period	2,340,217	2,687,126	346,909	14.8%
<b>Cash balance at the end of the reporting period</b>	<b>1,586,445</b>	<b>3,039,517</b>	<b>1,453,072</b>	<b>91.6%</b>

PLNm



## H1 2018 CAPEX <sup>1)</sup> of ENEA Group



<sup>1)</sup>Acquisition of tangible and intangible non-current assets and acquisition of subsidiaries, associates and jointly controlled entities, adjusted for the acquired cash

## Ratio analysis <sup>1)</sup>

	H1 2017	H1 2018	Q2 2017	Q2 2018
<b>Profitability ratios</b>				
ROE – return on equity	9.3%	6.2%	9.0%	5.6%
ROA – return on assets	4.9%	3.3%	4.8%	2.9%
Net profitability	11.2%	7.7%	10.6%	6.8%
Operating profitability	14.0%	10.5%	14.0%	9.6%
EBITDA profitability	24.4%	21.6%	24.2%	19.7%
<b>Liquidity and financial structure ratios</b>				
Current liquidity ratio	1.5	1.6	1.5	1.6
Coverage of non-current assets with equity	64.1%	66.5%	64.1%	66.5%
Total debt ratio	46.6%	47.9%	46.6%	47.9%
Net debt / EBITDA	2.1	1.8	2.1	1.8
<b>Economic activity ratios</b>				
Current receivables turnover in days*	55	54	54	54
Trade and other liabilities turnover in days**	54	70	51	68
Inventory turnover in days	32	33	31	32

\* receivables due for supplies and services - commercial, assets on account of contracts with customers and costs of concluding contracts

\*\* liabilities due for deliveries and services - commercial, liabilities on account of contracts with customers

## 3.2. Rules for preparing financial statements

The condensed financial statements of ENEA S.A. and ENEA Group, respectively, contained in the extended consolidated report of ENEA S.A. H1 2018 have been drawn up in accordance with the International Accounting Standards and the International Financial Reporting Standards (IAS/IFRS) approved by the European Union. The condensed financial statements have been drawn up on the basis of the going-concern principle. As at the day of executing the condensed financial statements, the Management Board of the Company is not aware of any facts or circumstances indicating any threat to the possibility of continuing the Company's activities in the period of 12 months after the balance-sheet date as a result of voluntary or enforced discontinuation or a significant limitation of the present activities. Financial data presented in the statements, unless indicated otherwise, are expressed in thousands of PLN.

## 3.3. Expected financial situation

The operating and financial results of the Mining Area of ENEA Group in H1 2018 were significantly affected by geological and hydro-technical difficulties encountered in Q1 2018. Q2 2018 brought stabilisation of the level of extraction, and thus stabilisation of the planned revenues from the sale of coal. In 2018, the growth of fixed costs (such as wages, materials and costs of third-party services) independent of geological conditions is expected, which will make it unlikely for the unit production cost to remain at the level of 2017. Actions taken in the Area are aimed at maintaining high efficiency of the mine and a stable level of extraction in accordance with the assumptions presented in the Strategy for LW Bogdanka S.A. This is to be achieved by: keeping fixed costs at a reasonable level and investment outlays in the values allowing output to increase slightly in the following years. The predictability of the results of the Mining Area is influenced by: continuous search for process optimisation and innovative solutions, stabilisation of prices of energy fine coals, and ensuring the receipt of extracted coal by entities included in ENEA Group. The concern for the results of the current year does not mean that activities aimed at developing the mine and extending the prospects of its operations have become irrelevant, hence further applications for obtaining licences for new mining areas have been submitted. The planned increase in the employment level is to ensure the possibility of maintaining the unit extraction cost at an optimum level.

The Generation Area, which in H1 2018 was responsible for 33% of ENEA Group's EBITDA, remains invariably under the influence of the extremely demanding situation on the energy market. The coal-oriented production involves exposure to the risk associated with carbon dioxide emission costs, which in the period in question increased in a way that has not been observed before. The results of the Generation Area will also be influenced by the number of free CO<sub>2</sub> emission allowances obtained, which may turn out to be significantly lower than in previous years. As in every element of the value chain of ENEA Group, an increase - albeit small - in the fixed costs of the power plant, especially in the area of remuneration, as well as in variable costs, such as the cost of fuel transport resulting from ongoing repairs of railway routes, is noticeable. The major repairs of generation units planned for 2018-2021, which will make relatively long periods of suspension of electricity generation inevitable, are important for the revenues achieved by the Generation Area. Lower production of existing generation assets is and will be compensated by Unit 11 in subsequent periods. In the RES Segment, an increase in revenues from the sale of "green certificates" is observed as a result of a significant increase in the market price in the period in question. The results of the segment will be affected by significant optimisation of fixed costs, but also by the failure of the Bardy wind farm, which reduced the volume of electricity generated.

The area that consistently stabilises the predictability of financial flows is Distribution, responsible for 44% of the EBITDA result of ENEA Group. The results of this area are primarily affected by two elements: a decrease in the weighted average cost of capital adopted by the Energy Regulatory Office for tariff calculations (WACC) - 7.197% in 2015, 5.675% in 2016, 5.633% in 2017 - and the Energy Regulatory Office's introduction of the so-called quality tariff from 2016. It should be noted that only the EBITDA for 2019 may be subject to significant impact of weather events that took place in Q3 2017. These events had a huge influence on the values of the SAIDI and SAIFI indices achieved in 2017, though ENEA Group conducts activities aimed at the regulator taking their catastrophic nature into account. In order to ensure the implementation of indices determined by the President of the Energy Regulatory Office, ENEA Group implements investments in the Distribution Area, increasing the safety and stability of energy supplies. With a view to ensuring also stable cash flows in the future, ENEA Group intends to maintain investment expenditures related to the development of the grid at an unchanged level in the following years.

In the Trading Area, operational activities invariably concentrate on increasing revenues from the sale of electricity and gaseous fuel - thanks to the constantly developing product offer, new customers are gained and the volume of energy and gas sold is also growing. The financial results of the Trading Area are adversely affected by the growing market competition exerting pressure on realised sales prices. In the current period, the result of the Trading Area is significantly reduced compared to H1 2017 as a consequence of the rising prices of environmental obligations, with particular emphasis on "green certificates", the price of which also affects the reduction of the provision related to possible claims related to the termination of long-term contracts for the purchase of green property rights. An important element affecting the reduction of the area's results is the rising price of electricity, which in turn is influenced by the invariably high costs of purchasing CO<sub>2</sub> emission allowances and increasing fuel prices.

The financial position of the Group remains safe, for instance due to the relatively high level of cash, which at the end of H1 2018, together with short-term financial assets held to maturity and financial assets at fair value through profit, amounted to approx. PLN 3 billion. It should be noted, however, that a significant part of the financial resources was located as collateral for transactions at IRGIT (Commodity Clearing House) and concluded contracts for the purchase of CO<sub>2</sub> for subsequent settlement periods. At the moment, the Group's activities focus on seeking solutions that respond to the difficult market situation in the Generation and Trading Areas, so that the generated financial results and flows are subject to the least possible erosion compared to previous years. The fact that the Group is a closed value chain from coal mining to the sale of electricity to the end user enables flexible response to dynamic price increases, and the variable market and regulatory situation.

Thanks to financial results that do not deviate from the planned ones, a safe cash position and the availability of financing, ENEA Group can consistently implement the CAPEX programme (of investment outlays) in the individual areas of its activities.

### 3.4. Post balance sheet date events

Notwithstanding the information on the implementation of the subsequent stages of the Ostrołęka Power Plant project described in 2.2 Changes in the Group's structure, after the end of the reporting period there were no significant changes which may affect the financial results of ENEA Group.

### 3.5. Financial results forecasts

The Management Board of ENEA S.A. did not publish any financial results forecast for 2018.





## **4. Shares and shareholding**

## 4. SHARES AND SHAREHOLDING

### 4.1 Shareholding structure and share quotations

As at publication date of the H1 2018 report, the share capital of ENEA S.A. amounts to PLN 441,442,578 and is divided into 441,442,578 ordinary bearer shares of the nominal value of PLN 1 each.

The total number of votes resulting from all the issued shares of the Issuer corresponds to the number of shares and amounts to 441,442,578 votes.

#### Shareholding structure

All shares of the Company are dematerialised bearer shares registered with the National Depository for Securities. The table below presents the shareholding structure of ENEA S.A. as at the date of release of the H1 2018 report, that is as at 13 September 2018.

Shareholder	Number of shares /number of votes at GM	Share in the share capital / share in the total number of votes
State Treasury	227,364,428	51.50%
PZU TFI	43,959,339	9.96%
Others	170,118,811	38.54%
<b>TOTAL</b>	<b>441,442,578</b>	<b>100.00%</b>

From the publication date of the previous quarterly report, that is 24 May 2018, there were no changes in the shareholding structure concerning significant shareholders of the Company.

#### Price quotations of ENEA shares on the Warsaw Stock Exchange

ENEA S.A. shares have been listed on the Warsaw Stock Exchange (WSE) since 17 November 2008. Weights of the Company's shares in stock indices as at the end of June 2018 were as follows:

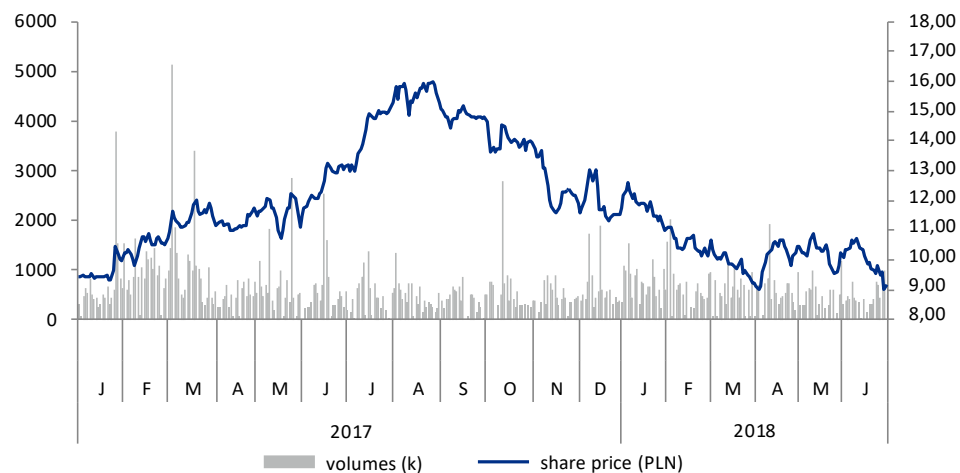


The table below presents data related to the Company's shares in the period January to June 2018.

Dane	1H 2018
Number of shares	441,442,578
Minimum price [PLN]	8.50
Maximum price [PLN]	12.78
Closing price [PLN]	8.60
Opening price [PLN]	11.50
Average volume	567,120



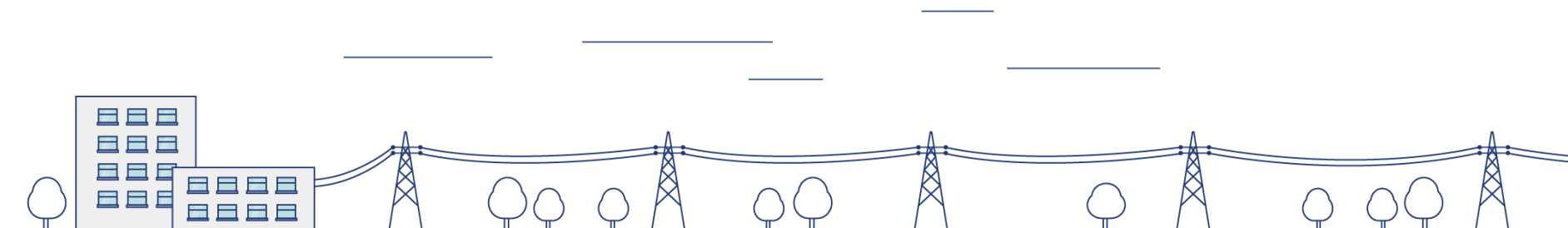
### Quotations of ENEA S.A.'s shares in 2017 and in Q1 2018



### Change in the price of ENEA S.A. shares vs. the changes in the WIG30 and WIG-Energy indices



In H1 2018, the share price of ENEA dropped from PLN 11.50 to PLN 8.60, i.e. by PLN 2.90 or 25.22%. From January 2017-June 2018, the highest closing price for ENEA shares was achieved on 28 August 2017 and the lowest - on 4 April 2018.





## **5. Governing bodies**

## 5. GOVERNING BODIES

### 5.1 Composition of the Management Board of ENEA S.A.

From the beginning of 2018, the Management Board of the Company included the following persons: Mirosław Kowalik - President of the Management Board and CEO, Piotr Adamczak - Vice-President of the Management Board for Commercial Affairs, Piotr Olejniczak - Vice-President of the Management Board for Financial Affairs and Zbigniew Piętko - Vice-President of the Management Board for Corporate Affairs.

#### **Mirosław Kowalik** President and CEO



Mirosław Kowalik has been connected with the power energy for over 20 years, holding managerial positions on an operating and strategic level. In 2015, he managed SNC Lavalin sp. z o.o. Polska as Vice-President of the Board and Business Development Director. During 1999–2015, he worked on various managerial positions for ASLTOM Power Group, recently as Marketing and Sales Director. Connected with the ABB concern during 1995–1998. A graduate of the Faculty of Energy Engineering of the Gdynia Maritime University. He graduated from MBA (Rotterdam School of Management programme in cooperation with the University of Gdańsk and Gdańsk Foundation for Management Development), achieving the degree of Executive Master of Business Administration. He is also a graduate of postgraduate studies of Corporate Finance Management at the Warsaw School of Economics. He has also completed many specialist product and management training courses, including most recently four-year part-time doctoral studies and two-year postgraduate Executive Doctor of Business Administration studies at the Institute of Economics of the Polish Academy of Sciences. Scope of competence: chairs the work of the Management Board and directly coordinates the activities of the Company and ENEA Group in accordance with the adopted Strategy.

#### **Piotr Adamczak** Vice-President for Commercial Affairs



Piotr Adamczak has been connected with the power industry for over 20 years. He commenced his professional career in Zakład Energetyczny Poznań. He managed the Market Organisation Department in EnergoPartner Wielkopolska. During 2002–2011, he worked in Energetyka Poznańska, and after the consolidation in Grupa Energetyczna ENEA S.A., on the positions of the Office Manager, Division Manager and Department Director, he dealt with the centralisation and realisation of tasks within the wholesale trade in electricity, duties of a commercial and technical coordinator, commercial coordinator, and commercial cooperation with RES as well. From 2011, he worked on the position of Office Manager, and from 2013 of Trading Department Director in ENEA Trading, where he dealt with commercial activities on electricity markets, proprietary interests to certificates of origin, emission allowances and commercial cooperation with RES for the account of ENEA Group companies. A graduate of the Poznań University of Technology, majoring in Electrical Engineering at the Faculty of Electrical Engineering. He also graduated from Postgraduate Studies in Economic Problems of Power Sector Transformation at the Warsaw School of Economics, and Postgraduate Studies in Electricity Trade Management at the Poznań Trade and Services College. Scope of competence: Supervision and coordination of the overall tasks related to the trading activity and Customer service.

#### **Piotr Olejniczak** Vice-President for Financial Affairs



Piotr Olejniczak has been involved in corporate finance area since the very beginning of his business career. He has over 20 years of experience gained in consulting companies where he was employed on managerial positions. Since 2015, he has been carrying on his own business activity in the field of consulting, among others. Earlier, in the years 2008–2015, he had been Director of the Capital Market Department at IPOPEMA Securities. Also, he spent seven years working for KPMG Advisory as a manager and vice director in the Corporate Finance Team. In the period 1996–2001, he was engaged by BRE Corporate Finance where he got promoted from Senior Consultant to Area Manager. He started his business career at Doradca Consultants Ltd. as a junior consultant in the Financial Consulting Department. He has graduated from the Faculty of Economy at the University of Gdańsk. He also studied finance and the German language during his scholarship at FHTW Berlin (at present: Hochschule für Wirtschaft und Recht Berlin) and at the Johann Wolfgang Goethe University in Frankfurt am Main. He completed postgraduate studies at the University of Warsaw in the field of corporate law and capital market law. Scope of competence: Supervision and coordination of the entirety of economic, financial, and accounting issues related to risk management in the Company and in ENEA Group, ICT and controlling.

#### **Zbigniew Piętko** Vice-President for Corporate Affairs



Zbigniew Piętko has been involved in the power sector for almost 40 years. From 2016, he was Deputy Director of the Maritime Office in Szczecin for technical affairs. From 2009 to 2014, he worked as an electro-technical officer in the Polish Shipping industry, with which he was also associated at the beginning of his career from 1981 to 1994. From 2007 to 2008, he was Vice-President of ENEA for Infrastructure. He also gained managerial experience in the Szczecin-Świnoujście Seaports Authority, where in 1994–2007 he was Head of the Energy Department - Main Energy Officer. Zbigniew Piętko is a graduate of the Faculty of Electrical Engineering of the Szczecin University of Technology. He also completed Postgraduate Studies at the Warsaw University of Technology in the field of energy company management in the conditions of development of energy markets. Scope of competence: Supervision and coordination of all issues related to Corporate Governance, ownership supervision, services in ENEA Group.

## 5.2. Composition of the Supervisory Board of ENEA S.A.

W On 13 March 2018, the Company received the notice of resignation of Mr. Paweł Skopiński from his function of ENEA S.A. Supervisory Board Member effective as of 13 March 2018. On 22 March 2018, the Company received a statement of the Minister of Energy, effective as of 22 March 2018, on exercising the entitlement to appoint, pursuant to § 24 item 1 of the Company's statute, a Member of ENEA S.A. Supervisory Board. In accordance with the above entitlement as of 22 March 2018 Mr. Ireneusz Kulka was appointed to the Supervisory Board.

On 16 April 2018, the Management Board of ENEA S.A. became aware of the statement of the Minister of Education dated 13 April 2018 on the dismissal of a Company's Supervisory Board Member in accordance with the entitlements vested in the Minister of Energy pursuant to § 24 item 1 of the Company's statute. In accordance with these entitlements, as of 15 April 2018, Mr. Ireneusz Kulka was dismissed from the Supervisory Board of the Company. Moreover, on 16 April 2018, the Extraordinary General Meeting of Shareholders of ENEA S.A. dismissed from the Supervisory Board of ENEA S.A. Mr. Rafał Bargiel and Mr. Piotr Kossak, and appointed to the Supervisory Board of the Company Mr. Ireneusz Kulka and Mr. Paweł Jabłoński, whereas the resolution on appointing Mr Paweł Jabłoński entered into force as of obtaining a binding positive opinion of the Board for Companies with State Treasury Shareholding and State Legal Persons in relation to this candidate, namely as of 20 April 2018. On 31 July 2018, the Company received a resignation dated the same date of Mr Rafał Szymański from his position of a member of the Supervisory Board of ENEA S.A.

As at the day of publication of this report, the Company's Supervisory Board of the 9th tenure was comprised of eight members and it acts in the following composition:

**Stanisław Kazimierz Hebda**, Chairman of the Supervisory Board. Date of appointment: 28 December 2017

Stanisław Kazimierz Hebda is the General Director at the Ministry of Energy. He has over 28 years of professional experience, including 15 years on managerial positions. He is an appointed civil servant. As an expert in shareholder supervision over state-owned companies, he represented the State Treasury in many supervisory boards. He was a member of the Examination Board at the Ministry of the State Treasury for candidates to supervisory boards. Stanisław Kazimierz Hebda has graduated from the Main School of Planning and Statistics (present name: the Warsaw School of Economics). He studied at the Faculty of Production Economics (major: Economics and Organisation of Industry). He completed postgraduate National Security Studies (University of Warsaw), European Studies (University of Warsaw) and postgraduate Audit and Internal Control Studies (Vistula University). He was the Chairman of the Audit Committee at Korporacja Ubezpieczeń Kredytów Eksportowych S.A. He has over 10 years of experience in diplomatic service as a former commercial consul in the Consulate General of the Republic of Poland in Munich and Cologne.

**Paweł Jabłoński**, Vice-Chairman of the Supervisory Board. Date of appointment: 20 April 2018

Paweł Jabłoński is a lawyer entered on the list kept by the Bar Council in Warsaw. In 2010, he graduated in law at the Faculty of Law and Administration of the Warsaw University. He worked, among others, in the Warsaw branch of Gide Loyrette Nouel, and then, since 2015, he run his own law firm providing services to businesses and natural persons. In his professional practice, he was dealing e.g. in matters related to property law, due diligence of power and heating companies, regulatory proceedings, and running civil litigations in matters related to the transmission service easement and correctness of power consumption measurements. Currently, he is a member of the Expert Team to the Prime Minister.

**Wojciech Klimowicz**, Member of the Supervisory Board. Date of appointment: 2 July 2015

Wojciech Klimowicz has been associated with ENEA S.A. since 2003 and currently works in the Sales Department.

Wojciech Klimowicz graduated from the Adam Mickiewicz University in Poznań with a Master's degree, Faculty of Social Sciences, majoring in Political Science (specialization: local government administration). He also completed Postgraduate Studies: Statistical analysis of data in administration and business at the Faculty of Economics of the Poznań University of Economics.

**Tadeusz Mikłosz**, Member of the Supervisory Board. Date of appointment: 2 July 2015

Tadeusz Mikłosz has many years of professional experience in the area of power engineering and corporate governance. Since 1983 he has been associated with ENEA S.A. and its legal predecessor; currently he is an employee of the Operational Management Department. Since 1997, he has been a member of numerous supervisory boards of commercial law companies. Tadeusz Mikłosz has a university degree in team management and political science. In addition, he completed Postgraduate Studies in Business Law at the Poznań University of Economics.

**Sławomir Brzeziński**, Member of the Supervisory Board. Date of appointment: 2 July 2015

Sławomir Brzeziński has been associated with ENEA S.A. since 2008. Currently, he holds the position of the Organisation and Security Department Director. Previously he was related to the International Fairs of Poznań. Sławomir Brzeziński is a graduate of the Faculty of Mechanical Engineering and Management at Poznań University of Technology. He also graduated Post-graduate studies at Poznań University of Economics in logistics and supply chain management and Poznań University of Technology, majoring in quality management.

**Roman Stryjski**, Member of the Supervisory Board. Date of appointment: 15 January 2016

Roman Stryjski is a Professor of the University of Zielona Góra, Director of the Institute of Computer Science and Production Management. Formerly, he was professionally connected with the Higher Engineering School in Zielona Góra and the Pedagogical University in Zielona Góra for many years. Member of international scientific societies and advisory committees, the Polish Association for Energy Certification and the Committee of Organisation and Management Sciences of the Polish Academy of Sciences Branch in Poznań. Roman Stryjski is a doctor habil. of technical sciences of Martin Luther University Halle-Wittenberg.

**Piotr Mirkowski**, Member of the Supervisory Board. Date of appointment: 15 January 2016

During 2009–2015, Piotr Mirkowski was a member of the Supervisory Board of the joint-stock company Radpec S.A. In 2007–2015, he was associated with RTBS “Administrator” sp. z o.o. From 1998 to 1999, he was employed in Zakład Usług Technicznych Energetyki Ciepłej in Radom on the position of an operations Director. During 1989–1998, he worked as Manager of the Heat Networks Department in Wojewódzkie Przedsiębiorstwo Energetyki Ciepłej in Radom.

Piotr Mirkowski is a graduate of the Radom School of Engineering, specialising in mechanical engineering. He also graduated from Postgraduate Studies at the Warsaw University of Technology in heating and energy auditing. He holds certificates of an ISO auditor and an ISO representative.

**Ireneusz Kulka**, Member of the Supervisory Board. Date of appointment: 22 March 2018

Ireneusz Kulka is an experienced manager with many years of experience in business management. His area of expertise covers the broadly understood customer area including product development, sales, and maintenance of services provided to customers in telecommunications and power industry. He holds a doctoral degree in economics, and he also graduated from the IESE Advanced Management Program at the University of Navarra.

In connection with the nomination of the Supervisory Board of the 9th term of office, the Audit Committee and the Nominations and Remuneration Committee were established. As at the date of publication of this report, the composition of the aforementioned committees was as follows:

#### Audit Committee

Name	Function
Ireneusz Kulka <sup>1)</sup>	Chairman
Roman Stryjski <sup>1)</sup>	Member
Piotr Mirkowski <sup>1)</sup>	Member
Sławomir Brzeziński	Member
Wojciech Klimowicz	Member

#### Nominations and Remuneration Committee

Name	Function
Paweł Jabłoński	Chairman
Stanisław Hebda	Member
Tadeusz Mikłosz	Member
Piotr Mirkowski <sup>1)</sup>	Member

<sup>1)</sup>Independent Member within the meaning of Article 129 Section III. 1 point 3 of the Act of 11 May 2017 on Statutory Auditors of Audit Firms and Public Supervision

### 5.3. List of shares and allotment certificates to ENEA S.A. shares held by members of the Management and Supervisory Boards

Name	Function	Number of ENEA S.A. shares as at 23 March 2018	Number of ENEA S.A. shares as at 24 May 2018
Tadeusz Mikłosz	Member of the Supervisory Board	4,140	4,140

As at the date of release of this periodic report no other persons from the Management or Supervisory Boards hold any ENEA S.A. shares. As at the date of release of this periodic report no persons from the Management or Supervisory Boards hold any shares in subsidiaries of ENEA S.A..



## **6. Other information significant for the assessment of the issuer's situation**

## 6. OTHER INFORMATION SIGNIFICANT FOR THE ASSESSMENT OF THE ISSUER'S SITUATION

### 6.1 Events which may affect future results

#### Regulatory environment

The activities of ENEA S.A. are carried out in an environment subject to specific legal regulations both at the domestic level as well as at the level of the European Union. Since legal regulations in the energy sector are often a derivative of political decisions, there is always a risk of frequent changes in this scope, which cannot be foreseen by the Company and which can result in the lack of consistency and uniformity of provisions based on which ENEA S.A. conducts its activities. Notwithstanding the foregoing, the activities of the Group are regulated by the current shape of the national legal system defining the framework for business activity in Poland, including in particular in the scope of the tax system, protection of competition and consumers, employee rights, or environment protection. It cannot be excluded that changes in these areas, both in specific legal acts as well as individual interpretations relating to significant areas of activity of the Group, can lead to possible liabilities of the Group's companies.

#### Internal energy market

On 30 November 2016, the European Commission published a draft of a series of EU regulations entitled "Clean Energy for all Europeans", the so-called Winter Package (WP), i.e. a set of new, comprehensive legislative proposals in the field of energy and climate policy (Regulations and Directives) concerning the establishment of a single internal energy market, changes in the structure of the retail market, development of RES and increasing energy efficiency, with the planned date of entry into force across the EU on 1 January 2020. The main objectives of the regulation were set out in the document of the EU Climate and Energy Policy Framework adopted by the resolution of the European Council in October 2014. The proposed package of measures is also intended to maintain the EU's competitiveness at a time when the transition to clean energy is determining the development of global energy markets.

The concept of the internal energy market that has been put forward considers the consumer, including the prosumer, to be its central player. EU consumers are to be actively involved in the energy market, including being provided with more opportunities to generate and sell their own electricity, more choice of energy supplier, access to reliable benchmarking tools for electricity prices (transparency of the internal market). Four of the eight legal acts in the package have now been finalised. Under the Bulgarian presidency representing the EU Member States which finished on 30 June 2018, works on the Directive on the energy performance of buildings, the RES directive, the "Governance" regulation and the Directive on energy efficiency were completed. The key points are set out below. After the takeover of the EU presidency by Austria on 1 July, compromise positions will be reached on the regulation and the market design directive – in the so-called trilogue phase, i.e. in trilogue negotiations between the European Commission, the European Parliament and the Council.

#### Demand for electricity

According to the forecasts included in the document entitled "Updated forecast of demand for fuels and energy until 2030", the demand for electricity in the forthcoming years will rise in all economy sectors. Pursuant to the abovementioned document, net electricity production will have risen to 193.3 TWh by 2030. Moreover, pursuant to the document entitled "Conclusions from forecasting analyses for purposes of the Polish energy policy until 2050", in the time horizon reaching 2050, electricity production will increase by approx. 40% – from 158 TWh in 2010 to 223 TWh in 2050.<sup>1)</sup> Notwithstanding the above, the Ministry of Energy is currently working on the new Polish power policy (PPP) which will describe the government's long-term vision for the power sector.

<sup>1)</sup>[bip.me.gov.pl/files/upload/21394/Wnioski%20z%20analiz%20prognostycznych\\_2014-08-11.pdf](http://bip.me.gov.pl/files/upload/21394/Wnioski%20z%20analiz%20prognostycznych_2014-08-11.pdf)



## Capacity Market

Last year, the President of the Republic of Poland signed the Act of 8 December 2017 on the capacity market, the purpose of which is to ensure the continuity and stability of power supply for both industry and households. The introduction of the capacity market means a change in the structure of the energy market from a single commodity market to a dual commodity market, where, in addition to electricity generation, readiness to supply the grid will also be subject to trading (net available capacity). The selection of the remunerated capacity market units will be based on “Dutch type” auctions. On 7 February 2018, the Polish Capacity Market Act was approved by the European Commission as a result of the notification. In the text of the decision, the EC introduced a provision in the form of an obligation to deduct the public aid of an investment character obtained by entities from the capacity remuneration. Consequently, on 30 March 2018, the President of the Energy Regulatory Office issued a decision approving the Capacity Market Rules, which contains detailed operating conditions and specifies technical and operational details of the Polish capacity market. The document also regulates the rules of operation of the capacity market register used for individual certifications and auctions. In the regulatory aspect, the issuance of executive acts to the Act is important from the point of view of the Capacity Market. So far, draft regulations have been published concerning financial security and the rules for the implementation of the capacity obligation. The Regulation on the parameters of the auctions, which is crucial in the context of preparation for participation in the auctions, was issued on 22 August 2018.

### Schedule of capacity market process for 2018:

Start of the general certification process – 3 April 2018  
Start of certification for main auctions for 2021–2023 – 5 September 2018  
End of certification for main auctions for 2021–2023 – 31 October 2018  
Main auction for 2021 – 15 November 2018  
Main auction for 2022 – 5 December 2018  
Main auction for 2023 – 21 December 2018

In accordance with the schedule of capacity market processes for 2018, in the period from 3 April to 29 May 2018, PSE S.A. carried out the first general certification process, under which all the assets of Enea Wytwarzanie and Enea Elektrownia Połaniec had been notified.

ENE A Group has established an interdisciplinary team consisting of employees from the Group's main companies, including those responsible for generation and trading. The team works on the strategy of participation in main auctions using fundamental methods and game theory. At the same time, it participates in industry bodies (Polish Electricity Association - PKEE, Economic Society Polish Power Plants - TGPE, Association of Energy Trading - TOE) in order to actively support the implementation of the capacity market in Poland.

## REMIT

REMIT is the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (Regulation on Wholesale Energy Market Integrity and Transparency). By virtue of the Regulation, the electricity market is subject to strict and restrictive rules of publication and public character of any information which may affect the prices of energy products on the wholesale energy market, including the absolute ban on market manipulation. REMIT provides for the obligation of registration of each market participant in the national register of market participants. Any market participant is obliged to report data on the transactions concluded on wholesale energy markets, including any orders placed. The duty of reporting to EW refers to the basic data on the capacity and use of generating infrastructure. Also, REMIT stipulates the obligation to make inside information public in the form of an announcement. REMIT prohibits market manipulation and attempts to manipulate the market and does not allow to use inside information. Under REMIT, regulatory authorities acquire the powers in the field of conducting investigations and enforcing the provisions of REMIT.

## Key objectives and provisions of the Winter Package:

### 1) Decarbonisation:

- based on the WP regulations, in the long term, i.e. by 2050, the EU plans to transition to a zero-carbon economy – for this purpose, the so-called Energy Road Map for the EU by 2050 is being developed.

### 2) Intensive development of renewable energy sources (amendment of the RES Directive, i.e. RED II):

- On 14 June 2018, a memorandum of understanding on long-negotiated provisions was agreed. With regard to the overall binding target for the share of RES in 2030, a 32% target was set with no binding national targets. In addition, a revision of the 2023 target was agreed.
- In the context of state aid, the conditions for eligibility of biomass-fired power plants for financial support were specified. In the case of installations from 50 to 100 MW –the support was made dependent on the fulfilment of efficiency levels in accordance with the reference document BAT LCP (Best Available Techniques). For units with capacity above 100 MW, at least 36% electricity efficiency is required.
- For the transport sector, the RES target for 2030 was set at 14% and by this year the elimination of the use of palm oil was agreed.

### 3) Increasing energy efficiency, with a binding EU target of 35% by 2030 – the draft Energy Efficiency Directive, related to support (transformation, modernisation) in the area of heating and cooling:

- On 20 June 2018, negotiations on the final form of the legislation finished with an increase in the non-binding pan-European energy efficiency target of 32.5% compared to the 2007 energy consumption forecasts.
- For the annual savings of energy sold to end users, the target of 0.80% was set.

### 4) Development of and support for electromobility in the EU, primarily in **public transport (draft regulations constituting the so-called Clean Mobility Package, published by the European Commission in November 2017);**

### 5) the draft of a Single Electricity Market design - new rules of energy legal framework for the European Union introduced by the draft:

- Regulation of the European Parliament concerning the internal energy market;

The act introduces, i.a., the criterion of qualification of units to the capacity market - the EPS 550g CO<sub>2</sub>/kWh emission standard for generating units taking part in the capacity market (eliminating support for coal-fired units). Currently, negotiations on the final form of the provisions are in progress. The position of the EU Council assumes a transitional period to 2025 and 2030 for concluded capacity contracts, while the European Parliament's position constitutes a tightening of the position of the European Commission, taking into account the priority of the strategic reserve with an annual emission limit of 200g CO<sub>2</sub>/kW, before capacity mechanisms.

- Directives concerning common rules for the internal energy market,
- Currently, the documents are under negotiations in the so-called trilogue, and a solution is expected by the end of this year.

### 6) Energy Union Management System (EU Governance) – a regulation, the wording of which was agreed on 20 June 2018, regulates, among others:

- the obligation for each Member State to notify, by the end of 2018, a draft of the first National Integrated Energy and Climate Plan (“NIECP”) for the period 2021 to 2030 – i.a., the Member State's declared share of RES.
- Obligation of Member States to evenly spread the growth of RES over 10 years (development trajectory – reaching reference points – in 2022, 18% of the required growth will be achieved, 2025 - 43%, 2027 - 65%).
- lack of clearly defined means of enforcing the objectives from the Member States in the event of failure to meet the set objectives – issuance of non-compulsory recommendations of the European Commission.

### 7) mandatory development of grid infrastructure (cross-border interconnections); with the target of establishing the EU DSO Entity, new powers and competences of ACER and ENTSO-e at EU level.

## The European Union Emission Trading Scheme (EU ETS)

On 8 April 2018, Directive (EU) 2018/410 of the European Parliament and of the Council introducing changes to the greenhouse gas emission allowance trading system came into force.

The Directive establishes, i.a., two financial mechanisms:

- Modernisation Fund - for the modernisation of energy systems in low income Member States. It is intended to be financed by proceeds from the auction of allowances in the years 2012 to 2030. The Fund is to be used primarily to support the development of energy efficiency and investments in renewable energy sources.
- Innovation Fund - to provide financial support for RES development, carbon capture and storage and innovative low-emission projects. It is to be supplied with funds from allowances, which otherwise would be allocated free of charge or sold through auctions.

## Financial markets (MiFID 2)

Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU (MiFID 2). On 3 January 2018 came into force MiFID 2, which is a legal act primarily concerning financial markets, but also affecting companies from the energy sector. Several key issues are relevant to the energy sector. Firstly, emission allowances and derivatives based on emission allowances have been unconditionally included in the list of financial instruments. Also, to the list were added commodity derivatives (including forward contracts for electricity and gas), which are equivalent to contracts concluded on organised markets, i.e. regulated markets, MTFs and OTFs. An exception will be the contracts traded on the OTF markets, settled by physical delivery, concerning the so-called wholesale energy products - i.e. transactions concerning electricity and gas falling within the scope of the REMIT regulation (the so-called REMIT carve-out). Classification of certain products as financial instruments will have an impact on the rules of trading in these instruments – conditions of trading, security and clearing. As a consequence, the existing Commodity Forward Instruments Market operated by TGE S.A. will ultimately be transformed into an OTF (organised trading platform). MiFID 2 also amended the rules for exemptions from the need to obtain permits from the financial supervision authority (KNF) to conduct brokerage activities with respect to financial instruments. As a result of this change, energy companies had to analyse their activities and adapt to the new requirements, or decide to obtain the status of an investment firm. MiFID 2 was implemented into the Polish legal system by the Act of 1 March 2018 amending the Act on trading in financial instruments and certain other acts, which entered into force on 21 April 2018.

## Limits on Property Rights

### GREEN

In the area of PMOZE\_A (certificates of origin of energy generated from renewable sources), there has been a permanent surplus of rights on the market, which was reflected by the low price levels recorded in 2016 and in H1 2017. As at 27 April, it is estimated that after the fulfilment of the obligation for 2017 around 25 TWh of active PMOZE\_A will remain on registers. The Regulation of the Minister of Energy of 11 August 2017 determining the obligation level for the years 2018-2019 (17.5% and 18.5%, respectively) improved the perspective for the long-term handling of the surplus. In addition, the amendment to the RES Act (of 20 July 2017) and the interpretation of the Minister of Energy in the scope of the lack of possibility of settling the replacement fee as long as the unit replacement fee does not reach the maximum level (300.03 PLN/MWh), resulted in a strong increase in prices of PMOZE\_A to the level of PLN 70/MWh and established a sustained upward trend.

### LIGHT BLUE

In the area of PMOZE\_BIO (certificates of origin of energy generated from agricultural biogas), the situation has completely changed when compared to the redemption obligation for 2016. In the first half of 2017, the prices reached a level of PLN 470/MWh. The valuation of the instrument came close to the level of the unit replacement fee (PLN 300.03/MWh) only after the publication of the first draft amendment to the RES Act in June 2017, conditionally unlocking the possibility of settling the replacement fee. Since this point in time, the prices of “light blue” property rights have remained above the replacement fee, but they are close to it (above PLN 317/MWh), with account taken of the purchaser’s benefit resulting from the possibility of deducting the excise tax (PLN 20/MWh) for the fulfilment of the obligation through redemption of certificates of origin. The price trend is maintained due to the fact that the conditions for paying the replacement fee have been met since the beginning of 2018. This should continue as long as the average three-month PMOZE\_BIO price is above the level of the unit replacement fee.

## COGENERATION

The current system of property rights for cogeneration will remain in effect until the end of 2018 and legislative work is under way on a new support system operating on the basis of an auction system.

## WHITE

In the previous year, for the first time the moment of fulfilment of the obligation was set to the end of June, in connection with the new Act on Energy Efficiency of 20 May 2016. As a result, there are currently four indices for “white” property rights on the market, i.e.:

- PMEF – energy efficiency certificates issued on the basis of a system of tenders pursuant to the previous legal basis, subject to expiry as of 30 June 2019;
- PMEF-2017 – energy efficiency certificates issued for completed investments, for applications submitted in 2017 (outside the system of tenders), which, like “cogeneration” property rights, shall expire after 30 June 2018;
- PMEF-2018 – energy efficiency certificates issued for completed investments, for applications submitted in 2018 (outside the system of tenders), which, like “cogeneration” property rights, shall expire after 30 June 2019;
- PMEF\_F – energy efficiency certificates issued for non-started investments pursuant to the Act of 20 May 2016, without expiry date.

On 20 July 2017, results of the last tender for investments in the field of energy efficiency, announced by the Energy Regulatory Office on 21 September 2016, were published. The projects selected in individual categories amounted in total to nearly 55% of the pool (806.743/toe in total). The growth in the number of PMEF on the market resulted in the fall of prices of the instrument in the second half of 2017. In the end, however, index prices returned to the average level of PLN 712/toe due to the appearance of information from the Ministry of Energy that if there is a risk that after the obligation for 2018, i.e. after 30 June 2019, unused PMEFs will remain on the registers, then measures may be taken to change the date of their redemption, i.e. extend their validity.

The recent amendment to the Act on Energy Efficiency, although it facilitated the process of application for support for activities in favour of energy efficiency, in connection with the failure to initiate a tender procedure, it simultaneously reduced the PMEF\_F supply through the limitation of support for a project to the amount of one average annual energy saving. This translated into the valuation of PMEF\_F at a level of PLN 1,500/toe (similar to the unit replacement fee).

## Variability and liquidity on the wholesale market

The doubled obligation to trade applicable as of the beginning of 2018 significantly contributed to the improvement of liquidity on all floors of the Polish Power Exchange. Therefore, in the framework of the annual frontal contract in the first quarter of 2018, transactions were made in a volume of 165.5%, larger than in relation to the analogical product in the first quarter of 2017. High prices for the first quarter were also recorded on the RDN where the average price from Fixing 1 stood at a level of PLN 184.83/MWh, given a level of PLN 155.11/MWh year before. The increase of the spot price was largely influenced by changes in the generation structure of conventional plants, by higher prices of generation fuels, and higher environmental costs incurred. More expensive emission allowances resulted also in the change of moods in term contracting on the Polish Power Exchange, where transactions on the annual contract BASE Y-19 in the first quarter were made at an average price higher by PLN 25.75 than in the analogical period of the previous year in relation to BASE Y-18 product.

## Termination/withdrawal by ENEA S.A. of/from property right purchase agreements

On 28 October 2016, ENEA made a statement of termination of or withdrawal from all long-term property right purchase agreements resulting from the certificates of origin of energy from renewable sources (the so-called green certificates). These agreements became dissolved.

The Company had to terminate/withdraw from the individual agreements as it has exhausted all possibilities of restoring contract balance and equivalence of the parties' performances due to the amendments to the law. The financial consequences of dissolving the abovementioned agreements will be the avoidance by the Company of the loss being the balance of the contractual prices and the market price of green certificates. At present, three cases are pending before the Regional Court in Poznań for declaring ineffectiveness of termination (withdrawal) by ENEA S.A. of (from) property right sale agreements. In addition, some proceedings are pending against ENEA S.A. for payment of the fee for property rights resulting from the deduction of payment for the damage caused to ENEA S.A. through the contracting party's non-fulfilment of its contractual obligation to participate, in good faith, in renegotiating the long-term property right sale agreements pursuant to the adaptation clause binding on the parties.

The estimate total net value of ENEA's contractual liabilities was approx. PLN 1.187m net.

### **Continued cooperation in the construction of Poland's first nuclear power plant**

On 3 September 2014, a Shareholder Agreement was concluded between PGE Polska Grupa Energetyczna and Tauron Polska Energia, ENEA and KGHM Polska Miedź (Business Partners). On April 15, 2015, pursuant to the Shareholder Agreement, an agreement was signed for the sale of shares in PGE EJ 1 sp. z o.o., under which each Business Partner acquired a 10% share in PGE EJ 1. Following the disposal by PGE Polska Grupa Energetyczna to its Business Partners of shares in PGE EJ 1, PGE Polska Grupa Energetyczna holds 70% of the share capital of PGE EJ 1, and the other Business Partners (Tauron Polska Energia, ENEA and KGHM Polska Miedź) hold 30%, i.e. 10% each. According to the assumptions of PGE Polska Grupa Energetyczna, it plays a leading role in the project of construction and operation of the first Polish nuclear power plant, and PGE EJ 1 is to act as the operator of the power plant in the future. Pursuant to the Shareholder Agreement, the Parties undertake to finance jointly, in proportion to their shares, the activities of the Project Preliminary Phase (Development Phase). The financial involvement of ENEA during the Development Phase will not exceed approximately PLN 107 million. In Q1 2018, PGE EJ 1 continued to work on the programme to prepare for the construction of a nuclear power plant in Poland. The Parties to the Shareholder Agreement foresee that the decision regarding the declaration of further participation of the individual Parties in the next stage of the Project will be taken after the end of the Development Phase.

### **Act on electromobility and alternative fuels**

On 28 December 2017, the Council of Ministers passed draft Act on electromobility and alternative fuels which was submitted by the Minister of Energy. Draft Act proposes the regulations which aim to stimulate electromobility development in Poland and the use of alternative fuels, including electricity, in transport. The Act sets the legal framework for expansion of the vehicle charging infrastructure, supporting the growth of the market and infrastructure of alternative fuels as well as innovative forms of transport. The Act was signed by the President of the Republic of Poland, Mr Andrzej Duda, on 5 February 2018 and will come into effect 14 days after the day of its publication in the Journal of Laws. The Act introduces new terms, such as charging services. Electric vehicle charging is the new type of business activity; such charging services are not considered the sale of electricity within the meaning of the Power Law Act, which is why they do not require a licence. Charging services will ensure free-of-charge charging of vehicles in the publicly available charging stations. The first stage of the electricity charging stations construction will take place in the years 2018 and 2019. The relevant infrastructure should be developed on an arm's length basis during this period, with co-financing from the public funds. If the target number of charging stations in the municipalities meeting the conditions set out in the Act is not reached by the end of 2019, such municipalities will have to prepare a plan for development of the missing vehicle charging infrastructure; the party responsible for the construction of the missing charging stations in such municipalities will be the electricity distribution system operator. Individual solutions will be implemented gradually until 2028.

On 28 July 2018, the Act of 6 June 2018 amending the Act on biocomponents and liquid biofuels and certain other acts amending some provisions of the Act on electromobility and alternative fuels came into force. The Act established, among others, the Low Emission Transport Fund, a state special purpose fund administered by the minister in charge of energy matters. The management of the Fund has been entrusted to the National Fund for Environmental Protection and Water Management. Bank Gospodarstwa Krajowego will provide banking services for the Fund. The purpose of the Fund will be to finance projects related to the development of electromobility and transport based on alternative fuels.

### **Operations of ElectroMobility Poland S.A.**

On 19 October 2016, PGE Polska Grupa Energetyczna, Energa, ENEA and Tauron Polska Energia established ElectroMobility Poland S.A.. The new company's activity is to contribute to establishing the electromobility system in Poland and to implement a programme aimed at the construction of a Polish electric vehicle and selling it on a mass scale. The company has the share capital of PLN 10m. Each of the companies establishing ElectroMobility Poland S.A. took up 25% of the share capital, thus achieving 25% of votes at the general meeting of shareholders. In January 2018, the share capital of the company was increased by the shareholders to the total amount of PLN 30 million.

## Situation in the domestic bituminous coal mining sector

The electricity price curve will be strongly dependent on the cost of production fuel sourcing. The need for restructuring of the mining sector in the mid-term shall translate into a change of prices of supplied energy resources. The direction of changes is not clear, however as the main element of the domestic electric generation cost it leads to the emergence of new risks connected with the term contracting process.

## New projections for Energy price curves

The long-term financial projections of ENEA Group based on electricity price curve forecasts and the expectations regarding fluctuations in market prices of energy origin certificates, CO<sub>2</sub> emissions allowances, and coal prices prove that the situation in the Generation Area becomes more and more demanding. Due to the continued rising trend on the market of energy fuels and their transport, causing the imbalance between the revenues earned and the energy generation cost, the Group anticipates the need for the fast coming into effect of the announced systemic power industry support mechanisms (e.g., through implementing the abovementioned power market). The difficulties experienced by generation sources in generating good financial results exclude the possibility of making outlays on development investments which seem unavoidable in the years to come.

## Expansion of generation portfolio

Irrespective of the fact that the 1,075 MW unit was commissioned at Koźienice Power Plant, ENEA plans to engage in the construction of new sources or acquisition of existing ones. It will carry out some of these activities through partnerships with other energy groups. The implementation of this strategy will mean a significant increase in the significance of ENEA in the generation of electricity for the needs of the National Power System. The total installed capacity of conventional generation sources is expected to increase to 5.8-6.3 GW in 2025. This will allow the Group to produce 20.7-22.8 TWh of electricity from its own sources, which will mean balancing the production and sale of electricity.

## Amendment to RES Act

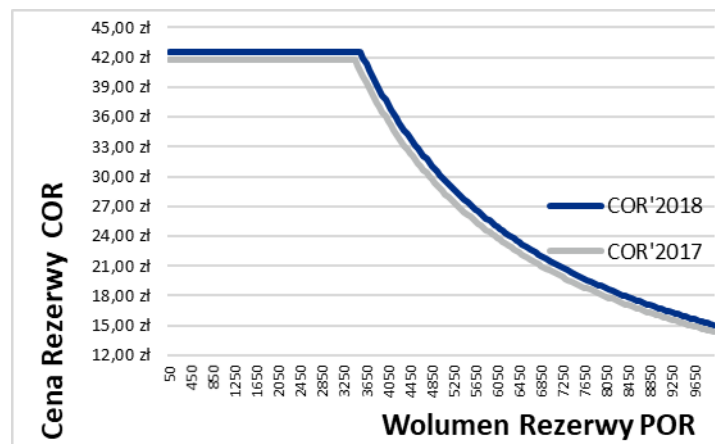
On 29 June 2018, the President of the Republic of Poland signed the Act of 7 June 2018 amending the Act on renewable energy sources and certain other acts ("RES Act"). The purpose of the RES Act was to adapt the Polish regulations on state aid to the requirements that the European Commission set for the Republic of Poland in the notification procedure of the RES development support system. The RES Act regulates changes to the principles of the auction system, introducing a clear division into auction baskets along with the conclusion of the quantity and value of energy that can be contracted at this year's auctions. The effect of the implemented changes is also the abolition of the limit for participation in RES auctions for biomass combustion units with a total installed electrical capacity greater than 50 MW. In addition, in terms of biomass, the Act sets the share of agricultural biomass in the total biomass weight share at 10%. These regulations are important, i.a., from the point of view of Unit No. 9 of Połaniec Power Plant. In the context of ensuring compliance of the definitions adopted in the RES Act with the Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, the regulations introduce definition changes, i.a., increasing the scopes of installed capacity in small and micro RES installations. In the field of energy wood, its definition catalogue has been extended to biomass of agricultural origin. In terms of the use of fuels in practice, there is still no clear definition of the characteristics of energy wood as defined in the relevant regulation. Also, a provision was added imposing an obligation to sell all electricity generated from RES installations by 31 December 2020 (with certain inclusions) on the commodity exchange or on another regulated market.

## Operating Capacity Reserve (OCR)

- OCR mechanism is conducted by Polskie Sieci Elektroenergetyczne – Operator of the Transmission System (OTS) within the system services catalogue
- For producers of energy it is an economic incentive to offer generating capacities to OTSs in the peak hours of demand for power
- OCR includes the available generating capacity, being the surplus of the power available to OTSs over the contracts concluded to satisfy demand for elect
- The unit price for OCR depends on the volume of generating capacity available to OTSs over the demand for electricity covered:
  - within energy sale agreements
  - on the Balancing Market as part of the free exchange

A unit price for OCR depends on the volume of generating capacity available to OTSs over the demand and may not be higher than the reference price which for 2015 was 37.28 PLN/MWh, for 2016 was 41.20 PLN/MWh, and for 2017 it was 41.79 PLN/MWh.

The diagram below presents the unit price for OCR depending on the volume of generation capacity available to OTSs:



Parameters of the OCR settlement model in 2017-2018:

Parametr	2017	2018
Hourly budget [PLN]	144,070.61	150,815.81
Reference price [PLN/MWh]	41.79	42.58
Hourly volume of required OCR [MWh]	3,447.49	3,514.94
Number of demand peak hours	3,765	3,780
OCR annual budget [PLN m]	542.4	570.1

In 2016, the rules were changed for settling OCR, which in previous periods resulted in the fact that in the hours during which the OCR unit price reached the maximum level the OTS did not fully use the budget designated for that service. Since 2016, new adjustment settlements were introduced (monthly and annual), which re-verify settlements and any unused funds for OCR are distributed among the units participating in the reserve. Since 2017, consumption units with the possibility of reducing the demand (DSR) are included within OCR. As of 2018, the OCR budget was increased.

## Significant trends in the Distribution area

New technologies emerging, Clients' rising expectations, and a dynamically changing economic environment in Poland and worldwide anticipate changes to the way of operation of Distribution System Operators (DSO); in particular, they emphasise the need to implement innovative solutions in the area of distribution which lead to upgrade and extension of the distribution network enabling to absorb the leading trends in the power industry.

Key trends are related to:

- the development and implementation of smart grids
- the development and implementation of high-end IT systems supporting network management
- the occurrence of new institutional and technical solutions, such as clusters, power cooperatives, prosumer market, power warehouses, electromobility
- implementation of R&D projects

## Tariff for electricity distribution services

The new model of quality regulation came into effect on 1 January 2016, but it will affect the finances of ENEA Operator (and other DSOs) as of 2018. The President of ERO made a part of the regulated revenue dependent on the quality of services provided by such entities. The service quality assessment will take place in the form of measurement of various indicators, including, without limitation, power supply reliability and the time of connection to the power grid. From the perspective of the Tariff for electricity distribution services approved for the year 2018, the quality regulation impact on the revenue achievable by the Company is negligible for the year under analysis. Moreover, in connection with the Regulation of the Minister of Energy of 29 December 2017 on the detailed rules for determining and calculating rate structures and settlements in electricity trading, a new power tariff group G12as was established within the Tariff for electricity distribution services. It is to promote energy consumption during the so-called night consumption fall by setting preferential rates of the grid rate variable component. At present, it is not possible to estimate the impact of establishing a new tariff group on the Company's revenues. Similarly, the aforementioned Regulation introduces modifications to the clauses governing discounts for non-achievement of the recipient service quality standards or electricity quality parameters. As of 1 January 2019, DSO are obliged to automatically offer discounts to energy recipients within 30 days of the day when they failed to keep the recipient service quality standards or electricity quality parameters and to specify the length of blackout for which a discount is granted. At present, such discounts are granted to recipients upon their request. In addition, changes were made in the tariff, resulting from the Act on Electromobility. The changes are related, in particular, to fees for connection of charging infrastructure for public road transport and generally accessible charging stations.

## Increasing number of energy sellers

The number of electricity sellers has been constantly growing. The occurrence of a seller pursuing an aggressive pricing policy may put a pressure on the margin on energy sales to retail clients. Another important fact is that more and more clients decide to change their energy seller. As at the end of December 2017, the number of TPA (Third Party Access) recipients among enterprises (power tariff groups A, B, C) reached 188,231, which means a rise by 8.3%. As regards households, there were 546,867 TPA recipients among them (power tariff group G) as at 2017, which means an increase by 18.2% when compared to the status as at the end of December 2016.<sup>1)</sup>

## Exemption from the duty to submit the rate structures applicable to households

Pursuant to Article 49 of the Energy Law, the President of ERO may exempt a power enterprise from the duty to submit rate structures for approval, if the President finds that the enterprise operates on a competitive market. The release from such duty may have a positive impact on the margin on energy sales.

<sup>1)</sup> [ure.gov.pl/urząd/informacje-ogólne/aktualnosci/7389,kolejni-odbiorcy-energii-elektrycznej-skorzystali-z-prawa-wyboru-sprzedawcy.html?search=17331048](http://ure.gov.pl/urząd/informacje-ogólne/aktualnosci/7389,kolejni-odbiorcy-energii-elektrycznej-skorzystali-z-prawa-wyboru-sprzedawcy.html?search=17331048)



## 2018 Tariff – distribution of electricity

The tariff for ENEA Operator for 2018 was approved by the President of the Energy Regulatory Office on 14 December 2017, and changed thereafter by decisions of 3 January 2018, 16 January 2018, and 27 February 2018. The Tariff was prepared in accordance with the assumptions published by the President of the Energy Regulatory Office in the document "ODS Tariffs for 2018" and in accordance with the Regulation of the Minister of Energy of 29 December 2017 on detailed rules of shaping and calculating tariffs and settlements in electricity trading. The tariffs for distribution services approved for 2018 shall result in the following changes in payments to customers for each set of tariff groups:

A – down by 2.23%

B – down by 1.58%

C2 – down by 0.61%

C1 – down by 0.70%

G – down by 0.73%

The above figures take into account the impact of transferred charges (transitional, qualitative and RES). If these are eliminated, the figures are as follows: A

– up by 1.61%

B – up by 1.45%

C2 – up by 1.28%

C1 – up by 1.40%

G – up by 1.19%

## Regulation on the protection of personal data (GDPR)

GDPR is an EU legal act which entered into force on 25 May 2018 in all member states. It introduces new rules for the processing of personal data and imposes new obligations on data controllers. GDPR provides for high administrative fines for non-compliance with the provisions of the Regulation and the right to compensation for persons whose right to the protection of personal data has been infringed. ENEA S.A. is currently preparing for the upcoming changes and is implementing the obligations for data controllers laid down in GDPR.

## Court and administrative proceedings

As at the day of submitting this report, there are no pending proceedings regarding the liabilities or debt claims, to which ENEA S.A. or its subsidiary unit is a party. A detailed description of the proceedings is included in note 27 to the condensed consolidated mid-year financial statements of ENEA Group for H1 2018.

## Collective disputes

There is no collective dispute in any of the key companies being members of ENEA Group. In order to eliminate the risk and occurrence of potential collective dispute, the management boards of the companies remain in constant dialogue with the community.

## CO<sub>2</sub> emission allowances

An important element on the cost side which determines the profitability of electricity generation is the allocation of free emission allowances for carbon dioxide and other gases and substances in a given settlement period. Receiving a free allocation of CO<sub>2</sub> emission is a condition for the implementation of dedicated investments in ENEA Group submitted to the National Investment Plan (NIP). The value of actual expenses incurred is the basis for receiving allowances.

In 2018, Poland carries out, in accordance with the plan, the sales of 78.03 million CO<sub>2</sub> emission allowances. Polish EUAs are sold on the auction platform of the EEX exchange with which Poland has executed once again an agreement on sales of emission allowances. The auctions take place every second Wednesday – at each of them, except for the auctions carried out in August, 3.547 million EUAs are put to sale. In the period of January–August 2018, Poland sold 53.20 million CO<sub>2</sub> emission allowances, generating in that manner EUR 543.25 million of revenues.

Auction date	Volume [t]	Price [EUR]	Revenue [EUR]	Volume, cummulative [t]	% of planned volume [%]
17 January 2018	3,547,000	EUR 7.99	EUR 28,340,530.00	3,547,000	5%
30 January 2018	3,547,000	EUR 9.88	EUR 35,044,360.00	7,094,000	9%
14 February 2018	3,547,000	EUR 8.78	EUR 31,142,660.00	10,641,000	14%
28 February 2018	3,547,000	EUR 9.99	EUR 35,434,530.00	14,188,000	18%
14 March 2018	3,547,000	EUR 11.25	EUR 39,903,750.00	17,735,000	23%
28 March 2018	3,547,000	EUR 14.05	EUR 49,835,350.00	21,282,000	27%
11 April 2018	3,547,000	EUR 13.55	EUR 48,061,850.00	24,829,000	32%
25 April 2018	3,547,000	EUR 13.09	EUR 46,430,230.00	28,376,000	36%
9 May 2018	3,547,000	EUR 13.92	EUR 49,374,240.00	31,923,000	41%
23 May 2018	3,547,000	EUR 15.81	EUR 56,078,070.00	35,470,000	45%
6 June 2018	3,547,000	EUR 15.70	EUR 55,687,900.00	39,017,000	50%
20 June 2018	3,547,000	EUR 14.43	EUR 51,183,210.00	42,564,000	55%
4 July 2018	3,547,000	EUR 15.35	EUR 54,446,450.00	46,111,000	59%
18 July 2018	3,547,000	EUR 16.17	EUR 57,354,990.00	49,658,000	64%
1 August 2018	1,773,500	EUR 17.38	EUR 30,823,430.00	51,431,500	66%
29 August 2018	1,773,500	EUR 20.90	EUR 37,066,150.00	53,205,000	68%
12 September 2018	3,547,000			56,752,000	73%
26 September 2018	3,547,000			60,299,000	77%
10 October 2018	3,547,000			63,846,000	82%
24 October 2018	3,547,000			67,393,000	86%
7 November 2018	3,547,000			70,940,000	91%
21 November 2018	3,547,000			74,487,000	95%
5 December 2018	3,543,000			78,030,000	100%

### Reduction of pollutant emissions

In accordance with EU regulations, and in particular Directive of the European Parliament and of the Council 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (IED), as of 1 January 2016 new, more strict environment protection standards are applicable. Therefore all electricity producers in Poland who use first of all carbon-intensive technologies are obliged to adjust their energy units to the new environmental requirements. To address the problems of entrepreneurs, EU law envisages a possibility of using derogation mechanisms. The alleviation of the IED requirements in the form of a derogation makes it possible to obtain additional time for adjusting generation units to the stricter air pollutant emission standards.

On 17 August 2017, the so-called BAT conclusions (kBAT) for large combustion plants (Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 laying down BAT conclusions for large combustion plants in accordance with Directive 2010/75/EU of the European Parliament and of the Council) were published in the Official Journal of the European Union. Published kBATs introduce, among other things, stricter requirements (than in the IED) for pollutants such as sulphur dioxide, nitrogen oxides and dust. The emission limit values (BATs) also cover the additional substances mercury, hydrogen chloride, hydrogen fluoride and ammonia. In accordance with the requirements of the CNS, a 4-year adjustment period started on 17 August 2017.

### Kozienice Power Plant – Units Nos. 1-10

2018/2017	SO <sub>2</sub>			NO <sub>x</sub>			Dust**			CO <sub>2</sub> *		Gross production of electricity [MWh]
	SO <sub>2</sub> emissions [Mg]	SO <sub>2</sub> emissions ratio [kg/MWh]	Fee for SO <sub>2</sub> emissions [PLN k]	NO <sub>x</sub> emissions [Mg]	NO <sub>x</sub> emissions ratio [kg/MWh]	Fee for NO <sub>x</sub> emissions [PLN k]	Dust emissions [Mg]	Dust emissions ratio [kg/MWh]	Fee for dust emissions [PLN k]	CO <sub>2</sub> emissions [Mg]	CO <sub>2</sub> emissions ratio [kg/MWh]	
H1 2018	3,896.89	0.686	2,065.3	3,931.10	0.692	2,083.5	135.35	0.024	47.4	4,878,005.08	858	5,682,057.28
H1 2017	5,188.41	0.908	2,749.9	6,615.34	1.158	3,506.1	130.91	0.023	45.8	5,845,884.83	1,023	5,714,189.64
% change	-24.89	-24.45	-24.90	-40.58	-40.24	-40.57	+3.39	+4.35	+3.49	-16.56	-16.13	-0.56

### Kozienice Power Plant – Unit No. 11 vs. Units Nos. 1-10

H1 2018	SO <sub>2</sub> emissions [Mg]	SO <sub>2</sub> emissions ratio [kg/MWh]	Fee for SO <sub>2</sub> emissions [PLN k]	NO <sub>x</sub> emissions [Mg]	NO <sub>x</sub> emissions ratio [kg/MWh]	Fee for NO <sub>x</sub> emissions [PLN k]	Dust emissions [Mg]	Dust emissions ratio [kg/MWh]	Fee for dust emissions [PLN k]	CO <sub>2</sub> emissions [Mg]	CO <sub>2</sub> emissions ratio [kg/MWh]	Gross production of electricity [MWh]
*Unit 11	520.79	0.198	276.0	844.01	0.321	447.3	45.10	0.017	15.8	1,958,637.35	744	2,632,461.80
Units 1-10	3,896.89	0.686	2,065.3	3,931.10	0.692	2,083.5	135.35	0.024	47.4	4,878,005.08	858	5,682,057.28

\* Data taking into account emissions of pollutants from the start-up boiler house.

\*\* In June 2018, FGD IV was overhauled, therefore, part of the flue gases from 200 MW units were emitted without desulphurisation by the K2 flue gas stack, which was connected with a periodical increase in the amount of dust emitted.

## Compliance with formal and legal requirements

### ENEA Wytwarzanie

ENEA Wytwarzanie sp. z o.o. takes advantage of a derogation resulting from the IED, namely the Transitional National Plan (TNP):

- in relation to sulphur dioxide and dust emissions: Kozenice Power Plant (units 1–10) – together with Białystok Heat and Power Plant,
- in relation to NO<sub>x</sub> emissions: Białystok Heat and Power Plant – individually.

In the period of validity of the TNP, i.e. from 1 January 2016 to 30 June 2020, annual emission caps are applicable (the caps decrease year over year). The emission cap in the last year of applicability of the TNP is defined at a level corresponding to the emission standard for a given pollutant, resulting from IED (in the case of Kozenice Power Plant 200 mg/m<sup>3</sup><sub>USF</sub> for SO<sub>2</sub> and 20 mg/m<sup>3</sup><sub>USF</sub> for dust).

The emission of pollutants as part of the TNP for H1 2018 and the extent of utilisation of the annual emission caps are presented in the table below.

Plant		SO <sub>2</sub>		Pył		NO <sub>x</sub>	
		[Mg]	Utilisation %	[Mg]	Utilisation %	[Mg]	Utilisation %
Kozenice Power Plant	emission	3,497.11	34.91	103.46	9.18	N/A	N/A
	annual max. limit	10,018.00		1,127.00			
Białystok Heat and Power Plant	emission	122.89	7.28	5.53	3.86	193.78	20.04
	annual max. limit	1,688.34		143.37		966.99	
Total	emission	3,620.01	30.92	108.99	8.58	193.78	20.04

Pursuant to the regulation of the Minister of Environment of 1 March 2018 on emission standards for certain installation types, fuel combustion sources and waste incineration or co-incineration installations (Polish Journal of Laws of 2018, item 680), in relation to unit 11 for emission of all pollutants and in relation to units 1–10 for NO<sub>x</sub> emissions, the following conditions for the compliance with the emissions standards apply:

- none of the approved average monthly concentrations of substances exceeds 100% of the emission standard,
- none of the approved average daily concentrations of substances exceeds 110% of the emission standard,
- 95% of all approved average hourly concentrations of substances during the calendar year does not exceed 200% of the emission standard.

If at least one of the conditions specified in items a), b), and c) is not met, a penalty is assessed for each hourly exceedance counted from the beginning of the year.

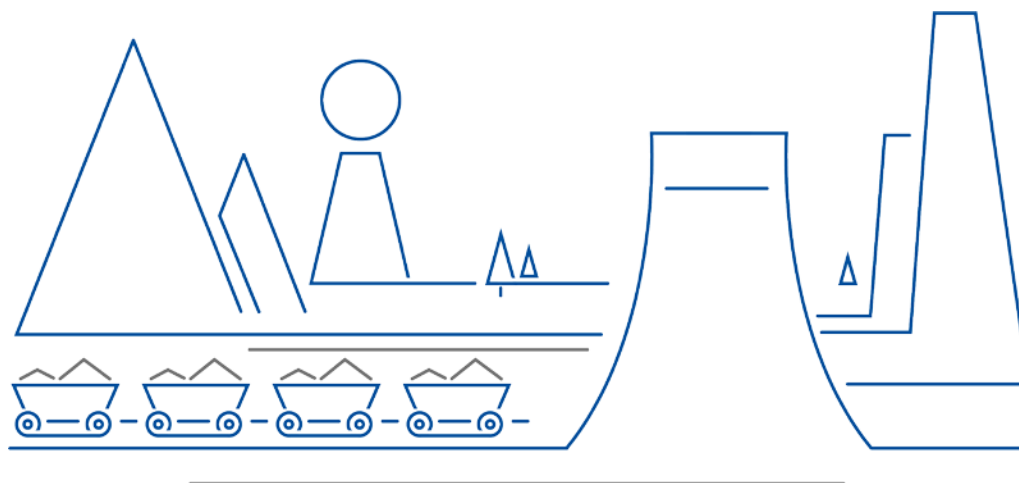
Kozenice Power Plant meets the objectives set by the national and european law (IED directive, BAT conclusion). Recently, the power plant has built the FGD installation for flue gas desulphurisation, guaranteeing reduction of SO<sub>2</sub> from the fumes of all units. Currently it is in the last stage of installation of catalytic flue gas denitrification (SCR) on the unit nr. 9. Electrostatic dust precipitators and domestic waste sewage and rain-industrial sewage for the units 9-11 are under renovation.

ENEA Elektrownia Połaniec

2018/2017	SO <sub>2</sub> emissions [Mg]	SO <sub>2</sub> * emissions [kg/MWh]	Fee for SO <sub>2</sub> emissions [PLN k]	NO <sub>x</sub> emissions [Mg]	NO <sub>x</sub> emissions [kg/MWh]	Fee for NO <sub>x</sub> emissions [PLN k]	Dust emissions [Mg]	Dust emissions [kg/MWh]	Fee for dust emissions [PLN k]	Gross production of electricity [MWh]
H1 2018	4,514.66	0.86	2,392.77	3,713.53	0.71	1,968.17	299.54	0.06	158.75	5,238,133.50
H1 2017	3,323.86	0.68	1,761.65	5,811.27	1.19	3,079.97	234.64	0.05	82.12	4,863,584.60
<b>% change</b>	<b>35.83</b>	<b>26.47</b>	<b>35.83</b>	<b>-36.10</b>	<b>-40.34</b>	<b>-36.10</b>	<b>27.66</b>	<b>20.00</b>	<b>93.31</b>	<b>7.70</b>

\* The total increase in SO<sub>2</sub> emissions in the first half of 2018 was mainly influenced by the operation of Unit 1. Unit 1 (with natural derogation of 17 500h), compared to the same period of 2017, worked 1,365 hours more with the permissible SO<sub>2</sub> emissions to 1,200mg/Nm<sub>3</sub>, which translated into an increase in SO<sub>2</sub> emissions.

ENEA Połaniec S.A. benefits from the derogation resulting from the IED Directive - a natural derogation of 17,500 hours, which covers boiler No. 1. Until the end of June 2018, altogether 6,936 hours were used out of the limit of 17,500 hours, including 2,200 hours in H1 2018. In H1 2018, the emission standards specified in the integrated permit were not exceeded.



## 6.2 CSR – Corporate Social Responsibility

Corporate Social Responsibility of ENEA Group in the first half of 2018 was focused on the implementation of the following activities:

### Publication of “The Non-financial Statement of ENEA Group for 2017”

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Since 1 January 2017, the amended Accounting Act of 15 December 2016 (Polish Journal of Laws of 2017, item 61) has been applicable in Poland, implementing Directive 2014/95/EU as regards the enhanced disclosure of non-financial information by certain undertakings and groups fulfilling conditions specified in the Act.

The new statutory obligation applies to ENEA Group as well as to ENEA S.A., which was obliged, for the reporting period 2017, to:

- draw up a non-financial statement as part of the report on the operations or as a separate statement, and
- report information on the applied diversity policy (or lack thereof) in relation to the composition of its administration, managing, and supervisory bodies.

In March 2018, ENEA Group, fulfilling the new statutory obligation, published “Non-financial Statement of ENEA Group” as part of the “Report of the Management Board on the operations of ENEA S.A. and ENEA Group in 2017”. The statement was based on the international reporting standards – GRI Standards. This means, inter alia, that:

- at the stage of defining the scope of reported non-financial information and so-called “material reporting aspects”, the perspective of stakeholders was included (through a survey);
- in the Statement, indicators in the account recommended in the “GRI Standards” were used;
- pursuant to the guidelines contained in the “GRI Standards”, in the indicators concerning the number of employees, data as at the last day of the reporting period, namely 31 December 2017, were provided.

Apart from the Statement for 2017, in June 2018 ENEA Group published a separate paper titled “2017 Sustainable Development Report of ENEA Group”. Since 2011, the Group has also followed sustainable development and corporate social responsibility reporting practices.

### Publication of “The Sustainability Report of ENEA Group for 2017”

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In accordance with a 6-year good practice, on 27 July 2018, “ENEA Group Sustainability Report 2017” in the form of an interactive online platform covering the period from 1 January to 31 December 2017 was published. The new element in this year CSR report is the implementation of the international GRI Standards for the first time. One may become familiar with this document on a dedicated interactive website published in Polish and English.

The report presents the most important issues from the perspective of responsible business and sustainable development for the ENEA Group. They describe the range and nature of impact of Group’s activity on the social environment and the investments which are implemented and planned by the Group for the protection of environment. The workers of all reporting companies participate in preparing data for the CSR report: both CSR coordinators in the companies belonging to the Group as well as the workers responsible for the key areas. The reporting process is coordinated by the dedicated organisational unit responsible for CSR in ENEA SA.

## **Final of ENEA Foundation's project – ENEA Talent Academy**

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In January 2018, the winners of the 1st edition of the “ENEA Talent Academy” scholarship programme were announced, which lasted from September 2017 to January 2018 and was targeted to talents in the field of science, arts, and sports from primary schools (from the 5th grade up) and lower-secondary schools, in the area of operation of ENEA Group's companies, and a grant programme directed to public primary and lower-secondary schools in the area of operations of ENEA Group companies, implementing original projects to develop talents and skills of the pupils. Applications to the Talent Academy were accepted until 15 October, and the laureates will be announced on 10 January 2018. The winners were awarded scholarships of PLN 3,000, and the winning schools – grants amounting to PLN 10,000.

The winners included 22 young people from 11 primary schools and 11 lower-secondary schools. In both age categories, laureates in the field of science, arts, and sports were selected. In turn, the 9 winning schools were selected by Internet users.

## **Social programme - Energy is in our blood**

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In March 2018, a new social programme was launched across ENEA Group under the auspices of the ENEA's CEO – “Energy is in our blood”. It is the first blood donation programme covering with its scope the whole ENEA Group, based on employee volunteering. Owing to the programme, it will be easier for the Employees willing to donate blood and help to share the gift of life with those in need. The social campaign of ENEA is planned for the whole 2018 in all major locations where the companies of the Group operate. In H1 2018, the “Energy is in our blood” campaigns were held in three locations where ENEA Group companies are active. The blood donation bus visited the companies operating at Strzeszyńska 58 in Poznań. It also went to Kozienice where the employees of ENEA Wytwarzanie and ENEA Trading joined the programme. The campaign was also held at ENEA Elektrownia Połaniec. In that way, we have collected 36 litres of blood, i.e. 80 units. The campaign is conducted in close cooperation with the Regional Blood Donation and Haemotherapy Centres in Poznań, Radom and Kielce. Each campaign is accompanied by programme promotional activities – information campaigns and meetings with specialists from the Regional Blood Donation and Haemotherapy Centre or honorary blood donors.

## **Campaign “We Run – We Raise – We Help”**

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In H1 2018, the campaign “We Run – We Raise – We Help”, initiated by Employees of ENEA Group, was continued. The campaign makes it possible for them to combine their passion for sport – running – with helping others, supports employee integration, and promotes of healthy life style in the Group. Owing to the commitment of the runners – volunteers from ENEA Group – it is possible to support local communities through development of amateur sport of children and youth. In 2018, Employees of ENEA Group, running in competitions organised all over Poland, collect points which are exchanged by the ENEA Foundation into funds earmarked for a social goal. In this year's edition, already 73 runners from 8 ENEA Group companies have joined the campaign. So far 76 running competitions over different distances have been completed. Runs over longer distances make it possible to win more points. Also the number of participants from ENEA Group influences the score. Higher scores can be achieved in competitions with at least 3 ENEA team members.

**The ENEA Foundation programme:  
“ENEA Dla Pokoleń. Wspólnie o  
bezpieczeństwie”. (Enea for  
Generations. Together about Safety).**

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A workshop within the framework of the “ENEA Dla Pokoleń. Wspólnie O Bezpieczeństwie” programme was held in the first half of the year. The project is dedicated to the inhabitants of those municipalities in which the ENEA Group operates. The organisers of the project are: The ENEA Foundation, My50+ Association and the Greater Poland Headquarters of the State Fire Service in Poznan. As part of the Project, there will be 10 meetings held in 2018. The objective of this action is to ensure safety through education and raising consumer awareness, and to support fire protection among households. We understand educational activities mainly as meetings with senior citizens and multigenerational families, during which:

- ✓ we will present examples of most common mistakes made by consumers and examples of fraudulent sales practices;
- ✓ we will practice the appropriate reactions to sudden blackouts resulting from unexpected weather changes;
- ✓ we will discuss fire hazards which can be encountered in a household, among others, we will discuss preventive actions related to asphyxiations with carbon monoxide and actions related to providing first aid.

**“Dobra Energia Ponad Granicami”  
(Positive Energy Beyond Borders)**

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This year in June, as part of the “Dobra Energia Ponad Granicami” project, a group of fifty children and teachers from Polish schools in Lithuania visited Poland in order to learn about the modern patriotism. During their three-week stay, the children and youth participated in workshops, lectures and meetings aimed at enriching their knowledge of the history and culture of Poland, education and the modern Polish language. It was the second edition of that project implemented by the Enea Foundation together with the Caritas organisation in Poznan.

An extraordinary event organised during the second edition of “Dobra Energia Ponad Granicami” was a musical and historical show entitled “Polska! Biało-Czerwoni ponad Granicami!”. On June 6, young artists from Lithuania and three schools from the Wielkopolska Region performed on the stage of St John Paul II Roman Catholic Primary and Junior High School in Śrem. The talented children had only met for the first time a few hours before the event, in order to have only a few rehearsals and give an excellent concert, one that will long be remembered by the audience. The audience could listen to many patriotic songs – those well-known and those less popular.

The objective of the project is multigenerational integration of Poles and building bridges of friendship beyond borders. By visiting the Wielkopolska Region and integrating with their Polish counterparts, parents and youngsters are to be encouraged to choose Polish schools and to learn the Polish language, history, culture and tradition, which forge bonds with the motherland. With this initiative, the creators of the project wish to preserve the Polish identity.

**Grant programme  
– “Potęga poMocy” (The Power of Help)**

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In H1 2018, the grant programme “Potęga poMocy” (The Power of Help), carried out by the ENEA Foundation and dedicated to the Employees of ENEA Group, was continued. It enabled the Employees to submit a social initiative to be implemented with a social entity operating in the local community, and initiate projects offering real support to social stakeholders. In the first quarter of 2018, the first out of four editions planned for the present year was carried out. As part of each edition, the ENEA Foundation supports 3 social projects submitted by Employees of ENEA Group. The maximum support amount for a project is PLN 4,000.



## Corporate Social Responsibility of LW Bogdanka in the first half of 2018

was focused on the implementation of the following activities:

### Volunteering and charitable initiatives in LW Bogdanka

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The employee volunteering in LW Bogdanka was implemented through the following campaigns:

- Promoted and supported blood donation, constituting an element of the implementation of “Trilateral Agreement on Blood Donation, Haemotherapy, and Bone Marrow Donation” – running blood donation campaigns at the premises of Bogdanka
- “Positive Caps” - collection of caps for the inhabitants of the Little Prince Lublin Children’s Hospice
- “Gold Rush” - collection of usually unused coins of low nominals: 1, 2, and 5 grosz, to be provided to the Lublin branch of the Polish Red Cross

and “bottom-up” employee charitable campaigns for disadvantaged groups, i.e. victims of accidents or people with illnesses.

### Efficiency in the field of security and biodiversity protection

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#### Nature-friendly mine

As a founder and co-organiser (together with OTOP) of the Educational Path Nadrybie, LW Bogdanka continued to extend its infrastructure and intensified education activities in the area. In H1 2018, a cooperation plan for 2018 was drawn up and adopted, providing for promotional, educational, and investment activities within the path in Nadrybie. Also, the promotion and distribution of the renewed “Nadrybie” Path Guide was started and meetings with Nature Educators were organised.

#### Firstly: security

As part of the implementation of “Plan of Occupational Security Improvement” in the Company, a number of initiatives directed to the Crew were undertaken, promoting education in the field of OHS. In the first quarter of 2018, “OHS Toolbox” was issued and distributed among employees. Also, a “Let’s work safer” programme – a box of employee initiatives – based on Lean Management principles was implemented.

### Responsible management practices

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The Company continuously undertakes activities aimed at increasing the transparency and enabling the stakeholders to participate in the process of creation of activities and strategy. To support this activity, the Company:

- published “Non-financial Data Statement”, extending the data by indicators from the CSR area;
- organised a series of dialogue sessions with stakeholders in accordance with standard AA1000, ensuring space for discussion on the previous and future objectives of the Company in the field of corporate social responsibility;
- conducted an evaluation of the Corporate Social Responsibility Strategy for the years 2014–2017, whose results were included in the document update process;
- adopted the Corporate Social Responsibility Strategy for the years 2018-2021, in which it made a commitment to:
  - ensure the highest level of occupational safety
  - limit the impact of the activity on the safety of the local natural environment
  - ensure security and stimulate the development of local communities
  - follow transparent and responsible management practices



## Annexes

**Annex No. 1 - Profit and loss account of ENEA S.A. – H1 2018\***

[PLN k]	H1 2017	H1 2018	Change	% change
Sales of electricity to retail customers	2,035,007	2,273,720	238,713	11.7%
Sales of gas fuel to retail customers	42,676	44,622	1,946	4.6%
Sales of distribution services to customers who have comprehensive agreements	804,870	-	-804,870	-100.0%
Sales of energy and gas fuel to other entities	68,387	55,723	-12,664	-18.5%
Sales of services	2,123	1,547	-576	-27.1%
Other revenue	1,838	321	-1,517	-82.5%
Excise tax	129,388	126,195	-3,193	-2.5%
<b>Net sales revenue</b>	<b>2,825,513</b>	<b>2,249,738</b>	<b>-575,775</b>	<b>-20.4%</b>
Depreciation	1,422	1,108	-314	-22.1%
Costs of employee benefits	24,939	30,367	5,428	21.8%
Consumption of materials and raw materials and the value of goods sold	1,231	1,360	129	10.5%
Purchase of energy and gas for sale purposes	1,766,901	2,088,068	321,167	18.2%
Transmission and distribution services	805,305	854	-804,451	-99.9%
Other third party services	87,858	89,990	2,132	2.4%
Taxes and levies	2,089	2,012	-77	-3.7%
<b>Tax deductible costs of sale</b>	<b>2,689,745</b>	<b>2,213,759</b>	<b>-475,986</b>	<b>-17.7%</b>
Other operating revenues	10,176	10,366	190	1.9%
Other operating costs	67,442	32,808	-34,634	-51.4%
Profit / (Loss) on the sale and liquidation of property, plant and equipment	249	40	-209	-83.9%
<b>Operating profit</b>	<b>78,751</b>	<b>13,577</b>	<b>-65,174</b>	<b>-82.8%</b>
Financial costs	93,958	130,932	36,974	39.4%
Financial revenues	138,235	185,153	46,918	33.9%
Dividend revenues	797,727	645,293	-152,434	-19.1%
<b>Profit before tax</b>	<b>920,755</b>	<b>713,091</b>	<b>-207,664</b>	<b>-22.6%</b>
Income tax	21,021	-34,464	-55,485	-264.0%
<b>Net profit of the reporting period</b>	<b>899,734</b>	<b>747,555</b>	<b>-152,179</b>	<b>-16.9%</b>
<b>EBITDA</b>	<b>80,173</b>	<b>14,685</b>	<b>-65,488</b>	<b>-81.7%</b>

**H1 2018:**
**Factors behind the change of ENEA S.A.'s EBITDA (decrease by PLN 65 million)**

(-) a decrease of the first contribution margin by PLN 92 million:

(-) decrease in the average sale price of energy by 1.1%

(-) higher costs of environmental obligations by 46.2%

(-) increase in the average purchase price of energy by 4.8%

(+) increase in the volume of energy sales by 13.0%

(-) lower result on trade in gas fuel

(-) higher employee benefit costs (by PLN 5 million):

(-) higher costs of provisions for employee benefits by PLN 3 million

(-) higher costs of remunerations with derivatives by PLN 2 million

(-) higher costs of third party services (by 2 million):

(-) higher costs of sales by PLN 1 million

(-) higher costs of SSC services by 1 million

(-) higher costs of property insurance and of rents and fees connected with rental, lease by PLN 1 million

(+) lower costs of advertisement and representation by PLN 1 million

(+) higher result on other operating activity (by PLN 35 million) resulting from:

(+) lower provisions for expected losses and potential claims by PLN 24 million (including: lower provisions for terminated contracts of purchase of RES property rights by PLN 33 million)

(+) lower costs of donations by PLN 4 million

(+) higher revenues from licence fees connected with the ENEA brand by PLN 4.0 million

(+) lower written-off debts by PLN 2 million

(+) lower impairment losses on receivables by PLN 1 million

\* As of 1 January 2018, the entry into force of the new IFRS 15 Revenue from Contracts with Customers. Change in presentation (in terms of results) of revenues and costs of distribution services in H1 2018.

**Annex No. 2 - Profit and loss account of ENEA S.A. – Q2 2018 \***

[PLN k]	Q2 2017	Q2 2018	Change	% change
Sales of electricity to retail customers	955,306	1 079,917	124,611	13.0%
Sales of gas fuel to retail customers	17,707	17,659	-48	-0.3%
Sales of distribution services to customers who have comprehensive agreements	384,400	0	-384,400	-100.0%
Sales of energy and gas fuel to other entities	35,945	37,610	1,665	4.6%
Sales of services	1,143	896	-247	-21.6%
Other revenue	1,819	-350	-2,169	-119.3%
Excise tax	60,908	59,382	-1,526	-2.5%
<b>Net sales revenue</b>	<b>1,335,412</b>	<b>1,076,350</b>	<b>-259,062</b>	<b>-19.4%</b>
Depreciation	668	552	-116	-17.4%
Costs of employee benefits	11,992	15,564	3,572	29.8%
Consumption of materials and raw materials and the value of goods sold	709	670	-39	-5.5%
Purchase of energy and gas for sale purposes	828,644	1,024,394	195,750	23.6%
Transmission and distribution services	384,806	320	-384,486	-99.9%
Other third party services	47,299	46,530	-769	-1.6%
Taxes and levies	497	487	-10	-2.0%
<b>Tax deductible costs of sale</b>	<b>1,274,615</b>	<b>1,088,517</b>	<b>-186,098</b>	<b>-14.6%</b>
Other operating revenues	7,029	7,471	442	6.3%
Other operating costs	30,684	14,378	-16,306	-53.1%
Profit / (Loss) on the sale and liquidation of property, plant and equipment	183	40	-143	-78.1%
<b>Operating profit</b>	<b>37,325</b>	<b>-19,034</b>	<b>-56,359</b>	<b>-151.0%</b>
Financial costs	48,676	75,182	26,506	54.5%
Financial revenues	35,602	113,262	77,660	218.1%
Dividend revenues	797,727	645,293	-152,434	-19.1%
<b>Profit before tax</b>	<b>821,978</b>	<b>664,339</b>	<b>-157,639</b>	<b>-19.2%</b>
Income tax	1,947	-39,097	-41,044	-2,108.1%
<b>Net profit of the reporting period</b>	<b>820,031</b>	<b>703,436</b>	<b>-116,595</b>	<b>-14.2%</b>
<b>EBITDA</b>	<b>37,993</b>	<b>-18,482</b>	<b>-56,475</b>	<b>-148.6%</b>

**Q2 2018:**
**Factors behind the change of ENEA S.A.'s EBITDA (decrease by PLN 56 million)**

- (-) a decrease of the first contribution margin by PLN 70 million:
  - (-) decrease in the average sale price of energy by 0.7%
  - (-) higher costs of environmental obligations by 69.0%
  - (-) increase in the average purchase price of energy by 8.3%
  - (+) increase in the volume of energy sales by 13.8%
  - (-) lower result on trade in gas fuel
- (-) higher employee benefit costs (by PLN 4 million)
  - (-) higher costs of provisions for employee benefits by PLN 2 million
  - (-) higher costs of remunerations with derivatives by PLN 2 million
- (+) lower costs of third party services (by PLN 1 million):
  - (+) lower costs of advertisement and representation by PLN 2 million
  - (-) higher costs of SSC services by PLN 1 million
- (+) higher result on other operating activity (by PLN 17 million) results from:
  - (+) lower provisions for expected losses and potential claims by PLN 8 million (including: lower provisions for terminated contracts of purchase of RES property rights (by PLN 16 million))
  - (+) higher revenue from licence fees connected with the ENEA brand by PLN 4.0 million
  - (+) lower written-off debts by PLN 1 million
  - (+) lower impairment losses on receivables by PLN 1 million

\* As of 1 January 2018, the entry into force of the new IFRS 15 Revenue from Contracts with Customers. Change in presentation (in terms of results) of revenues and costs of distribution services in H1 2018.

**Annex No. 3 - Profit and loss account of ENEA Operator sp. z o.o. – H1 2018**

[PLN k]	H1 2017	H1 2018	Change	% change
Revenue from the sale of distribution services to end users	1,555,970	1,295,672	-260,298	-16.7%
Revenue from additional fees	2,767	2,737	-30	-1.1%
Revenues from the non-invoiced sale of distribution services	681	417	-264	-38.8%
Clearing of the Balancing Market	859	1,678	819	95.4%
Fees for connection to the grid	29,663	29,659	-4	-0.01%
Revenue from illegal electricity consumption	3,208	3,331	123	3.8%
Revenue from services	13,897	14,443	546	3.9%
Sale of distribution services to other entities	8,012	9,057	1,045	13.0%
Sales of goods and materials and other revenues	1,377	990	-387	-28.1%
<b>Sales revenue</b>	<b>1,616,434</b>	<b>1,357,984</b>	<b>-258,450</b>	<b>-16.0%</b>
Depreciation of power, plant and equipment and intangible fixed assets	239,586	251,286	11,700	4.9%
Costs of employee benefits	204,107	212,454	8,347	4.1%
Consumption of materials and raw materials and the value of goods sold	15,299	15,589	290	1.9%
Purchase of energy for own needs and grid losses	114,718	117,219	2,501	2.2%
Costs of transmission services	510,271	202,627	-307,644	-60.3%
Other third party services	123,848	134,008	10,160	8.2%
Taxes and levies	102,292	110,668	8,376	8.2%
<b>Tax deductible costs of sale</b>	<b>1,310,121</b>	<b>1,043,851</b>	<b>-266,270</b>	<b>-20.3%</b>
Other operating revenues	14,225	34,082	19,857	139.6%
Other operating costs	44,151	20,347	-23,804	-53.9%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	(2,137)	(2,871)	-734	-34.3%
<b>Operating profit / (loss)</b>	<b>274,250</b>	<b>324,997</b>	<b>50,747</b>	<b>18.5%</b>
Financial revenues	796	1,619	823	103.4%
Financial costs	25,589	33,284	7,695	30.1%
<b>Gross profit / (loss)</b>	<b>249,457</b>	<b>293,332</b>	<b>43,875</b>	<b>17.6%</b>
Income tax	49,682	51,722	2,040	4.1%
<b>Net profit / (loss)</b>	<b>199,775</b>	<b>241,610</b>	<b>41,835</b>	<b>20.9%</b>
<b>EBITDA</b>	<b>513,836</b>	<b>576,283</b>	<b>62,447</b>	<b>12.2%</b>

**H1 2018:**
**ENEA Operator Sp. z o.o. – EBITDA change drivers (increase by PLN 62 million)**

- (-) lower revenues from sales of distribution services to end users by PLN 261 million, resulting mainly from a change in presentation of revenues from sales of distribution services (from 01.01.2018 change of the standard – IFRS 15)
- (+) lower purchase costs of transmission services by PLN 308 million, resulting mainly from a change in presentation of costs of purchase of transmission services (from 01.01.2018 change of the standard – IFRS 15)
- (-) higher costs of purchase of energy to cover the balance-sheet difference (by PLN 3 million), resulting mainly from a higher average price of electricity
- (-) higher costs of third-party services by PLN 10 million – mainly in areas relating to IT services, measurement, and operation of grid assets
- (-) higher costs of taxes and levies by PLN 8 million result from the implemented investments in grid assets
- (-) higher costs of employee benefits by PLN 8 million result mainly from actuarial provisions
- (+) higher other operating revenues by PLN 20 million result mainly from revenues from the insurer and from the release of provisions related to grid assets
- (+) lower operating expenses by PLN 24 million result mainly from a change of the balance of provisions related to grid assets in 2017 and from impairment losses on receivables recognised in 2017

**Annex No. 4 – Profit and loss account of ENEA Operator sp. z o.o. – Q2 2018**

[PLN k]	Q2 2017	Q2 2018	Change	% change
Revenue from the sale of distribution services to end users	761,397	631,179	-130,218	-17.1%
Revenue from additional fees	1,613	1,444	-169	-10.5%
Revenues from the non-invoiced sale of distribution services	-12,624	-9,312	3,312	26.2%
Clearing of the Balancing Market	527	710	183	34.7%
Fees for connection to the grid	16,176	19,708	3,532	21.8%
Revenue from illegal electricity consumption	1,497	1,613	116	7.7%
Revenue from services	6,919	6,845	-74	-1.1%
Sale of distribution services to other entities	4,046	4,380	335	8.3%
Sales of goods and materials and other revenues	707	717	10	1.4%
<b>Sales revenue</b>	<b>780,258</b>	<b>657,284</b>	<b>-122,974</b>	<b>-15.8%</b>
Depreciation of power, plant and equipment and intangible fixed assets	121,381	126,834	5,453	4.5%
Costs of employee benefits	102,222	109,672	7,450	7.3%
Consumption of materials and raw materials and the value of goods sold	6,875	7,846	971	14.1%
Purchase of energy for own needs and grid losses	54,061	55,456	1,395	2.6%
Costs of transmission services	251,780	100,351	-151,429	-60.1%
Other third party services	64,481	68,543	4,062	6.3%
Taxes and levies	43,887	47,139	3,252	7.4%
<b>Tax deductible costs of sale</b>	<b>644,687</b>	<b>515,841</b>	<b>-128,846</b>	<b>-20.0%</b>
Other operating revenues	6,841	13,597	6,756	98.8%
Other operating costs	12,285	1,351	-10,934	-89.0%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	(1,178)	(1,492)	-314	-26.7%
<b>Operating profit / (loss)</b>	<b>128,949</b>	<b>152,197</b>	<b>23,248</b>	<b>18.0%</b>
Financial revenues	90	960	870	966.7%
Financial costs	12,873	17,732	4,859	37.7%
<b>Gross profit / (loss)</b>	<b>116,166</b>	<b>135,425</b>	<b>19,259</b>	<b>16.6%</b>
Income tax	22,426	26,300	3,874	17.3%
<b>Net profit / (loss)</b>	<b>93,740</b>	<b>109,125</b>	<b>15,385</b>	<b>16.4%</b>
<b>EBITDA</b>	<b>250,330</b>	<b>279,031</b>	<b>28,701</b>	<b>11.5%</b>

**Q2 2018:**
**ENEA Operator Sp. z o.o. – EBITDA change drivers (increase by PLN 29 million)**

- (-) lower revenues from sales of distribution services to end users by PLN 127 million, resulting mainly from a change in presentation of revenues from sales of distribution services (from 01.01.2018 change of the standard – IFRS 15)
- (+) higher revenues from network connection fees by PLN 4 million, resulting mainly from the settlement of advances on connections and quarterly IAS allowances in 2017 (from 1 January 2018, change of standard – IFRS 15)
- (+) lower purchase costs of transmission services by PLN 151 million, resulting mainly from a change in presentation of costs of purchase of transmission services (in accordance with the change of IFRS 15 in force from 01.01.2018, the costs are presented without transferred charges)
- (-) higher costs of purchase of energy to cover the balance-sheet difference (by PLN 1 million), resulting mainly from a higher average price of electricity
- (-) higher costs of employee benefits by PLN 7 million result mainly from actuarial provisions
- (-) higher costs of third-party services by PLN 4 million, mainly in areas relating to IT services and operation of grid assets
- (-) higher costs of taxes and levies by PLN 3 million result from the implemented investments in grid assets
- (+) higher other operating revenues by PLN 7 million result mainly from the release of provisions related to grid assets and from the settlement of property damage – cost reimbursement by the insurer
- (+) lower other operating expenses by PLN 11 million result mainly from a change of the balance of provisions related to grid assets in 2017

**Annex No. 5 - Profit and loss account of ENEA Wytwarzanie sp. z o.o. – H1 2018**

[PLN k]	H1 2017	H1 2018	Change	% change
Revenue from the sale of electricity	1,317,599	1,979,473	661,874	50.2%
<i>generation licence</i>	1,230,869	1,681,383	450,514	36.6%
<i>trading licence</i>	86,730	298,090	211,360	243.7%
Revenue from certificates of origin	13,341	17,645	4,304	32.3%
Revenue from the sale of CO <sub>2</sub> emissions allowances	10,463	26,019	15,556	148.7%
Revenue from the sale of heat	90,432*	85,300	-5,132	-5.7%
Revenue from services	6,025	5,935	-90	-1.5%
Sale of goods and materials and other revenue	6,044	6,170	126	2.1%
Excise tax	107	130	23	21.5%
<b>Net sales revenue</b>	<b>1,443,797*</b>	<b>2,120,412</b>	<b>676,615</b>	<b>46.9%</b>
Depreciation of power, plant and equipment and intangible fixed assets	116,950	234,651	117,701	100.6%
Costs of employee benefits	121,967	140,900	18,933	15.5%
Consumption of materials and raw materials and the value of goods sold	780,888	1,019,375	238,487	30.5%
Purchase of energy for sale purposes	125,789	537,876	412,087	327.6%
Transmission services	215*	219	4	1.9%
Other third party services	66,188	72,413	6,225	9.4%
Taxes and levies	44,205	45,714	1,509	3.4%
<b>Tax deductible costs of sale</b>	<b>1,256,202*</b>	<b>2,051,148</b>	<b>794,946</b>	<b>63.3%</b>
Other operating revenues	8,313	7,273	-1,040	-12.5%
Other operating costs	4,489	4,090	-399	-8.9%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	630	(168)	-798	-126.7%
Reversal of the impairment loss on non-financial non-current assets	-	51,365	51,365	100.0%
<b>Operating profit / (loss)</b>	<b>192,049</b>	<b>123,644</b>	<b>-68,405</b>	<b>-35.6%</b>
Financial revenues	136	2,719	2,583	1,899.3%
Financial costs	8,223	73,468	65,245	793.4%
Revenue from dividends	1,013	1,217	204	20.1%
<b>Gross profit / (loss)</b>	<b>184,975</b>	<b>54,112</b>	<b>-130,863</b>	<b>-70.7%</b>
Income tax	36,003	45,808	9,805	27.2%
<b>Net profit / (loss)</b>	<b>148,972</b>	<b>8,304</b>	<b>-140,668</b>	<b>-94.4%</b>
<b>EBITDA</b>	<b>308,999</b>	<b>306,930</b>	<b>-2,069</b>	<b>-0.7%</b>

**1H 2018:**
**ENEA Wytwarzanie Sp. z o.o. – EBITDA change drivers (decrease by PLN 2 million)**
**Kozienice Power Plant – higher EBITDA by PLN 5.8 million**

- (+) higher generation margin by PLN 61.0 million
- (-) lower revenues from Regulatory System Services by PLN 1.7 million
- (-) lower margin on trade and on Balancing Market by PLN 16.2 million
- (-) higher fixed costs by PLN 35.5 million

**Heat Segment – higher EBITDA by PLN 18.1 million**

- (-) higher costs of biomass consumption by PLN 11.8 million
- (-) higher costs of CO<sub>2</sub> emission allowances by PLN 5.1 million
- (-) lower revenues from heat sales by PLN 5.0 million
- (-) lower revenues from sales of electricity by PLN 3.1 million
- (+) lower costs of coal consumption by PLN 4.8 million
- (+) higher result on other operating activities by PLN 1.0 million:
- (+) lower waste management costs by PLN 0.7 million
- (+) lower fixed costs by PLN 0.3 million

**Segment of RES – higher EBITDA by PLN 10.2 million**

- (+) Water Area (PLN +10.5 million): higher revenues from electricity by PLN 7.6 million, higher revenues from certificates of origin by PLN 3.5 million, higher profit on sales of fixed assets by PLN 0.6 million
- (-) Wind Area (PLN -0.2 million): lower revenues from electricity by PLN 6.9 million; lower result on other operating activities by PLN 1.3 million; lower fixed costs by PLN 5.3 million; higher revenues from certificates of origin by PLN 1.7 million; lower variable costs by PLN 1.0 million
- (-) Biogas Area (PLN -0.1 million): lower revenues from certificates of origin by PLN 0.9 million; lower revenues from sales of electricity by PLN 0.3 million; lower variable costs by PLN 0.5 million; lower other costs by PLN 0.5 million

\* In accordance with IFRS, in 2018 there was a change in the presentation to the ECB, i.e. the costs of transmission services decrease heat revenues. For the sake of comparability, the comparative period, i.e. 2017, was adjusted.

**Annex No. 6 - Profit and loss account of ENEA Wytwarzanie sp. z o.o. – Q2 2018**

[PLN k]	Q2 2017	Q2 2018	Change	% change
Revenue from the sale of electricity	646,315	1,039,715	393,400	60.9%
<i>generation licence</i>	597,619	847,801	250,182	41.9%
<i>trading licence</i>	48,696	191,914	143,218	294.1%
Revenue from certificates of origin	7,121	7,729	608	8.5%
Revenue from the sale of CO <sub>2</sub> emissions allowances	4,652	3,450	-1,202	-25.8%
Revenue from the sale of heat	30,085*	25,267	-4,818	-16.0%
Revenue from services	3,065	3,004	-61	-2.0%
Sale of goods and materials and other revenue	3,847	3,887	40	1.0%
Excise tax	52	64	12	23.1%
<b>Net sales revenue</b>	<b>695,033*</b>	<b>1,082,988</b>	<b>387,955</b>	<b>55.8%</b>
Depreciation of power, plant and equipment and intangible fixed assets	58,125	111,302	53,177	91.5%
Costs of employee benefits	60,742	72,847	12,105	19.9%
Consumption of materials and raw materials and the value of goods sold	373,751	473,757	100,006	26.8%
Purchase of energy for sale purposes	72,259	344,874	272,615	377.3%
Transmission services	95*	137	42	44.2%
Other third party services	33,765	39,410	5,645	16.7%
Taxes and levies	20,901	19,579	-1,322	-6.3%
<b>Tax deductible costs of sale</b>	<b>619,638*</b>	<b>1,061,906</b>	<b>442,268</b>	<b>71.4%</b>
Other operating revenues	5,977	4,594	-1,383	-23.1%
Other operating costs	3,314	3,319	5	0.2%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	236	(569)	-805	-341.1%
Reversal of the impairment loss on non-financial non-current assets	-	51,365	51,365	100.0%
<b>Operating profit / (loss)</b>	<b>78,294</b>	<b>73,153</b>	<b>-5,141</b>	<b>-6.6%</b>
Financial revenues	70	1,992	1,922	2,745.7%
Financial costs	4,054	37,854	33,800	833.7%
Revenue from dividends	1,013	1,217	204	20.1%
<b>Gross profit / (loss)</b>	<b>75,323</b>	<b>38,508</b>	<b>-38,032</b>	<b>-50.5%</b>
Income tax	14,268	42,555	28,287	198.3%
<b>Net profit / (loss)</b>	<b>61,055</b>	<b>(4,047)</b>	<b>-66,319</b>	<b>-108.6%</b>
<b>EBITDA</b>	<b>136,419</b>	<b>133,090</b>	<b>-3,329</b>	<b>-2.4%</b>

**Q2 2018:**
**ENEA Wytwarzanie Sp. z o.o. – EBITDA change drivers (decrease by PLN 3 million)**
**Kozienice Power Plant – higher EBITDA by PLN 0.8 million**

- (+) an increase of generation margin by PLN 47.3 million
- (-) lower result on other operating activities by PLN 1.6 million
- (-) lower revenues from Regulatory System Services by PLN 4.0 million
- (-) higher fixed costs by PLN 19.5 million
- (-) lower margin on trade and on Balancing Market by PLN 20.7 million

**Heat Segment – higher EBITDA by PLN 11.0 million**

- (-) higher costs of biomass consumption by PLN 8.0 million
- (+) lower costs of CO<sub>2</sub> emission allowances by PLN 2.8 million
- (-) lower revenues from heat sales by PLN 4.5 million
- (-) lower revenues from sales of electricity by PLN 4.4 million
- (+) lower costs of coal consumption by PLN 6.3 million
- (-) higher fixed costs by PLN 2.2 million
- (+) higher result on other operating activities by PLN 1 million

**RES Segment of RES – higher EBITDA by PLN 6.9 million**

- (+) Water Area (PLN +5.6 million): higher revenues from electricity by PLN 3.1 million, higher revenues from certificates of origin by PLN 2.1 million, and lower fixed costs by PLN 0.4 million
- (+) Wind Area (PLN +1.2 million): lower fixed costs by PLN 3.3 million; higher revenues from certificates of origin by PLN 1.8 million; lower variable costs by PLN 0.5 million; lower revenues from electricity by PLN 3.2 million; lower result on other operating activities by PLN 1.2 million
- (+) Biogas Area (PLN +0.1 million): lower variable costs by PLN 0.4 million; higher result on other operating activities by PLN 0.4 million; lower fixed costs by PLN 0.1 million; lower revenues from certificates of origin by PLN 0.6 million; lower revenues from sales of electricity by PLN 0.2 million

\* In accordance with IFRS, in 2018 there was a change in the presentation to the ECB, i.e. the costs of transmission services decrease heat revenues. For the sake of comparability, the comparative period, i.e. 2017, was adjusted.



## Annex No. 7 - Profit and loss account of ENEA Elektrownia Połaniec Group – H1 2018

[PLN k]	14 Mar-30 Jun 2017*	H1 2018	Change	% change
Sales revenue	613,342	1,179,397	566,055	92.3%
Excise tax	26	114	88	338.5%
<b>Net sales revenue</b>	<b>613,316</b>	<b>1,179,283</b>	<b>565,967</b>	<b>92.3%</b>
Depreciation of power, plant and equipment and intangible fixed assets	12,676	27,204	14,528	114.6%
Costs of employee benefits	21,254	29,797	8,543	40.2%
Consumption of materials and raw materials and the value of goods sold	364,019	701,319	337,300	92.7%
Purchase of energy for sale purposes	86,007	231,323	145,316	169.0%
Transmission services	869	-	-869	-100.0%
Other third part services	56,530	102,753	46,223	81.8%
Taxes and levies	11,636	20,365	8,729	75.0%
<b>Tax deductible costs of sale</b>	<b>552,991</b>	<b>1,112,761</b>	<b>559,770</b>	<b>101.2%</b>
Other operating revenues	2,746	1,156	-1,590	-57.9%
Other operating costs	353	420	67	19.0%
<b>Operating profit / (loss)</b>	<b>62,718</b>	<b>67,258</b>	<b>4,540</b>	<b>7.2%</b>
Financial revenues	3,683	1,415	-2,268	-61.6%
Financial costs	544	36,440	35,896	6,598.5%
<b>Gross profit / (loss)</b>	<b>65,857</b>	<b>32,233</b>	<b>-33,624</b>	<b>-51.1%</b>
Income tax	10,161	6,318	-3,843	-37.8%
<b>Net profit / (loss)</b>	<b>55,696</b>	<b>25,915</b>	<b>-29,781</b>	<b>-53.5%</b>
<b>EBITDA</b>	<b>75,394</b>	<b>94,462</b>	<b>19,068</b>	<b>25.3%</b>

### H1 2018:

#### EBITDA of ENEA Elektrownia Połaniec:

- revenues from sales of electricity (together with Regulatory System Services) in the amount of PLN 1,097 million (sales of 6,206 GWh of electricity)
- revenues from sales of heat in the amount of PLN 28 million, with the sales volume of 1,186 TJ
- revenues from certificates of origin in the amount of PLN 51 million – sales adjusted by revenue from recognition, own cost of sales, and revaluation of the green certificate stock as at the balance-sheet date
- other revenues in the amount of PLN 4 million – revenues from rental and management of combustion by-products
- consumption of materials and raw materials and the value of sold goods in the amount of PLN 701 million, including: fuel consumption – PLN 583 million, provision for CO<sub>2</sub> consumption costs – PLN 96 million, consumption of renovation materials – PLN 11 million, other – PLN 11 million (consumption of other materials and energy)
- purchase of energy for sale purposes PLN 231 million – purchase volume 1,414 GWh
- other third party services in the amount of PLN 103 million – including: renovation services – PLN 40 million, transport services – PLN 4 million, waste management – PLN 10 million, biomass pre-treatment services – PLN 12 million, insurance of assets – PLN 5 million, SSC services – PLN 3 million, SLA ET – PLN 5 million, use of the ENEA trademark – PLN 3 million, other services – PLN 21 million (including: operational and legal services, audits, rental and lease, property protection, other third party services)
- taxes in the amount of PLN 20 million – including: property tax – PLN 11 million, environment protection fee – PLN 7 million, license fee – PLN 1 million

\* Data for the period 14–31 March 2017 concerned ENEA Elektrownia Połaniec Group, while items presented from 1 January 2018 concern individual data of ENEA Elektrownia Połaniec (without ENEA Bioenergia Sp. z o.o.)

## Annex No. 8 - Profit and loss account of ENEA Elektrownia Połaniec Group – Q2 2018

[PLN k]	Q2 2017*	Q2 2018	Change	% change
Sales revenue	531,942	638,295	106,353	20.0%
Excise tax	12	49	37	308.3%
<b>Net sales revenue</b>	<b>531,930</b>	<b>638,246</b>	<b>106,316</b>	<b>20.0%</b>
Depreciation of power, plant and equipment and intangible fixed assets	9,919	13,691	3,772	38.0%
Costs of employee benefits	18,413	15,277	-3,136	-17.0%
Consumption of materials and raw materials and the value of goods sold	323,209	373,950	50,741	15.7%
Purchase of energy for sale purposes	59,957	117,964	58,007	96.7%
Transmission services	867	-	-867	-100.0%
Other third part services	48,063	50,822	2,759	5.7%
Taxes and levies	8,955	9,555	600	6.7%
<b>Tax deductible costs of sale</b>	<b>469,383</b>	<b>581,259</b>	<b>111,876</b>	<b>23.8%</b>
Other operating revenues	2,421	984	-1,437	-59.4%
Other operating costs	-55	130	185	336.4%
<b>Operating profit / (loss)</b>	<b>65,023</b>	<b>57,841</b>	<b>-7,182</b>	<b>-11.0%</b>
Financial revenues	3,564	675	-2,889	-81.1%
Financial costs	-97	35,994	36,091	37,207.2%
<b>Gross profit / (loss)</b>	<b>68,684</b>	<b>22,522</b>	<b>-46,162</b>	<b>-67.2%</b>
Income tax	11,026	4,372	-6,654	-60.3%
<b>Net profit / (loss)</b>	<b>57,658</b>	<b>18,150</b>	<b>-39,508</b>	<b>-68.5%</b>
<b>EBITDA</b>	<b>74,942</b>	<b>71,532</b>	<b>-3,410</b>	<b>-4.6%</b>

### Q2 2018:

#### EBITDA of ENEA Elektrownia Połaniec:

(+) higher sales revenues by PLN 106 million result from a higher energy sales volume by 363 GWh and a higher sales price by PLN 12.37/MWh

(+) lower employee benefit costs by PLN 3 million resulting mainly from the lack of consolidation of Bioenergia in 2018

(-) higher consumption of materials and raw materials by PLN 51 million mainly as a result of a higher production by 189 GWh, which resulted in a higher consumption of materials and raw materials used directly in production with a concurrent growth of coal costs by PLN 12.8/MWh and biomass costs by PLN 29.7/MWh

(-) higher energy purchase costs by PLN 58 million result from a higher energy purchase price by PLN 54.44/MWh with a concurrent growth in volume of purchased energy by 174 GWh

(-) higher costs of third party services by PLN 3 million result mainly from higher costs of: SLA Trading by PLN 2 million, EC integration by PLN 1 million, use of the ENEA trademark by PLN 1 million, biomass installation operation by PLN 3 million (lack of Bioenergia consolidation – change in the presentation of costs, transfer of remuneration cost to service costs) and lower renovation costs by PLN 5 million (in 2017, two medium-scale renovations, in 2018 only routine renovations)

(-) lower other operating revenues by PLN 1 million – in 2017, revenues from contractual penalties for late delivery of certificates of origin

\* Data for Q2 2017 concerned ENEA Elektrownia Połaniec Group, while items presented for Q2 2018 concerned ENEA Elektrownia Połaniec standalone data (excluding ENEA Bioenergia Sp. z o.o.).

## Annex No. 9 - Profit and loss account of LW Bogdanka Group – H1 2018

[PLN k]	H12017	H12018	Change	% change
<b>Net sales revenue</b>	<b>902,117</b>	<b>855,952</b>	<b>-46,165</b>	<b>-5.1%</b>
Depreciation of power, plant and equipment and intangible fixed assets	174,060	173,560	-500	-0.3%
Costs of employee benefits	266,906	270,461	3,555	1.3%
Consumption of materials and raw materials and the value of goods sold	145,405	156,729	11,324	7.8%
Other third party services	138,645	152,555	13,910	10.0%
Taxes and levies	24,161	21,983	-2,178	-9.0%
<b>Tax deductible costs of sale</b>	<b>749,177</b>	<b>775,288</b>	<b>26,111</b>	<b>3.5%</b>
Other operating revenues	1,923	32,327	30,404	1,581.1%
Other operating costs	1,066	2,053	987	92.6%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	(6,623)	(10,949)	-4,326	-65.3%
<b>Operating profit / (loss)</b>	<b>147,174</b>	<b>99,989</b>	<b>-47,185</b>	<b>-32.1%</b>
Financial revenues	4,580	10,654	6,074	132.6%
Financial costs	12,761	9,042	-3,719	-29.1%
<b>Gross profit / (loss)</b>	<b>138,993</b>	<b>101,601</b>	<b>-37,392</b>	<b>-26.9%</b>
Income tax	27,112	17,468	-9,644	-35.6%
<b>Net profit / (loss)</b>	<b>111,881</b>	<b>84,133</b>	<b>-27,748</b>	<b>-24.8%</b>
<b>EBITDA</b>	<b>321,234</b>	<b>273,549</b>	<b>-47,685</b>	<b>-14.8%</b>

### H1 2018:

#### LW Bogdanka Group's EBITDA change drivers (decrease by PLN 48 million):

- (-) lower revenues from sales of coal: lower sales in terms of quantity -321,000 tonnes (-6.9%) given a higher price and a higher adjustment for coal from preparatory work
- (-) higher costs of employee benefits – paid-out raise of remunerations with an additional bonus and an increase in the average employment by 110 persons
- (-) higher costs of materials and energy resulting from higher gross extraction (+12.3%) and a larger scope of excavation works (+31.3%)
- (-) higher costs of third-party services, mainly costs of Saturday and Sunday work and tunnelling

#### Significant one-off events:

- higher other operating revenues – settlement of the arrangement entered into between the Company and the consortium of Mostostal Warszawa S.A. and Acciona Infraestructuras; a positive impact on EBITDA of PLN 28.7 million
- higher value of liquidation of tangible assets – mainly the net value of decommissioned excavations (last metres)
- higher financial revenues – release of the provision for CIT interest (approx. PLN 3.6 million)
- lower financial costs – lower debt; settlement of the arrangement entered into between the Company and the consortium of Mostostal Warszawa S.A. and Acciona Infraestructuras; a positive impact on financial costs of PLN 2.7 million

**Annex No. 10 - Profit and loss account of LW Bogdanka Group – Q2 2018**

[PLN k]	Q2 2017	Q2 2018	Change	% change
<b>Net sales revenue</b>	<b>436,880</b>	<b>457,255</b>	<b>20,375</b>	<b>4.7%</b>
Depreciation of power, plant and equipment and intangible fixed assets	85,384	89,483	4,099	4.8%
Costs of employee benefits	134,146	131,965	-2,181	-1.6%
Consumption of materials and raw materials and the value of goods sold	76,706	80,653	3,947	5.1%
Other third party services	69,338	77,993	8,655	12.5%
Taxes and levies	10,479	9,120	-1,359	-13.0%
<b>Tax deductible costs of sale</b>	<b>376,053</b>	<b>389,214</b>	<b>13,161</b>	<b>3.5%</b>
Other operating revenue	1,252	2,335	1,083	86.5%
Other operating costs	492	1,039	547	111.2%
Profit/ (loss) on the sale and liquidation of property, plant and equipment	(4,006)	(8,551)	-4,545	-113.5%
<b>Operating profit / (loss)</b>	<b>57,581</b>	<b>60,786</b>	<b>3,205</b>	<b>5.6%</b>
Financial revenues	1,798	5,609	3,811	212.0%
Financial costs	5,098	4,017	-1,081	-21.2%
<b>Gross profit / (loss)</b>	<b>54,281</b>	<b>62,378</b>	<b>8,097</b>	<b>14.9%</b>
Income tax	10,458	10,076	-382	-3.7%
<b>Net profit / (loss)</b>	<b>43,823</b>	<b>52,302</b>	<b>8,479</b>	<b>19.3%</b>
<b>EBITDA</b>	<b>142,965</b>	<b>150,269</b>	<b>7,304</b>	<b>5.1%</b>

**Q2 2018:**
**LW Bogdanka Group's EBITDA change drivers (increase by PLN 7 million):**

- (+) higher revenues from sales of coal by: lower sales in terms of quantity given a higher price and a higher adjustment for coal from preparatory work
- (+) higher revenues from sales of materials and raw materials – higher sales of scrap
- (+) lower employee benefit costs – an additional write-off for Company Social Benefit Fund paid out in Q1 2018 while, a year ago, in Q2 2017 – settlement of the PDO scheme
- (-) higher costs of materials and energy resulting from higher gross extraction (+24.5%) and a higher scope of excavation works (+55.1%)
- (-) higher costs of third-party services, mainly costs of Saturday and Sunday work and tunnelling

**Significant one-off events:**

- higher value of liquidated tangible assets – mainly the net value of decommissioned excavations
- higher financial revenues – release of the provision for CIT interest (approx. PLN 3.6 million)
- lower financial costs – lower debt



## **Glossary of terms and abbreviations**

## GLOSSARY OF TERMS AND ABBREVIATIONS

### Financial ratios

The following is a glossary of terms and a list of abbreviations used in this report.

Ratio		Formula
EBITDA	=	Operating profit/ (loss) + depreciation
Return on equity (ROE)	=	$\frac{\text{Net profit/ (loss) for the reporting period}}{\text{Equity}}$
Return on assets (ROA)	=	$\frac{\text{Net profit/ (loss) for the reporting period}}{\text{Total assets}}$
Net profitability	=	$\frac{\text{Net profit/ (loss) for the reporting period}}{\text{Net sales revenue}}$
Operating profitability	=	$\frac{\text{Operating profit/ (loss)}}{\text{Net sales revenue}}$
EBITDA profitability	=	$\frac{\text{EBITDA}}{\text{Net sales revenue}}$
Current liquidity ratio	=	$\frac{\text{Current assets}}{\text{Short-term liabilities}}$
Coverage of non-current assets with equity	=	$\frac{\text{Equity}}{\text{Non-current assets}}$
Total debt ratio	=	$\frac{\text{Total liabilities}}{\text{Total assets}}$
Net debt / EBITDA	=	$\frac{\text{Interest-bearing liabilities - cash and cash equivalents}}{\text{EBITDA LTM}}$
Current receivables turnover in days	=	$\frac{\text{Average trade and other receivables x number of days}}{\text{Net sales revenue}}$
Trade and other liabilities turnover in days	=	$\frac{\text{Average trade and other receivables x number of days}}{\text{Cost of products, goods and materials sold}}$
Inventory turnover in days	=	$\frac{\text{Average inventory x number of days}}{\text{Cost of products, goods and materials sold}}$
Cost of products, goods and materials sold	=	Consumption of materials and raw materials and value of goods sold; Purchase of energy for sale purposes; Transmission services; Other third party services; taxes and levies; excise tax

Abbreviation/term	Full name/definition
<b>ACER</b>	Agency for the Cooperation of Energy Regulators – EU agency established pursuant to the third energy package. The objective of the Agency is coordination and support of the national regulatory authorities. A full list of duties is specified in Regulation No. 713/2009
<b>AMI</b>	Advanced systems measuring, collecting and analysing energy consumption and enabling two-way communication between the end user and central system. AMI includes both intelligent meters and smart power grids
<b>Backloading</b>	Suspension of some auctions of CO <sub>2</sub> emission allowances by EU to increase the price of allowances
<b>Balancing market</b>	Technical market operated by OTSs. Its objective is to balance in real time the demand for electricity with its production in the National Power System (NPS)
<b>BAT</b>	Best Available Techniques – a document drawing conclusions on best available techniques for the installations concerned and indicating the emission levels associated with the best available techniques
<b>CAPEX</b>	Capital expenditures
<b>Carbon leakage</b>	Leakage of CO <sub>2</sub> from one country to another
<b>CER</b>	Certified Emission Reduction – the unit of certified emission reduction
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>Cogeneration</b>	A technological process of simultaneous generation of electricity and usable thermal energy in a CHP plant
<b>DAP</b>	Delivered at Place – a situation where the seller of the goods is responsible for delivering the goods to a particular place and the buyer is responsible for unloading the goods
<b>EFX</b>	Index for session transactions, the subject of which are contracts for property rights resulting from Energy Efficiency Certificates, the so called "white" certificates
<b>Energy Law</b>	Act of 10 April 1997 - Energy Law (Journal of Laws of 1997 No. 54, item 348, as amended)
<b>EUA</b>	EU Emission Allowance - emission allowances under the European Emissions Trading System
<b>European Emission Trading System EU ETS</b>	A European scheme to promote the reduction of greenhouse gas emissions
<b>FGD installation</b>	Flue gas desulphurisation installation
<b>Forward market</b>	Electricity market where forward products are listed
<b>GPZ</b>	(Polish) Transformer/Switching Point – a transformer station, responsible for converting high or medium voltage into low voltage for end users in a specified area
<b>"Green" Property Rights</b>	Same as PMOZE
<b>ICE</b>	Intercontinental Exchange – a trading platform for trading EU CO <sub>2</sub> Emission Allowances (EUA) and units of Certified Emission Reduction (CERs) in the futures market
<b>IGCC</b>	Integrated Gasification Combined Cycle – gas/steam block technology with integrated gasification of the fuel. Enables the construction of power plants with much higher efficiency compared to conventional coal-fired power plants
<b>KECX</b>	Index for session transactions, the subject of which are contracts for property rights resulting from certificates of origin for electricity generated in other cogeneration sources
<b>KGMX</b>	Index for session transactions, the subject of which are contracts for property rights resulting from certificates of origin for electricity generated in gas cogeneration units or with total installed capacity up to 1 MW.
<b>KGMX</b>	Index for session transactions, the subject of which are contracts for property rights resulting from certificates of origin for electricity generated in gas cogeneration units or with total installed capacity up to 1 MW.
<b>KMETX</b>	Index for session transactions concerning contracts for property rights resulting from certificates of origin for electricity generated in cogeneration units fired with methane released and accounted for during underground mining works or by gas obtained from biomass processing within the meaning of Article 1 (2) (a) of the Act on biocomponents and liquid biofuels
<b>"Light blue" Property Rights</b>	Property rights to certificates of origin confirming the production of electricity from agricultural biogas
<b>MWe</b>	Megawatthour (1 GWh = 1.000 MWh)
<b>MWh</b>	Megawatthour (1 GWh = 1.000 MWh)

Abbreviation/term	Full name/definition
<b>MW<sub>t</sub></b>	Megawatt of heating power
<b>NFOŚiGW</b>	(Polish) National Fund for Environmental Protection and Water Management
<b>NO<sub>x</sub></b>	Nitrogen oxides
<b>ODS</b>	Operator of the Distribution System
<b>OCR</b>	Operational Capacity Reserve
<b>OTS</b>	Operator of the Transmission System
<b>OZEX_A</b>	Index for session transactions concerning contracts for property rights resulting from certificates of origin for electricity generated from renewable energy sources, the production period of which (indicated in the certificate of origin) has started since 1 March 2009 (inclusive)
<b>PMOZE</b>	Property rights to certificates of origin for energy from renewable energy sources
<b>PPE</b>	Polish Power Exchange
<b>Price of baseload ("BASE")</b>	The contract price for delivery of the same volume of electricity in euro-peak (i.e. from 7:00 a.m. to 10:00 p.m. on business days)
<b>Price of euro-peak ("PEAK")</b>	The contract price for delivery of the same volume of electricity in each hour of the day
<b>"Purple" Property Rights</b>	Property Rights to certificates of origin confirming the generation of electricity in a cogeneration unit fired with methane released and included in underground mining works or with gas obtained from biomass processing within the meaning of Article 2 (1) of the Act on biocomponents and liquid biofuels
<b>"Red" Property Rights</b>	Property rights to certificates of origin confirming the generation of electricity in other cogeneration sources
<b>REMIT Regulation</b>	Regulation on Wholesale Energy Market Integrity and Transparency which sets out a framework for monitoring wholesale energy markets in order to detect and prevent unfair practices at EU level.
<b>RES</b>	Renewable Energy Sources
<b>SAIDI</b>	System Average Interruption Duration Index - indicator of the average system duration of a long and very long break (expressed in minutes per Customer)
<b>SAIFI</b>	System Average Interruption Frequency Index - indicator of the average system frequency of long interruptions in energy supply (expressed in the number of breaks per Customer)
<b>SCR installation</b>	Installation of catalytic flue gas denitrification
<b>SO<sub>2</sub></b>	Sulphur dioxide
<b>SPOT market</b>	Cash market (spot)
<b>Tariff group A</b>	Energy sold and supplied to customers connected to the high voltage grid
<b>Tariff group B</b>	Energy sold and supplied to customers connected to the medium voltage grid
<b>Tariff group C</b>	Energy sold and supplied to customers connected to the low voltage grid, excluding customers using electricity for household purposes
<b>Tariff group G</b>	Energy sold and supplied to household customers connected to the grid irrespective of the voltage level
<b>TFS</b>	Tradition Financial Services - an electricity trading platform designed to conclude various types of transactions, purchase and sale of conventional energy, property rights, renewable energy and CO <sub>2</sub> emission allowances
<b>TPA</b>	Third Party Access – the principle of third party access to the power grid, which enables the purchase of electricity and electricity distribution services on the basis of two separate agreements
<b>WACC</b>	Weighted average cost of capital
<b>"White" PM</b>	Property rights to certificates of origin resulting from energy efficiency certificates, the so called "white" certificates
<b>WIBOR</b>	Warsaw Interbank Offered Rate - interest rate on loans on the Polish interbank market
<b>WRA</b>	Regulatory Value of Assets
<b>Yellow" PM</b>	Property rights to certificates of origin confirming the generation of electricity in a gas cogeneration unit or with a total installed capacity of up to 1 MW



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